



POSTED WORKERS IN THE EUROPEAN UNION

FACTS AND FIGURES

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HIVA-KU LEUVEN

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Abbreviations

BoP: Balance of Payments

BR: Basic Regulation (EC) No. 883/2004

CJEU: Court of Justice of the European Union

EC: European Commission

EESSI: Electronic Exchange of Social Security Information

EFTA: European Free Trade Association (Iceland (IS), Liechtenstein (LI), Norway (NO) and Switzerland (CH))

ELA: European Labour Authority

ESA: European System of Accounts

ESPASS: European Social Security Pass

EU: European Union

EU-13: Bulgaria (BG), Czechia (CZ), Estonia (EE), Croatia (HR), Cyprus (CY), Latvia (LV), Lithuania (LT), Hungary (HU), Malta (MT), Poland (PL), Romania (RO), Slovenia (SI), and Slovakia (SK).

EU-14: Belgium (BE), Denmark (DK), Germany (DE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Italy (IT), Luxembourg (LU), the Netherlands (NL), Austria (AT), Portugal (PT), Finland (FI), and Sweden (SE).

EU-LFS: EU Labour Force Survey

FTE : Full-Time Equivalents

GDP: Gross Domestic Product

GATS: General Agreement on Trade in Services

IMI: Internal Market Information System

IR: Implementation Regulation (EC) No. 987/2009

LTC: Long-Term Care

NACE: Nomenclature of Economic Activities

OSH: Occupational Safety and Health

PD A1: Portable Document A1

SME: Small and Medium Enterprises

SNA: System of National Accounts

TCN: Third-country national

TEA: Temporary employment agency

TFEU: Treaty on the Functioning of the European Union

WTO: World Trade Organisation

UNECE: United Nations Economic Commission for Europe

1. Introduction: “The more we know about posting the better we can discuss it”

1.1 The presence of persons in the territory of another country for the purpose of providing a service

1.1.1 The different faces of intra-EU labour mobility

The United Nations Economic Commission for Europe (UNECE, 2018) states that the concept of ‘international labour mobility’ includes “all movements of natural persons from one country to another for the purpose of employment or *the provision of services*”. From the perspective of the European internal market, this comprehensive definition does not make a distinction between movements based on the free movement of workers (*Article 45 TFEU*), the freedom of establishment (*Article 49 TFEU*), or the freedom to provide services (*Article 56 TFEU*). Consequently, this term, and thus ‘intra-EU labour mobility’¹, does not only cover ‘permanent’ cross-border mobility or cross-border commuting but also all types of ‘temporary’ cross-border labour mobility in the EU.²

According to the OECD (2019), posting of workers represents the main channel of temporary intra-EU labour mobility.³ This concerns the activity of a company sending (i.e., ‘posting’) workers for a limited period of time from one Member State to another in order to fulfil a contract of service supply. It concerns a group of (non-resident) foreign workers whose employment relation is with a non-resident entity (i.e., company), or so-called ‘posted workers’. It differs from other types of labour mobility in that it is employer-driven (unlike the ‘worker-driven’ types of labour mobility under the free movement of workers), and that it has a strong link to trade in services as this may require the physical presence of workers.⁴ The counting of the exact number of posted workers in the EU is one of the research questions analysed in this report. As will be shown in the following section, this is a not so straightforward exercise. Not least because of the complexity of defining the term ‘posted worker’.

In 2020, the total number of EU-movers of working age (i.e., persons who move their residence to a Member State of which they are not a citizen) in the EU-27 amounted to almost 10 million persons, or 3.8% of the total working age population (Fries-Tersch et al., 2022). Furthermore, there were around 1.5 million frontier workers (i.e., workers who live in one country and work in another) and 650,000 to 850,000 intra-EU seasonal workers (i.e., workers who undertake temporary work abroad during seasonal increases in labour demand, without changing permanent residence) (Fries-Tersch et al., 2022; Fries-Tersch et al., 2021). However, the scale of intra-EU mobility is much higher than above ‘flow’ and ‘stock’ figures⁵ suggest, mainly due to the scale of short-term/temporary intra-EU labour mobility for just a few days or even hours. To give an example: in 2019 around 25 million cross-border trips for professional reasons were counted in the EU.⁶ This concerned a wide range of professional/business trips: attending meetings, conferences or congresses, trade fairs and exhibitions; giving lectures, concerts, shows and plays; promoting, purchasing, selling or buying

1 Migration or other forms of movements from outside the EU towards the EU are excluded from this notion. In 2020, about 90% of working age citizens in the EU-27 lived in the same country as their citizenship. The remaining 10% consisted of a group of EU-27 movers (3.8%) and third-country nationals (TCNs) (6.2%). The stock of TCNs is therefore much higher than the stock of EU-27 movers. Especially Member States on the periphery of the EU's borders count more TCNs compared to EU-27 movers. A third-country national is a person who does not have the nationality of one of the Member States of the European Union, nor the nationality of one of the countries of the EFTA. In this report, EFTA citizens are mostly included in the figures for TCNs.

2 To distinguish the different types of labour mobility from each other, Green et al. (2009) make a distinction according to how frequently a person is mobile and the length of stay there.

3 Which is probably wrong when considering the high number of cross-border trips for professional reasons.

4 See also Bottero (2021: 27): “Interestingly, from the perspective of the posted workers, their temporary cross-border mobility is construed as an expression of their employer's freedom to provide services. In other words, the posted workers are not providers of services themselves, as they move to another Member State under their employer's freedom to provide services”.

5 A stock is measured at one specific time, and represents a quantity existing at that point in time (mostly 31 December), which may have accumulated in the past. A flow variable is measured over an interval of time (say a year).

6 Based on Eurostat data [four_dem_tfw].

goods or services on behalf of non-resident producers (i.e., employers). The quantification of the number of posted workers is dealt with in this report. To give an indication (i.e., estimate) of the reported size: based on 2019 data from the prior declaration tools, it was estimated that there were around 2 million posted workers and 5.8 million postings in the EU (De Wispelaere et al., 2021b).

1.1.2 Defining ‘the posted worker’: a legal imbroglio causing a statistical imbroglio

Individuals (covering both workers and self-employed) of one Member State trading services through their presence in the territory of another Member State, as defined by GATS mode 4 (see *section 1.3.2.1*),⁷ are captured in EU law by the concept of a ‘posted worker’. However, it becomes clear from the analysis below that the link between the provision of services abroad and intra-EU posting cannot always be made.

Differences exist in the definition of a ‘posted person’ as defined by the Coordination Regulations (i.e., ‘Basic’ Regulation (EC) No 883/2004 on the coordination of social security systems, and its ‘Implementing’ Regulation (EC) No 987/2009)^{8,9} compared to a ‘posted worker’ as defined by the Posting of Workers Directive (i.e., Directive 96/71/EC recently amended by Directive 2018/957/EU)^{10,11,12} (see also Bottero, 2021¹³; Eurofound, 2020a) (*Figure 1*). Consequently, persons might be ‘posted’ under the Coordination Regulations (i.e., determining which national social security system is applicable to the posted worker) but not in the meaning of the Posting of Workers Directive (determining the terms and conditions of employment of the posted worker). For instance, self-employed persons falling under Article 12 (2) of the Basic Regulation are not covered by the Posting of Workers Directive. In addition, workers who are sent temporarily to work in another Member State under Article 12, but do not provide services there, are not covered by the Posting of Workers Directive (see EC, 2019). This is the case, for example, for workers on business trips¹⁴ (when no service is provided), attending conferences, meetings, fairs, following training, etc. In contrast, persons might be posted under the Posting of Workers Directive but not under the Coordination

7 Or the group of ‘non-resident foreign workers whose employment relation is with a non-resident entity’ (UNECE, 2018).

8 See Basic Regulation 883/2004: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02004R0883-20140101> and Implementing Regulation 987/2009 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009R0987-20180101>

9 See Article 12.1 of the Basic Regulation: “A person who pursues an activity as an employed person in a Member State on behalf of an employer which normally carries out its activities there and who is posted by that employer to another Member State to perform work on that employer’s behalf shall continue to be subject to the legislation of the first Member State, provided that the anticipated duration of such work does not exceed 24 months and that he/she is not sent to replace another posted person.” And Article 12.2: “A person who normally pursues an activity as a self-employed person in a Member State who goes to pursue a similar activity in another Member State shall continue to be subject to the legislation of the first Member State, provided that the anticipated duration of such activity does not exceed 24 months.”

10 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018L0957>. For the current consolidated version of the Posting of Workers Directive see <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01996L0071-20200730>.

11 See Article 2.1 of the Posting of Workers Directive: “For the purposes of this Directive, ‘posted worker’ means a worker who, for a limited period, carries out his work in the territory of a Member State other than the State in which he normally works.” And Article 1.3 of the Posting of Workers Directive: “This Directive shall apply to the extent that the undertakings referred to take one of the following transnational measures:

(a) post workers to the territory of a Member State on their account and under their direction, under a contract concluded between the undertaking making the posting and the party for whom the services are intended, operating in that Member State, provided there is an employment relationship between the undertaking making the posting and the worker during the period of posting; or
(b) post workers to an establishment or to an undertaking owned by the group in the territory of a Member State, provided there is an employment relationship between the undertaking making the posting and the worker during the period of posting; or
(c) being a temporary employment undertaking or placement agency, hire out a worker to a user undertaking established or operating in the territory of a Member State, provided that there is an employment relationship between the temporary employment undertaking or placement agency and the worker during the period of posting.”

12 For more information on the origins of the Posting of Workers Directive see Cremers, 1995. See also COM (91) 230 final, *Proposal for a Council Directive concerning the posting of workers in the framework of the provision of services*.

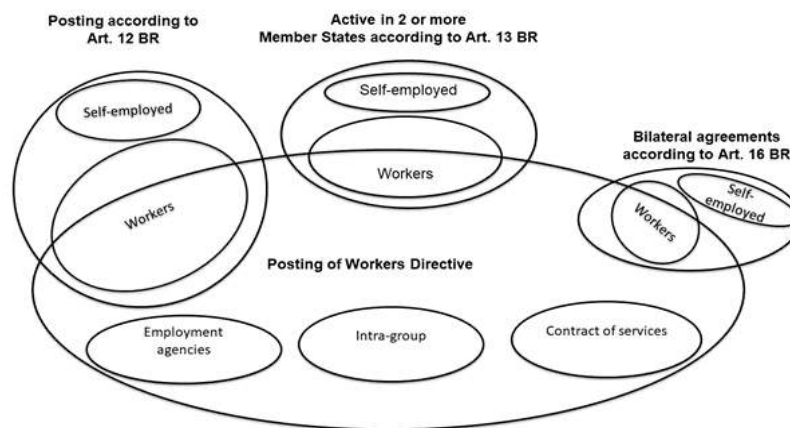
13 “... when looking more closely at those [two] acts of secondary EU legislation, the first thing that becomes clear is the existence of a substantial mismatch between the two different notions of ‘posted worker’ [as defined by the Posting of Workers Directive] and ‘posted person’ [as defined by the Coordination Regulations]” (Bottero, 2021: 36).

14 Defined in the provisional agreement of 25 March 2019 among Council of Ministers, European Parliament and European Commission as “a temporary working activity of short duration organised at short notice, or another temporary activity related to the business interests of the employer and not including the provision of services or the delivery of goods, such as attending internal and external business meetings, attending conferences and seminars, negotiating business deals, exploring business opportunities, or attending and receiving training”. See Document 7698/19 ADD1 REV1 of 25 March 2019 (<https://data.consilium.europa.eu/doc/document/ST-7698-2019-ADD-1-REV-1/en/pdf>).

Regulations. For instance, workers who pursue an activity in two or more Member States (Article 13 of the Basic Regulation) may fall under the terms and conditions of the Posting of Workers Directive. This will mainly concern international truck drivers but might also concern other groups of workers such as seasonal workers active in agriculture and horticulture (see also the *'Terra Fecundis'* case¹⁵) and workers employed in the live-in care sector¹⁶.

This brings us to the specific challenge of defining a posted worker in international road transport. Posting of workers in road freight transport is a strongly debated issue, not least because the rules on posting were/are interpreted quite differently among Member States. The recent Directive (EU) 2020/1057¹⁷ (to be transposed by 2 February 2022) clarifies the forms of international road freight transport to which the Posting of Workers Directive applies. The issue of whether a driver is posted or not depends on 'the degree of connection with the territory of the host Member State'. Consequently, drivers performing 'cabotage' (i.e., national transport undertaken by hauliers from another Member State) or 'cross-trade' (i.e., international road transport between two different countries performed by a road motor vehicle registered in a third country) will be considered posted workers, as they have a strong connection to the host Member State.¹⁸ Bilateral and transit transport on the other hand, is not considered to be posted work.¹⁹ Although for certain forms of international road freight transport it still seems difficult to determine whether the Posting of Workers Directive is applicable or not.²⁰

Figure 1. Differences in scope between Regulation (EC) No 883/2004 and Directive 96/71/EC



Source De Wispelaere & Pacolet, 2020.

15 The Spanish authorities issued thousands of PDs A1 to this company, mostly on the basis of Article 13 (18,041), and less on the basis of Article 12 (2,006) (Carrascosa & Contreras Hernández, 2022: 77). For more information about this case see section 2.9.3.2.

16 See for more information Kielbasa et al. (2022: 109).

17 Directive (EU) 2020/1057 of the European Parliament and of the Council of 15 July 2020 laying down specific rules with respect to Directive 96/71/EC and Directive 2014/67/EU for posting drivers in the road transport sector and amending Directive 2006/22/EC as regards enforcement requirements and Regulation (EU) No 1024/2012.

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2020.249.01.0049.01.ENG&toc=OJ.L_.2020.249.TOC

18 See Recital 13: "Where a driver performs other types of operations, notably cabotage operations or non-bilateral international transport operations, there is a sufficient link to the territory of the host Member State." However, there is an exemption for cross-trade: see Article 1.3 – third paragraph: "... Member States shall apply the exemption for bilateral transport operations in respect of goods set out in the first and second subparagraphs of this paragraph also where, in addition to performing a bilateral transport operation, the driver performs one activity of loading and/or unloading in the Member States or third countries that the driver crosses, provided that the driver does not load goods and unload them in the same Member State."

19 See Article 1.3 – second paragraph: "For the purpose of this Directive, a bilateral transport operation in respect of goods means the movement of goods, based on a transport contract, from the Member State of establishment, as defined in Article 2(8) of Regulation (EC) No 1071/2009, to another Member State or to a third country, or from another Member State or a third country to the Member State of establishment." Furthermore, see Recital 11: "International carriage in transit across the territory of a Member State does not constitute a posting situation".

20 See factsheet published by DG MOVE (https://transport.ec.europa.eu/document/download/454946d0-d96e-42bf-b1e7-aeb695f3efb2_en?filename=MobilityPack1-Posting_of_drivers_factsheet.pdf) and the document "Questions and Answers on posting of drivers under Directive (EU) 2020/1057" (https://transport.ec.europa.eu/document/download/0c2d5fe5-141c-484a-adad-8a4ed967a43e_en?filename=Q%26A-posting-of-drivers.pdf) published by DG MOVE.

It can be argued that the complexity in defining a ‘posted worker’ leads to a *legal imbroglio*, which at the same time creates a *statistical imbroglio*.²¹ Indeed, above differences make it almost impossible to put a single figure on the number of posted workers in the EU. In that respect, it is best to make a distinction between the number of workers and self-employed persons who fall under Article 12 of the Basic Regulation and the number of workers who fall under the application of the Posting of Workers Directive. Otherwise, there is a risk of comparing apples with oranges. This is the case both when counting the number of individuals involved as well as when analysing their profile (e.g., by sector of activity or by average duration of the posting period).

1.1.3 The legal framework applicable to posted workers: ‘law in books’ versus ‘law in action’

The European legislator and the European Court of Justice (ECJ) distinguish the situation of posted workers from the one of ‘standard’ mobile workers because the former “return to their country of origin after the completion of their work without at any time gaining access to the labour market of the host Member State”.²² This legal approach (or even legal ‘fiction’ (See Hayes & Novitz, 2013; Rocca & De Wispelaere, 2022)) has strong implications on the ‘transnational social protection’²³ of posted workers and may foster differences in social protection compared to local workers and other groups of mobile workers who make use of their freedom of movement under *Article 45 TFEU* (e.g., movers of working age, frontier workers, seasonal workers). After all, the consequence of this position is that the question of what protection under labour and social security law can be invoked by posted workers must be answered in the light of the principles underlying the free movement of services, in particular the right of their employer to temporarily provide services in another Member State without hindrance (Verschueren, 2021b). As is shown in the report, this legal approach has some important economic consequences.

Figure 2. Legislation that applies to the ‘main’ forms of intra-EU labour mobility

	Movers of working age (Articles 45 and 49 TFEU)	Cross-border workers (Article 45 TFEU)	Posted workers (Article 56 TFEU)
	<i>Residing and working in a Member State other than the Member State of origin</i>	<i>Working in a Member State other than the Member State of residence</i>	<i>Temporarily working in a Member State other than the Member State in which the employer is established</i>
Wage and labour conditions	Host Member State (full equal treatment)	Host Member State (full equal treatment)	Minimum ‘hard core’ set of terms and conditions of the host Member State + same remuneration as ‘local’ workers + allowances. After 12 (+6) months of posting almost full equal treatment
Social security contributions	Host Member State (full equal treatment)	Host Member State (full equal treatment)	<i>Less than 24 months:</i> Member State of origin <i>More than 24 months:</i> host Member State
Personal income taxes	Host Member State (full equal treatment)	<i>Less than 183 days:</i> Member State of residence <i>More than 183 days:</i> host Member State	<i>Less than 183 days:</i> Member State of residence <i>More than 183 days:</i> host Member State

Source De Wispelaere and Pacolet (2017) and updated/revised in Bottero (2021).

21 Not least when statistics based on data from the Portable Document A1 (application of the Coordination Regulations) are compared with statistics based on data from the prior declaration tools (application of the Posting of Workers Directive) (see also section 1.3.2.2). This results in a maze/labyrinth of statistics.

22 ECJ Case C-113/89, *Rush Portuguesa, Lda v. Office national d’immigration*, 1990.
<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:61989CJ0113&from=NL>

23 Defined as “initiatives of (a group of) states, markets, civil society and social networks which provide for social protection across national borders” (Leviitt et al., 2017: 15).

Which national social security system is applicable to the posted worker and, consequently, where social security contributions have to be paid, is regulated by the Coordination Regulations. One of the key principles is that persons are subject to the legislation of a single Member State only. In the event of employment, the legislation of the Member State where the activity is carried out usually applies (i.e., the '*lex loci laboris*' principle). However, in some very specific situations, criteria other than the actual place of employment are applied. Intra-EU posting is such a specific situation. The posted worker remains subject to the social security system of the Member State of origin during a period of 24 months. This exception to the '*lex loci laboris*' principle is mainly motivated to encourage the freedom to provide services (*Article 56 TFEU*)²⁴ and to avoid unnecessary and costly administrative and other complications which would not be in the interests of workers, companies, or administrations.²⁵ This policy choice has several economic consequences. Firstly, differences in social security contributions paid by employers among 'sending' and 'receiving' Member States may create a competitive advantage (or disadvantage) for foreign service providers compared to local companies.^{26,27} Secondly, in contrast to other forms of labour mobility, intra-EU posting does not lead to an erosion of the number of people left to pay taxes. Indeed, social security contributions, levied on often higher wages of the host Member State, continue to be paid in the Member State of origin. This is an important source of labour tax revenues for several of the main sending Member States of posted workers. At the same time, however, host Member States do not receive any social security contributions from posted workers. Finally, since posted workers remain subject to the social security system of the sending Member State, a (large) group of posted workers does not have access to the sometimes better and higher social security rights and standards in the host Member State. However, when the principle of "equal pay for equal work in the same workplace" is applied (see below), their net salary and purchasing power will often be higher than those of local workers in the host Member State. Our report (see *Chapter 3*) analyses and calculates several of above economic consequences.

As far as the terms and conditions of employment of the posted worker are concerned, Directive 96/71/EC recently amended by Directive 2018/957/EU, is relevant. Under the old version of the Posting of Workers Directive, only "minimum rates of pay" of the host Member State were granted to posted workers.²⁸ With Directive 2018/957/EU amending the Posting of Workers Directive, posted workers are now entitled from day one to all the elements of remuneration of the host Member State (covering also other advantages such as bonuses and allowances)²⁹ rendered mandatory by law or by collective agreement made universally applicable.³⁰ This aims to bring the posted workers' wages closer to those applicable to other groups of mobile workers who make use of their freedom of movement and local workers (announced by the European Commission under the slogan

24 The CJEU recently noted that Article 12 is a benefit to service providers seemingly going beyond what the Treaty requires (Case C-784/19 Team Power, ECLI:EU:C:2021:427, paragraph 60): "In providing for such a derogation, the EU legislature offers undertakings which exercise the freedom to provide services guaranteed by the Treaty on the Functioning of the European Union an advantage as regards social security which does not follow from the mere exercise of that freedom."

25 These objectives have already been formulated several times in the case law of the CJEU and by the Commission.

26 The fact that this exception creates a competitive advantage has even been admitted by the Commission (2014: 1478): "Posting workers allows companies to exploit their competitive advantage across borders".

27 Moreover, social security contributions levied on the higher wages of posted workers earned in the host Member State (see below for an analysis of the Posting of Workers Directive) might be capped in the Member State of origin at a maximum level when an income ceiling is exceeded.

28 Of course, this principle does not apply when the terms and conditions of employment in the Member State of origin are higher/better compared to these of the host Member State.

29 For instance, overtime rates, allowances for working at night, allowances for working on Sundays or on public holidays, holiday remunerations, end of the year bonuses and the 13th month bonuses (EC, 2019).

30 When determining the remuneration applicable to the posted worker, a comparison between the remuneration paid under the employment contract in the Member State of origin and the one to be paid in the host Member State should be made in order to apply the highest level of remuneration. It should be noted that the amounts paid by the employer (or the reimbursements made) concerning travel, board and lodging are not part of remuneration.

of “equal pay for equal work in the same workplace”).³¹ In theory (and in practice?), a large proportion of workers will have their wages (i.e., remuneration) increased if they are posted to another Member State. This is especially true, as calculated in our report, for workers posted from a low-wage country to high-wage country. This provision might be prone to infringements. After all, a group of posted workers may agree to a wage that is (somewhat) higher than their wage in the Member State of origin but still below the minimum wage level in the host Member State. Whether or not to apply the Posting of Workers Directive has a clear impact on the wage level of the workers involved and therefore on the total labour cost to be borne by the employer. That is why it is so important to know which operations in international road transport fall under the Posting of Workers Directive (in that case the remuneration of the host Member State applies) and which do not (in that case the remuneration of Member State of origin applies). And more importantly, that these rules are applied in practice.

1.2 Research questions

Several ‘receiving’ Member States seem to have a rather dual relationship with the use of intra-EU posting: it is often considered a ‘Trojan horse’ while its use has increased significantly. Moreover, the almost exclusive focus by both scholars and politicians on risks of ‘social dumping’ in labour-intensive sectors (e.g., in construction, road transport, meat processing, agriculture, shipbuilding, and live-in care) may have influenced public perception and acceptance of this type of labour mobility among Member States. The ‘marginalization’ of intra-EU posting seems to have an impact on European and national policy decisions which today are mainly driven towards enforcement rather than promoting free movement of services by limiting legal and administrative barriers. Above reality shows that further efforts should be made to map the number, characteristics, and impact of posted workers. Empirical evidence may refute, nuance or confirm existing perceptions and may support evidence-based policy both at national and European level.

Moreover, Recital 5 of Directive (EU) 2018/957 states that “Sufficient and accurate statistical data in the area of posted workers is of utmost importance, in particular with regard to the number of posted workers in specific employment sectors and per Member State. The Member States and the Commission should collect and monitor such data.” This ambition is in contraction with the fact that statistical evidence available at EU-level³² reveals only a part of the quantitative information available at national level on the posting of workers.³³ This leaves several research questions as well as country-specific phenomena and policy decisions at national level underexposed or even unanswered. This demonstrates the need for more detailed data. Not least because statistical data can provide a view on ‘law in action’ and how this reality may differ from ‘law in books’ (for example, regarding the compliance with the term and conditions of employment or regarding the application for a Portable Document A1).³⁴ Indeed, to what extent the law in the books corresponds to the law in action highly

31 However, some provisions of the Directive are not applicable to a short-term posting or allow host Member States not to apply their rules to postings of short duration. For instance, there is a mandatory exception in cases of initial assembly and/or first installation of goods when the posting does not exceed eight days. In these cases, the rules of the Directive on minimum paid annual leave and remuneration do not apply (the exception does not concern the construction sector).

32 Mainly by the report that provides data on the Portable Documents A1 and the report that provides data on the prior declaration tools. See also De Wispelaere, De Smedt & Pacolet (2022a forthcoming & 2022b). Furthermore, evidence is collected and reported on infringements related to the issuance of the Portable Document A1 (Jorens, De Wispelaere & Pacolet, 2022).

33 Or at least that was the impression we had at the start of this research project. Some country reports will show that this is not necessarily the case.

34 More than one hundred years ago, Roscoe Pound (2010) wrote his famous article “Law in Books and Law in Action”. See also Rennuy (2020: 219): “There is relatively little insight into how European legislation is applied in practice, that is, how regulators enforce it and how the regulated comply with it. The same holds for the practical implementation of the posting rules, ...”. Moreover, empirical evidence should avoid that legal scholarship turns to what Schlegel (1978: 330) called “data-free social science”.

depends upon application^{35,36} and enforcement (Martinsen and Vollaard, 2014).³⁷ Moreover, ‘law in action’ also reflects the impact that ‘law in the books’ has on the economic actors involved (see *Chapter 3*).

The POSTING.STAT project aimed to contribute to the ambitions defined in Recital 5. The project brought together a consortium of universities and research centres from ten different Member States to increase empirical evidence through the collection and analysis of national administrative data. The geographical scope of the project covered the six main ‘sending’ Member States (Germany, Poland, Italy, Spain, Slovenia, and Luxembourg) and the six main ‘receiving’ Member States (Germany, France, Belgium, Austria, the Netherlands, and Luxembourg) of posted workers.

A first objective of the project was to collect administrative (micro)data from the competent public authorities in order to obtain more detailed information on the scale, characteristics, and impact of intra EU posting, both in the main receiving and sending Member States. After all, several Member States have a wealth of data on intra-EU posting that is still underutilised. Furthermore, additional attention was paid to some ‘forgotten sectors’ in the posting debate (e.g., the live performance sector) as well as to the subsectors of some labour-intensive sectors of activity (e.g., the construction sector).

A second objective of the project was to get a better view on the scale and profile of infringements related to intra-EU posting. Posting of workers is often associated with cross-border social fraud. For some sectors this perception is also reality. The objective is to provide data on the number of inspections carried out by the labour inspectorates on the compliance with the posting rules and the outcome of these inspections. The collection of such data should allow a (tentative) evaluation of the extent to which posting is subject to all kinds of infringements, and in which sectors of activity.

Furthermore, this project aimed to focus on the impact of the COVID-19 pandemic on the posting of workers. There was and still is a lack of timely and accurate data at EU-level on the impact of COVID-19³⁸ on all forms of intra-EU labour mobility. In order to solve this, monthly or even weekly data on the evolution of the number of incoming and outgoing postings could be collected at national level. This research question aims to reveal whether such data are available.

Finally, a first ‘economic’ assessment of the implementation and application of Directive (EU) 2018/957 amending Directive 96/71/EC concerning the posting of workers in the framework of the transnational provision of services is made. Some important changes introduced by the revised Posting of Workers Directive are the application to posted workers of all the mandatory elements of ‘remuneration’ (instead of the ‘minimum rates of pay’), and for long-term postings (longer than 12 or 18 months) the application of an extended set of terms and conditions of employment of the receiving Member State. The question arises whether a change of certain ‘quantitative variables’ can be observed. We are thinking in particular of changes in the duration of posting, a possible increase of the number of posted self-employed persons, an increase in salaries and social security contributions paid, etc.

The four main research questions are:

1. What are the characteristics, the scale, and the impact of intra-EU posting?
2. What are the characteristics and the scale of infringements related to intra-EU posting?
3. What is the impact of the COVID-19 pandemic on intra-EU posting?
4. What is the ‘economic’ impact of the amended Posting of Workers Directive (Directive (EU) 2018/957 amending Directive 96/71/EC) on intra-EU posting?

This report mainly addresses the first two research questions. The research question on the impact of the COVID-19 pandemic as well as the one on the economic impact of the amended Posting of Workers Directive is analysed along with the first research question.

³⁵ Due to a lack of awareness? For example, based on an online questionnaire in 2020, it appeared that three out of four live performance organisations which worked across the EU were not aware of the amendment of the Posting of Workers Directive (De Wispelaere et al., 2021c).

³⁶ And implementation at national level for EU legislation.

³⁷ It is the perfect conceptual framework for reviewing the implementation and impact of the revised Posting of Workers Directive.

³⁸ This is actually the case for all sudden events, including the current flow of displaced persons from Ukraine.

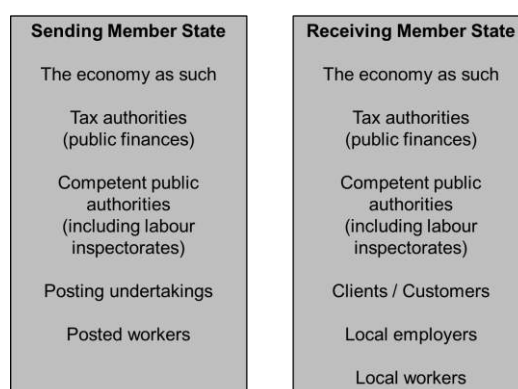
1.3 Research methodology and methodological issues

This report analyses the above research questions based on the main findings from the ten country reports prepared in the context of the POSTING.STAT project.^{39,40} It also briefly refers to the most important trends based on the available evidence at EU-level and makes additional calculations and analyses where possible, mainly based on additional national and European data sources.

1.3.1 Defining the personal and material scope of the project

The analysis of the research questions calls for a broad approach that takes into account the impact of intra-EU posting on ‘the economy’ of the sending and receiving Member State and all economic actors involved (posted workers, posting undertakings (i.e., ‘service providers’), local employers and workers, service recipients (i.e., ‘clients’), tax authorities, competent public authorities (incl. labour inspectorates), etc.) (*Figure 3*) (*see Chapter 3*). Though, at the same time, this calls for a more detailed and thus narrow approach as costs and benefits for the economic actors involved may differ greatly depending on the sector of activity. Moreover, this mapping should distinguish between the use of intra-EU posting (which is perfectly legal) and the infringements it entails in some specific sectors of activity (*see Chapter 4*).

Figure 3. Research methodology: a broad personal scope



The analyses in this report take into account the broad legal framework that applies to intra-EU posting (*Figure 4*). Nonetheless, the focus is mainly on the implications of the labour law rules as defined by the Posting of Workers Directive (with attention also to the ‘*lex specialis*’ in the field of road freight transport), the social security rules as defined by the Coordination Regulations and finally the Enforcement Directive. The implications of the rules on personal income taxes (183-days rules)⁴¹ as well as those on ‘transparent and predictable working conditions’⁴² are not discussed here, though their importance in daily business for a high number of posting undertakings and posted workers cannot be ignored. Finally, one should not lose sight of the fact that other legislation can/will play a role in the discussion on posting as well, not least corporate law (i.e., how difficult/easy is it to set up a company?) and corporate tax law (i.e., are there strong differences between Member States?).

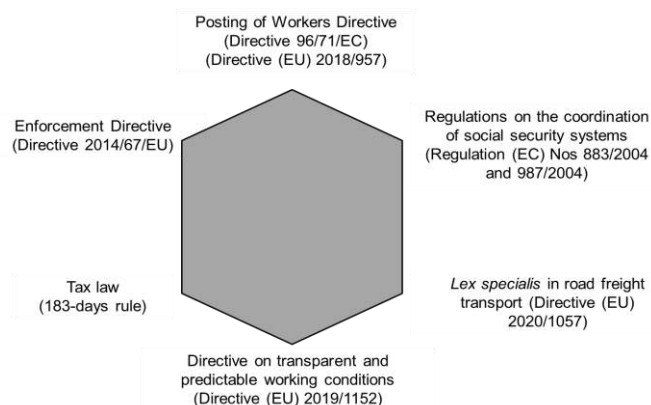
39 See Albrecht et al., 2022; Carrascosa Bermejo & Contreras Hernández, 2022; Clément & Hauret, 2022; De Wispelaere et al., 2022; Geyer et al., 2022; Muñoz, 2022; Heyma et al., 2022; Dorigatti et al., 2022; Kietbasa et al., 2022; Vah Jevšnik et al., 2022a). See also <https://hiva.kuleuven.be/en/news/newsitems/posting-stat-enhancing-collection-and-analysis-national-data-on-intra-eu-posting>

40 The information reported in the country reports is often very fragmented, making a comparative analysis impossible. As a result, information about certain phenomena is often only available for some Member States.

41 According to double tax treaties (as specified in the OECD Model Convention), the right to tax the employment income remains with the country of residence of the posted worker in case the period abroad is less than 183 days within a period of 12 months that commences or ends in the fiscal year concerned. After this period, the income from employment is taxed fully in the country where the work is performed, irrespective of the employer’s location (see e.g., Spiegel et al., 2022).

42 See Art. 7(2) of Directive (EU) 2019/1152: “Member States shall ensure that a posted worker covered by Directive 96/71/EC shall in addition be notified of: (a) the remuneration to which the worker is entitled in accordance with the applicable law of the host Member State; (b) where applicable, any allowances specific to posting and any arrangements for reimbursing expenditure on travel, board and lodging; (c) the link to the single official national website developed by the host Member State pursuant to Article 5(2) of Directive 2014/67/EU of the European Parliament and of the Council.”

Figure 4. Research methodology: a broad legal scope



1.3.2 Number and characteristics of posted workers in the EU: do the available data give a distorted view of reality?

Producing comprehensive and comparable statistics on cross-border labour mobility remains very challenging. This is especially the case when it comes to collecting data on the extent of temporary labour mobility (e.g., on the number of seasonal workers (see also Fries-Tersch et al., 2021)). In this instance, workers are active in the economy of the host country for only a few months, weeks, days, or even hours. Often without changing their country of usual residence and/or without being employed by a resident employer. Moreover, several forms of (temporary) intra-EU labour mobility overlap and lack a standardised legal and/or statistical definition (or there are differences between the legal and statistical definition). In this report, the focus is on measuring the group of non-resident foreign workers whose employment relation is with a non-resident entity. Several administrative data sources can be used for this exercise. These data sources all have their advantages and limitations. Unfortunately, there are no data available from the EU Labour Force Survey⁴³ to map the number and characteristics of posted workers in the EU. It remains an opportunity to include such a question in the EU-LFS questionnaire.

1.3.2.1 Data on the export and import of services: GATS mode 4 - the presence of persons in the territory of another country for the purpose of providing a service

There is a strong link between the export and import of services and the use of intra-EU posting as the former may require the physical presence of workers. Consequently, the evolution of intra-EU posting, a form of labour mobility that is employer-driven (unlike the ‘worker-driven’ types of labour mobility under the free movement of workers), may depend on the evolution of cross-border trade in services. The Balance of Payments (BoP) provides data on international trade in services.⁴⁴ This is a statistical statement that summarises, over a given period of time, all the transactions of an economy with the rest of the world. The balance of payments records all economic transactions undertaken between the residents and non-residents of an economy during a given period. It thus provides information on the total value of credits (or exports) and debits (or imports) for each BoP item and on the net result or ‘balance’ (credits minus debits) of the transactions with each partner. More specifically, the BoP makes it possible to analyse the import of services in sectors with a high number of posted workers. These data are used when discussing postings in certain sectors of activity as they complement the available data. Unfortunately, these data do not give any indication of the number of persons involved.

⁴³ The EU Labour Force Survey (EU-LFS) is conducted in all EU Member States, 4 EU candidate countries and 3 EFTA countries. The EU-LFS is a large household sample survey providing quarterly results on labour participation of people aged 15 and over as well as on people outside the labour force. However, the variable ‘countryw’ (i.e., country of place of work) might also include posted workers while this variable is mostly used to count the number of ‘cross-border workers’ (Source: website Eurostat).

⁴⁴ In the production of data on International Trade in Services the references are the IMF’s BPM6 and the United Nations’ Manual on Statistics of International Trade in Services.

Furthermore, under the General Agreement on Trade in Services (GATS), services can be traded internationally in four different ways – known as the four modes.⁴⁵ Mode 4 refers to the presence of persons in the territory of another country for the purpose of providing a service (UNECE, 2006; Magdeleine & Maurer, 2008, 2009). Data on cross-border trade in services within the EU covering mode 4 would probably be the best source to collect data on posting (i.e., non-resident foreign workers whose employment relation is with a non-resident employer). However, statistics on this matter are scarce at national and European level. Therefore, alternative data sources should be used.

1.3.2.2 Data from the Portable Document A1 and the national prior declaration tools: comparing apples with oranges?

The two main sources of information on intra-EU posting are data from the so-called ‘Portable Document A1’ (PD A1) and data from the national prior declaration tools. In order to prove that a worker or a self-employed person remains subject to the social security system of the Member State of origin a PD A1 can be requested by the posting undertaking or the self-employed person. The current legal framework provides that the employer or the self-employed person must inform the competent authorities about their planned transnational activities, *whenever possible before* these activities take place (this also applies to ‘business trips’)^{46,47} Subsequently, after verification of several ‘posting conditions’⁴⁸ (at least in theory), a PD A1 will be provided by the competent authorities.⁴⁹ Furthermore, Member States may require from a service provider established in another Member State to make a ‘simple declaration’ containing the relevant information necessary in order to allow factual controls at the workplace.⁵⁰ All Member States used this possibility to implement a prior declaration tool for incoming posting undertakings and the workers concerned. However, there are large differences in the ‘personal scope’ of the prior declaration tools,⁵¹ with most Member States requesting the declaration of workers, and therefore excluding self-employed persons,⁵² from another Member State and thus excluding extra-EU countries.

The statistics that become publicly available by reporting data from the PD A1 and the prior declarations tools are nearly the only source of comparable information at European level to estimate the number of postings and posted workers. Consequently, these data are frequently used by scholars as well as in political debates. Therefore, when using and citing both data sources, it is of utmost importance that one is aware of the limitations of these data (see also *Table 1*).

The availability of data on intra-EU posting and the completeness of it largely depends on the extent to which companies are obliged to declare their posting activities in both the sending Member

45 The General Agreement on Trade in Services (GATS) is a treaty of the World Trade Organisation (WTO) that entered into force in 1995. All members of the WTO are parties to the GATS. Under the General Agreement on Trade in Services (GATS), services can be traded internationally in four different ways: Mode 1: cross-border supply; Mode 2: by an established affiliate abroad; Mode 3: commercial presence; Mode 4: presence of natural persons.

46 See the Practical Guide on Posting (EC, 2019) (section 2.4. “What about ‘business trips’ to another Member State? Are the rules on posting applicable to any mission abroad of workers?”): “As far as the coordination of social security is concerned, Regulations (EC) No 883/2004 and 987/2009 provide that, for every cross-border work-related activity (including ‘business trips’) the employer, or any self-employed person concerned, is under the obligation to notify the competent (home) Member State, whenever possible in advance, and obtain a Portable Document A1. That obligation covers any economic activity, even if only of short duration. These Regulations do not provide for any exceptions for business trips either.”

47 See Article 15 (1) of the Implementing Regulation.

48 There are several conditions, to be fulfilled cumulatively, for the proper use of posting under the Coordination Regulations: 1) the employer must normally carry out its activities in the Member State of establishment; 2) there is a direct relationship between the posting employer and the posted worker; 3) the posted worker is already affiliated to the legislation of the Member State in which his/her employer is established; 4) the posting is of a temporary nature (not exceeding 24 months); and 5) the posted worker is not being sent to replace another posted worker.

49 Under the CJEU case-law (see e.g., Case C-202/97, FTS, paragraph 51 EU:C:2000:75) the competent authority needs to carry out a proper assessment of the facts relevant to the application of the rules for determining the applicable social security legislation and, consequently, to guarantee the correctness of the information contained in the PD A1.

50 See Article 9 of Directive 2014/67/EU (the ‘Enforcement Directive’).

51 This is another example of a *legal imbroglio* leading to a *statistical imbroglio*.

52 In most Member States the obligation to register only applies to posted workers and not to self-employed, apart from Belgium, Denmark, Ireland, the Netherlands, and Slovenia where the latter should register as well. However, in most of these Member States, the declaration obligation is limited to self-employed persons operating in ‘sectors at risk’.

State and the receiving Member State. In practice, authorities in the sending and receiving Member State are not always informed about the posting activities. In that regard, there will be a discrepancy between the number of posted workers with a PD A1 or the number of workers notified in the prior declaration tools and the real number of outgoing and incoming posted workers in the EU. Firstly, because several Member States have exempted certain activities and sectors from the requirement to report in the prior declaration tools.^{53,54} This reality creates a risk of underestimating the number of postings in knowledge-driven sectors and the number of ‘project-driven’ postings. Moreover, because of these exemptions, certain activities and sectors will be overrepresented in the database of the prior declaration tools compared to their actual share in the number of incoming postings. Secondly, not every posting activity will be reported in the sending or receiving Member State, even when this should be reported. In that respect, the data in this report only show the scale and profile of the ‘reported’ postings. Unfortunately, the number of unreported postings is a ‘dark number’. However, compliance may have increased recently. Indeed, some Member States, such as France and Austria, seem to be much stricter in their judgment of having a PD A1 as a condition for being legally posted. They implemented sanctions in case of failure to show a PD A1 and/or are currently carrying out far more inspections on having a PD A1.⁵⁵ As there are often high administrative sanctions if no proof can be delivered, it might be an incentive for posting undertakings to ask for a PD A1. Furthermore, the notification of posted workers in the prior declaration tool is a legal obligation in several receiving Member States under penalty of administrative or criminal sanctions. As a result, the discrepancy between the number of posted workers with a PD A1 or the number of workers notified in the prior declaration tools and the actual number of outgoing and incoming posted workers is likely to have narrowed (slightly) over the past few years. Finally, differences exist in the personal scope between the PD A1 and the prior declaration tools (see also *section 1.1.2*). For instance, self-employed persons or workers who are sent temporarily to work in another Member State, but do not provide services there (this is the case, for example, for workers on business trips, attending conferences and meetings), may have a PD A1 while being exempt from notification in the prior declaration tools.

Table 1. Data from the Portable Document A1 and the national prior declaration tools: comparing apples with oranges?

	Sending Member State: data from the PD A1	Receiving Member State: data from the national prior declaration tools
Legal base	Basic Regulation (EC) No 883/2004 and Implementing Regulation (EC) No 987/2009	Directive 2014/67/EU
Area	Social security	Terms and conditions of employment
Scope	Determined by Art. 12 of the Basic Regulation (including ‘business trips’ and self-employed)	Determined by Art. 3(1) of the Posting of Workers Directive (e.g., excluding self-employed, business trips; initial assembly or first installation of goods)
Exempted	Persons active in two or more Member States (Art. 13 of the Basic Regulation); postings longer than two years; repetitive postings	Several categories in some host MSs (for instance, persons attending business meetings, academic conferences, international truck drivers, professional artists, athletes etc.)
Enforcement	In some cases, a posting may take place without the institutions being informed of it or the PD A1 will be awarded with retroactive effect. France and Austria seem to be much stricter in having a PD A1.	Implementation of a ‘simple declaration’ system is a faculty given to Member States, not an obligation. Most Member States implemented sanctions in the event of non-registration.

Source Authors

⁵³ For instance, in several Member States posting activities that have a limited duration are exempted from declaration. Furthermore, in some Member States, companies providing international transport do not have to declare their workers. Other mentioned exceptions are persons working in the public sector, professional artists, athletes, crews of seagoing merchant ships, cabotage or persons participating in a seminar or conference.

⁵⁴ Moreover, as of 2 February 2022, the [EU Portal for road transport posting declarations \(RTPD portal\)](#) becomes the only obligatory system that operators must use to send declarations when posting drivers to another Member State. Consequently, the prior declaration tools should no longer be used after 2 February 2022 when it comes to posting of drivers in road transport which fall within the scope of Directive 2020/1057. It is important that these data are still collected and reported at EU-level (and are added to the data from the prior declaration tools). Otherwise one risks losing sight of an important sector when discussing intra-EU posting.

⁵⁵ See for instance France by Article L 114-15-1 of ‘Code de la sécurité sociale’.

It is also important that the correct unit of measurement is selected when measuring the scale of the phenomenon. Especially when its size is to be compared with total employment in the sending and receiving Member State. Comparing the number of PDs A1 or the number of declarations with total employment may overestimate the relative importance of posting. Therefore, it is best to look at the number of workers involved. Even then, the relative importance of posting may be overestimated when taking into account the total group of workers posted during the year. After all, posted workers tend to be active in the host Member State for a short period of time. In this respect, it is best to consider the number of posted workers at a given point in time, or the average over the year, or to calculate the number of full-time equivalents (FTEs).⁵⁶

1.3.2.3 Data from tourism statistics: trips for professional purposes

Another data source that might be used as a proxy for measuring the inflow of posted workers are tourism statistics on persons travelling abroad for business or professional purposes. Such data are collected and reported by Eurostat.⁵⁷ These data have some important limitations. For instance, as stated by the United Nations Economic Commission for Europe – UNECE (2011a: 170) “It would be necessary to refine these figures to identify the persons actually involved in the trading of services, since the tourism definition covers other types of business visitors. It is not clear how well the category of business and professional purposes is identified (i.e., to what extent it does not in practice cover people with an employment contract – thus in many countries entry-exit cards refer to ‘work’, without distinguishing clearly between an employment and a service contract).” Furthermore, trips for business and professional purposes can include a wide range of trips, including training and conferences. These data do not include same-day visits, but only trips with overnight stays. Finally, it should be noted that one person can make several trips per year. In *section 2.1.4*, these data are confronted with the available PD A1 data.

1.3.3 Posted workers in employment statistics: a statistical fiction?

One would assume that the place of employment of the worker has the upper hand in deciding in which country the worker is employed. This is not the case in practice. The place of establishment of the employer is currently decisive in determining which forms of cross-border labour mobility are or are not included in the employment statistics of a given country. Indeed, in the ‘domestic concept’⁵⁸ of employment as defined by the ‘system of national accounts – SNA 2008’⁵⁹ and by the ‘European system of national and regional accounts - ESA 2010’⁶⁰, the territory of the ‘resident production unit’ (i.e., ‘the resident employer’) is the criterion for counting employment. Consequently, employment in a country as defined by the ‘domestic concept’ includes (only) those persons who were paid during the reference period by an employer established in that country. As a result, employment provided by (non-)resident workers on behalf of non-resident employer, and thus covering labour mobility by the freedom to provide services (but also e.g., ‘business trips’ and attending conferences or meetings), is not taken into account (both from a ‘receiving’ and ‘sending’ perspective) (see *Figure 5*).

⁵⁶ Recently, the French administration for labour market statistics (DARES) has implemented a new methodology to measure the number of posted workers working in France by taking into account the quarterly average of posted workers (Boughazi & Parent, 2021).

⁵⁷ <https://ec.europa.eu/eurostat/web/tourism/data/database>

⁵⁸ There are two employment concepts depending on the geographical coverage: resident persons in employment (i.e., the so-called national concept of employment) and employment in the resident production unit irrespective of the place of residence of the employed person (i.e., domestic concept). The difference between them corresponds mainly to the net number of cross-border workers.

⁵⁹ The System of National Accounts 2008 (SNA 2008) is a statistical framework that provides a comprehensive, consistent, and flexible set of macroeconomic accounts for policymaking, analysis, and research purposes.

⁶⁰ The European System of National and Regional Accounts (ESA 2010) is the newest internationally compatible EU accounting framework for a systematic and detailed description of an economy.

Figure 5. The coverage of labour mobility in the employment statistics of the host country (domestic concept)

		Employer	
		Resident	Non-resident
Worker	Resident	Local workers EU-movers	Long-term postings (e.g., intra-corporate transfers)
	Non-resident	Frontier workers Seasonal workers	Posted workers Other service suppliers Business travellers

* Shading: types of labour mobility not taken into account.

Source: Authors overview

ESA 2010 defines ‘employees’ as “persons who, *by agreement*, work for a resident institutional unit and receive remuneration for their labour. In case of posting of workers there is no employer-employee relationship, and thus no employment contract, with the employer established in the host country. As a result, these workers will be counted as employees in the country in which the employer is established. Their activities will be considered as imports of services by the country in which the work is being done, and as exports of services in the country in which the posting undertaking is established. These activities, based on a service contract, fall under GATS mode 4 and refer to the presence of persons in the territory of another country for the purpose of providing a service.

From a statistical point of view, the labour market appears to be demarcated by the place of establishment of the employer, thus excluding work (i.e., services) carried out through non-established employers. As stated by Howe and Owens (2016) “When a contract for the delivery of a service by a provider in one country to a consumer in another country also entails the workers of the provider moving into the other country for the period in which they will produce and deliver the service, this might ordinarily be characterised as an example of a temporary migration of the worker who will be participating in the labour market of the country in which they work.” Yet this is not how such movements, and the labour of these workers tend to be conceptualised in employment statistics. In that respect, the idea that posted workers do not access the labour market of the host Member State is not only a legal fiction (see above) but also a statistical fiction (see also Rocca & De Wispelaere, 2022). Indeed, this boundary might be too strict if we want to have a reliable view on the number of persons working in a country (and thus are in the labour market in that country) at any given moment. This could be unrelated to whether or not the employer is established there. Under the current definition, employment in certain (labour-intensive) sectors that are highly dependent on incoming posted workers might be significantly underestimated. In contrast, countries that have a high number of outgoing posted workers may overestimate the actual level of employment in certain (labour-intensive) sectors. Therefore, it can be argued that labour mobility by the provision of cross-border services also needs to be taken into account when calculating the employment of a country (by taking into account the ‘net balance’ of incoming and outgoing posted workers). Already 10 years ago, the challenge of better reflecting the impact of increasing cross-border labour mobility, including trade in services through the movement of persons, in the employment statistics within national accounts was acknowledged in a report of the United Nations Economic Commission for Europe (UNECE, 2011). As a solution, a satellite account⁶¹ was proposed that could be integrated into the national accounts. In this satellite account, foreign employees and self-employed who are employed by or have a contract with a foreign institutional unit and are providing services should be included. It would complement the existing employment statistics. This could be a relevant exercise, as is shown in this report.

⁶¹ Satellite accounts provide a framework linked to the central national accounts, focusing on a certain field or aspect of the national accounts. Satellite accounts can meet specific data needs by providing more detail, by rearranging concepts from the central framework or by providing supplementary information (definition from EUROSTAT).

1.3.4 Mapping (the fight against) infringements to the posting rules: a mission impossible?

Finally, the limitations of the mapping exercise concerning the infringements related to intra-EU posting should be highlighted. After all, this exercise only shows a ‘tip of the iceberg’ by referring to data available from labour inspectorates about their inspections on the posting of workers rules, the extent to which these rules are violated (e.g. by sector or by profile of the posting undertaking), and the types of infringements.⁶² Moreover, the question arises whether the findings regarding the extent and profile of infringements in case of posting based on data from the labour inspectorates are biased or not. After all, inspections will mostly take place on the basis of a risk assessment (by the labour inspector, by data matching or data mining, or based on a complaint), and mostly in ‘risk sectors’ (e.g., the construction sector). Non-randomized inspections will yield higher infringement rates and may therefore give a distorted view of the actual scale of infringements related to intra-EU posting. In order to estimate the real extent of infringements in case of intra-EU posting, research methodologies other than the analysis of inspection results are more suitable. This could involve a survey of the economic actors involved in posting (workers, self-employed, posting undertakings, clients) as well as inspections of a random selected group of posting undertakings/posted workers in all sectors of activity. Finally, it is very difficult to define the (financial) revenues from the fight against infringements to the posting rules. Firstly, because inspections and sanctions can also have a deterrent effect. However, it is almost impossible to identify the group that did not commit an infringement because of the applicable enforcement policy. Furthermore, there are different types of infringements to the posting rules as well as differences between Member States in how they handle these infringements. A lot depends on the level of sanctions applied in Member States when an infringement is detected, which can vary from a warning to a high financial sanction and even imprisonment. Moreover, when imposing a financial sanction, the question arises whether it will be possible to claim (i.e., recover) it in practice.^{63,64}

Finally, the impact of the detection and the sanctions also differ for the different actors involved: the posted worker, the posting undertaking, the client, and the public authorities in both the sending and receiving Member state. In that regard, a distinction should be made between infringements of the labour rules and those of the social security rules (see *Table 2*).⁶⁵

62 Moreover (legal) concepts such as “What is an inspection?” or “What is an infringement?” are difficult to define and quantify. The definition of these concepts may differ between the country reports prepared in the framework of the POSTING.STAT project. After all, their qualification often differs between labour inspectorates and between Member States. As a result, there is a risk of comparing ‘apples with oranges’ when trying to assess the extent of ‘irregular’ postings in a Member State, or when trying to make a comparative analysis within and between Member States.

63 As the last step in the ‘enforcement process’: prevention, detection, inspection, sanctioning and recovery.

64 In that regard, see Recitals 38 to 42 of Directive 2014/67/EU: Recital 38 “It is a matter of concern that there are still many difficulties for Member States to recover cross-border administrative penalties and/or fines and therefore the mutual recognition of administrative penalties and/or fines needs to be addressed.” Recital 39: “The disparities between the systems of the Member States for enforcing imposed administrative penalties and/or fines in cross-border situations are prejudicial to the proper functioning of the internal market and risk making it very difficult, if not impossible, to ensure that posted workers enjoy an equivalent level of protection throughout the Union.” Recital 40: “Effective enforcement of the substantive rules governing the posting of workers for the provision of services should be ensured by specific action focusing on the cross-border enforcement of imposed financial administrative penalties and/or fines. Approximation of the legislation of the Member States in this field is therefore an essential prerequisite in order to ensure a higher, more equivalent and comparable level of protection necessary for the proper functioning of the internal market.” Recital 42 “If it emerges that the service provider is indeed not established in the Member State of establishment or that the address or the company data are false, the competent authorities should not terminate the procedure on formal grounds but should investigate the matter further in order to establish the identity of the natural or legal person responsible for the posting.”

65 See also Carrascosa & Contreras Hernández (2022: 18): “The aim of the Coordination Regulations is to protect workers falling within their scope, but unlike in the employment field, it is not so easy to identify the most protective solution. The effects of being insured under a social security national law can vary in the short or long term” vs “Directive 96/71/EC, as amended by Directive (EU) 2018/957, and Directive 2014/67/EC are based on the freedom to provide services and have an impact on the labour law relationship between the posted workers and their employers. Therefore, they are rules of Private International Law with a clear social anti-dumping purpose, by imposing on companies the application of regulations and certain sectoral collective agreements of the host Member State, if they are more protective than those applicable to the contract of employment of the posted worker. Superior working conditions can be claimed against employers before the labour Courts of the sending or host Member State, which can consider and apply foreign labour law to resolve a dispute. In this area of employment, there is no doubt that what is most beneficial for posted workers is to receive higher wages, more holidays or more preventive protection from their employers.”

Table 2. Impact of the imposed sanctions on the different actors involved

	Labour law	Social security law
Worker	Regularisation results into better terms and conditions of employment: higher 'remuneration' and allowances, better accommodation, etc.	<i>In case of no change of competent Member State:</i> in some cases, higher social benefits (e.g., pensions) because higher social security contributions are paid; <i>In case of change of competent Member State:</i> change of net salary because higher or lower social security contributions have to be paid (usually lower net salary because social security contribution rates in receiving Member States are higher); usually 'better' social protection (mostly higher social security benefits in the receiving Member State).
Employer	Criminal or administrative sanction + higher costs	Criminal or administrative sanction; <i>In case of no change of competent Member State:</i> payment of higher social security contributions; <i>In case of change of competent Member State:</i> payment of social security contributions in another Member State.
Client	Joint liability?	
Public authorities of the sending Member State		<i>In case of no change of competent Member State:</i> receives higher social security contributions levied on higher wages; <i>In case of change of competent Member State:</i> sending Member State no longer competent: receives no social security contributions and pays no social security benefits.
Public authorities of the receiving Member State	Revenues from administrative sanction	<i>In case of change of competent Member State:</i> receiving Member State becomes the competent Member State: receives social security contributions and pays social security benefits.
Other actors in the receiving Member State	Fair competition	Fair competition

Source Authors

2. Scale, characteristics, and impact of intra-EU posting

This chapter first looks at the number of posted workers in the EU and their evolution. It then looks at the profile of posted workers by analysing the main outgoing and incoming flows, their nationality (increasingly TCNs), the type of postings, their sector of activity and the duration of posting activities. As for the analysis of the impact of intra-EU posting, the share of posted workers in total employment of the main sending and receiving Member States is calculated. Finally, a sector-specific analysis is made for those sectors that count a high number of posted workers.

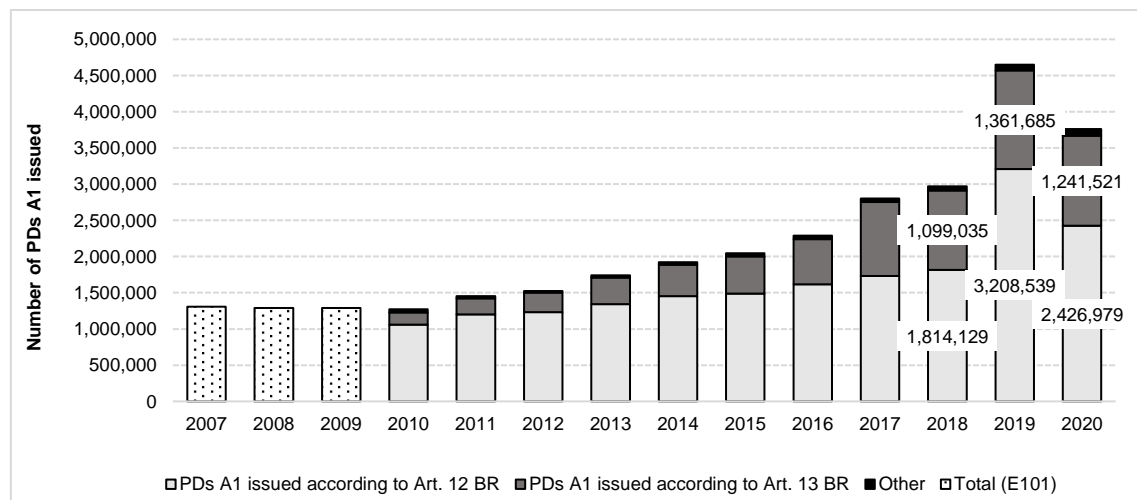
As stated before, the analysis in this chapter should be read as a description of the scale and profile of the ‘reported’ postings/posted workers, based on data from the Portable Document A1 and the prior declaration tools. This may differ from the actual scale and profile of intra-EU posting. Moreover, due to a huge increase in the number of PDs A1 issued by Germany in 2019, a distinction should be made in the descriptive analysis of the profile of intra-EU posting before and after 2019.

2.1 Number and evolution of posted workers in the EU

2.1.1 Estimated number of posted workers in the EU

Despite all the limitations of the available data (see *section 1.3.2.2*), an estimate can be made of the number of posted workers in the EU. Not by attaching one specific figure but by looking at the number of persons for whom a PD A1 has been issued under Article 12 to estimate the number of posted persons under the Coordination Regulations as well as by looking at the number of persons reported in the prior declaration tools to estimate the number of posted workers under the Posting of Workers Directive.

Figure 6. Number and evolution of postings in the EU/EFTA (incl. the UK) based on data from the Portable Documents A1, 2007-2020



Source De Wispelaere et al., 2022b.

In 2019, a year not yet affected by the COVID-19 pandemic, a total of 3.2 million PDs A1 were issued for persons covered by Article 12 (*Figure 6*), of which some 3 million PDs A1 issued to workers and some 200,000 to self-employed persons. It was estimated that in 2019 almost 1.9 million persons received a PD A1 according to Article 12. It is also useful to look at the figures of the number of PDs A1 issued under Article 13. After all, a (large) proportion of persons with a PD A1 issued under

Article 13 fall under the application of the Posting of Workers Directive.⁶⁶ As noted above, this mainly concerns international truck drivers. In 2019, some four out of ten PDs A1 under Article 13 were issued to persons employed in the road freight transport sector. However, this is not the only sector concerned. For example, the Spanish country report (Carrascosa & Contreras Hernández, 2022) indicates that a large group of persons with a PD A1 under Article 13 is active in the French agricultural sector.⁶⁷ Furthermore, the country report of Poland (Kielbasa et al., 2022) shows that a high number of persons employed in construction and live-in care receive a PD A1 according to Article 13. In 2019, a total of 1.4 million PDs A1 were issued under Article 13 (*Figure 6*), covering a total group of some 1.2 million persons. A part (the exact number is difficult to estimate) of this group of persons with a PD A1 under Article 13 will be considered a ‘posted worker’ when applying the Posting of Workers Directive.

Furthermore, based on 2019 data from the prior declaration tools, it was estimated that there were around 2 million posted workers and 5.8 million postings in the EU (De Wispelaere et al., 2021b).

2.1.2 Impact of the COVID-19 pandemic on the number of posted workers

In 2020, 2.4 million PDs A1 were issued to persons covered by Article 12, implying a drop of almost 800,000 PDs A1 or almost 25% compared to 2019 (see *Figure 7*)⁶⁸. It shows that the COVID-19 pandemic and the restrictions on freedom of movement imposed by Member States in order to stem the spread of the virus had a strong impact on intra-EU labour mobility (Fries-Tersch et al., 2022), not least on intra-EU posting. However, the impact of the COVID-19 pandemic seems to have been smaller on the number of posted workers when looking at the data from the prior declaration tools. Compared to 2019, the number of posted workers and the number of postings decreased by 9.5% and 4.8% respectively (De Wispelaere et al., 2022a forthcoming).

Data reported in the country reports show that the impact of the COVID-19 pandemic on the number of incoming and outgoing posted workers was not the same in every main receiving or sending Member State. For instance, the number of posted workers received in 2020 compared to 2019 decreased by approximately 6% in Belgium (this number was still higher than before 2017) (De Wispelaere et al., 2022c). In France, the number of received posted workers decreased by 22% (Muñoz, 2022), while in Italy the drop amounted to 75% (Dorigatti et al., 2022). In Luxembourg, on the other hand, there was even an increase in the number of posted workers received of 3.4% from 2019 to 2020, entirely due to posted persons in the transportation and storage sector, mainly from Poland and Lithuania (Clément & Hauret, 2022). Surprisingly, the number of PDs A1 issued by Slovenia in 2020 increased compared to 2019 (+7%), both under Article 12 (+ 3%) and Article 13 (+18%) (Vah Jevšnik et al., 2022).

It is clear that not every sector was affected to the same extent. For instance, in the transport industry, the impact of the pandemic was less felt, as it was considered an “essential activity” which had to continue during the pandemic. In Austria there was a quick recovery in the transport sector and in the Netherlands the second and third lockdown even had no effect on the number of notifications in this sector (Geyer et al., 2022; Heyma et al., 2022). Furthermore, the Austrian

⁶⁶ Between 2010 and 2018, the number of PDs A1 granted under Article 13 showed a strong annual growth, with in 2017 even a 64% growth compared to 2016. Consequently, the share of the PDs A1 issued to persons covered by Article 13 in the total number of PDs A1 increased by almost 24 percentage points in that period (from 13% to 37%). This raises the question whether there has been a shift from Article 12 to Article 13 in recent years. Such a shift has certainly taken place in Slovenia (Vah Jevšnik et al., 2022: 29): “While the overall number of issued PDs A1 under Article 12 sharply decreased following the adoption of the Transnational Provision of Services Act [see below for more information], this does not necessarily mean that the extent of posting also decreased. According to the Chamber of Commerce and Industry, the biggest employers’ association in Slovenia, many employers used the possibility to send workers abroad under Article 13, which is not regulated by the Act, and allows to obtain the PD A1 for the duration of one year and is valid in all Member States.”

⁶⁷ See also the analysis of the *Terra Fecundis* case. The company requested the Spanish authorities to issue thousands of PDs A1, mostly based on Article 13 (18,041), but also based on Article 12 (2,006).

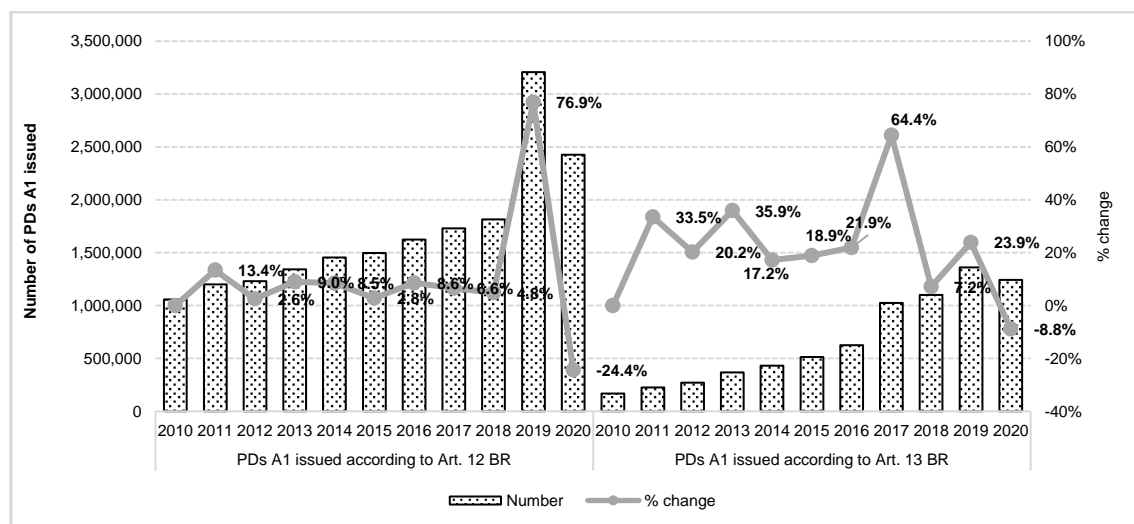
⁶⁸ The number of PDs A1 under Article 13 dropped as well from 1.4 million in 2019 to 1.2 million in 2020, or a decrease of 7.3% (De Wispelaere et al., 2022b). Therefore, the impact of the COVID-19 pandemic is less pronounced for this group. In terms of posted workers under Article 13 it mostly concerns lorry drivers, which was considered as an ‘essential profession’ during the pandemic, which means that the impact was less negative.

construction sector and the French agriculture sector were less affected than other sectors. In Italy, the number of incoming posted workers decreased by 44% in the transport sector, while it decreased by 98% in administrative and support service activities. In Germany as well, the number of incoming posted workers only declined to a small extent following the lockdown in March 2020, as the main sectors of incoming posted workers are deemed “essential sectors”. Nevertheless, postings in other German sectors such as the set-up and dismantling of trade fairs and exhibitions came to an almost complete standstill and remained at a lower level (Albrecht et al., 2022).

Finally, the impact of the COVID-19 pandemic on the number of posted workers proved to be only temporary. A sharp decline occurred particularly between April and June 2020. There was already an upward trend visible during the second half of 2020. Recent data for 2021 confirm this trend. In Austria, for example, the number of declarations for posting activities in the transport sector was 42% higher compared to 2019, whereas postings for the construction sector were 7% higher than in 2019 (Geyer et al., 2022). While the number of postings in Austria decreased from February to April 2020, it already increased again from May 2020 onwards, mainly driven by postings in the transport sector (Danaj & Geyer, 2022). In this sector, the number remained well above the 2019 average from May 2020 onwards. The level of persons reported in the Belgian LIMOSA-declaration tool in 2021 was 5.5% higher compared to 2020 (De Wispelaere et al., 2022). The number of PDs A1 issued by the Polish competent administration ZUS decreased in 2020 by 4.5% to increase again by 9% in 2021 (Kielbasa et al., 2022).⁶⁹

In sum, the analysis of the impact of the COVID-19 pandemic on posting shows for most Member States a steep decline at the onset of the pandemic, but also a fast rebound. Furthermore, the impact of the pandemic was less pronounced in certain “essential sectors” such as the transport sector and the agriculture sector. The COVID-19 pandemic might have also changed the future of posting. Interviewed experts in the frame of the Italian country report stated that posting might become more relevant post-COVID and possibly change in nature, with labour force shortages becoming a more important driver of posting compared to cost-containment reasons (Dorigatti, 2022). On the contrary, the Polish report mentions that remote work might become an alternative to certain types of posting (Kielbasa et al., 2022).

Figure 7. Evolution of postings in the EU/EFTA (incl. the UK) based on data from the Portable Documents A1, 2010-2020



Source De Wispelaere et al., 2022b

⁶⁹ See also Kielbasa et al. (2022: 10) “PD A1 data for Poland demonstrate that in 2021 a grand total of 676,775 PDs A1 were issued, up from 617,709 issued in a COVID-19-plagued 2020. Such a rebound in numbers of attestations year on year exceeded also the pre-COVID numbers (in 2019, 647,989 PDs A1 were issued) - which had previously been increasing steadily year on year since 2011.”

2.1.3 Link between trade in services and the number of posted workers

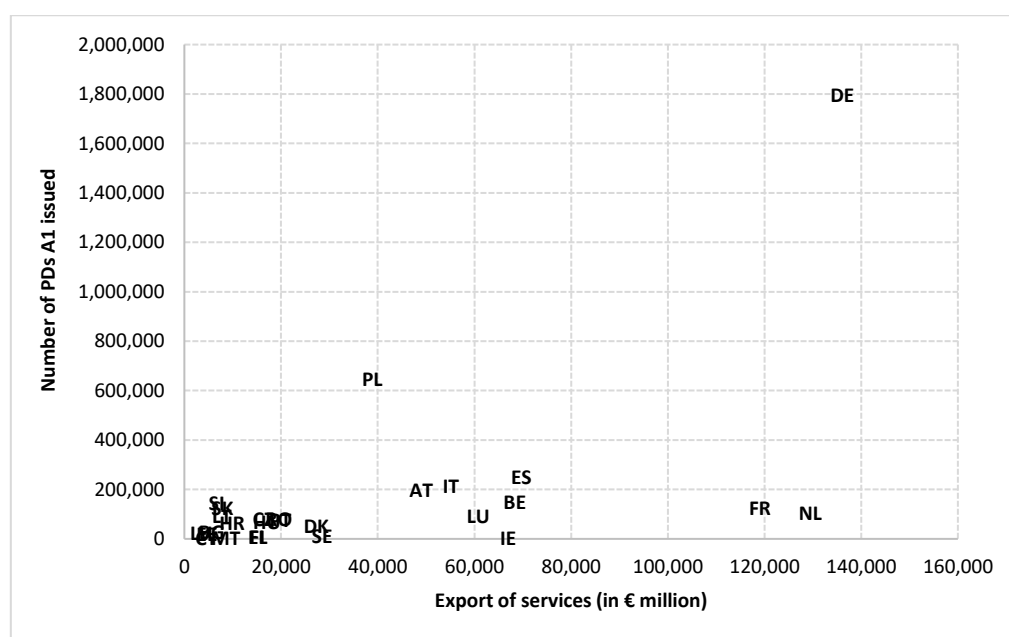
The evolution of intra-EU posting may strongly depend on the evolution of economic growth and in particular of cross-border trade in services.⁷⁰ If figures on the export of services among EU Member States are compared with the number of PDs A1 issued by EU Member States, the correlation⁷¹ between the two variables appears to be rather strong. Between 2012 and 2020, both variables show a similar evolution: there was an increase compared to the previous year until 2019 and a decrease due to the COVID-19 pandemic in 2020 (*Table 3*). *Figure 8* depicts that the most important Member States in terms of intra-EU exports of services are often also the most important issuing Member States of a PD A1. Nevertheless, in some Member States (e.g., in France and the Netherlands) the link between both variables is not as strong as one would expect. In that respect, it is probably more relevant to analyse the link between both variables at a sectoral level.

Table 3. Evolution of export of services and posted workers in the EU, 2012-2022

		2012	2013	2014	2015	2016	2017	2018	2019	2020
Number of PDs A1 issued by EU Member States	Number (thousand)	1,481	1,681	1,862	1,978	2,193	2,717	2,885	4,512	3,676
	% change		13%	11%	6%	11%	24%	6%	56%	-19%
Export of services among EU Member States	Amount (€ million)	597,661	630,173	688,335	741,293	785,982	856,240	928,330	1,012,366	852,679
	% change		5%	9%	8%	6%	9%	8%	9%	-16%
Correlation	+0.66									

Source Eurostat [BOP_ITS6_DET], De Wispelaere et al. (2022b)

Figure 8. Link between export of services and posted workers in the EU, 2019



* Correlation: +0.55

Source Eurostat [BOP_ITS6_DET], De Wispelaere et al. (2022b)

70 Especially Member States that joined the EU in 2004, in particular Poland, discovered this possibility. Furthermore, the financial and economic crisis of 2008 prompted foreign employers to explore new market opportunities abroad. See for instance Dorigatti et al. (2022: 19): "According to our interviewees, the increased presence of small firms abroad, also through posting, is linked to the effects of the 2008 economic crisis on the internal market, which have pushed many businesses of the Italian construction sector to increasingly turn to the EU construction market."

71 A correlation coefficient measures the strength of the relationship between two variables. The coefficient ranges from -1 to +1. If the correlation is -1, it means that the two variables move in exactly the opposite direction; whereas if it amounts to +1, they will move in exactly the same direction.

Despite the link between trade in services and posted workers, the analysis in this report should rather be read as a description of the volume and profile of PDs A1 issued under Article 12 and policy measures at national level (see below) that have affected its evolution, as opposed to a description of the scale and profile of intra-EU posting. For instance, in 2019, the number of PDs A1 granted under Article 12 increased by 1.4 million forms compared to 2018 (from 1.8 million documents to 3.2 million documents) or by 77%. While between 2011 and 2018, the number of PDs A1 issued under Article 12 experienced a steady but relatively low annual growth, especially compared to the growth of the number of PDs A1 issued under Article 13 over the same period. This sharp increase in 2019 could be attributed almost entirely to Germany as it granted four times more PDs A1 according to Article 12 compared to 2018 (from 409,000 documents in 2018 to 1.7 million documents in 2019).⁷² There are different reasons for this enormous increase.⁷³ First, in 2019 several of Germany's neighbouring countries, in particular Austria and France, implemented sanctions when not having a PD A1. This new reality was also communicated by the German competent authority BMAS.⁷⁴ The second reason for the increase in Germany is the introduction of a digital application process in 2018. The digital application became mandatory for all German employers in 2019 regardless of the duration of the posting period. Furthermore, a remarkable shift has taken place in Slovenia from PDs A1 issued under Article 12 towards PDs A1 issued under Article 13 (Vah Jevšnik et al., 2022). As a result of the implementation of the "Transnational Provision of Services Act"⁷⁵, the number of PDs A1 issued under Article 12 declined sharply in 2018. Many posting undertakings started to apply for a PD A1 under Article 13, which is not regulated by the Act. Thus, the decrease in the number of PDs A1 under Article 12 in Slovenia was by no means due to a decrease in the export of services and thus in the number of postings abroad.

2.1.4 Link between the number of trips for professional purposes and the number of posted workers

In 2019, more than 25 million trips for professional reasons were carried out among the EU-27 Member States. It concerns the number of trips with a duration of one night or over, excluding domestic trips, and one person can make multiple trips per year. These 25 million professional trips cover a wide range of purposes: attending meetings, conferences or congresses, trade fairs and exhibitions; giving lectures, concerts, shows and plays; promoting, purchasing, selling or buying goods or services on behalf of non-resident producers (i.e., employers). It seems likely that for many of these professional trips a PD A1 under Article 12 BR must be applied for, whereas 'only' 3.2 million PDs A1 under Article 12 were issued in 2019. It shows that the actual number of posted workers under the Coordination Regulations is likely to be (massively) underestimated.

The main receiving Member States of these trips for professional reasons are Germany (19.8% of all trips from EU-27 Member States), France (11.6%), and Italy (9.2%). The main sending Member States are Germany (24.5%), Sweden (9.0%), France (8.9%), and the Netherlands (7.1%). The most important flows in absolute numbers go from Germany to France, from Germany to Austria, from Austria to Germany, from Germany to Italy, and from France to Germany.

⁷² As result of the enormous increase in the number of PDs A1 issued under Article 12 in 2019, a distinction should be made in the description of the profile of intra-EU posting before and after 2019. After all, the characteristics of PDs A1 issued under Article 12 after 2019 is hugely influenced by the figures for Germany.

⁷³ See also the country report of Germany (Albrecht et al., 2022: 41): "experts from the administration (ABV e.V. and National Association of Statutory Health Insurance Funds) informed us that the revision of the Directive 2018/957/EU in combination with the introduction of the digital tool and the increased controls has led to the enormous increase in the issuance of A1 forms, particularly for short-term business trips."

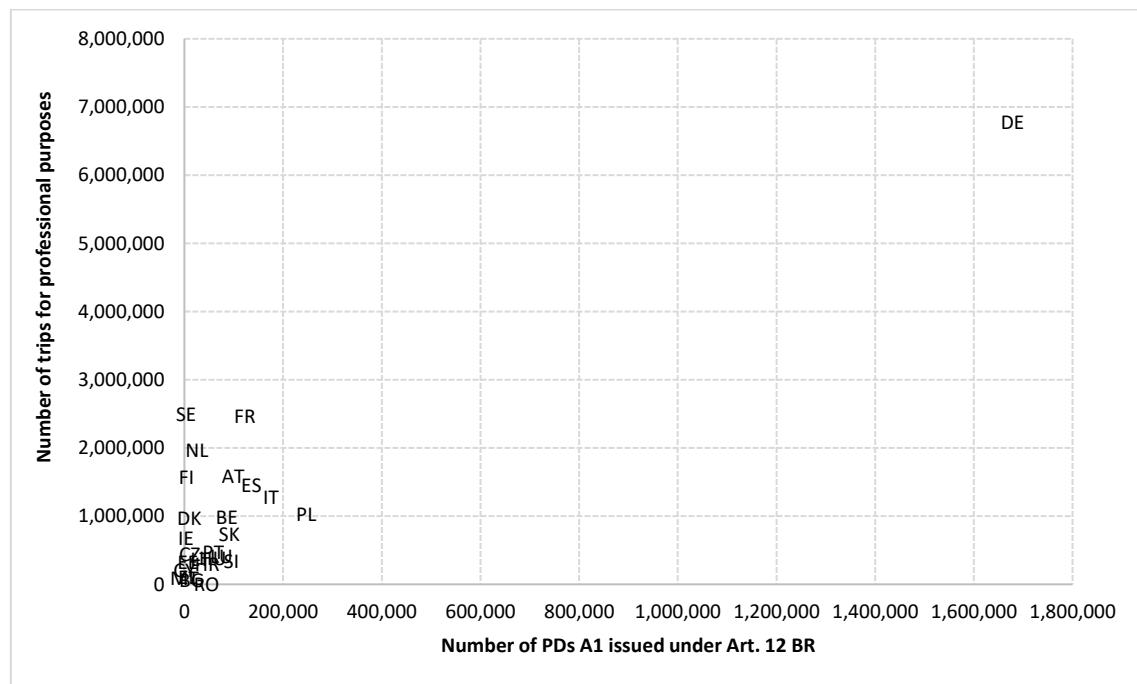
⁷⁴ "some EU Member States have recently tightened their national rules to combat social dumping and undeclared work, and on the basis of these national rules have made it compulsory to apply for an A1 attestation prior to starting a posted activity in these countries. To the best of our knowledge, this currently is the case for France and, in principle, Austria. Where there is an obligation to apply for an A1 attestation under national law in the country of destination, *waiving prior application cannot be recommended even in exceptional cases.*" (BMAS, 2019). See also https://www.bmas.de/SharedDocs/Downloads/EN/Topics/Social-Europe-and-international-Affairs/handling-of-a1.pdf?__blob=publicationFile&v=1

⁷⁵ Zakon o čezmejnem opravljanju storitev (ZČmS, Official Journal of the Republic of Slovenia, no. 10/17). See <https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2017-01-0461?sop=2017-01-0461> For more information about this act see section 4.5.2.

Figure 9 depicts a strong link between the number of trips for professional reasons and the number of PDs A1 issued under Article 12. In particular, the countries with a high number of trips also issue a high number of PDs A1. However, the number of trips for professional purposes in the total number of PDs A1 issued under Article 12 BR differs greatly between Member States. On average, professional trips represent about one tenth of the total number of PDs A1 granted under Article 12. In Germany, trips for professional reasons represent about a quarter of the PDs A1 issued under Article 12. Countries such as Finland, Sweden, and the Netherlands issue a (very) low number of PDs A1 under Article 12 compared to the number of outbound trips for professional reasons.

In the provisional agreements on the revision of the Coordination Regulations among Council of Ministers, European Parliament, and European Commission (in that of 25 March 2019: *Document 7698/19 ADD1 REV1 of 25 March 2019*,⁷⁶ and in that of 17 December 2021: *Document 15068/21 of 17 December 2021*⁷⁷) it was agreed that the employer or the posted self-employed person should inform the competent institution ‘in advance’ (i.e., ‘a mandatory prior notification’), except for ‘business trips’. The importance of exempting business trips from the application of a PD A1 is clear from the above figures. After all, it would result in an enormous increase in the number of PDs A1 applied for in advance and, consequently, in an enormous administrative burden for both employers and the competent administrations (a situation that in fact already occurred in 2019 for Germany – see above). In addition, data for Belgium show that PDs A1 under Article 12 are often granted retroactively. Indeed, about one out of five PDs A1 are issued retroactively by Belgium. This shows that a high percentage of companies may not request a PD A1 in advance and do so only when actually asked.

Figure 9. Link between the number of Portable Documents A1 issued under Article 12 BR and the number of trips for professional purposes, 2019



* Correlation: +0.85

Source Eurostat [tour_dem_ttw], De Wispelaere et al. (2022b)

76 See <https://data.consilium.europa.eu/doc/document/ST-7698-2019-ADD-1-REV-1/en/pdf>

77 See <https://data.consilium.europa.eu/doc/document/ST-15068-2021-INIT/en/pdf>

2.1.5 The economic impact of the amended Posting of Workers Directive

The Commission adopted on 8 March 2016 a proposal for a targeted revision of Directive 96/71/EC on Posting of Workers.⁷⁸ On 28 June 2018, after fierce political debates (see below), Directive (EU) 2018/957 amending Directive 96/71/EC was adopted. Member States then had 2 years to implement this Directive in their national legislation. The Directive introduced several new provisions in three main areas: 1) applicable terms and conditions of employment of posted workers, 2) temporary agency posting and 3) long-term posting.⁷⁹

Both during negotiations on the revision of the Posting of Workers Directive and afterwards, there appeared to be diverging opinions and interests among Member States (perhaps even an ‘East-West divide’). For instance, 11 Member States⁸⁰ made use of the ‘Subsidiarity Control Mechanism’ to raise subsidiarity concerns and thereby invoked a so-called ‘yellow card procedure’.⁸¹ On 20 July 2016, the European Commission published a Communication (COM(2016)) that concluded that the proposed revision of the Posting of Workers Directive did not breach the subsidiarity principle. Hungary and Poland even brought actions before the CJEU to seek annulment of Directive 2018/957 stating that certain elements of this Directive introduced unjustified and disproportionate restrictions on the freedom to provide services.⁸² For instance, the replacement of the concept ‘minimum rates of pay’ by the concept of ‘remuneration’ and the new regime for postings exceeding 12 months would place an additional economic and administrative burden on service providers employing posted workers, therefore hindering the freedom to provide services. However, the CJEU found these complaints of Poland and Hungary unfounded.

Based on the country reports it seems that the amended Posting of Workers Directive has no or only a limited ‘economic’ impact on the main actors involved: posting undertakings, posted workers, the clients, labour inspectorates etc.⁸³ This conclusion is mainly based on expert interviews rather than on statistical evidence. After all, the implementation of the revised Posting of Workers Directive occurred in the middle of the COVID-19 pandemic, which makes it impossible to link a change in the flows of incoming and outgoing posted workers to the amended Posting of Workers Directive. In almost all country reports it was found that it might be too early to draw conclusions. In the country reports of Austria, Belgium, France, Italy, Luxembourg, and Spain it is stated that no effects or changes can be measured up until now. This is also the case because some Member States had already implemented changes requested by the amended Posting of Workers Directive before it was

78 According to the explanatory memorandum, the main aims for the revision were ensuring the smooth functioning of the single Market, addressing unfair practices and promoting the principle that the same work at the same place should be remunerated in the same manner. Moreover, in a Communication (COM(2016) 5) from 20 July 2016 the Commission explains the objective of the proposal more in detail: “In essence, the objective of the proposal is to ensure that the implementation of the freedom to provide services in the Union takes place under conditions that guarantee a *level playing field* for businesses and respect for the rights of workers. 20 years after its adoption, the Commission found that Directive 96/71/EC no longer ensures such conditions against the background of the current economic and social conditions in the Member States. Therefore, it tabled a proposal for legislative action. The Commission proposal aims to remedy the specific problems identified by a limited number of targeted amendments to Directive 96/71/EC.”

79 See also the ‘Practical guide on posting’ (EC, 2019). For a legal analysis of the new provisions see, *inter alia*, Houwerzijl & Verschueren, 2019; Verschueren, 2021b.

80 Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Hungary, Poland, Latvia, Lithuania, Romania, and Slovakia.

81 This procedure is briefly explained in Communication (COM(2016) of the Commission: “Protocol No 2 to the Treaties on the application of the principles of subsidiarity and proportionality allows national Parliaments to issue reasoned opinions when they consider that a legislative proposal does not comply with the principle of subsidiarity. Where reasoned opinions issued by national Parliaments represent at least one third of all the votes allocated to them, the proposal must be reviewed by the Commission. On the basis of that review, the Commission may decide to maintain, amend or withdraw the proposal, and it must give reasons for its decision.”

82 ECJ 2018, C-620/18 (Hungary v. European Parliament and Council of the European Union) and ECJ 2018, C-626/18 (Republic of Poland v. European Parliament and Council of the European Union). See also the Polish country report (Kietbasa et al., 2022) for an analysis.

83 Although, from a theoretical point of view, this observation is hard to believe since, for example, the change from the concept of ‘minimum rates of pay’ to ‘remuneration’ certainly has an economic impact on the economic actors involved. See also the country for France (Muñoz, 2022: 60): “We showed that on average posted workers are paid roughly 30% less than domestic workers at the same workplace. This suggests that the revised Posting of Workers Directive may have a substantial effect if applied correctly.”

put into place (see, e.g., France⁸⁴, Belgium⁸⁵, and Austria). For instance, in Austria the equal pay principle was already in place since 2011, and did not deter posting undertakings to take on business in Austria (Geyer et al., 2022). However, the reason why hardly any impact is observed may also lie in the discrepancy between ‘law in books’ and ‘law in action’. This raises the question of whether the amendments made in the Directive are actually applied in practice. In that regard, it is important to detect and monitor possible effects of the amended Posting of Workers Directive and analyse their impact.⁸⁶

To go more into detail on possible effects of the amended Posting of Workers Directive, three main changes implemented by the Directive are discussed below. First, one of the most essential changes is the use of the term ‘remuneration’ instead of ‘minimum rates of pay’. As a result of this amendment, all wage elements have to be taken into account, including supplements to the wage such as overtime rates, allowances for working at night, allowances for working on Sundays or on public holidays, holiday remunerations, end of the year bonuses and the 13th month bonuses. Both in theory and in practice, this change should have an economic impact on the economic actors involved. For instance, in the country for France (Muñoz, 2022: 60) it is stated that “on average posted workers are paid roughly 30% less than comparable local workers [with the same qualification and age] at the same workplace (2019 figures). This suggests that the revised Posting of Workers Directive may have a substantial effect if applied correctly.”⁸⁷ Although it can be challenging for foreign service providers to determine the correct level of remuneration for the worker sent abroad (see e.g. for Italy: “It is quite impossible for a foreign company to understand what is the collective agreement and the remuneration to apply to posted workers without being helped by an Italian consultant (Dorigatti et al., 2022: 44)).⁸⁸ Additionally, another consequence which might be expected of this change is an increase in (bogus) self-employed posted persons. Seeing that self-employed persons do not fall under the Posting of Workers Directive, this status could be used to avoid legislation. However, this is not mentioned in any of the country reports. Therefore, no well-founded statement can be made whether the revised Directive leads to an increase in the number of posted bogus self-employed persons (De Wispelaere et al., 2022c). Data published in the PD A1 reports show that the total share of PDs A1 issued under Article 12 to self-employed persons remained stable with even a slight decrease from 7.9% in 2012 to 4.4% in 2020. Only for Slovakia an extreme opposite trend can be seen. Whereas in 2012 only 27.5% of PDs A1 under Article 12 were issued to self-employed persons, it has increased to 48.5% in 2020.

Second, in case of long-term postings, Directive 2018/957/EU provides for the application of all of the mandatorily applicable terms and conditions of employment of the host Member State once

84 See footnote 26 at page 60 of the country report of France (Muñoz, 2022): “It has changed the concept from “salaire minimum” to “rémunération” in the labour code Article L1262-4, but the reform of 2015 (loi n° 2015-990, article 280) had already expanded the concept adding “les accessoires de salaire légalement ou conventionnellement fixés”, following the decision of the Court of Justice in the Sähköalojen case (C-396/13). So, maybe this has pre-empted the impact of the new reform on the remuneration of workers to France.”

85 The Posting of Workers Directive of 1996 was transposed in Belgian law in a broad sense.

86 See also Article 2.1 of Directive 2018/957/EU: “The Commission shall review the application and implementation of this Directive. By 30 July 2023, the Commission shall submit a report on the application and implementation of this Directive to the European Parliament, the Council and the European Economic and Social Committee and propose, where appropriate, necessary amendments to this Directive and to Directive 96/71/EC.”

87 This observation is not new. Already ten years ago, in the Impact Assessment of the Commission on the revision of the legislative framework on the posting of workers in the context of provision of services (SWD(2012) 63 final) (2012: 20), it was stated that “In France, a report delivered by the French Senate in 2006 estimated wage differences between foreign posted workers and French workers to be around 50%. In Denmark, a study of the construction sector indicated that, in the mid-2000s, workers from Eastern European countries were paid on average 25-28% less than Danish building workers.”

88 See also page 42: “Above all it is very complex and uncertain to identify the collective agreement of reference because numerous and competing collective agreements are applicable in whole or in part to the same industry as their own field of application. The contractual “category”, on the other hand, does not constitute an objective datum, but simply expresses the boundaries within which the will of the negotiating parties aspires to apply the provisions of that collective agreement. Thus, within the same industry, dozens of national contracts can be found that elect that industry to their field of application. The situation is now out of control because of a continuous proliferation of industry collective agreements that compete for the palm of greatest representativeness. In this chaos it is difficult to sanction a foreign company that denounces that it has not been able to find the collective agreement to respect to set the remuneration of its employees posted to Italy.”

the actual duration of the posting exceeds 12 months. Data from the prior declaration tools indicate that the average posting period of incoming posted workers lies around 150 days. The share of declarations for a posting over 12 months amounted to 7% in 2019 and 11% in 2020. These rules therefore only apply to a small group of posted workers. Member States will extend the period of 12 months to 18 months when the service provider⁸⁹ submits a ‘motivated notification’. This number seems to be (very) low in most Member States. For instance, in Belgium, during the first year of implementation, only 421 motivated notifications were made by 35 unique employers and 19 unique representatives. The main reasons for the requests were the COVID-19 pandemic and an unforeseen extension of the project. Other country reports do not present any information on motivated notifications. In Spain, no public data are available on this, as it has to be notified to the 17 Autonomous Communities, and there is at current no systematic monitoring of the compliance with this provision. The fact that the number of ‘motivated notifications’ is low is not surprising if one looks at the average duration of a posting.⁹⁰ As a result, only a small group can/will request such a notification. A possible side effect of the new rules on long-term postings is a change in duration of the posting period, namely shorter postings, to avoid the more expensive rules after 18 months. However, again, no well-founded statement can be made whether the amended Directive has an impact on the duration of postings.

Finally, several new provisions are defined in the case of ‘temporary agency posting’ (see EC, 2019). For instance, the temporary work agency should respect the same terms and conditions of employment than those that would apply if these posted temporary agency workers had been recruited directly by the user undertaking (i.e., client) to occupy the same job.⁹¹ The user undertaking is obliged to inform the temporary work agency of the terms and conditions of employment that it applies. In case of ‘chain posting’ (i.e., when a worker posted by a temporary work agency to a user undertaking is sent by the user undertaking to another Member State), the worker is considered as being posted by the temporary agency with which the worker has the employment relationship. The temporary work agency must therefore comply with all the provisions of the Posting of Workers Directive, including all the relevant administrative requirements and control measures. In order for the temporary agency to be able to comply with the above mentioned obligations, the user undertaking must inform the temporary work agency in due time before the posted temporary agency worker starts carrying out tasks in another Member State. The information obligation imposed on the user undertaking in above examples might be a good example of the discrepancy between ‘law in books’ and ‘law in action’. After all, various expert interviews revealed that it is highly doubtful that these provisions are complied with in practice.

2.2 Main flows of posted workers: not only from East to West or from South to North

The EU enlargements of 2004 and 2007 had a huge impact on the scale of intra-EU labour mobility, not least on intra-EU posting. Indeed, the temporary restriction on the free movement of workers (‘the front door’ was closed), but not on the free movement of services (‘the back door’ was open), is probably one the main reasons for the substantial rise of the number of posted workers from Eastern towards Western European Member States.⁹² After all, this opportunity was financially attractive for companies and workers from Eastern Europe as well as for companies in Western Europe active in labour-intensive and price-sensitive sectors of activity. However, statistics show that posting should not be narrowed down to this single flow (of ‘cheap labour’) from East to West. Figures show that this is indeed a significant flow, but so are others, such as among Western EU

⁸⁹ The notification may also be sent by a representative of the employer.

⁹⁰ But there might also be a lack of awareness about this new provision.

⁹¹ For instance, contrary to other types of posting, the terms and conditions of employment of posted temporary agency workers are not limited to those set out by law or universally applicable collective agreements. If there is a collective agreement at the level of the user undertaking, it must be applied to national temporary agency workers (see EC, 2019: 14).

⁹² See also EC (2006: point 9): “it was acknowledged that the restrictions may have encouraged EU-8 nationals to look for other ways to perform economic activity in EU-15 Member States, reflected in an exceptionally high influx of posted workers”.

Member States. In 2018, more than half of the persons covered by Article 12 went from one EU-14 Member State (i.e., the so-called ‘old’ Member States) to another. The flow from EU-13 Member States (i.e., the so-called ‘new’ Member States) to EU-14 Member States represented almost a third of total PDs A1 issued according to Article 12.

In order to know the main sending and receiving Member States of posted workers, several sources can be consulted: data from the PDs A1, from the prior declaration tools, but also those on the import and export of services in the EU as well as on trips for professional purposes (see *Table 4*).

The main issuing Member States of PDs A1 under Article 12 have consistently been the same over the last eight years (from 2013 to 2020): Poland and Germany. Since 2019, mainly due to above cited reasons, more than half of the total number of PDs A1 under Article 12 have been issued by Germany, making it by far the most important sending Member State. Before 2019, Germany’s share in total was much lower: it was about one-fifth (in 2017) to one-fourth (2018) of the total number of PDs A1 issued under Article 12. Germany has become the main sending Member State since 2017. Indeed, between 2010 and 2016, Poland was still the main sending Member State of posted workers. Currently, less than 10% of PDs A1 granted under Article 12 are issued by Poland. Furthermore, between 2015 and 2017, a lot of PDs A1 under Article 12 were also issued by Slovenia, making it even the third most important sending Member State in 2017. However, this number has seen a huge decline since 2018. The reason for this decrease is discussed in detail in the country report for Slovenia (Vah Jevšnik et al., 2022): it mainly concerns the conditions put in place to obtain a PD A1 under Article 12 after the adoption of the Transnational Provision of Services Act. Italy and Spain, and to a lesser extent Austria and Slovakia have also become major issuing countries of a PD A1 under Article 12. Finally, it appears that a large number of PDs A1 under Article 12 are granted by France each year. As stated before, most of the trips for professional purposes in the EU are from Germany, Sweden, France, and the Netherlands. Finally, Germany, as well as France and the Netherlands, appear to be the largest exporting Member States of services within the EU.

The main receiving Member States have also been rather consistent on the basis of the PD A1 data: Germany and France, often followed by Belgium, Austria, and the Netherlands.⁹³ There seems to be a strong concentration of the number of incoming posted workers in these five Western European Member States. Indeed, more than 7 out of 10 workers are posted to these Member States. On the basis of the data of the prior declaration tools, these appear to be the main receiving Member States as well. In 2019, the four main receiving Member States of posted workers were Germany, Austria, Belgium, and France. Furthermore, Germany and France, and to a lesser extent Belgium, the Netherlands, and Italy, are the main importing countries of services in the EU. Finally, the main receiving Member States of trips for professional purposes are Germany, France, Italy and Belgium. That countries such as France and Germany appear in the above list is hardly surprising when one looks at the absolute numbers. Of course, such figures say little about how important the outflow and inflow of posted workers really is for countries. To know this, a comparison must be made with the total employment in a country, which is looked at in *section 2.8*.

Table 4. Main receiving and sending Member States of posted workers, 2019

Top	Outgoing			
	PD A1 data	Prior declaration tools	Export of services	Trips for professional reasons
1	Germany	Poland	Germany	Germany
2	Poland	Germany	France	Sweden
3	Italy		The Netherlands	France
4	Spain			The Netherlands
5	France			

93 And Switzerland.

	Incoming			
Top	PD A1 data	Prior declaration tools	Import of services	Trips for professional reasons
1	Germany	Germany	Germany	Germany
2	France	Austria	France	France
3	Austria	France	Belgium	Italy
4	The Netherlands	Belgium	The Netherlands	Belgium
5	Belgium		Italy	

Source De Wispelaere et al., 2022a forthcoming; 2022b; Eurostat data

In terms of actual main flows, we can first look at the highest absolute numbers. According to the number of PDs A1 issued under Article 12 in 2019, the main flows went from Germany to Austria, from Germany to France, from Germany to Switzerland, from Germany to the Netherlands, from Poland to Germany, from Germany to Italy, and from Germany to Spain (all more than 100,000 PDs A1 issued under Article 12). Data from 2019 from the prior declaration tools in terms of number of declarations show main flows going from Poland to Germany, from Poland to Belgium, and from the Netherlands to Belgium (all more than 140,000 declarations received). The main flows of import of services in 2019 go from Germany to France, from the Netherlands to Ireland, from Germany to the Netherlands, and from France to Germany (all more than € 20,500 million)⁹⁴. Finally, in 2019 most business trips for professional reasons went from Germany to France, from Germany to Austria, from Austria to Germany, from Germany to Italy, and from France to Germany (all more than 600,000 trips)⁹⁵.

In addition to looking at absolute numbers, shares in total outgoing and incoming flows can be interesting as well. Data from the PDs A1 issued under Article 12 for 2019 show that many Member States issued more than 50% of forms for a posting with Germany as receiving Member State, namely Croatia, Slovenia, Hungary, Liechtenstein, Poland, Slovakia, and Austria. Moreover, almost 73% of A1 forms sent by Cyprus had Greece as receiving Member State, and 55% of forms issued by Estonia went to Finland. Prior declaration tools data from 2019 show that 74% of declarations received by Hungary came from Germany, 70% of declarations received by Luxembourg came from Germany as well, and 52% of declarations received by Portugal originated from Spain. Regarding trade in services, more than 54% of services imported by Germany in 2019 came from Austria. Lastly, important flows of business trips went from Lithuania to Ireland, from Cyprus to Greece, from Poland to Lithuania, Poland to Hungary, and Poland to Slovakia, from Spain to Portugal, and from Sweden to Denmark (all more than 90% of business trips, but data availability is limited). Above analysis clearly indicates the importance of neighbouring countries. It is the case that posting often occurs between Member States bordering each other. Indeed, it is found that geographical proximity is still the most relevant factor which explains the direction and the extent of posting flows, seeing that it is associated to business and historical links (EC, 2012).

The analysis of the main flows also indicates that the profile of a Member State can differ significantly depending on whether it is looked at as a sending or a receiving Member State. Not only the main flows are different, but also the sectors in which the postings occur. For instance, almost nine out of ten workers posted from Belgium are posted to a neighbouring country (France, the Netherlands, Luxembourg, and Germany), while ‘only’ four out of ten workers posted to Belgium are from a neighbouring country. Posted workers to Belgium are mainly employed in the Belgian construction sector, while posted workers from Belgium are mostly employed by a Belgian temporary employment agency or are active in the live performance sector. The main sending country of posted workers to Germany is Poland. This while only about 5% of the workers from Germany are sent to

94 Eurostat [BOP_ITS6_DET]

95 Eurostat [TOUR_DEM_TTW] Data availability for most Member States is very limited.

the neighbouring country Poland. More than half of German workers posted to other countries are distributed among four other of Germany's neighbouring countries (Austria, France, Switzerland, and the Netherlands).

2.3 The increasing importance of third-country nationals posted from another Member State

The posting of third-country nationals (TCNs) has been on the increase in recent years.⁹⁶ The posting of TCNs does generally not happen directly from outside the EU,⁹⁷ but mostly through another Member State. This is possible seeing that TCNs who have a valid work and residence permit in one Member State are free to be posted in any other Member State across the EU.⁹⁸ For instance, based on data from the prior declaration tools, the share of number of persons registered in the national declaration tools in 2020 from outside the EU only exceeds 10% in Bulgaria and Sweden. However, when taking into account the nationality of the posted worker, the share of TCNs exceeds 10% in Belgium, Bulgaria, France, Italy, Luxembourg, Austria, Slovakia and Sweden (De Wispelaere et al., 2022a forthcoming). In the country reports, additional empirical evidence is published on the importance of posted TCNs in certain sending and receiving Member states as well as in certain sectors of activity. *Table 5* summarises the main findings, which are described below for the Member States concerned.⁹⁹

From a sending perspective, it is mainly Slovenia, and to a lesser extent Poland, Spain (and Lithuania)¹⁰⁰, that attract attention due to their outflow of posted TCNs. Six out of ten posted workers from Slovenia are TCNs (!) (2020 figures),¹⁰¹ mainly coming from Bosnia and Herzegovina (38% of total number of posted workers and even 49% of the posted workers active in the construction sector) and entering Slovenia on the basis of a bilateral agreement concluded between both countries (Vah Jevšnik et al., 2022).¹⁰² Furthermore, up to 17% of the PDs A1 issued under Article 12 or Article 13 by Poland were issued to TCNs (2021 figures) (Kielbasa et al., 2022).¹⁰³ These are mainly Ukrainians as they represent about 14% of the total number of PDs A1 issued by Poland. They have often been given access to the Polish labour market, and therefore also to the European labour market, on the basis of a simplified arrangement, namely through a 'declaration on entrusting work'¹⁰⁴, and thus not on the basis of a work permit. In 2021, almost 2 million 'declarations on entrusting work' were issued, of which 1.6 million to Ukrainian citizens. This while 'only' slightly more than 500,000 work permits were granted, of which 325,000 to Ukrainian citizens. Finally, about one out of ten of those persons posted from Spain are TCNs, mainly Moroccan and Ecuadorian (Carrascosa & Contreras Hernández, 2022).

96 Its increasing importance was empirically highlighted by Lens et al. (2021a) and Mussche et al. (2018) through an analysis of the data from the prior declaration tool of Belgium (LIMOSA). Furthermore, the research project 'Con3Post' explored the growing trend of posting TCNs in the construction sector (see Cukut Kričić et al., 2020).

97 For instance, the share of workers posted from outside the EU in total is of little importance in Belgium (some 3% in 2021).

98 By the so-called 'Vander Elst' route (see e.g., Mussche & Lens, 2019); see Case C-43/93 Vander Elst ECLI:EU:C:1994:310.

99 The reader can consult the country reports for more information on posted TCNs.

100 No country report is available for Lithuania. It will mainly concern TCNs active in international road freight.

101 In 2020, the highest number and share of workers posted from Slovenia were nationals of Bosnia and Herzegovina (23,051 workers or 38%), followed by nationals of Slovenia (20,616 workers or 34%). The number of PDs A1 issued by Slovenia for TCNs increased by 78% between 2018 and 2020: from 55,111 PDs A1 in 2018 to 98,352 PDs A1 in 2020.

102 The Agreement between the Government of the Republic of Slovenia and the Council of Ministers of Bosnia and Herzegovina on the employment of the citizens of Bosnia and Herzegovina in the Republic of Slovenia was ratified in 2012 (Official Gazette 92/12, 29/17). For an analysis of this agreement, see Vah Jevšnik et al., 2022. The increase of the number of posted workers who are nationals of Bosnia and Herzegovina can be linked to the increase of the number of work permits issued to nationals of Bosnia and Herzegovina. Indeed, the number of valid work permits issued by Slovenia on the basis of the bilateral agreement with Bosnia and Herzegovina more than doubled in the period from 2017 to 2020 (from 15,418 to 36,383).

103 This amounted to approximately 115,000 PDs A1 of which 14,500 PDs A1 were granted under Article 12 and 100,000 under Article 13.

104 Six former Soviet Union republics (Ukraine, Belarus, Armenia, Georgia, Moldova, and Russia) may enjoy this simplified regime of employment, based on the so-called 'declarations of entrusting the performance of work to a foreigner' (without a standard 'labour market test'). Up to 29 January 2022 they were authorised to carry out non-seasonal work for 6 months during consecutive 12 months, after that date they can do the work for up to 24 months. For an analysis of this agreement, see Kielbasa et al., 2022.

This phenomenon can also be analysed from the point of view of the main receiving Member States. In Belgium, 26% of the posted persons registered in the national declaration tool in 2021 were TCNs (De Wispelaere et al., 2022c). Six main ‘routes’ of TCNs posted to Belgium can be identified. By far the most important route is that of Ukrainians who are posted to Belgium from Poland. In 2021, posted TCNs with the Ukrainian nationality accounted for 26% of the workers posted from Poland to Belgium, while this was ‘only’ 16% in 2020 and 13% in 2019. Furthermore, a high number of Ukrainians are posted from Lithuania. Both Poland and Lithuania are also important sending Member States of posted Belarusians. Finally, there is a route of posted Brazilians from Portugal and of posted Bosnians and Herzegovinians from Slovenia to Belgium. About one out of five workers posted to Austria are TCNs (Geyer et al., 2022). The sending Member States with the highest number of postings of TCNs to Austria are Lithuania, Slovenia, and Poland. TCNs posted to Austria from Slovenia are mainly Bosnian or Serbian. Workers posted from Poland are often citizens from Ukraine and Belarus. Postings from Lithuania often involve Ukrainian citizens. More than one in five workers posted to France are TCNs, mostly of Ukrainian and Moroccan nationality (Muñoz, 2022). Moroccan workers are posted to France mainly from Spain. Indeed, only 43% the postings performed by Spanish undertakings in France are in fact performed by Spanish citizens. One third of the notified workers in the declaration tool of the Netherlands consists of TCNs, mainly from Ukraine and Belarus and sent from Poland and Lithuania (Heyma et al., 2022).¹⁰⁵ The importance of the number of TCNs posted from Italy is not known precisely. Most of them would be citizens of Egypt, Tunisia, and Morocco posted to another Member State via Italy (Dorigatti et al., 2022). In 2020, the number of posted TCNs, mainly Ukrainians, in total workers posted to Luxembourg increased a lot (+175% compared to 2018 and +252% compared to 2019). The share of TCNs in total received posted workers went up from 8% in 2018 to 19.4% in 2020 (Clément & Hauret, 2022). Finally, about 4.3% of persons posted to Germany is a TCN, mainly Turkish citizens, followed by Russians and Serbians (Albrecht et al., 2022). The fact that, in percentage terms (i.e. share in total posted workers), Germany appears to receive less (registered) posted TCNs than other Western European Member States such as Austria, Belgium, the Netherlands and Luxembourg is a remarkable finding. The main explanation might be that Germany continues to require from TCNs posted from another Member State to obtain a ‘Vander Elst visa’¹⁰⁶, contrarily to the judgments of the CJEU.¹⁰⁷ However, this observation does not exclude that TCNs are still being sent to Germany without applying for such visa (e.g. in the German live-in care sector – see below).

The importance of posted TCNs appears to vary greatly by sector. They are mainly active in cross-border road transport and the construction sector, and to some extent in agriculture. TCNs from Slovenia are mainly active in the construction sector and those from Spain mainly in agriculture (in France). Those posted from Poland are mainly active in road transport and construction.¹⁰⁸ From a receiving perspective, many of the Ukrainians posted to Belgium via Lithuania are active in road transport, while Ukrainians posted via Poland are often active in the Belgian construction sector. Figures for Austria show that 29% of the posted workers in the transport sector are TCNs. In other sectors, on average only 6% of the posted workers are TCNs (it is 12% in the Austrian construction

¹⁰⁵ Though this is probably an overrepresentation.

¹⁰⁶ https://www.zoll.de/EN/Businesses/Work/Foreign-domiciled-employers-posting/Residence-title/Nationals-of-third-countries/uebersicht_aufenthaltstitel.html?nn=206562&faqCalledDoc=206566. Only under specific conditions no Vander Elst visa is required when sending TCNs to Germany (<https://polen.diplo.de/blob/488744/3badc8ebe31039cb43f2a9d0ebd27788/vanderelst-eng-data.pdf>): “Visa-free entry for the purpose of carrying out activities under Vander Elst is currently possible only under the conditions set out in section 19c (1) of the Ordinance governing Residence in conjunction with section 30(3) of the Ordinance on the Employment of Foreigners (refers to employees who are third-country nationals and who hold a *long-term resident status* in another member state of the European Union (“*rezydent długoterminowy-WE*”), and applies for no longer than 90 days within a period of 12 months. Moreover, the application seems to be an enormous administrative burden: e.g., in Poland, this visa can only be applied for in person at the German Embassy in Warsaw.

¹⁰⁷ C-244/04 Commission v Germany (https://ec.europa.eu/commission/presscorner/detail/en/IP_02_563), C168/04 Commission v Austria and C-219/08 Commission v Belgium. See also VG Potsdam, decision of 02 November 2020 (re 8 L 660/20).

¹⁰⁸ Available data does not give the impression that posted TCNs from Poland are strongly active in the live-in care sector, although this can certainly be assumed based on the available academic literature (e.g., Ebbing & Petermann (2022 forthcoming)).

sector). The country report of France shows that posted TCNs are mainly employed in road freight transport and the construction sector. In the Netherlands, in 2021, a relatively large share of notified posted workers in transportation and storage (excl. road freight transport) (51%) and agriculture, forestry, and fishing (46%) are TCNs (Heyma et al., 2022). Also in road freight transport, 38% of the notified posted workers in 2021 were TCNs. ‘Only’ 14% of the notified posted workers in the Dutch construction sector are TCNs.

Table 5. Main receiving and sending Member States of posted TCNs

	Share TCNs in total outgoing/incoming posted workers	Main nationalities concerned	Main flows	Main sectors of activity
Sending Member State				
Slovenia	60%	Bosnia and Herzegovina	TCNs from Bosnia and Herzegovina being posted from Slovenia to Austria	Construction
Poland	17%	Ukraine	Ukrainian workers being posted from Poland to Germany, France, Austria, Belgium and the Netherlands	Road freight transport, construction, (live-in care)
Spain	11%	Morocco and Ecuador	Moroccan workers being posted from Spain to France	Agriculture
Receiving Member State				
Belgium	26%	Ukraine and Belarus	Ukrainian and Belarusian workers being posted to Belgium from Poland and Lithuania	Construction and road freight transport
Austria	22%	Ukraine, Bosnia and Herzegovina, Belarus	TCNs from Bosnia and Herzegovina being posted from Slovenia to Austria. Ukrainian and Belarusian workers being posted to Austria from Poland and Lithuania	Road freight transport and construction
France	21%	Ukraine and Morocco	Moroccan workers being posted to France from Spain	Agriculture
The Netherlands	35%	Ukraine and Belarus	Ukrainian and Belarusian workers being posted to the Netherlands from Poland and Lithuania	Transportation and storage, agriculture, and road freight transport

Source Country reports POSTING.STAT

Why is there such a strong focus on posted TCNs by scholars and in the current political debate? Research findings show that posted TCNs are mainly employed in labour-intensive sectors (e.g., road freight transport, construction, agriculture, live-in care) and receive lower wages than other posted workers (see Muñoz, 2022). Furthermore, it appears that this group of posted workers is particularly vulnerable to violations to the applicable terms and conditions of employment (sometimes leading to labour exploitation) (see also *Chapter 4*). Finally, the use of it might indicate a ‘business model’ whereby they are immediately posted to another Member State, without having any link with the sending Member State. Several indicators can be used to assess this new reality of posted TCNs via another Member State:

- 1) What is the inflow and stock of TCNs in the ‘sending’ Member State?
- 2) What is the share of this group of TCNs in the labour market of the ‘sending’ Member State? (by sector)

- 3) What is the share of posted TCNs in the total group of workers posted to another Member State? (by sector)
- 4) What is the share of posted TCNs in the total group of TCNs residing in the 'sending' Member State?
- 5) Is there an overrepresentation of posted TCNs compared to their share in the labour market of the 'sending' Member State? (by sector)

An analysis, following the five points mentioned above, is performed in *Table 6* for three sending Member States in which the posting of TCNs seems to be prevalent, namely Slovenia, Poland, and Lithuania.

First, Slovenia issued a total of 38,444 work permits in 2020, of which 36,383 or 94.6% for nationals from Bosnia & Herzegovina (Vah Jevšnik et al., 2022) (indicator 1).¹⁰⁹ This is the result of the bilateral agreement between Slovenia and Bosnia & Herzegovina.¹¹⁰ Furthermore, in road freight transport, Slovenia issued 15,072 driver attestations¹¹¹ in 2020, the third highest number after Poland and Lithuania, and 12,802 attestations were valid at the end of 2020. TCNs make up almost 10% of total employment in Slovenia (indicator 2). Their share even amounted to 39% of total employment in the Slovenian construction sector and 27% of total employment in road freight transport (Vah Jevšnik et al., 2022). Out of all the workers posted abroad from Slovenia under Article 12 and Article 13, 60% were TCNs in 2020 (indicator 3). In the construction sector, of all PDs A1 issued under Article 12, 19% was issued to Slovenian nationals, while 81% went to TCNs, of which 49% to Bosnia & Herzegovina nationals. In the road transport sector in 2020, 68% of the PDs A1 were issued to TCNs, of which 41% to nationals of Bosnia & Herzegovina, and 24% to Serbians. Finally, it is estimated that over 40% of all TCNs employed in Slovenia were posted to another Member State in 2020 (indicator 4). This figure contrasts with only 2% of Slovenians of working age who were posted to another Member State. Therefore, it can be stated that there seems to be an overrepresentation of posted TCNs (40%) compared to their share in the Slovenian labour market (10%) (indicator 5). This is especially the case in road freight transport (68% vs 27%) and in construction (80% vs 39%).

In Poland, in 2021, almost 2 million 'declarations of entrusting work to a foreigner' and 502,300 work permits were issued to TCNs (Kielbasa et al., 2022) (indicator 1). Out of these 2 million declarations, 1.6 million were issued to Ukrainian citizens. In the sector of road freight transport, Poland issued 67,359 driver attestations in 2020, and 103,154 driver attestations were in circulation at the end of 2020, the highest numbers of all Member States. TCNs make up roughly 13% of total employment in Poland (indicator 2).¹¹² In the construction sector, it is estimated that TCNs correspond to around 16% of the Polish construction sector in 2021. In the road freight transport sector, TCNs make up 18% of employment. Furthermore, 17% of all PDs A1 issued by Poland in 2021 were granted to TCNs (indicator 3), of which 14% to Ukrainians. In the transportation and storage sector, 35% of all PDs A1 issued in 2021 went to TCNs, and in the construction sector this share amounted to 11%. The fourth indicator, the share of posted TCNs in the total number of TCNs residing in Poland amounts to some 6%. Consequently, it can be argued that there is an

¹⁰⁹ See also the 2020 Annual Report from the Slovenia Labour Inspectorate: "Inspectors also carry out inspections to identify violations concerning the recruitment of third-country nationals to relevant jobs. Employers indicate that foreign workers will work in one of the deficit jobs for which the Employment Service of Slovenia issues them with a single residence and work permit and an information document, but then they work in other jobs or are even illegally sent by employers to work for other user undertaking employers." <https://www.gov.si/en/state-authorities/bodies-within-ministries/labour-inspectorate/about-the-inspectorate/>

¹¹⁰ In 2020, there were 48,530 nationals from Bosnia & Herzegovina employed in the Slovenian labour market."

¹¹¹ This is a uniform document certifying that the driver of a vehicle carrying out road haulage operations between Member States is either lawfully employed by the EU transport operator concerned in the Member State in which the operator is established, or lawfully placed at the disposal of that operator (De Smedt & De Wispelaere, 2020).

¹¹² "The incoming third-country nationals (overwhelmingly – Ukrainians) are rather employed by civil law contracts than by the employment contracts – which results in lesser social security coverage for them" (Kielbasa et al., 2022: 61). See section 2.1.1.6 in the country report of Poland for more information about 'civil law contracts'.

overrepresentation of the share of posted TCNs from Poland (17%) compared to their share in the Polish labour market (13%) (indicator 5), especially in the road transport sector (35% vs 18%).¹¹³

Finally, Lithuania is analysed, as the situation in this Member State concerning TCNs employed in the road freight transport sector is remarkable. Lithuania issued 29,604 driver attestations in 2020, and 67,418 were in circulation at the end of 2020 (indicator 1). When comparing the number of driver attestations in circulation to the number of persons employed in NACE 4941 Road freight transport, the share amounts to 72% (indicator 2). This means that the share of TCNs in the Lithuanian road freight transport sector is enormous. As there was no specific country report for Lithuania, the third step is harder to calculate. However, we do know through the PD A1 report on 2020 data that Lithuania issued 62,163 PDs A1 under Article 13 of which 42,309 PDs A1, or 68% in the road freight transport sector (indicator 3). Above findings show that TCNs have a large share in the total employment of the Lithuanian road transport sector. These Lithuanian transport companies mainly provide international road transport operations in the EU, especially cabotage and cross-trade (see *section 2.9.2*). Consequently, these workers are considered ‘posted workers’ when applying the Posting of Workers Directive.

Table 6. Overrepresentation of posted third-country nationals from Slovenia, Poland and Lithuania

Indicator	Slovenia	Poland	Lithuania
What is the inflow and stock of TCNs in the ‘sending’ MS?	38,444 work permits issued of which 36,383 work permits issued based on the bilateral agreement with Bosnia and Herzegovina (2020 figures). 15,072 driver attestations issued in 2020 and 12,802 driver attestations in circulation at the end of 2020	Some 2 million declarations of entrusting work and 480,000 work permits issued (2021 figures). 67,359 driver attestations issued in 2020 and 103,154 driver attestations in circulation at the end of 2020	29,604 driver attestations issued in 2020 and 67,418 attestations in circulation at the end of 2020
What is the share of this group of TCNs in the labour market of the ‘sending’ MS? (by sector)	10% in total, 39% in construction, and 27% in road freight transport	13% in total, 16% in construction, and 18% in road freight transport	72% in road freight transport
What is the share of posted TCNs in the total group of workers posted to another MS? (by sector)	60% in total, 81% in construction, and 68% in road freight transport	17% in total, 11% in construction and 35% in road freight transport	n.a. – Total: 62,163 PDs A1 issued under Art. 13 of which 42,309 for freight transport by road
What is the share of posted TCNs in the total group of TCNs of working age / employed in the ‘sending’ MS?	40% of all TCNs employed in Slovenia	6% of all TCNs with a declaration of entrusting work or a work permit	n.a.
Is there an overrepresentation of posted TCNs compared to their share in the labour market of the ‘sending’ MS? (by sector)	Yes, especially in construction and road freight transport	Yes, especially in road freight transport	Yes, especially in road freight transport

Source Vah Jevšnik et al., 2022; European Commission 2022; Kielbasa et al., 2022.

2.4 Posted workers vs posted self-employed persons

It should be kept in mind that self-employed persons do not fall under the Posting of Workers Directive. Over time, the total share of PDs A1 issued under Article 12 to self-employed persons has remained rather constant with even a decrease from 7.9% in 2012 to 4.4% in 2020 (De Wispelaere et al., 2022b). However, in Slovakia an extreme opposite trend can be seen. Whereas in 2012 only 27.5% of PDs A1 under Article 12 were issued to self-employed persons, it has increased to 48.5% in 2020, or a 21 percentage point increase. The overall share of self-employed in total employment in Slovakia

¹¹³ To give an example, the Belgian data give the impression that Ukrainians are gradually replacing Polish nationals in the postings from Poland to Belgium (De Wispelaere et al., 2022c).

(12.9%) is only slightly higher than in the EU-27 (12.3%).¹¹⁴ Consequently, the share of persons posted from Slovakia with the self-employed status (48.5%) is strongly overrepresented compared to the share of self-employed persons in total employment in Slovakia (13%).¹¹⁵

From the receiving perspective, self-employed persons are often exempted from notification in the national declaration tools. Only in Belgium, Denmark, Ireland, the Netherlands, and Slovenia, self-employed persons are covered in the prior declaration tools, albeit only in certain sectors of activity in Belgium, Denmark, and the Netherlands. Both in Belgium and Denmark, most incoming posted persons are incoming posted workers as opposed to incoming self-employed persons. In Belgium, about 13% of the persons reported in LIMOSA are self-employed (De Wispelaere et al., 2022c). A large group of persons from Poland and Slovakia are self-employed. This concerns 31% of the persons posted from Poland to Belgium and even 50% of the persons posted from Slovakia to Belgium. Moreover, the percentage of posted self-employed persons in total appears to be much higher in the Belgian construction sector. Almost three out of ten persons reported in LIMOSA and providing services in the construction sector have a self-employed status.

2.5 Types of posting

Three types of posting are defined by the Posting of Workers Directive: 1) posting between a company and a service provider ('contract of services' or '(sub)contracting'); 2) posting of workers within the same group ('intra-group posting'), and 3) posting through temporary work or placement agencies. Subcontracting seems to be the most common one (*section 2.5.1*), while intra-group posting is used for specific types of posting (*section 2.5.2*), and posting through temporary work agencies is growing in importance (*section Error! Reference source not found.*).

In most of the receiving Member States, (sub)contracting (FR and BG), or the sum of (sub)contracting and intra-group postings (PL, AT, IT, DE, and BE) are the most important types of posting. In Italy (around 25%) and France (around 20%) an important share of incoming postings also concerns postings through a temporary work agency (De Wispelaere et al., 2022a forthcoming).

2.5.1 Posting between a company and a service provider

Subcontracting is especially common in price-sensitive and labour-intensive sectors, such as construction, shipbuilding, meat industry, and manufacturing. For instance, in the construction sector in 2017, payments to subcontractors accounted for 23.5% of total turnover, and even for 36.6% in the construction of buildings.¹¹⁶ In this sector, large companies function as main contractors or as building service providers, while small and medium enterprises (SMEs) assume the role of the subcontractors. Subcontracting chains are therefore very common in the construction sector.

Empirical evidence from the country reports show that French and Belgian "clients" of posted workers are substantially larger than non-using firms in the same sector (Muñoz, 2021; De Wispelaere et al., 2022c). The fact that clients of posted workers tend to be larger than non-using firms is consistent with the idea that large firms connect more easily with foreign suppliers or exhibit larger economies of scale while searching for a foreign supplier. This suggests that access to foreign service suppliers through posting of workers mostly benefits the larger firms in a given sector. Consequently, competition will mainly be between subcontracting local SMEs and subcontracting posting undertakings. And it are the larger local companies that benefit from this competition.

¹¹⁴ Eurostat [LFS_EGAPS] data 2020

¹¹⁵ For an explanation of this overrepresentation see e.g. Kováčová et al. (2021: 21): "In the specific case of Germany, where postings by a Slovak employer would not make sense in terms of labour costs, the large share of self-employed construction workers working in Germany on the basis of the posting instrument would correspond to the practice of avoiding high employer social contributions in Slovakia. The self-employed are exempt from the employer security contributions and their labour costs are therefore lower than the labour costs for an employer/company. Posting could in such cases function as an "easy work permit" based on the respondent's view. The self-employed are likely to be in more vulnerable positions working as posted workers abroad and more evidence would be needed to elaborate on the issue to understand vulnerable spots in the common EU labour market."

¹¹⁶ Eurostat [SBS_NA_CON_R2], [SBS_NA_IND_R2], and [SBS_IS_SUBC_R2]

2.5.2 Intra-group posting

One of the main goals of this type of posting is the career planning of ‘high potentials’, as they are sent to several branches of the company to further develop their expertise (Lens et al., 2021b). Intra-group postings are characterized by a longer employment relationship between the posted worker and the employer (Muñoz, 2022). Data on the occurrence of intra-group posting is scarce. Data from the prior declaration tools reveal that in 2020, France received 11% of postings in this category, and Bulgaria 30.0% (De Wispelaere et al., 2022a forthcoming).¹¹⁷ Figures reported in the country report for France, indicate that intra-group posting is often an important form of posting from non-EU Member States (in 2019, this type represented more than 20% of all postings from non-EU Member States) (Muñoz, 2022).

An alternative way to approximate the importance of intra-group posting is looking at the scale and profile of ‘intra-corporate transferees’. The Directive on intra-corporate transferees (2014/66/EU)¹¹⁸ sets the conditions under which non-EU nationals can enter and work in the EU for an intra-corporate transfer.¹¹⁹ Eurostat publishes (a limited set of) data on the number of permits issued and in which sectors they were issued. It should be kept in mind that these numbers do not represent intra-group postings in the EU, and only concern permits for TCNs. Nonetheless, these data can be a good proxy to estimate which Member States make use of intra-group postings in the EU and in which sectors.¹²⁰ In 2019, the Netherlands (4,375) and France (2,270) issued the highest number of permits, while Spain (982) and Hungary (778) followed at a distance.¹²¹ In 2020, the number of permits issued decreased, probably due to the COVID-19 pandemic. The Netherlands were still the top issuer with 1,871 permits, followed by Hungary (780), Bulgaria (647), France (640), and Spain (481). The sectoral distribution¹²² indicates that the Netherlands issue most permits for the sector ‘Information and communication activities’ (70.1% of all permits in 2019; 61.4% in 2020), followed by permits in the sector ‘Professional, scientific and technical activities’ (12.9% in 2019; 15.3% in 2020). For France there are unfortunately no data available by sector, as is the case for Spain and Bulgaria. Hungary issued the majority of permits in ‘Manufacturing’ (55.0% in 2019; no data for 2020) and ‘Information and communication’ (24.6% in 2019; no data for 2020). Thus, these data show that a high number of ‘intra-corporate transfers’ take place to the Netherlands and France, mainly in ‘high-skilled’ sectors such as ‘Information and communication’ and ‘Professional, scientific and technical activities’.

2.5.3 Temporary agency posting

Posting through a temporary work agency (TEA) has become an important type of posting in certain Member States and sectors of activity. However, in some Member States, there are a number of restrictions on the use of temporary agency workers, at least in certain sectors.¹²³ For instance, in Germany, sectoral restrictions on temporary agency work are in place for the construction sector. Furthermore, in the German meat sector, the use of temporary agency workers was banned completely from April 2021 onwards. Such legislation does not only affect the number of local temporary agency workers but also the number of incoming posted temporary agency workers. In general, several of the ‘big players’ in terms of temporary agency work, (e.g., Randstad, Manpower, Adecco) seem not highly active in posting workers to another Member State. It is often easier to

¹¹⁷ Other reporting Member States were not able to distinguish between contracting/subcontracting and intra-group posting.

¹¹⁸ Directive 2014/66/EU of the European Parliament and of the Council of 15 May 2014 on the conditions of entry and residence of third-country nationals in the framework of an intra-corporate transfer

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0066>

¹¹⁹ See https://ec.europa.eu/home-affairs/policies/migration-and-asylum/legal-migration-and-integration/work/intra-corporate-transfers-directive_en

¹²⁰ For a legal analysis see Verschueren, 2021a.

¹²¹ Eurostat [MIGR_RSICT1_1]

¹²² Eurostat [MIGR_RESICT1_2]

¹²³ For instance, because these sectors are characterized by high-risk health and safety environments.

recruit workers through a TEA in the Member State where the service needs to be provided as opposed to posting workers abroad through a TEA (interview Federgon, 21 June 2022).¹²⁴

From a receiving perspective, in Italy, it corresponds to around 26% of the posted workers and in France to around 20% of the posted workers in 2020 (De Wispelaere et al., 2022a forthcoming). From a sending perspective, a high share of persons posted under Article 12 from Portugal (5.9% of all PDs A1 issued according to Article 12), Belgium (20.6%), the Netherlands (21.8%), and Luxembourg (14.6%) are employed through a TEA (De Wispelaere et al., 2022b).

Based on the country reports, certain interesting findings concerning TEAs come up as well. Approximately 25% of the postings to France take place via foreign TEAs, mostly located in Southern and Eastern Europe (Muñoz, 2022). Figures for France show that 25% of the postings by foreign TEAs are performed by workers who just started working for the foreign company (less than one day before the beginning of the posting abroad), meaning that the use of “hired to be posted” contracts is substantial for incoming postings to France (Muñoz, 2022). This means that for one out of four postings from foreign temporary work agencies, the employment link between the posted workers and the foreign firm is not a usual employment relationship, but rather that the foreign firm hired these workers for posting them to France. In particular, there seems to be a strong presence of Spanish TEAs in the French agricultural sector. In 2020, more than 14% of all workers posted from Spain to France were sent by this type of companies (Carrascosa & Contreras Hernández, 2022). Most of them to provide services as seasonal workers in the agricultural sector. Moreover, the recent *Terra Fecundis* case is a good example of how interwoven this agency was in the French agricultural sector. During the four years analysed (2012-2015), the judgment describes the growing activity of this temporary work agency in France by providing services for French agricultural user undertakings. In 2015, *Terra Fecundis* reached a turnover of € 53 million in France by providing services to 558 French clients.¹²⁵

In Belgium, the share of incoming posted workers through a TEA appears to have decreased from about 12% in 2015 to 2% in 2021. However, this might be a ‘fake’ decline because of changed rules. Since the end of 2017, the ‘accreditation number’¹²⁶ of the foreign temporary employment agency is requested in LIMOSA. The introduction of this question has led to a sharp decline in the number of reported agency workers in LIMOSA. After all, only agency workers posted by a foreign temporary employment agency with an authorisation are still reported under this category. The fact that the number of reported posted agency workers was much higher before 2018 seems to indicate that many of these persons were posted by foreign temporary employment agencies without an authorisation. These TEAs do this in order to ‘stay under the radar’ and to avoid their obligations such as getting their accreditation, paying a deposit to the Social Fund for Temporary Employees, paying contributions to this fund on the wages of temporary workers, and applying the Belgian wage and employment conditions (interview Federgon, 21 June 2022). Finally, a high number of outbound posted workers from Belgium also appear to be employed by a Belgian TEA. However, little or no additional information is available on this finding.

Finally, to get a proxy of posting through TEAs, one can look at the cross-border element of temporary work agencies by analysing the export and import of services. This is done by looking at the sector ‘Services: Other business services n.i.e.; Of which: Employment services, i.e., search, placement and supply services of personnel’. Unfortunately, data are only available for three Member States, namely Germany (data 2019), Poland, and Czechia. *Figure 10* shows the result of this analysis.

¹²⁴ This is because it is a high administrative burden to post workers abroad, especially when it involves a TEA (interview Federgon, 21 June 2022). Moreover, rules and restrictions may differ a lot from country to country. Direct employment in the host country eliminates the risk of these administrative formalities not being fulfilled correctly.

¹²⁵ For more information, see Carrascosa & Contreras Hernández, 2022.

¹²⁶ In order to be able to post agency workers to Belgium, a foreign temporary employment agency should have accreditation from the Belgian region in which the work is performed. The rules relating to authorisation conditions and procedures exclusively fall within the competence of the different Regions and Communities concerned (Flemish Region, Walloon Region, Brussels Capital Region and German-speaking Community). See also <https://employment.belgium.be/en/themes/international/posting/working-conditions-be-respected-case-postingbelgium/temporary-agency>

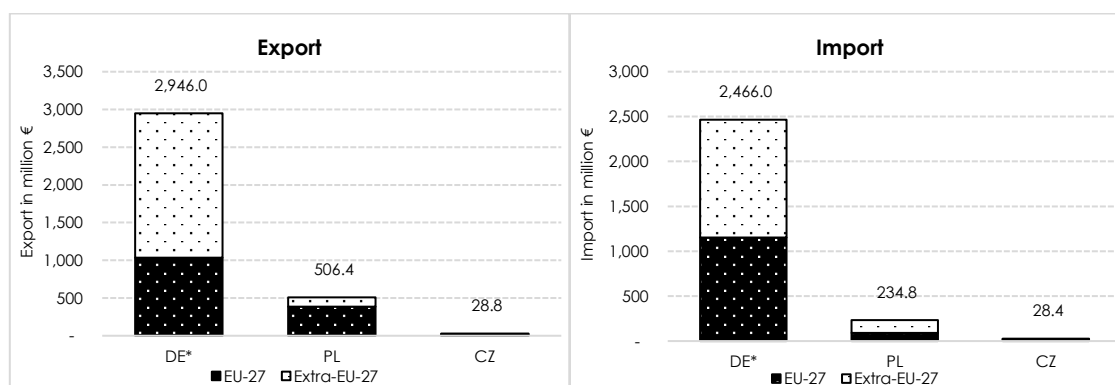
Germany exported € 2,946 million employment services in 2019, which makes it the main exporting Member State. Almost two in three exported services (65.0%) went to outside the EU-27. The services in the EU were mainly provided in Belgium and France. In 2020, Poland exported € 506.4 million services and Czechia € 28.8 million, both mainly towards other EU-27 Member States (76.1% and 73.3% respectively).

The main importing Member State is Germany once more, as it imported € 2,466 million employment services in 2019, of which 46.8% from the EU-27 (mainly from the Netherlands, Cyprus, Austria and France) and 53.2% from outside the EU-27. Poland imported € 234.8 million services in 2020, mainly from outside the EU-27 (61.8%) as opposed to from other EU-27 Member States (38.2%). Finally, Czechia imported € 28.4 million, primarily from other EU-27 Member States (71.1%).

For Czechia and Poland, it is possible to look at the evolution from 2019 to 2020. Whereas the import of employment services decreased considerably in Czechia (-31.7%), the export increased (+9.4%). In Poland on the other hand, both the export (+1.3%) and import (+15.6%) knew an upward trend.

Above results show that the import and export of employment services by Member States cannot be narrowed to the EU borders.

Figure 10. Export and import of employment services by the EU-27, 2020, million €



* Data for DE concern reference year 2019.

Source Eurostat [BOP_ITS6_DET]

2.6 The main sectors of activity of posted workers: labour-cost driven vs skills/project-driven activities

Intra-EU posting occurs because of various push and pull factors (i.e., drivers), both from a sending¹²⁷ and receiving¹²⁸ perspective.¹²⁹ From a receiving perspective, it occurs not only because of labour cost differences, but also because there are quantitative and qualitative labour shortages and therefore a need for certain expertise, but also because there is a need for more labour flexibility. The

¹²⁷ See Idea Consult & Ecorys Netherlands, 2011: 131: entering new markets, international focus, increasing cost of long-term international assignments, using own workforce and maintaining a higher degree of control over the work performed, natural market includes neighbouring countries, offering cheaper workforce than in the receiving country, weak demand in the home market. And page 132: "Taking into account the results of the literature, field research and the web-based survey, we believe that the most important type of drivers seems to be economic in nature: the cost advantage compared to competitors in receiving countries; the will to enter new markets; and the creation of international business networks."

¹²⁸ See Idea Consult & Ecorys Netherlands, 2011: 134: competitive prices of foreign-service providers due to lower wage and labour costs, labour supply shortages, flexible capacity and seasonal demand, restrictions for free movement of labour, externalisation of costs, work attitude and flexibility of posted workers.

¹²⁹ Lens et al. (2021b) identifies three different clusters of posting. *Competition posting* is motivated by low cost, increased flexibility, motivated workers, and skill and manpower shortages. This concerns the 'typical' posting in the construction, transport, meat, food, and cleaning industry. The second type is *specialization posting*, which mainly takes place in the metal, electric installations, petrochemistry, finance, chemistry and life sciences, and tech industries. In contrast to competition posting, cost cutting is not a motive for this type of posting. The reasons for specialization posting are specialized services, routine outsourcing, flexibility, and skill shortages. The final type of posting is called *expert posting*, which occurs in the petro-chemistry, chemistry and life sciences and tech industry. Motives for this type of posting are career planning, knowledge development, and skill shortages.

extent to which certain push and pull factors play a role, to a lesser or greater extent, depends strongly on the sector concerned, but also within a specific sector, different motives can arise depending on the subsector or the profession concerned. Moreover, a change of the main reasons for intra-EU posting within a specific sector may also occur over time (e.g. from cost-driven to skills-driven). Posting of workers is therefore a reality in many sectors, although a number of sectors appear to be more ‘prone’ to it.

As stated in *Chapter 1*, there might be a (huge) discrepancy in several sectors of activity between the number of posted workers with a PD A1 or the number of workers notified in the prior declaration tools and the actual number of outgoing and incoming posted workers. Mainly because several Member States have exempted certain activities and sectors from the requirement to report in the prior declaration tools. This reality creates a risk of underestimating the number of postings, mostly in knowledge-driven sectors of activity. Data from the PD A1 and the prior declaration tools indicate the existence of intra-EU posting in a variety of sectors, although construction and international road freight transport seem to be the main sectors concerned. For instance, between 2013 and 2019, around four out of ten of PDs A1 issued under Article 12 were issued to persons employed in the construction sector (e.g., De Wispelaere et al., 2019, 2021a, 2022b). In addition, over the same period, PDs A1 under Article 13 were found to be awarded mainly for activities in road freight transport.

However, the importance of a sector may vary greatly depending on the Member State concerned, as well as for a specific Member State, whether it concerns inbound or outbound posting.¹³⁰ For instance, *Table 7* shows that almost one out of two PDs A1 issued by an EU-13 Member State (i.e., countries that joined the EU in 2004, 2007, or 2013) according to Article 12 relates to a person active in the construction sector. For instance, persons for whom a PD A1 under Article 12 has been issued by Czechia, Estonia, Latvia, Hungary, Poland, Romania, Slovenia, and Slovakia are mainly active in the construction sector. This while persons with a PD A1 granted under Article 12 by an EU-14 Member State mainly provided activities in the service sector (*Table 7*). Indeed, persons with a PD A1 from Germany, Belgium, France, Lithuania, Malta, the Netherlands, and Sweden mainly provided activities in this sector. From a receiving perspective, more than one out of four posted workers and self-employed received by Belgium, Germany, Luxembourg, and Sweden are providing activities in the construction sector.

Table 7. Number of PDs A1 issued according to Article 12 of the Basic Regulation, from a sending perspective, breakdown by sector of activity, 2020, row %

	Agriculture	Industry (excl. construction)	Construction	Services
Germany	0.4%	45.8%	7.2%	46.6%
Total	0.8%	38.3%	23.9%	37.0%
Total (excl. DE)	1.1%	30.2%	42.1%	26.6%
EU-14	0.4%	42.6%	13.3%	43.7%
EU-13	1.6%	28.5%	48.4%	21.6%

Source De Wispelaere et al., 2022b

The importance of posted workers in the construction sector (mainly on large construction sites) and in road freight transport is also clearly reflected in the various country reports. However, depending on the sending or receiving Member State concerned, specific sectors may sometimes emerge (for instance, agriculture and shipbuilding in France, live-in care from Poland to Germany etc.). Data for Slovenia show that outgoing posted workers are mostly male (around 97% of the posted workers), and that their profession is linked to the construction sector, being employed as welder, mason, or

¹³⁰ In 2020, most PDs A1 issued under Article 12 in 2020 were issued to posted workers active in the industry (excl. construction) (see *Table 7*). However, when taking out Germany, which issued most forms in the services sector, most PDs A1 were issued in the construction sector.

electrician (Vah Jevšnik et al., 2022). In the country report for France, we can read that most postings to France are performed in construction (mainly in construction of residential and non-residential buildings (NACE 41.20 (i.e., large construction sites)) and manufacturing (Muñoz, 2022).¹³¹ The importance of the construction sector in the case of inbound posting is overrepresented compared to its importance based on the distribution of local workers in France. After all, only 6.7% of the local workers in France are employed in the construction sector, while this is true for 39% of the workers posted to France (2019 figures). Posted workers are therefore strongly overrepresented in construction, but also in agriculture and manufacturing. In this, France differs in profile from other major receiving Member States in that it also receives many posted workers in agriculture (more than 10% of the postings between 2017 and 2019) and shipbuilding. For instance, in 2020, 5% of the postings were performed at French firms active in the sector ‘building of ships and floating structures’ (NACE 30.11). Historically, the use of posted workers has always been high in this sector of activity, in particular in Saint Nazaire. In Luxembourg, the majority of the workers posted abroad were blue-collar worker (63%) whereas they were in the minority among all workers (where they represented 38%). About 90% of the posted workers abroad from Luxembourg are men (Clément & Hauret, 2022). The majority of posted workers to Spain are active in the construction sector (52% in 2019), and outgoing Spanish workers are mainly active in this sector as well (45% in industry and construction in 2019) (Carrascosa & Contreras Hernández, 2022). Specifically for postings from Spain to France however, the agriculture sector is of high importance.

Furthermore, it is interesting to see that for several Western-European countries, the profile of outgoing postings by sector differs from that of incoming postings. There is a significant number of postings to Austria in the transport sector (about three fourth of all postings to Austria in 2019), but only a small number of Austrian transport workers are posted to other countries (1.2% of all PDs A1 issued in 2019) (Geyer et al., 2022). In Belgium, most incoming postings take place in the construction and the road transport sector, while the majority of outgoing postings occur through TEAs and in the live performance sector (De Wispelaere et al., 2022c). A final example concerns Germany (Albrecht et al., 2022). Most posted workers to Germany are posted to the German construction sector. Whereas an overarching share of posted workers from Germany to other EU Member States in 2020 are posted to the industry sector (without construction), followed by the financial, scientific and administrative activities sector and the education, health and social work, arts, and other services sector. This means that there have been large sectoral shifts with respect to posted workers from Germany over time. In 2014, posted workers from Germany were mainly posted to the construction sector. Most of the posted workers from Germany are currently active in the manufacturing sector, more specifically in the following subsectors: manufacturing of passenger cars and engines, manufacturing of metal structures, manufacturing of concrete, cement and sand-lime products for construction, production of pig iron, steel and ferro-alloys.

In *section 2.9* of this chapter, a sector-specific analysis is made for both construction sector and road haulage, as well as for other sectors that are highly exposed to posted workers.

2.7 The duration of the posting activities

Under Article 12 persons can pursue an activity for a maximum of 24 months. In 2020, the average duration per PD A1 issued according to Article 12 was some 100 days. Over the years, this number has always fluctuated around 100 days, with the shortest average duration being reported in 2018 with 91 days, and the longest in 2012 with 119 days (Pacolet & De Wispelaere, 2014, 2016, 2017; De Wispelaere & Pacolet, 2018a, 2018b; De Wispelaere et al., 2019, 2021a, 2022b).

When the information on the number of times a person is sent abroad is known as well, it is possible to calculate the average duration per posted person (as opposed to per posting). This average duration generally amounts to around 179 days between 2015 and 2020, with the lowest duration in 2018 with

¹³¹ The incoming posted workers in France are mostly male blue-collar workers, mostly active in the construction sector (Muñoz, 2022).

165 days and the highest in 2019 with 194 days. However, it should be kept in mind that the average duration per PD A1 issued can vary significantly depending on the sector of activity and the issuing Member State.

For PDs A1 issued under Article 13, no maximum period of (self-)employment is set. Therefore, the average duration amounted to an average of 302 days between 2015 and 2020. When multiplying the average duration per form by the average number of forms issued per individual, the average duration per posted person active in two or more Member States is calculated. This shows that a posted person under Article 13 was posted for an average of around 356 days, almost a complete year¹³². For most reporting Member States, the average period during which persons covered by Article 12 are active in another Member State is lower than the period during which persons are active in two or more Member States.

Data from prior declaration tools indicate that the average posting period of incoming posted persons lies around 150 days (159 days in 2019 and 141 days in 2020) (De Wispelaere et al., 2021b, 2022a forthcoming). However, in both years, it can be seen that postings of a short duration are of high importance. One out of three declarations apply to a period of less than eight days and more than half to a posting period of less than one month. On the contrary, the share of declarations for a posting over 12 months amounted to 7% in 2019 and 11% in 2020. Overall, the duration of a posting can also differ according to the type of posting, the status of posted person (self-employed or not), and the sector of activity.

Based on the country reports, from a receiving perspective, the average posting duration in Austria was 156 days in 2019 (Geyer et al., 2022). In France it was 140 days in 2020 (Muñoz, 2022), and in Germany 116 days on average between January 2020 and March 2021 (Albrecht et al., 2022). Almost one in three postings to the Netherlands lasted less than 8 days in 2020 (excluding the duration for road freight transport), while about one in ten postings had a duration of over 12 months (Heyma et al., 2022). Posted workers in Luxembourg worked on average 80 days in Luxembourg, but there is a considerable difference between sending Member States (Clément & Hauret, 2022). For instance, postings from Finland and Estonia lasted less than ten days, while those from Denmark and Cyprus lasted more than 250 days. Postings to Belgium had an average duration of 170 days in 2021 (De Wispelaere et al., 2022c). From a sending perspective, most of the outgoing postings from Spain do not exceed one month in duration, namely 67% of total postings. The PDs A1 under Article 12 issued by Poland had an average duration of 147 days in 2020. In Italy, the PDs A1 issued under Article 12 had an average duration of 47 days, compared to 491 days for PDs A1 issued under Article 13.

The duration of postings does not only depend on the issuing/receiving Member State, the type of posted worker, or the time of the year, but it also strongly depends on the sector in which a worker is posted. For the German construction sector, in 2020, 46% of postings in the construction sector lasted between 1 and 91 days, 20% of postings lasted between 92 and 179 days, and another 22% lasted between 180 and 300 days (Albrecht et al., 2022). Therefore, it seems that postings in the German construction sector last shorter than the average duration of postings to Germany of 116 days. In Austria, the average duration of incoming postings was 156 days, as mentioned above, but when excluding the transport sector, it amounts to 67 days (Geyer et al., 2022). Consequently, postings in the transport sector might last longer, as the validity of a prior notification in this sector always amounts to about six months (182 to 185 days). In the Austrian construction sector, postings lasted about 104 days in 2019. In Belgium, more than 30% of postings in the construction sector involve a period of less than one week, while 18% of the postings concern a period of more than four months (De Wispelaere et al., 2022c).

¹³² Average from 2015 and 2017-2020 (Pacolet & De Wispelaere, 2017; De Wispelaere & Pacolet, 2018b; De Wispelaere et al., 2019, 2021a, 2022b).

Certain seasonal effects in the duration of postings are discovered as well. For example, data for Austria show that the number of incoming posted workers is lowest during winter, mainly in December and January, and highest in summer and autumn with a peak in July. The duration of the postings is also longest in January and becomes shorter towards the end of the year. In Germany, a decrease in duration of postings is found between June 2020 and November 2020, after which the average duration increases again from December 2020 until end of January 2021.

Finally, it is of importance to highlight that the reported data on average posting durations for incoming postings might be distorted. It is the case for many receiving Member States that short-term activities are exempt from a notification in the prior declaration tool, which will obviously impact the calculated average duration. For instance, whether we include or exclude business trips can have a high impact on the average duration. Figures for Germany show that the vast majority of postings to other countries span only a period of up to seven days. Figures for 2020 show that 82% of reported postings last one week or less, while 7% last between one and two weeks, 4% last between two weeks and one month, 2% last between one and two months, and 5% last more than two months (Albrecht et al., 2022). Experts interviews with relevant professional associations confirmed that this large share of short-term postings is mainly due to business trips. This reality shows the usefulness of making a sectoral breakdown as well as a distinction between the average posting period under the Coordination Regulations (incl. ‘business trips’) and this under the Posting of Workers Directive (excl. ‘business trips’).

2.8 Share of posted workers in total employment

The share of posted workers in total employed can be calculated by comparing the number of persons with a PD A1 or the number of persons registered in the prior declaration tools to the total number of employed persons in the receiving or sending Member State. On average, the importance of posted workers in total employment in the EU is below 1%. Consequently, in the EU-27 in general, posting remains a “relatively small observable fact in the global labour market functioning more generally” (Idea Consult & Ecorys Netherlands, 2011: 1). However, for certain Member States and sectors (in particular the construction sector)¹³³, the impact is of higher importance. This observation is not only reflected in the available data reported at EU-level (De Wispelaere et al., 2022a; 2022b), but also in the country reports.

In Slovenia, outgoing posted workers amount to roughly 7% of total employment and it even amounts to almost 30% in the construction sector (Vah Jevšnik et al., 2022). Posted workers make up 2.6% of total employment in Belgium in 2020 and even one fifth of total employment in the Belgian construction sector, or one tenth when looking at FTEs (De Wispelaere et al., 2022). In Germany as well, the general impact on the national labour market is considerably lower than the estimate in the construction sector, as 10% of workers in this German sector are posted workers (Albrecht et al., 2022).¹³⁴ The impact of posted workers on the Austrian labour market in 2019 amounted to 2.0%, or 1.7% in FTEs, while in the Austrian construction sector it rose to 5.2% (Geyer et al., 2022). The share of notified workers in total employment in the Netherlands amounts to around 4%, whereas posted workers account for about 7% of the total workforce in the Dutch construction sector, and around 40% of the Dutch road transport sector (Heyma et al., 2022), although the latter is likely an overestimation. In France, differences in the impact of posting are not only seen between sectors, but they are also noticed between regions. Incoming postings account for 0.4% of overall French employment, although this share is remarkably higher in the agricultural (2.2%) and construction (1.7%) sector (Muñoz, 2022). Furthermore, there are strong differences between regions. Posted workers in the construction sector represent 8% of employment in Alpes-Maritimes

¹³³ Likewise for international road transport via cabotage and cross-trade (see section 2.9.2).

¹³⁴ Incoming posted workers have been an important part of the workforce in the German construction sector since the early 1990s. Their share in the total number of blue-collar workers in the German construction sector increased from 10.5% to 16.4% between 1992 and 2002 respectively (Kahmann, 2006: 185).

and in the agricultural sector in Bouches-du-Rhone even almost 22%. The country report for Italy also shows that outbound posting is mainly concentrated in a number of border regions¹³⁵, indicating that the impact in border regions might be higher (Dorigatti et al., 2022).

2.9 A sector-specific analysis

In this last section of *Chapter 2*, the phenomenon of intra-EU posting is elaborated for a number of sectors of activity. These are, first of all, the construction sector (2.9.1) and road freight transport (2.9.2). In addition, sectors such as agriculture and horticulture (2.9.3), live-in care (2.9.4), the meat processing industry (2.9.5), manufacturing (2.9.6), and the live performance sector (2.9.7) also deserve special attention.¹³⁶

2.9.1 Construction

One of the sectors which comes up most often is the construction sector. This is not only seen in *section 2.6* when discussing the main sectors, but also in *section 2.8* as the share of incoming posted workers in total employment is particularly high in the construction sector of several West-European Member States. In this section, first the main motives (i.e., drivers) to use posting in this sector are discussed (*section 2.9.1.1*), followed by some numbers on posting in this sector (*section 2.9.1.2*). Finally, the focus is put on several issues which are distinctive for (posting in) the construction sector (*section 2.9.1.3*). For instance, phenomena like subcontracting¹³⁷, TCNs, and self-employed persons in the construction sector are looked at in more detail.¹³⁸

2.9.1.1 Drivers of posting in the construction sector

It can be said that intra-EU posting is firmly rooted in the construction sector¹³⁹, this already since the late 1980s.^{140,141} It is also the sector that often comes up in case law¹⁴² as well as in political debates¹⁴³ on posted workers. One of the reasons for its importance in this sector more recently is the enlargement of the EU in 2004, 2007 and 2013, which increased export and import of services in the construction sector, as well as price competition. Furthermore, the strong presence of posted workers in the construction sector is often associated with the financial and economic crisis of 2008.

¹³⁵Posting of work from Italian construction companies was predominantly registered by Construction Funds (*Casse Edili*) in border regions: one third of the postings are registered by the Construction Fund of the Bolzano province to the neighbouring Germany and Austria and another third is reported by the Construction Funds of the Veneto region, again towards Austria and Germany. Another quarter of postings are registered in Lombardy and directed towards France.

¹³⁶ The fact that other sectors are not discussed in this section does not indicate that intra-EU posting does not occur in these sectors, or that it occurs less frequently.

¹³⁷ See also <https://www.efbww.eu/campaigns/subcontracting-campaign/162-a>

¹³⁸ How prone posting in the construction sector is to infringements to the labour and social security rules is discussed in *Chapter 4*.

¹³⁹ For other academic research on posted workers in the construction sector see, for instance, 'Con3Post' and 'SMUG'.

¹⁴⁰ See, for instance, Cremers (2006: 173): "Free movement of workers is and has always been one of the fundamental characteristics of construction work. For economic reasons construction companies and individual workers have motivations to work abroad. For economic and demographic reasons countries, clients and contractors engage workers from elsewhere. This was also the case in the central and eastern European countries (CEECs) after 1989. A new labour mobility started with individual workers moving legally or illegally to western Europe; first and foremost to Germany where a system of bilateral agreements (*Werkvertragskontingente*) regulated to a certain extent the posting of workers from the CEECs."

¹⁴¹ Particular in Germany: "Germany became a favourite target of posting firms from the Netherlands and Portugal, along with self-employed from Britain and Ireland, as at the time, and contrary to other EU Member States, it had neither a legal minimum wage nor a generally binding collective agreement on wages in the construction industry. Thus, before the adoption of the German Posting of Workers Act in 1996 which preceded the EU Directive 96/71/EC concerning the posting of workers in the framework of the provision of services (the Posted Workers Directive) EU firms from low-wage countries could offer their services even more cheaply than those from CEE countries and Turkey as they could remunerate their workers entirely according to the country of origin principle" (Kahmann, 2006: 184).

¹⁴² See, for instance, *Rush Portuguesa Lda v Office national d'immigration*, C-113/89, EU:C:1990:142.

¹⁴³ For instance Cremers (2006: 169) on the implementation of the Posting of Workers Directive: "Directive 96/71/EC concerning the posting of workers in the framework of the provision of services, adopted in 1996 but discussed since the late 1980s, goes to the heart of the activities of the construction industry in Europe."

This explains, for instance, the strong presence of Dutch construction companies in the Belgian construction sector but also of Italian construction companies providing services abroad.¹⁴⁴

In a highly cost-sensitive and labour-intensive sector such as the construction sector, reducing costs by using cheaper labour is widely regarded as the main driver of intra-EU posting. Although there are certainly other relevant push and pull factors. The dual perception of the most important drivers is nicely reflected by a quote from Italy's country report (Dorigatti et al., 2022: 19): "The perception of our interviewees with regard to the phenomenon of outgoing posting in the construction is that it differs from the incoming one. While the latter is mostly perceived as being pushed by the goal of reducing labour costs (with the connected risks of violations of labour regulation), outgoing posting is mainly considered to be pushed by specialisation and skill requirements."¹⁴⁵ This is actually a general observation: when it comes to outgoing posting, it is perceived as expert-driven by Member States, while whereas when it comes to incoming posting, it is perceived as cost-driven.

2.9.1.2 Data on intra-EU posting in the construction sector

On average almost four out of ten PDs A1 under Article 12 were granted for services in the construction sector.¹⁴⁶ In some Member States, this share lies remarkably higher, for instance it is equal to or exceeds 50% in Estonia (56%), Latvia (50%), Romania (54%), Slovenia (59%), and Slovakia (53%) in 2020 (De Wispelaere et al., 2022b). Therefore, for these Member States, sending posted workers to provide services in the construction sector is of great importance. As a result, in several sending Member States, a large group of construction workers is actually working on foreign construction sites. The most striking example here is Slovenia, where it is estimated that three out of 10 construction workers are posted to another Member State (Vah Jevšnik et al., 2022). Moreover, it appears that 60% to even 90% of the Slovenian construction companies generate 75% or more of their income from abroad.¹⁴⁷ From a receiving point of view, most of the posted workers registered in the prior declaration tools of Belgium, Denmark, France, Luxembourg, Finland, and Sweden are employed in the construction sector (De Wispelaere et al., 2022a forthcoming). In a number of Western European Member States such as Belgium, Luxembourg, Austria, Germany and France (in certain regions), incoming posted workers therefore constitute a large group of the total workforce active in the construction sector (see *section 2.8*).

An alternative way to analyse the importance of posting in the construction sector, is looking at the export and import of services in this sector, as shown in *Figure 11*. The total of exported services by the EU-27 in the construction sector in 2020 amounted to € 2,174 million, of which 69% to other EU-27 Member States, and 31% to outside the EU-27¹⁴⁸. The main exporters of construction services are Belgium (15.2% of all exported construction services), Ireland (14.3%), Greece (10.1%), the Netherlands (9.6%), and Denmark (9.3%). Only two Member States exported the majority of construction services to outside the EU-27, namely Ireland (88.5% or € 261 million out of € 395 million), and Croatia (72.5% or € 6 million out of € 8 million). Regarding the export of construction services as well, the COVID-19 pandemic caused a decrease in the majority of Member States. However, in some Member States a growth between 2019 and 2020 is visible (Belgium +31%, Denmark +7%, Greece +19%, France +133%, Austria +3%, and Slovakia +28%). The above picture differs from the existing perception that export of services in the construction services is mainly (or exclusively) from Eastern European Member States. This view should be more nuanced, at least on the basis of the data on the export of services.

¹⁴⁴ For example, Italy's country report states the following: "According to our interviewees, the increased presence of small firms abroad, also through posting, is linked to the effects of the 2008 economic crisis on the internal market, which have pushed many businesses of the Italian construction sector to the EU construction market."

¹⁴⁵ Moreover, as stated by Dorigatti et al. (2022: 19) "while there is a common perception of a less problematic situation concerning outgoing posted workers compared to incoming ones, this is not confirmed by available data".

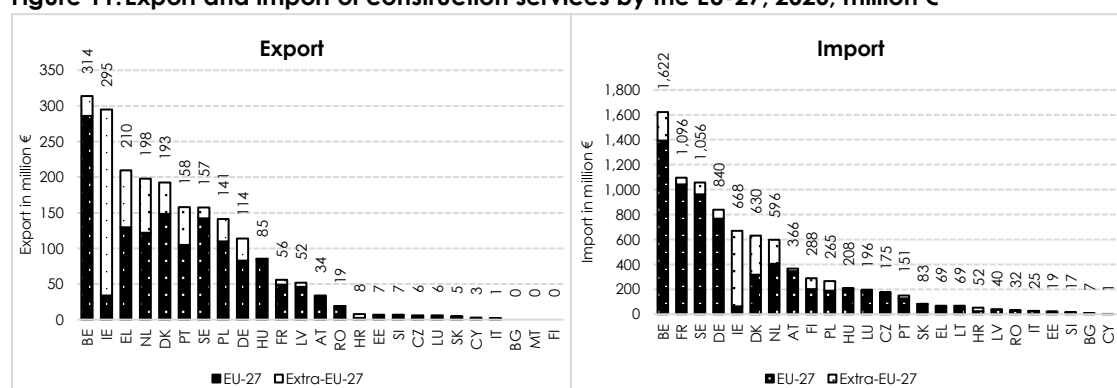
¹⁴⁶ Based on data from before 2020.

¹⁴⁷ Based on data from Orbis (see *section 4.5*).

¹⁴⁸ Eurostat [BOP_ITS6_DET]

In 2020, a total of € 8,704 million was imported by the EU-27, of which 79% came from the EU-27 and 21% from outside of the EU-27. Services in the construction sector are mainly imported by Belgium (18.9% of all imported construction services), France (12.8%), and Sweden (12.3%), and to a lesser extent by Germany (9.8%), Ireland (7.8%), Denmark (7.4%), and the Netherlands (7.0%). Once more, only Ireland and Croatia imported the majority of construction services from outside the EU-27. For Ireland it concerns 90.4% of all services, or € 604 million, and for Croatia 51.5% of all services or € 27 million. In almost all Member States, the import of construction services decreased, most likely because of the COVID-19 pandemic. Nevertheless, a growth from 2019 to 2020 of the import of construction services can be noticed in Belgium (+3%), Czechia (+91%), France (+2%), Latvia (+18%), and the Netherlands (+76%).

Figure 11. Export and import of construction services by the EU-27, 2020, million €



* For the export of services, no data are available for ES and LT. For the import of services, no data are available for ES and MT.

Source Eurostat [BOP_ITS6_DET]

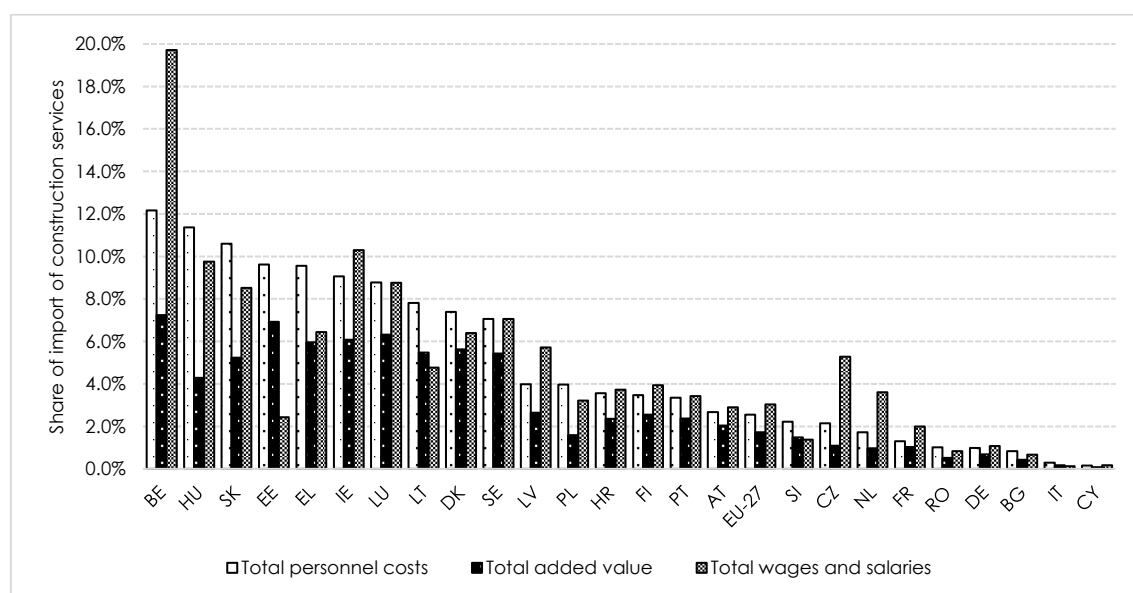
Imported services are sometimes referred to as a source of ‘leakage’ because they can have the effect of transferring income (wages and profits) earned in one country to another country. In case of intra-EU posting, the purchase of services from posting undertakings results in an outflow of income and public revenues. This risk occurs for instance in the construction sector of several Western European Member States (see above). Moreover, a large share of investments included in the recovery and resilience plans of several Western European Member States, submitted to the European Commission in the framework of the ‘Recovery and Resilience Facility’¹⁴⁹, is dedicated to the construction and renovation of buildings and dwellings. Given the large presence of posting companies and posted workers in the construction sector of several Western European Member States, these recovery plans will not only benefit their economy, but also the employment in several Eastern European Member States.

In order to measure the importance of trade in services in the construction services, the import of construction services can be compared to the total personnel costs, added value, and wages and salaries. By dividing the total import of construction services (from both inside and outside the EU-27) by these variables, including the import of construction services, the importance of the import of construction services can be analysed. *Figure 12* shows that overall, in the EU-27 cross-border services represent a share of total personnel cost of 2.6%, of added value of 1.7%, and of wages and salaries of 3.0%. Although the share in the EU-27 overall remains rather limited, it is remarkably high in some specific Member States. For example, in Belgium the share in total personnel cost amounts to 12.2%, in added value to 7.2%, and in wages and salaries even to 19.7%. This high importance of posting in the Belgian construction sector can also be seen in terms of employment (see *section 2.8*). Furthermore, the share of imported construction services in total personnel costs in Hungary

¹⁴⁹ https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

amounted to 11.4%, and in Slovakia to 10.6%. Compared to total wages and salaries, the import of construction services in Ireland was remarkable as well (10.3%).

Figure 12. Share of total import* of construction services in total personnel cost (2019), total added value (2019), and total wages and salaries (2020), EU-27



* It concerns the total import of construction services from both inside and outside the EU-27.

** For MT and ES, data on the import of construction services are not available.

Source Eurostat [BOP_TS6_DET] and [SBS_NA_CON_R2]

2.9.1.3 Distinctive issues for posting in the construction sector

A first issue is the use of subcontracting in this sector. Seeing that the work in construction is very fragmented, subcontracting is highly common (ETUC, 2021). In 2017, payments to subcontractors accounted for 23.5% of total turnover in the construction sector, and even for 36.6% in the construction of buildings.¹⁵⁰ The sector is highly volatile and needs a large degree of labour flexibility, which means that subcontracting has always been important in construction (Buckley et al., 2016). This is also reflected in the fact that the majority of companies in the construction sector are SMEs, as 95% of companies in the EU-27 in 2019 had less than 20 employees (European Construction Industry Federation, 2020). Using subcontracting in the construction sector can lower costs, for instance a main contractor hiring a foreign subcontractor who posts its workers from other EU Member States can be financially interesting (Alberti & Danaj, 2017). This means that both phenomena have strengthened each other: because subcontracting is common, the use of posting is a very interesting employment model, whereas the use of posting in the sector has also favoured the lengthening of the subcontracting chain. However, it must be acknowledged that little is still known about the composition of the subcontracting chains in the construction sector and their length.

Second, in a number of Member States, there is an increasing importance of posted self-employed persons in the construction sector. For instance, in Belgium, almost three out of ten persons posted to the Belgian construction sector are self-employed (De Wispelaere et al., 2022). From a sending perspective, it appears that mainly persons from Slovakia have a self-employed status.

Finally, the posting of TCNs is very common in the construction sector, as was already discussed in detail in *section 2.3*. For instance, in Belgium, more than half of all posted TCNs received are active in the construction sector (53%) (Lens et al., 2021a). It was also found that there is an overrepresentation of TCNs in the Slovenian construction sector (see *section 2.3*).

¹⁵⁰ Eurostat [SBS_NA_CON_R2], [SBS_NA_IND_R2], and [SBS_IS_SUBC_R2]

2.9.2 Road freight transport

Next to the construction sector, the road freight transport sector¹⁵¹ is one the most popular sector for posted workers to be employed in (De Wispelaere et al., 2022a forthcoming), and this sector has also been mentioned frequently in the country reports. However, quantifying the number of posted workers in this sector remains a challenge, not least because of the complex legal framework.¹⁵² In this section on the road transport sector, we first take a closer look at the available data on intra-EU posting, based on the PD A1 and the prior notification tools as well as by analysing the data on the import and export of services in this sector (2.9.2.1). Next, the data for cabotage and cross-trade, which are two cross-border transport operations subject to the Posting of Workers Directive, are analysed (2.9.2.2). Finally, an analysis is also made of (posted) TCNs employed in the road freight transport sector (2.9.2.3).

2.9.2.1 Data on intra-EU posting in the road freight transport sector

Seeing that in international road transport, truck drivers are mostly active in two or more Member States, especially PDs A1 under Article 13 are issued to these workers. From 2017 onwards, around 45% of the PDs A1 issued under Article 13 were issued for activities in the road freight transport sector (De Wispelaere & Pacolet, 2018b; De Wispelaere et al., 2019, 2021a, 2022). Furthermore, during the COVID-19 pandemic, this sector had continued activities, seeing that it is one of the most essential sectors. For instance, in 2019 Poland issued 197,000 PDs A1 for activities in the road freight transport sector, which increased to 210,000 PDs A1 in 2020 (De Wispelaere et al., 2022b). More than half of the PDs A1 issued under Article 13 in 2020 by Poland and Lithuania were granted to posted road freight transport workers. Furthermore, the share exceeds 40% in Croatia, Slovenia, and Slovakia. In relative terms, a high percentage of truck drivers employed in Slovenia, Luxembourg, Poland, Croatia, and Slovakia are active in two or more Member States (De Wispelaere et al., 2022b).

From the perspective of the receiving Member State, the majority of prior declarations made in Germany, Italy, the Netherlands and Austria are for posted workers active in the road freight transport sector. In 2019 and 2020, for Austria and Germany respectively, more than 80% and 60% of the declarations received applied to the provision of services in road freight transport (De Wispelaere et al., 2021b, 2022a forthcoming).¹⁵³

However, in the future, data on intra-EU posting in the road freight transport sector will not be found in the national declaration tool anymore, as there is now a specific platform to declare postings in this sector¹⁵⁴. Since February 2022, service providers in this sector who fall under the specific rules on the posting of drivers (Directive (EU) 2020/1057)¹⁵⁵ have to declare posting activities through this 'Road transport posting declaration portal - RTPD portal'. A posting declaration can be done for a minimum period of one day up to a maximum period of six months, after which a new posting declaration must be created¹⁵⁶. The posting declaration must be submitted at the latest at the commencement of the posting. Furthermore, through this portal, road transport operators can also

¹⁵¹ For more information about this sector, please have a look at the publications in the frame of the research project 'Transfair' (see, for instance, De Smedt & De Wispelaere, 2020).

¹⁵² The recent Directive (EU) 2020/1057 clarifies the forms of international road freight transport to which the Posting of Workers Directive applies. See also the factsheet published by DG MOVE (https://transport.ec.europa.eu/document/download/454946d0-d96e-42bf-b1e7-aeb695f3efb2_en?filename=MobilityPack1-Posting_of_drivers_factsheet.pdf) and the document "Questions and Answers on posting of drivers under Directive (EU) 2020/1057" (https://transport.ec.europa.eu/document/download/0c2d5fe5-141c-484a-adad-8a4ed967a43e_en?filename=Q%26A-posting-of-drivers.pdf) published by DG MOVE.

¹⁵³ This is the consequence of the broad approach applied by both countries when it comes to the road freight transport sector. See also Danaj et al. (2020: 29): "Austria also collects national posting data based on the number of posting declarations (so-called ZKO4 forms for the transport sector and ZKO3 forms for all other sectors) submitted to the Austrian Financial Police by employers who intend to post workers to Austria in accordance with Article 19 Paragraph 3 of the Austrian Act to Fight Wage and Social Dumping (LSD-BG)." Haidinger (2018: 5): "Accompanying the revision of the Anti-Wage and Social Dumping Act (LSD-BG), the transport sector was explicitly mentioned as being subject to this law. [...] Only since the beginning of 2017, posting declarations of transport companies are identified, the numbers exploded."

¹⁵⁴ See <https://www.postingdeclaration.eu/landing>

¹⁵⁵ This means those drivers performing cross-trade or cabotage.

¹⁵⁶ See <https://www.postingdeclaration.eu/help>

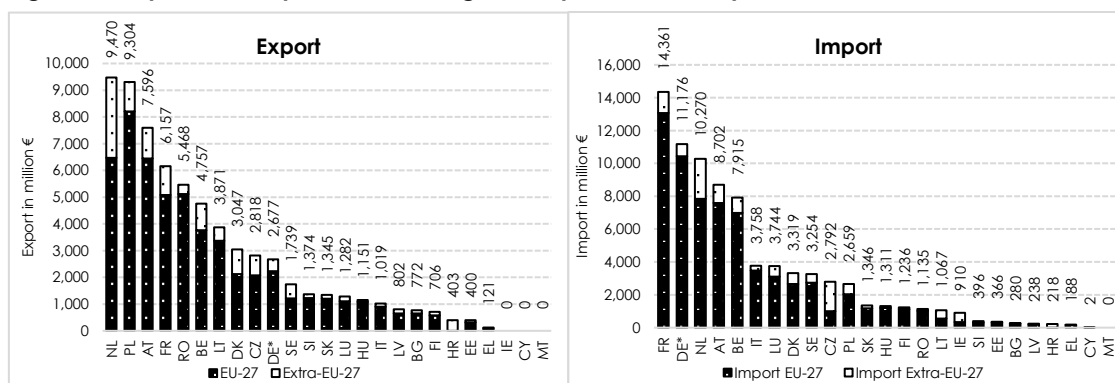
submit documents to the authorities of the Member States where their drivers have been posted, when those authorities request such an action¹⁵⁷.

The country reports reveal some interesting findings about this sector. In Austria, about three quarters of incoming postings took place in the transport sector in 2019, although because of the long validity of prior declarations, this also includes postings which started after June 2018 (Geyer et al., 2022). On the contrary, only 1% of PDs A1 under Article 12 and 3.7% of PDs A1 under Article 13 were issued in this sector. As already mentioned in *section 2.6* this shows that the profile of a Member State can differ significantly whether it is looked at as a receiving or sending Member State. In Luxembourg this can be seen as well; whereas most incoming posted workers worked in the construction sector, most outgoing posted workers worked in the transport and logistics sector, namely four out of ten posted workers leaving Luxembourg (Clément & Hauret, 2022). Data from the Dutch prior declaration tool show that eight out of ten notified workers are active in international road freight transport (78%) (Heyma et al., 2022). Indeed, in *section 2.8* it was already indicated that the impact of posted workers on the national workforce was high, at around 40%. In 2021, about 227,000 PDs A1 were issued in Poland for activities in the transport sector (NACE H), by far the most of which were under Article 13 (224,000 PDs A1) and only a limited number under Article 12 (3,000 PDs A1) (Kielbasa et al., 2022). Approximately one third of the total number of PDs A1 issued by Poland are therefore attributed to persons active in the transport sector. In Slovenia, the Transnational Provision of Services Act, in place since 2018, has had a severe impact on posting in the road freight transport sector (Vah Jevšnik et al., 2022). Activities in international road freight transport, as well as installation/assembling and servicing, are exempt from the strict provisions set by this Act, as they are seen as 'being services provided abroad on a continuous basis'. Therefore, PDs A1 are issued under Article 13, which are not subject to the Act. From 2018 to 2019, the number of PDs A1 issued under Article 13 in the road transport sector went up by 3,500%, and from 2019 to 2020 by another 30%. For postings from Spain, especially those towards France often take place in the road transport sector (Carrascosa & Contreras Hernández, 2022). More than 50% of PDs A1 issued under Article 13 with France as one of the host Member States, took place in this sector in the period 2018-2020.

The road freight transport sector can be analysed by looking at the export and import of services as well. In 2020, EU-27 Member States exported € 72,245 million of road transport services to the rest of the world, of which 82.2% to other EU-27 Member States, and 17.8% outside the EU-27. The main exporting Member States are the Netherlands (13.1% of all exported services by the EU-27), Poland (12.9%), and Austria (10.5%), as can also be seen in *Figure 13*. All Member States except for Croatia exported the majority of transport services to the EU-27. Croatia exported all of the € 403 million services towards outside the EU-27. The EU-27 Member States imported € 83,547 million road freight transport services, of which 83.6% from the EU-27, and 16.4% from outside the EU-27. The leading importing Member States are France (17.2%), Germany (13.4%), and the Netherlands (12.3%), followed by Austria (10.4%) and Belgium (9.5%). Regarding the import of transport services, most Member States import from the EU-27 itself. Only Cyprus (100% from outside the EU-27 or € 2 million), Croatia (100% or € 218 million), Ireland (63.6% or € 579 million), and Czechia (64.1% or € 1,791 million) imported the majority of road freight transport services from outside the EU-27. For both the export and import of road freight transport services, the COVID-19 pandemic had a minor impact, seeing that it is an essential sector, as already mentioned above. From 2019 to 2020, export by the EU-27 decreased by 4.9% and import by 4.5%.

¹⁵⁷See https://transport.ec.europa.eu/transport-modes/road/mobility-package-i/posting-rules_en

Figure 13. Export and import of road freight transport services by the EU-27, 2020, million €



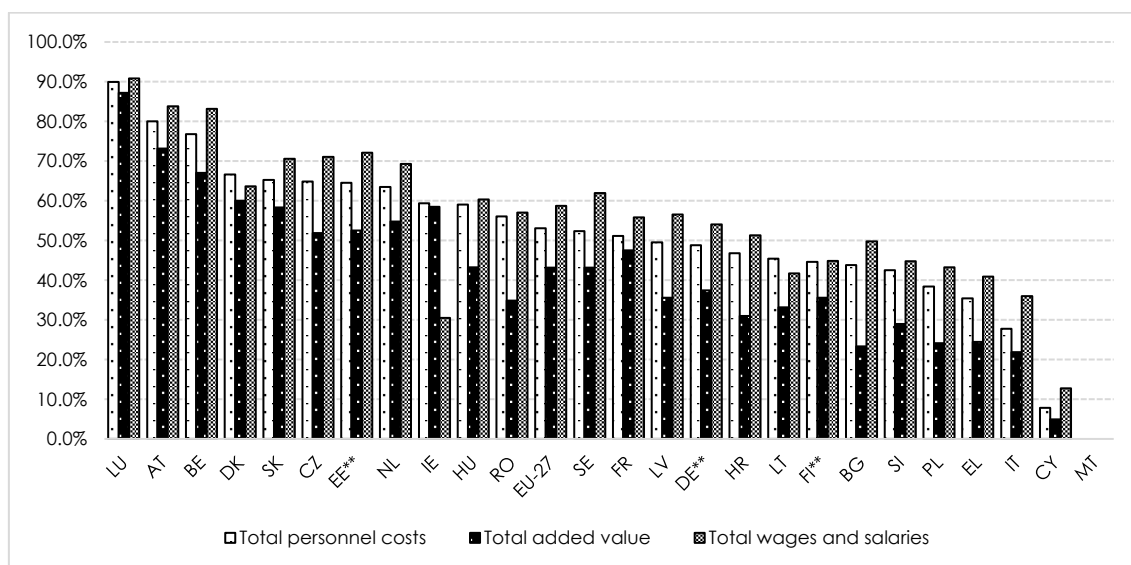
* Data for DE concern reference year 2017.

** Data for ES and PT are not available.

Source Eurostat [BOP_ITS6_DET]

The impact of the import of road freight transport services can be measured by dividing the total import (from both inside and outside the EU-27) by the sum of the import and other variables (personnel costs, added value, wages and salaries). As visualised by *Figure 14* this impact is extensive for a majority of Member States. For the EU-27 in general, cross-border road freight transport services represent 53.0% of total personnel cost, 43.2% of added value, and 58.7% of wages and salaries. In Luxembourg, the three shares even amount to more than 85%. Furthermore, in Austria, Belgium, and Denmark all shares go beyond 60%. However, the shares for the top two importing Member States as discussed above, France and Germany remain under the EU-27 average. For France, the import accounts for 51.1% of personnel costs, 47.5% of added value, and 55.8% of wages and salaries. For Germany in 2017, the shares amount to 48.8%, 37.4%, and 54.0% respectively. Overall, it is clear that the cross-border dimension in the road freight transport sector is of great importance, and this sector can be considered as a highly mobile sector.

Figure 14. Share of total import* of road freight transport services in total personnel cost (2019), total added value (2019), and total wages and salaries (2018), EU-27



* It concerns the total import of road freight transport services from both inside and outside the EU-27.

** Data for ES and PT are not available. MT did not import any road freight transport services and is therefore not included in this figure.

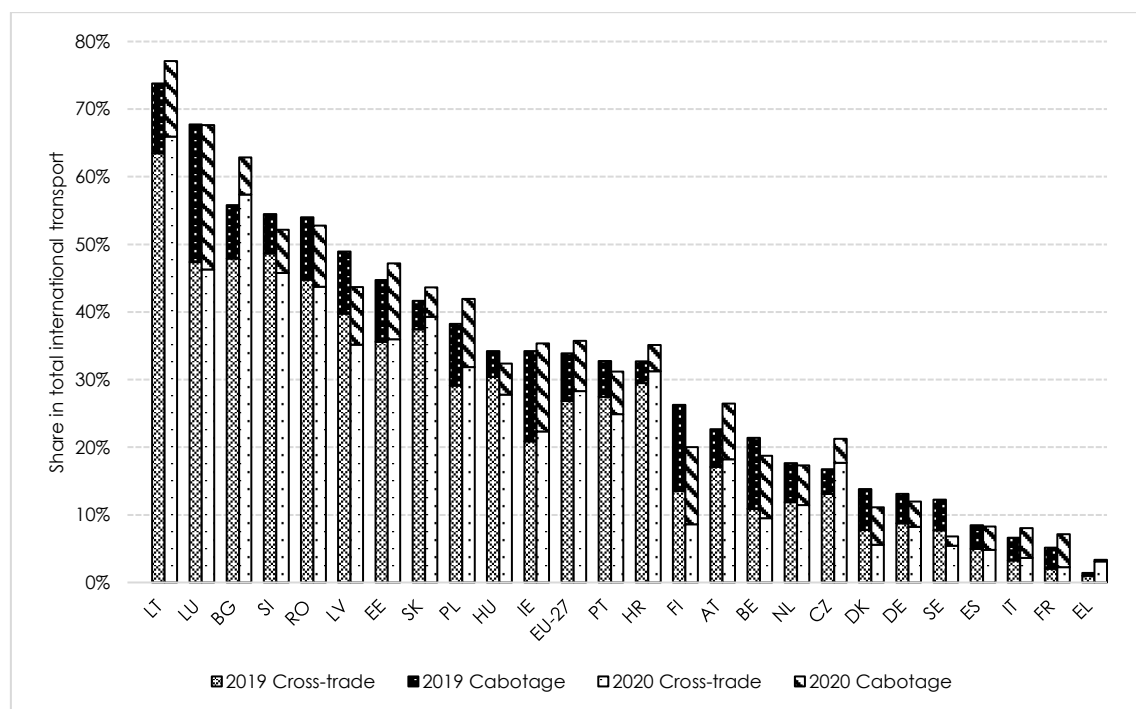
*** Data for DE concern reference year 2017. Data for EE on personnel costs and added value concern reference year 2017. Data for FI on wages and salaries concern reference year 2017.

Source Eurostat [BOP_ITS6_DET] and [SBS_NA_1A_SE_R2]

2.9.2.2 The application of the Posting of Workers Directive to road freight transport

In this sector, there was uncertainty about the scope of posting. This has recently been resolved by means of Directive (EU) 2020/1057¹⁵⁸. The issue of whether a driver is posted or not depends on “the degree of connection with the territory of the host Member State”. Therefore, drivers performing cabotage¹⁵⁹ or cross-trade¹⁶⁰ are considered posted workers, as they are assumed to have a stronger connection to the host Member State compared to the Member State of origin (van Overbeeke, 2021). Bilateral¹⁶¹ and transit¹⁶² transport on the other hand, is not considered to be posted work (De Smedt & De Wispelaere, 2020). In some cases, cross-trade operations related to bilateral transport do not fall under the Posting of Workers Directive as well (van Overbeeke, 2021). In general, Directive (EU) 2020/1057 can be seen as a first step towards a truly ‘socially responsible road transport sector’ in which fair working conditions and social protection will be guaranteed for the drivers. Seeing that those workers that were weeks or months from home, performing cross-trade or cabotage were not considered posted workers and they should enjoy social protection (van Overbeeke, 2021).

Figure 15. Application of Directive 96/71/EC to international road transport operations in the EU, estimated share in total, 2019-2020



* Data for CY and MT are not available.

** In some cases, the Posting of Workers Directive should not be applied to cross-trade operations.

Source Own calculations based on Eurostat [road_go_ta_tott] (in tonne-km)

By looking at the share of cross-trade and cabotage in total international transport in the EU-27, an estimate can be made of the share of operations that will now fall under the Posting of Workers

¹⁵⁸ Recital 9 of this Directive states that “Balanced sector specific rules on posting should be based on the existence of a sufficient link between the driver and the service provided, and the territory of a host Member State.” “International carriage in transit across the territory of a Member State does not constitute a posting situation” (Recital 11). “Where a driver performs other types of operations, notably cabotage operations or non-bilateral international transport operations, there is a sufficient link to the territory of the host Member State.” (Recital 13).

¹⁵⁹ Cabotage is national transport undertaken by hauliers from another Member State.

¹⁶⁰ Cross-trade is international road transport between two different countries performed by a road motor vehicle registered in a third country.

¹⁶¹ Bilateral operations occur when transport from Member State A to Member State B is carried out by a transport company located in Member State A or B.

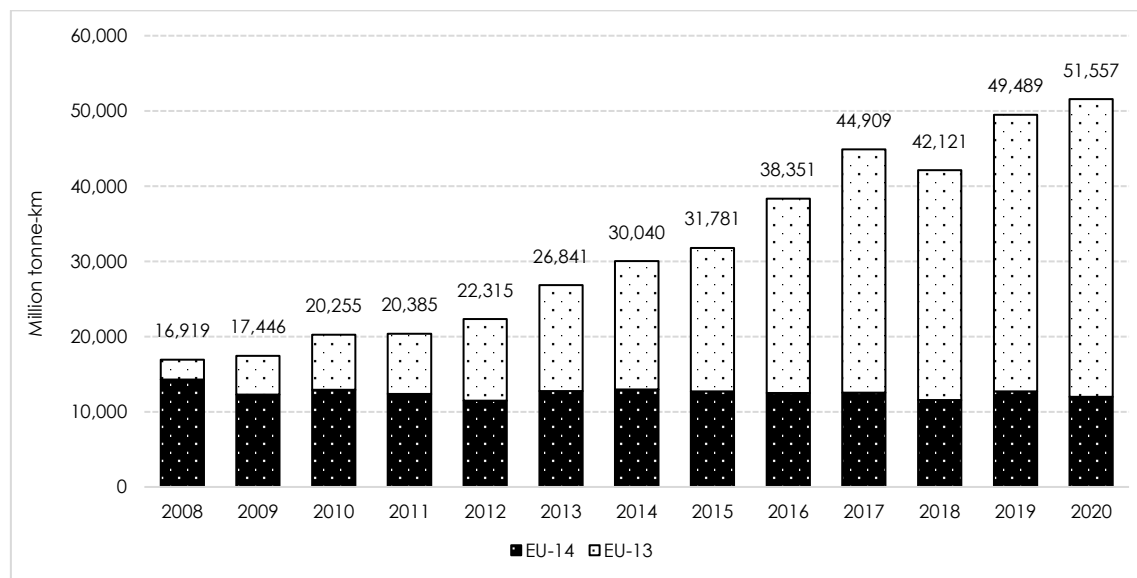
¹⁶² Transit arises when a driver drives into the territory of a Member State without loading or unloading cargo.

Directive. *Figure 15* shows that in the EU-27 the share amounts to 33.9% in 2019 and 35.7% in 2020, of which the majority concerns cross-trade (26.8% in 2019 and 28.3% in 2020) and a smaller share cabotage (7.0% in 2019 and 7.4% in 2020). However, strong differences exist between Member States. For instance, more than 50% of international transport operations carried out by truck drivers from Bulgaria, Lithuania, Luxembourg, Romania, and Slovenia will be covered by the Posting of Workers Directive. Furthermore, as EU-13 hauliers carry out much more cross-trade and cabotage operations, truck drivers from these Member State will much more be considered as posted for the purpose of the Posting of Workers Directive. This Directive is estimated to apply to 44.6% of international transport operations in the EU-13 in 2019, and 46.7% in 2020, while it only applies to 14.9% of operations in the EU-14 in 2019 and 14.3% of the operations in 2020.¹⁶³

Cabotage

Seeing that cabotage and cross-trade are considered as activities of posting, they deserve a closer look. First, cabotage is analysed in more detail. Over the years, the amount of cabotage performed has steadily increased with a small dip in 2018 (*Figure 16*).

Figure 16. Cabotage performed by the EU-27, 2008-2020, in million tonne-km



* Data for CY and MT are not available. Data for HR in 2009, 2011, 2012, 2013, and 2014 are not available.
Source Eurostat [road_go_ta_tott]

From 2008 to 2020, cabotage performed by the EU-27 has grown by 204.7%. However, there is a clear difference between the EU-14 and EU-13 Member States. Whereas the cabotage performed by the EU-14 has decreased by 16.1%, the growth in the EU-13 amounts to a remarkable 1,396%. *Figure 17* also clearly shows that the share of the EU-14 in cabotage performed in the EU-27 has almost disappeared. While in 2008, 84.4% of all cabotage was still performed by the EU-14, this share dropped to 23.2% in 2020. Therefore, the EU-13 has grown considerably in importance regarding cabotage, performing 15.6% of all EU-27 cabotage in 2008 and 76.8% of all cabotage in 2020. Furthermore, when looking at the share of cabotage in total transport performed, the share of the EU-14 has remained stable at 1.1% when comparing 2008 with 2020. However, in the EU-13 cabotage has gained importance, as the share of cabotage in total transport performed went up from 0.6% in 2008 to 5.9% in 2020.

The most prominent Member State performing cabotage is Poland with 23,286 million tonne-km, or 45.2% of all cabotage performed in the EU-27 in 2020. The majority of cabotage performed by

¹⁶³ Eurostat [ROAD_GO_TA_TOTTA] based on million tonne-kilometres. Data for CY and MT are not available.

Poland took place in Germany (75.2%) and France (14.1%). Furthermore, Lithuania performed 11.1% of all EU-27 cabotage (5,731 million tonne-km), Romania 6.6% (3,404 million tonne-km), and Spain 5.3% (2,724 million tonne-km) in 2020. Lithuania performed most of its cabotage in France (43.4%) and Germany (38.3%); Romania in France (29.8%), Germany (26.4%), and Spain (16.2%); and Spain in France (91.6%). On the receiving side, an opposite image is visible. Of the 49,082 million tonne-km of cabotage received by the EU-27, 98.5% takes place in the EU-14, compared to 1.5% in EU-13 Member States in 2020¹⁶⁴. Especially Germany (52.1%) and France (24.9%) are Member States in which a high share of cabotage received by the EU-27 took place in 2020. More than two thirds of cabotage taking place in Germany is performed by Poland (67%). Of all cabotage in France, the highest shares are performed by Poland (26.3%), Spain (20.3%), and Lithuania (19.2%).

The cabotage performed can also be analysed in relative terms, in addition to the analysis of the absolute numbers. Therefore, the ‘cabotage penetration rate’ is calculated. This rate shows the share of cabotage taking place in a certain country in the total national transport in that country, thus indicating the market share of foreign hauliers in total national transport activities.

Figure 17. Cabotage penetration rate*, 2008 and 2020, EU-27

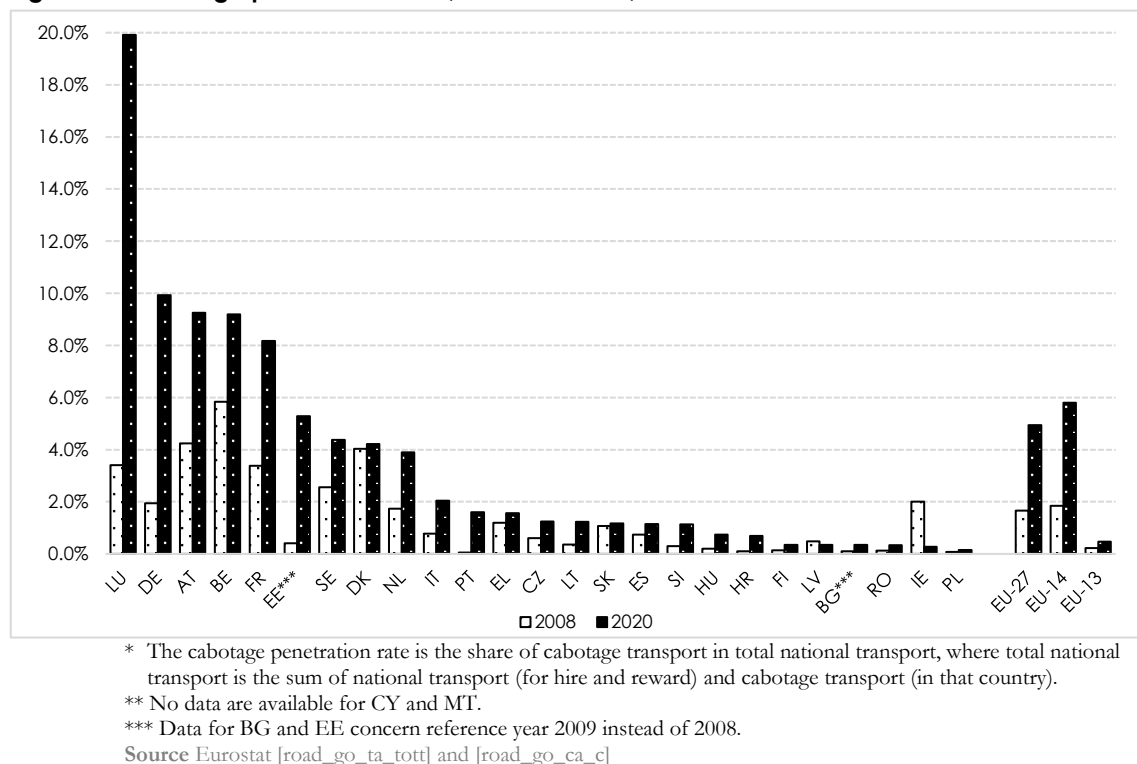


Figure 17 shows that the average cabotage penetration rate in the EU-27 amounts to 4.9% in 2020. However, the median rate only amounts to 1.2%, indicating that the weighted average is influenced by a number of Member States with a high penetration rate. This is especially true for Luxembourg (19.9%), Germany (9.9%), Austria (9.3%), Belgium (9.2%), France (8.2%), and Estonia (5.3%) with rates above 5%. Furthermore, there is a clear difference between the EU-14 (5.8%) and the EU-13 (0.5%). This indicates that especially in EU-14 Member States, foreign hauliers are performing national transport. Cabotage is also clearly on the rise, as already shown in Figure 16 in general, and now in Figure 17 concerning the cabotage penetration rate. Only in Latvia and Ireland did the cabotage penetration rate decrease from 2008 to 2020. In all other Member States, an increase is visible, for some even a remarkable increase, for instance in Luxembourg, Germany, Austria, Belgium, France,

¹⁶⁴ Eurostat [ROAD_GO_CA_HAC]

and Estonia¹⁶⁵, the cabotage penetration rate grew by more than 3 percentage points from 2008 to 2020. In general as well, in the EU-27 the rate grew by 3.3 percentage points. For the EU-14 it went up by 4.0 percentage points, while it only increased by 0.2 percentage points for the EU-13. However, it is clear that national transport is still predominantly carried out by domestic road freight transport companies, even though cabotage is increasing.

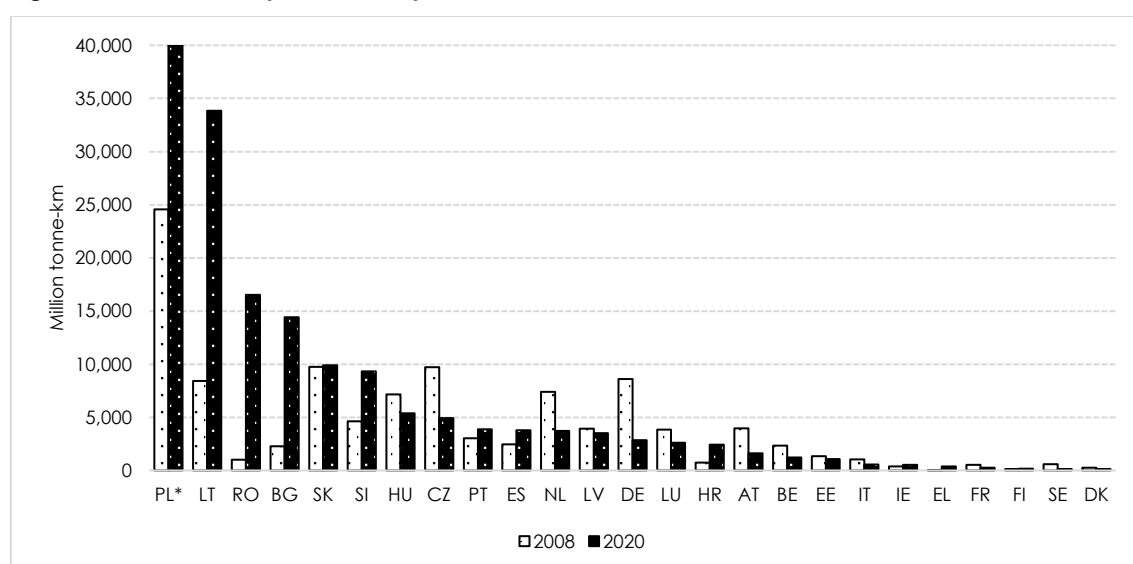
Cross-trade

The second type of international transport that is considered to be posted work is cross-trade. In total in 2020, the EU-27 performed 196,696 million tonne-km cross-trade, of which about one third by the EU-14 (32.4%) and two thirds by the EU-13 (67.6%). The most important Member State in this regard is clearly Poland, as it performed 73,596 million tonne-km cross-trade in 2020 or 37.4% of all cross-trade performed in the EU-27 (*Figure 18*). Other Member States of importance are Lithuania (17.2%), Romania (8.4%), and Bulgaria (7.3%).

The evolution of the cross-trade performed is remarkable as well. In Romania and Greece, the amount of cross-trade performed increased by more than 1,200% from 2008 to 2020. Furthermore, in Bulgaria, Croatia, Lithuania, and Poland, the increase is situated between 200% and 550%. In general, in this period, cross-trade grew by 138% in the EU-13 while it decreased by 37% in the EU-14. This can also be seen in *Figure 18* where for instance in the Netherlands, Germany, Luxembourg, Austria, and Belgium, the cross-trade performed in 2008 is higher than in 2020.

Finally, in addition to analysing absolute numbers, one can also grasp the importance of cross-trade by comparing it to the total transport performed by a certain Member State. In general in the EU-27, cross-trade accounted for 6.2% of transport in 2008 while is amounted to 10.9% in 2020. This growth is all thanks to the EU-13 Member States where the share increased from 17.5% to 26.1%, while in the EU-14 it dropped from 2.6% to 1.9%. These shares indicate that cross-trade was already in 2008 quite important in the EU-13 while it was less significant for the EU-14 and this trend has continued up until 2020. Especially in Bulgaria (from 14.9% to 44.3%), Romania (from 1.8% to 30.0%), and Lithuania (from 41.2% to 61.2%) the share of cross-trade in total transport performed increased significantly between 2008 and 2020.

Figure 18. Cross-trade performed by the EU-27, 2008-2020, in million tonne-km



* The amount of cross-trade performed by Poland amounted to 73,596 million tonne-km in 2020.

** No data are available for MT and CY.

Source Eurostat [road_go_ta_tott]

¹⁶⁵ Evolution from 2009 to 2020.

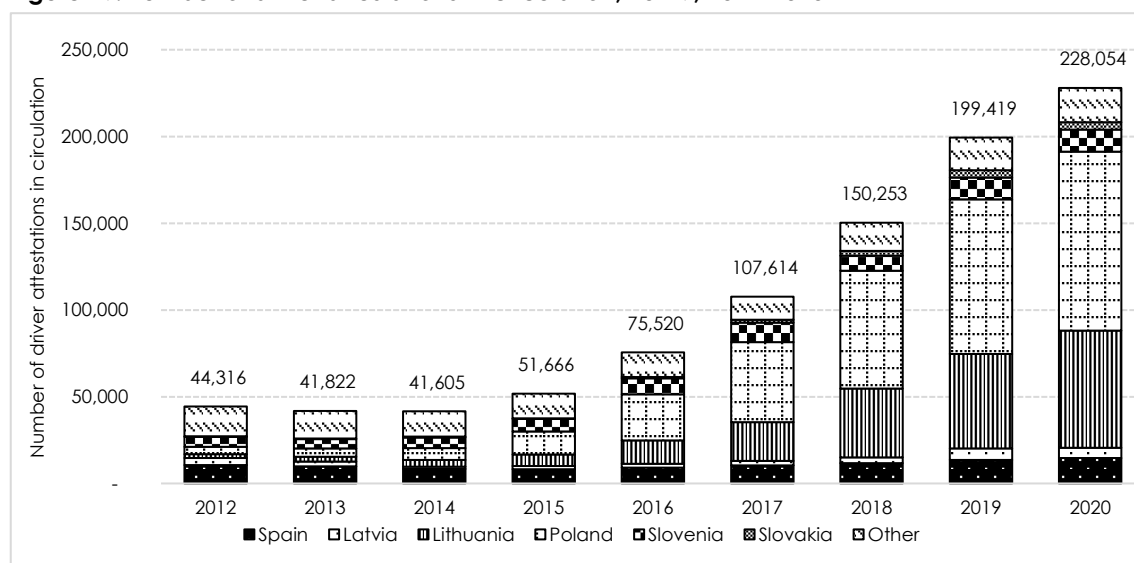
2.9.2.3 Third-country nationals in the road freight transport sector

Posted TCNs are not only an important group of workers in the construction sector, but certainly also in the road freight transport sector. The analysis in *section 2.3* even showed an overrepresentation of outgoing posted TCNs in this sector in Slovenia, Poland, and Lithuania.¹⁶⁶

A way to analyse the occurrence of TCNs in this sector is to look at the number of driver attestations issued and in circulation. This is a uniform document certifying that the driver of a vehicle carrying out road haulage operations between Member States is either lawfully employed by the EU transport operator concerned in the Member State in which the operator is established, or lawfully placed at the disposal of that operator. Thus, this document is needed for those drivers who are not a national or a long-term resident of an EU Member State. Not all of the persons with a driver attestation are posted of course as this depends on their specific transport activities, but it provides a proxy for those that *can* be posted abroad.

Figure 19 shows the remarkable increase of driver attestations in circulation, especially from 2015 onwards. The number went from 44,316 in 2012 to 228,054 in 2020, or an increase of 414.6%. While the number of driver attestations in circulation by the EU-13 increased by 994.9% from 2012 to 2020, it even decreased by 6.8% for the EU-14. Furthermore, in 2020, 89.5% of attestations in circulation were from the EU-13 and only 10.5% from the EU-14. This clearly shows that employing TCNs in the EU-13 road transport sector is increasingly important, whether or not to be subsequently posted towards other Member States. The top six issuing Member States are Poland (45.2% of all driver attestations in circulation in 2020), Lithuania (29.6%), Spain (6.5%), Slovenia (5.6%), Latvia (2.6%), and Slovakia (1.9%).

Figure 19. Number of driver attestations in circulation, EU-27, 2012-2020



Source European Commission, 2022

Next, it is possible to compare the number of driver attestations in circulation to the total employment in the sector (NACE 4941 Freight transport by road)¹⁶⁷, to get an idea of the ratio of TCNs active in this sector. In 2019, this share amounted to 6.2% for the EU-27, 1.1% for the EU-14, and 15.0% in the EU-13, once more indicating that TCNs are of higher importance in the EU-13 than in the EU-14 in this sector. A high share of drivers employed in Lithuania (58.2%), Slovenia (42.7%), Latvia (25.8%), and Poland (18.6%) are TCNs with a driver attestation. However, in Spain

¹⁶⁶ Moreover, the Belgian country reports showed that this is the most popular sector for posted TCNs coming from Ukraine to Belgium via Poland or Lithuania, and for TCNs from Belarus coming to Belgium via Lithuania or Poland (De Wispelaere et al, 2022).

¹⁶⁷ Calculations based on European Commission (2020) and Eurostat [SBS_NA_1A_SE_R2].

(3.9%) and Slovakia (8.2%), the last two of the six main issuing Member States of driver attestations, the share remains limited. In many Member States, the share even stays under 1%.¹⁶⁸

2.9.3 Agriculture and horticulture

Seasonal work in agriculture and horticulture is more likely to occur within the EU under the free movement of workers, although sometimes it appears to fall under the freedom to provide services.^{169,170} Consequently, posting in this sector seems to be less extensive in the EU-27. Though, in some Member States, for instance in France, it cannot be overlooked (see 2.9.3.1). Furthermore, it is interesting to examine whether cross-border employment in this sector mainly occurs via Article 12 or via Article 13. Finally, the *Terra Fecundis* case deserves special attention (see 2.9.3.2).

2.9.3.1 Data on intra-EU posting in the agriculture and horticulture sector

Between 2014 and 2020, the share of PDs A1 issued under Article 12 in this sector in total PDs A1 issued fluctuated between 0.8% and 1.6% (Pacolet & De Wispelaere 2016, 2017; De Wispelaere & Pacolet, 2018a, 2018b; De Wispelaere et al., 2019, 2021a, 2022b). Only Estonia and Poland issued more than 2% of PDs A1 under Article 12 in the agriculture sector consistently from 2014 to 2020. On the receiving end, the Netherlands received on average around 4.4% of PDs A1 under Article 12 in the agriculture sector throughout the years¹⁷¹.

Data from the prior declaration tools show that the number of incoming posted workers in the agriculture sector is especially on the high side in France (9% of all incoming posted workers in 2019 and 7% in 2020) (De Wispelaere et al., 2021b, 2022a forthcoming). Some two thirds of these workers originate from Spain. Furthermore, in Denmark and Sweden around 4% of incoming posted workers are active in this sector. The incoming agriculture workers in Denmark mostly originate from Poland, while the majority of incoming workers in Sweden are from outside the EU/EFTA. In terms of share of intra-EU posting in the national workforce, the impact is especially high in Luxembourg (6% in 2019, 8% in 2020).

Also in the country reports, this sector only really comes forward in two Member States, being France (Muñoz, 2022) and Spain (Carrascosa & Contreras Hernández, 2022). However, one would expect more incoming posted workers in the Netherlands as well, given the high share of labour migrants in Dutch (greenhouse) horticulture. Nevertheless, it is stated that those labour migrants may work mainly for Dutch employment agencies, meaning that they are not classified as a posted worker (Heyma et al., 2022). The Dutch country report did reveal that 46% of notified posted workers in agriculture, forestry and fishing sector are TCNs, as already mentioned in *section 2.3*.

In France, as mentioned in *section 2.8*, posted workers account for 2.2% of national employment in agriculture, which is the highest share of all French sectors. However, the impact goes up to 20% in certain regions with highly exposed local labour markets. For example, posted workers represent 5.1% of employment in agriculture in Ain and 4.3% in Alpes-Maritimes. The impact of posted workers on French employment in the agriculture sector is particularly large in regions that produce

¹⁶⁸This is the case in Italy, Cyprus, Bulgaria, Austria, Germany, Luxembourg, Belgium, Romania, France, Greece, the Netherlands, Denmark, Sweden, and Ireland.

¹⁶⁹ It is estimated there are between 650,000 and 850,000 intra-EU seasonal workers in the EU-27, including posted intra-EU seasonal workers (Fries-Tersch et al., 2021). However, seeing that many migrant seasonal workers go unrecorded, for example undocumented migrants or asylum-seekers, this number is higher in reality. In Germany, most seasonal workers in agriculture come from Poland and Romania, while in Italy between 27% and 50% of the legal agricultural workforce are migrants (Augère-Granier, 2021). Furthermore, TCNs are also active in seasonal work in the agriculture sector, for instance Moroccans working in Spain and France, Thai workers in Sweden, or Ukrainian workers in Poland (Fries-Tersch et al., 2022; Augère-Granier, 2021). In 2020, 93% of all authorisations for TCNs performing seasonal work in the EU-27 were issued for agriculture, forestry and fishing, while in 2019 this share equaled 69%. The majority of these authorisations were issued by Poland in both years (59% of all authorisations in 2019 and 79% in 2020).

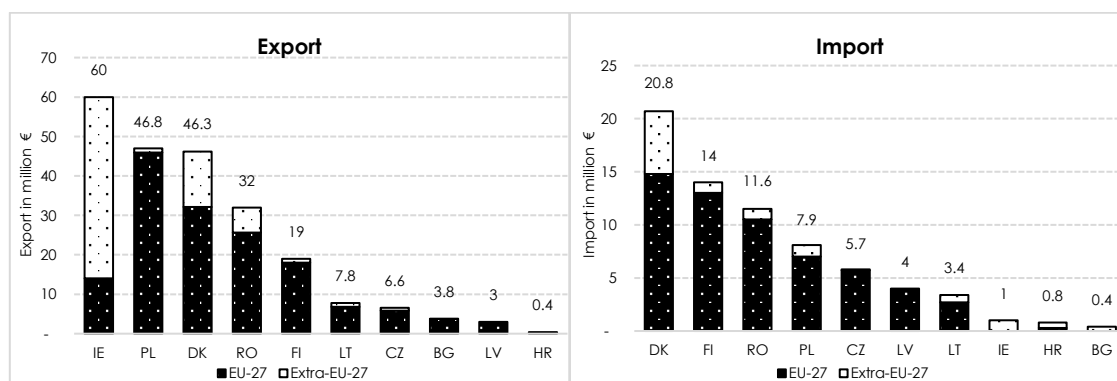
¹⁷⁰ The Spanish country report (Carrascosa & Contreras Hernández, 2022) mentions some interesting findings about this sector, stating that especially in Spain and France, agriculture plays an important role as it accounts for 4% and 3% of their total economic activity respectively. In Spain, in 2019, there are around 300,000 seasonal workers in this sector of which around 50% TCNs. In France, an estimate is made of 270,000 seasonal agricultural workers being recruited each year, of which around 60-80% TCNs.

¹⁷¹ Average of 2014 (4.7%), 2015 (4.9%), 2016 (6.0%), 2017 (4.8%), and 2020 (1.4%) (Pacolet & De Wispelaere 2016, 2017; De Wispelaere & Pacolet, 2018a, 2018b; De Wispelaere et al., 2022b).

wine (posted workers account for 10.5% of French employment in agriculture in Loir-et-Cher) and in the south of France (posted workers account for 21.7% of French employment in agriculture in Bouches-du-Rhones). Furthermore, it is found that especially posted workers sent from Southern Europe (which includes Italy, Spain, and Portugal), are active in the agriculture sector, as agriculture represents 20% of postings from Southern Europe but only 3% of postings from Western Europe and EFTA countries. Finally, of all posted workers received by Spain in 2019, 12% was active in the agriculture sector, which is the lowest share of all sectors (16% in services, 20% in industry, and 52% in construction). Nevertheless, the share is remarkably higher in certain regions. For instance, it amounts to 52% in Aragón.

Furthermore, the sector can be analysed by using data on the export and import of services for ‘Services incidental to agriculture, forestry and fishing’. Data are only available for ten Member States¹⁷² in 2020, as can be seen in *Figure 20*. The main exporting Member States are Ireland (€ 60 million), Poland (€ 46.8 million), and Denmark (€ 46.3 million), as well as Romania (€ 32 million). All ten reporting Member States, with the exception of Ireland exported the highest share of agriculture services to other EU-27 Member States. Ireland, however, exported around three quarters of services to outside the EU-27 (76.7%), of which 71.7% to the United Kingdom. On the importing side, other Member States come forward, seeing that Denmark (€ 20.8 million), Finland (€ 14 million), and Romania (€ 11.6 million) import the highest amount of agriculture services. The majority of Member States imported most services from the EU-27, although this is not the case for Ireland (100% from extra-EU-27), Croatia (62.5% from extra-EU-27), and Bulgaria (100% from extra-EU-27). However, they imported only € 1 million, € 0.8 million, and € 0.4 million agriculture services respectively in 2020. For most Member States, both the export and import decreased from 2019 to 2020, probably due to the COVID-19 pandemic. In Croatia, the export even dropped from € 29.5 million in 2019 to € 0.4 million in 2020, or a 99% decrease. In Bulgaria, the import of agriculture services went down by 85%, from € 2.6 million in 2019 to € 0.4 million in 2020. However, in Denmark the import increased significantly, from € 8.4 million in 2019 to € 20.8 million in 2020, or a 148% increase.

Figure 20. Export and import of services incidental to agriculture, forestry, and fishing by the EU-27, 2020, million €



Source Eurostat [BOP_ITS6_DET]

2.9.3.2 Challenges regarding posting in the agriculture and horticulture sector

As already mentioned above, the true extent of posting in the agriculture sector is difficult to grasp, seeing that the sector is characterised by seasonal work, on which no sufficient data are available. Furthermore, many undocumented workers are active in this sector as well; it is estimated that around one-third of the agricultural workforce are not recorded (Williams, 2019).

Moreover, this sector is confronted with several challenges. For posted workers in this sector specifically, the French country report delivers some interesting findings (Muñoz, 2022). It is stated

¹⁷² Bulgaria, Czechia, Denmark, Ireland, Croatia, Latvia, Lithuania, Poland, Romania, and Finland.

that it is the agricultural sector where the lowest wages are paid, as 75% of the posted workers in this sector are paid the minimum wage. Furthermore, in several French companies more hours of work are performed by posted workers than by its domestic French employees, which is especially the case in agriculture. This shows that this labour-intensive sector can lead to precarious circumstances, in particular for posted workers.

An important case that well reflects the challenges of the sector is undoubtedly the *Terra Fecundis* case (for an extensive overview of this case, please see *section 3.4.4* in the Spanish country report (Carrascosa & Contreras Hernández, 2022)). It has even been called ‘the biggest trial in the history of posted labour in French agriculture’.¹⁷³ *Terra Fecundis* (now called Work for All) is a Spanish TEA which had been postings workers to France, mostly in the agriculture sector. Their posting activity had been growing over recent years, and the posted workers were working in hundreds of French agricultural user undertakings.¹⁷⁴ It mostly concerned TCNs from Southern America (mainly from Ecuador and Morocco). This company was found by the French Court to be violating the posting rules for several reasons. Persons were hired to be posted, there was no temporary nature of the work, and the posted workers did not get additional wage for overtime hours and the paid leave they were entitled to. The main conclusion reached was that the company had been performing a stable and continuous economic activity in the French territory by repeatedly posting workers to France during the period 2012-2015. Therefore, it was argued that the TEA was supplying workers on a permanent basis in the French territory for service missions.¹⁷⁵ First, there was the judgement of a French criminal Court (*Tribunal correctionnel de Marseille*). The company was reportedly fined € 375,000 for “disguised work” and “employment of foreigners without authorisation”. The TEA was also banned from operating in France. Furthermore, seven French farmers who had used the services of the Spanish company were ordered to pay fines of € 10,000. Additionally, the three Spanish managers were condemned to four years of imprisonment, a fine of € 100,000 and a definite ban on business management and operating as a TEA. Then, the Criminal Court of Nimes handed down a second criminal judgment. The company received an additional fine of € 500,000 and a definite ban on working as a TEA. The persons responsible for the French branch of *Terra Fecundis* who acted as accomplices also received sentences, varying according to their involvement, from one year to two years in prison and fines of € 5,000 to € 10,000, and they are definitively banned from managing the company and, in particular, from carrying out the activity of a TEA.

2.9.4 Live-in care

‘Live-in carers’ are considered to be “paid professionals, with or without formal care training, whose work primarily involves LTC provision while living in a private residence with the care receiver” (Eurofound, 2020b: 26). Providing live-in care seems to be an important part of the total package of LTC (including both residential care and home care) in Member States such as Austria, Cyprus, Germany, Greece, Italy, Malta, and Spain (Barslund et al., 2021). A recent Eurofound report (2020b) gives a good overview of where these live-in workers mainly come from. In Cyprus, most live-in carers are from the Philippines and Sri Lanka. In Malta, most are from the Philippines. In Spain, most live-in carers are from Latin America (mainly from Ecuador), and many are (or started working as) undocumented migrants. In Austria and Germany, most are from eastern Member States, mainly neighbouring ones (Slovakia and Poland, respectively). Furthermore, there are regional variations. For example, in Italy most live-in carers are from the Philippines (and less so from Romania), but in areas that border Croatia, many are Croatian. It also appears that they provide these services under very different employment models (excluding the informal circuit) (see e.g., Barslund et al., 2021;

173 “le plus grand procès de l’histoire du travail détaché dans l’agriculture française”

See <https://france3-regions.francetvinfo.fr/provence-alpes-cote-d-azur/bouches-du-rhone/marseille/marseille-proces-du-travail-detache-dans-l-agriculture-francaise-la-fin-du-dumping-social-2092549.html>

174 In 2014, the data collected refers to 2,342 temporary workers and a turnover of € 50,260,072 with respect to 516 French clients.

175 And thus not respecting one of the conditions in order to apply Article 12.

Leiber et al., 2021; Steiner et al., 2020). Some live-in carers have an employment contract in the Member State where they provide live-in care, while others have an employment contract in their Member State of origin and temporarily provide live-in care through the free movement of services (i.e. posted LTC workers). The group of live-in carers that reside in the Member State where they provide live-in care, mostly have an employment relationship with a private employer or a TEA, or are employed directly by the care recipient. However, in some Member States, most live-in carers are self-employed (for instance in Austria). There is also a group of live-in carers who are sent by an employer (a private employer or a TEA) to another Member State to provide live-in care there (i.e. posted workers).¹⁷⁶ This section zooms in on the group of posted workers, with a focus on the flow between Poland and Germany.¹⁷⁷

2.9.4.1 Data on intra-EU posting in the live-in care sector

Concerning the posting of workers in the healthcare sector, the number of PDs A1 issued under Article 12 issued is on the low for most Member States. Over the years, only a handful of Member States have issued more than 3% of their PDs A1 under Article 12 to persons employed in this sector (Estonia, Malta, Slovakia, Poland, and Romania) (Pacolet & De Wispelaere 2017; De Wispelaere & Pacolet, 2018a, 2018b; De Wispelaere et al., 2019, 2021a, 2022b). Furthermore, only Germany received on average more than 2% of PDs A1 under Article 12 in the sector of ‘Human health and social work activities’ over the years.¹⁷⁸ Throughout the years, it has become clear that Poland is the main sending Member State of posted workers active in healthcare and long-term care, while Germany is the main receiving Member State of these posted workers.¹⁷⁹ Data for 2020 show that of all the PDs A1 issued by Poland under Article 12 in the sector of ‘Human health and social work activities’ (NACE code Q), 97% were issued for activities in Germany (De Wispelaere et al., 2022b). Furthermore, 15% of all PDs A1 issued under Article 12 by Poland for activities in Germany took place in the sector of ‘Human health and social work activities’.

The country reports from Germany (Albrecht et al., 2022) and Poland (Kielbasa et al., 2022) go deeper into posting in this sector. In the country report of Germany, it is stated that live-in migrant care work has become a cornerstone in the German care industry. In a recent survey it is found that the posting of care workers in Germany is the dominant model with over 70% of studied agencies stating they use posting (Steiner et al., 2020). Although the provision of live-in care in Germany by posted workers from Poland is an important reality, available data are scarce and may underestimate its importance. This is both the case for Poland (as a sending Member State) and Germany (as a receiving Member State). Data from the Minimum Wage Registration Portal in Germany do not reflect the reality. For instance, in 2020, only 1,100 posted workers were registered in this portal for the provision of services in the ‘Care Service Sector’, accounting for only 0.05% of all registered postings (Albrecht et al., 2022). In 2021, this number even dropped to only 313 posted workers, or a share of 0.01% in total. Furthermore, seeing that the ‘Care Service Sector’ comprises not only the live-in care sector, but also other care-related jobs, the live-in care sector plays a marginal role in the context of posted workers to Germany based on official figures. The reason for these low numbers is probably that posted live-in carers are not reported in the portal. In the German country report it is stated that information on live-in care is inadequate, seeing that the sector is unregulated, and often

¹⁷⁶ Although sometimes local companies seem to be involved in the employment of a posted live-in carer. For instance by a chain of placement agencies, an example of this is a worker employed by a Polish labour agency. This worker is then sent to a German placement agency (a service provider) who arranges a placement within a German household.

¹⁷⁷ For more information about intra-EU posting in the live-in care sector see, for instance, the ‘POSTCARE’ project (e.g., Ebbing and Petermann, 2022 forthcoming).

¹⁷⁸ Average of 2016 (1.5%), 2017 (3.4%), and 2020 (3.5%) (De Wispelaere & Pacolet, 2018a, 2018b; De Wispelaere et al., 2022b).

¹⁷⁹ In 2019, for example, over 17,000 ‘postings’ on the basis of a PD A1 issued under Article 12 took place between Poland and Germany.

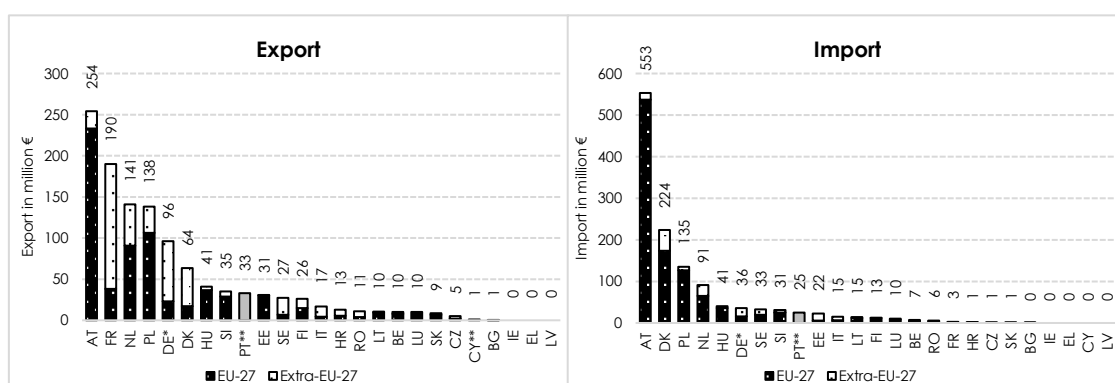
the work is performed by undeclared workers.^{180,181} Furthermore, the country report for Poland provides interesting information on the characteristics of the PDs A1 granted to persons active in the sector of ‘Human health and social work activities’. In 2021, almost 75,000 PDs A1 were granted by Poland to persons employed in the sector of ‘human health and social work activities’ (NACE code Q), of which about 18,000 PDs A1 were granted under Article 12 and almost 57,000 under Article 13 (Kielbasa et al., 2022). Thus, approximately one out of ten PDs A1 issued by Poland in 2021 were granted to persons working in this sector. Only 2,025 PDs A1 (or 2.7%) were allocated to TCNs, while academic literature tells us that many live-in carers posted from Poland are Ukrainians. The obligation for TCNs posted to Germany to have a ‘Vander Elst visa’ may explain this underestimation. For example, the authors of the country report of Poland state the following (Kielbasa et al., 2022: 112): “we fear that when it comes to the most popular direction of TCN caregivers providing home care - Germany - the domestic so-called Vander Elst visa acts like a major hindrance, directly influencing the number of such TCN caregivers and hindering their access to the German market in contravention with the European law and especially the Court of Justice established line of jurisprudence. Indeed, the country continues to require TCN workers posted thereto to obtain such Vander Elst visas from the German embassies, before they are posted to Germany.”

Finally, another way to approximate postings in the live-in care sector is to look at the export and import of services in this sector. Although certainly not a perfect match, the sector analysed to approximate the live-in care sector is the sector ‘Services: Personal, cultural, and recreational services other than audio-visual and related services; Health services’. In 2020, the EU-27 exported € 1,245 million health services abroad. About 60% of these services were exported to the EU-27 and 40% to outside the EU-27. *Figure 21* shows that Austria is the main exporting Member State (21.8% of all exported services by the EU-27), followed by France (16.3%), the Netherlands (12.1%), and Poland (11.9%). Quite some Member States exported the majority of services towards outside the EU-27, namely France (80.0% for extra-EU-27), Germany (76.0%, data 2019), Denmark (72.9%), Sweden (75.9%), Italy (74.3%), Croatia (56.9%), Romania (64.2%), Czechia (61.5%), and Bulgaria (83.3%). On the importing side, the EU-27 Member States imported € 1,282 health services in 2020. Most services were imported from the EU-27 (84.1%) as opposed to extra EU-27 (15.8%). Once more, the most remarkable Member State is Austria, which imported 43.8% of all imported health services by the EU-27. In addition, Denmark (17.7%), Poland (10.7%), and the Netherlands (7.2%) follow at a distance. Whereas most Member States imported health services from inside the EU-27, four Member States imported most from outside the EU-27. It concerns Germany (55.6% from extra-EU-27, data 2019), Estonia (75.9%), Italy (57.9%), and France (66.7%). It appears that the effect of the COVID-19 pandemic on the export and import of health services was not remarkable, seeing that from 2019 to 2020, the EU-27 exported 6.6% more and imported 7.2% more. Nevertheless, this growth is entirely thanks to flows between EU-27 Member States (export +14.6%; import +9.4%), seeing that the import from and export to extra EU-27 countries has decreased by 4.0% and 2.4% respectively.

180 For instance, the dominant mode of live-in migrant care work in Germany is through an informal arrangement between the worker and the family. Eurofound (2020) estimated there are around 180,000-200,000 households in Germany who employ undeclared live-in care workers. This can be compared to around 30,000 households who make use of formal live-in care services through placement agencies (Horn et al., 2019).

181 Moreover, the sector is characterised by an isolated work environment: live-in carers typically work alone and have little contact with similar workers and the society in which they work. ... “Consequently, the special isolation of live-in care workers in private households does not only hamper police patrol, but almost prevents control authorities from checking the working conditions at all in traditional ways” (Heindlmaier & Kobler, 2022: 13).

Figure 21. Export and import of health services by the EU-27, 2020, million €



* Data for DE concern reference year 2019.

** For PT and CY, a breakdown by EU-27 and extra-EU-27 for the export is not possible. For PT a breakdown by EU-27 and extra-EU-27 for the import is not possible.

***Data for ES and MT are not available.

Source Eurostat [BOP_ITS6_DET]

2.9.5 Meat processing

A significant share of the workforce in the European meat sector are EU-movers and TCNs (EFFAT, 2020).¹⁸² However, based on data from both the PD A1 and the prior declaration tools, the number of posted workers active in this sector seems to be rather limited in the EU. Although, until recently, the German meat processing industry relied heavily on ‘cheap’ posted workers. Today, however, the German meat processing industry counts almost no incoming posted workers. Indeed, recent data from the Minimum Wage Registration Portal show that the number of posted workers in the German meat industry (including slaughtering and meat processing) has dropped from 5,229 workers in the first quarter of 2020 to 148 workers in the first quarter of 2021 (Albrecht et al., 2022).¹⁸³ This section looks at the explanation for the sharp increase and then sharp decrease in the number of posted workers active in the German meat processing industry (for more information, see also Albrecht et al., 2022).

In the German country report (Albrecht et al., 2022), an entire chapter is dedicated to the meat sector, which indicates its importance (see *Chapter 4* of the German report). Indeed, especially in Germany, this sector has received a lot of attention concerning the posting of workers. Until recently, it was the second biggest receiver of posted workers in Germany, after the construction sector (Centamore, 2020). For instance, in 2015, it was estimated that four out of ten workers employed in the German meat processing industry were posted workers (Wagner & Hassel, 2016), mostly from Romania, Poland, and Bulgaria.¹⁸⁴ The German meat industry has not been without turmoil the last decades, which has led to some new developments recently. In essence, while the posting of workers is intended to allow businesses to accommodate temporary staff shortages, this is not how it was used in the German meat industry, as it was used to replace expensive permanent staff with cheap posted workers (Weltin, 2019). At the time of the 2004 EU enlargements, there was no sector-wide statutory minimum wage so German meat producers could legally pay posted workers from eastern European countries at extremely low wages, from € 3 to € 5 an hour (Albrecht et al., 2022). Consequently, there complaints from neighbouring countries because of unfair competition and social dumping (Staunton, 2021). In 2015, a statutory minimum wage was introduced in Germany. Moreover, a

¹⁸² For more information about this sector, please have a look at the publications in the frame of the research project ‘Meat-up Ffire: fairness, freedom and industrial relations across Europe: up and down the meat value chain’ (<https://www.meatupffire.com/>). In Belgium, foreign workers in the meat industry are mostly from Poland, Romania, and Bulgaria (Rocca & Vrijssen, 2020), while in Denmark most come from Poland (Navrbjerg, 2020). Poland is both a sending country of workers in this industry to other EU Member States, and a receiver from non-EU countries such as Ukraine or Belarus (Buchowicz et al., 2020).

¹⁸³ In 2020, 66% of posted workers to Germany in this sector came from Hungary, while 26.5% originated from Poland.

¹⁸⁴ By 2013, approximately 70% of the workforce in the four largest meat companies were posted workers (Bogoeski, 2017). Moreover, some 44,000 workers in the meat industry and subject to the German social security system lost their jobs between 1999 and 2014.

voluntary agreement by the six largest German meat producers was concluded to ban the use of intra-EU posting (i.e., the companies agreed to only take on contract workers hired in Germany and subject to the German social security system). Both measures led to a sharp drop in the number of posted workers in the German meat processing industry. Nevertheless, companies then turned to using subcontracting chains, which had the same effect as posting workers (namely cost cutting and poor working conditions) (Solomon et al., 2021).¹⁸⁵ This means that despite posting being prohibited in big parts of the sector, the working conditions of subcontracted, mainly eastern European workers, continued to be poor until December 2020, when a new law was introduced that forced meat producers to integrate all contracted workers into the core workforce (Albrecht et al., 2022). The new law was put into place in 2020 which bans the use of subcontracting in the meat industry to counter the hiring of migrant workers on less favourable terms and conditions (Staunton, 2021). This new law banning subcontracting, the Occupational Safety and Health Inspection Act, was also passed due to a large outbreak of COVID-19 at a big meat-packing plant (Tönnies company) in June 2020, which further uncovered the poor working conditions in this sector (Albrecht et al., 2022). Other measures have been introduced as well, including the obligation to electronically record working hours and store these records since January 2021, a minimum inspection rate of 5% of meat industry workplaces per year and a doubling of the fines to € 30,000 for violations of the Working Hours Act. From April 2021 onward, the use of temporary workers in the meat industry was banned completely¹⁸⁶.

2.9.6 Manufacturing

‘Manufacturing’ covers a large and diverse group of industries. Several of these sectors (for instance, the metal industry and the shipbuilding industry¹⁸⁷) rely heavily on posted workers. Data reported at EU-level show that France (70,759 posted workers), Italy (11,759 posted workers), Sweden (8,423 posted workers) and Luxembourg (5,854 posted workers) receive a large number of posted workers active in the manufacturing sector (2019 data) (De Wispelaere et al., 2021b). It implies that a high proportion of the incoming posted workers to these Member States are active in this sector. For instance, in France, one out of four incoming posted workers are employed in ‘Manufacturing’.

From a number of country reports, more information can be gleaned on the subsectors in which they are mainly active. For instance, the Belgian metal industry was the third largest sector for incoming posted workers in 2021, with about 24,100 persons reported in LIMOSA, or 9% of all persons reported, after the main sectors of construction and transport (De Wispelaere et al., 2022c). These persons mainly come from Poland (18%), France (14%), Portugal (11%), and the Netherlands (10%). The country report for France shows that about 30% of the postings to France were for activities in the manufacturing sector (Muñoz, 2022). The French country report also mentions that 5.2% of postings in 2020 occurred for clients active in the sector “building of ships and floating structures” (NACE 30.11). Historically, the use of posted workers has always been high in this sector of activity, in particular at the shipyards in Saint Nazaire.

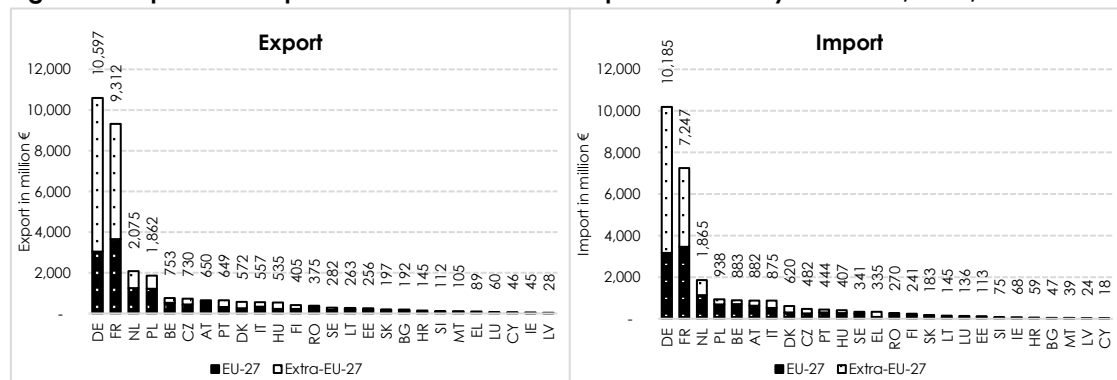
Finally, it should be noted that in cases of ‘initial assembly and/or first installation of goods’ when the posting does not exceed eight days, the rules of the Posting of Workers Directive on minimum paid annual leave and remuneration do not apply (the does not concern the construction sector). Consequently, there is a real chance that these activities do not have to be reported in the national declaration tool of the receiving Member States. For instance, specialised technicians from foreign

¹⁸⁵ Indeed, instead of integrating formerly posted workers into the core workforce, the new strategy of the meat producing companies was to use workers from German-based subcontracted firms, which continued to recruit their workers in eastern European countries. However, this form of hiring is less used in the German meat industry (Whitfall & Trinczek, 2020).

¹⁸⁷ The shipbuilding industry is a highly subcontracted business, with large MNEs owning the yards and most of the work actually taking place at subcontractors (Lillie & Wagner, 2015). For example, when comparing the payments to subcontractors to the total turnover, the share amounts to more than 20% in the EU-27 in the shipbuilding sector, while it even surpasses 25% in France (32%), Croatia (32%), Italy (27%), and Finland (27%) (Eurostat [SBS_NA_IND_R2] and [SBS_JS_SUBC_R2]). Subcontracting is closely linked to the posting of workers, as it is often the case that workers are posted to provide a service abroad through a subcontractor. For instance, a Finnish subsidiary in the shipbuilding industry at one point in 2009 had 3,800 workers on site while having 40,000 workers off-site working for the company’s subcontractors. Most of the workers were either posted by subcontractors or as agency workers (Lillie & Wagner, 2015).

companies and self-employed persons are exempt from making a declaration in the Belgian national declaration tool (i.e., LIMOSA) if they come to Belgium to carry out urgent maintenance or repair work on machines or equipment.¹⁸⁸ However, the importance of the activity can be seen from the figures below. Indeed, the subsector maintenance and repair services can be analysed in terms of export and import of services. In total, the EU-27 exported € 32,394 million services towards the rest of the world in 2020¹⁸⁹. The majority of services is exported to extra-EU-27 Member States (56.2%), and the remaining part to EU-27 Member States (43.8%). The main exporting Member States are Germany and France, as they exported 34.3% and 30.1% of all exported services by the EU-27 respectively. This is also made clear in *Figure 22*, seeing that Germany exported € 10,597 million and France € 9,312 million. The Netherlands (€ 2,075 or 6.7%) and Poland (€ 1,862 or 6.0%) follow at a distance. Although most Member States export the majority of maintenance and repair services towards the EU-27, this is not true for a number of Member States. Germany (71.4% of all exported services), France (60.8%), Portugal (51.0%), Denmark (54.4%), Hungary (57.8%), Croatia (58.8%), and Ireland (73.3%) exported the majority of services towards outside the EU-27. The total import by the EU-27 amounts to € 27,615 million in 2020¹⁹⁰. Most maintenance and repair services are imported from outside the EU-27 (52.0%), while 48.0% is imported from other EU-27 Member States. The most important importing Member States in absolute terms are once again clearly Germany (€ 10,185 million or 37.8% of all imported services by the EU-27) and France (€ 7,247 million or 26.9%). The Netherlands follow as the third most important Member State with € 1,865 million imported services or 6.9% of all imported services by the EU-27. Five Member States imported most of their services from extra-EU-27 countries. It concerns Germany (68.9% of all imported services), France (52.3%), Greece (75.5%), Ireland (80.9%), and Malta (64.1%). In this sector, the COVID-19 pandemic was clearly palpable as well, seeing that total EU-27 export decreased by 9.9% and import by 13.3% from 2019 to 2020.

Figure 22. Export and import of maintenance and repair services by the EU-27, 2020, million €



* Data for ES are not available.

Source Eurostat [BOP_ITS6_DET]

2.9.7 Live performance

The final sector which deserves a closer look is the live performance sector.¹⁹¹ This sector, together with sectors such as healthcare or research and technology receive little attention in the public and

¹⁸⁸ Furthermore, the Spanish report remarked that it might be necessary to make a distinction between the activity of the clients and the activity of the posted workers (Carrascosa & Contreras Hernández, 2022). It is for instance the case that while a significant number of client companies contract activities that require posted workers to carry out installation and/or maintenance work on machinery, these activities are categorized in the construction sector, the industrial sector, or the service sector by some Autonomous Communities which record the incoming postings. This observation is well illustrated by the statistics collected for France. In 2020, 2.3% of the postings to France were carried out under 'Installation of industrial machinery and equipment' (NACE 33.20). However, this sector is of marginal importance if one considers the sector in which the clients are active.

¹⁸⁹ Data for 2021 are available but are still provisional. The export by the EU-27 in 2021 amounts to € 32,697 million.

¹⁹⁰ Data for 2021 are available but are still provisional. The import by the EU-27 in 2021 amounts to € 28,516 million.

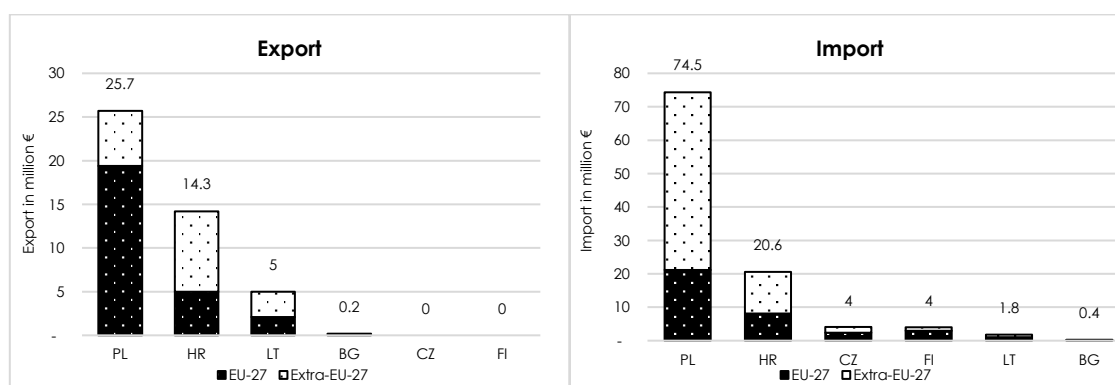
¹⁹¹ For more information on the sector, and its transnational dimension, see De Wispelaere et al., 2021.

political debate on posting.¹⁹² The sector is therefore considered to be a ‘forgotten’ sector. Recent research showed the strong transnational dimension of the sector. After all, a group of workers active in the live-performance sector is highly mobile in the EU (i.e., ‘highly mobile workers’): their place of employment is not a particular Member State but the EU in general. The provisions as defined in the Posting of Workers Directive and in the Coordination Regulations¹⁹³, as well as possible amendments to it, are therefore of great importance to them.

The live performance sector was also hardly mentioned in the country reports.¹⁹⁴ The only country report which mentions this sector is the Belgian one. (De Wispelaere et al., 2022c). In 2019, almost 15% of the outgoing posted workers from Belgium were active in the live performance sector.¹⁹⁵ Of all the PDs A1 issued under Article 12 for activities in the live performance sector, 28% lasted only one day in 2019. Furthermore, almost 90% of the transnational activities were limited to one week. This shows that the posting period in the live performance sector is mostly limited to only a few days.

One can try to analyse the live-performance sector by looking at the export and import of services. The category that approaches the sector best is ‘Artistic related services’ (SK12), as analysed by De Wispelaere et al. (2021c). However, data for only six Member States are available¹⁹⁶, as shown in Figure 23. It can be seen that Poland is both the main exporting Member State (€ 25.7 million) and importing Member State (€ 74.5 million). Furthermore, Croatia is an important exporting (€ 14.3 million) and importing Member State (€ 20.6 million). Whereas Poland exported the majority of live performance services to the EU-27, most imported services came from outside the EU-27. For Croatia, both the export and import were mainly towards and from outside the EU-27. From 2019 to 2020 the export of live performance services decreased considerably in Bulgaria (-71.4%), Croatia (-47.8%), and Poland (-10.1%), although it increased in Lithuania (+13.6%). The import of services, on the other hand, decreased for all reporting Member States. All Member States, with the exception of Croatia (-6.4%), imported more than 40% less live-performance services in 2020 compared to 2019 (Bulgaria -63.6%, Czechia -66.9%, Lithuania -52.6%, Poland -41.5%, and Finland -42.9%). This shows that the COVID-19 pandemic had a considerable effect on this sector.

Figure 23. Export and import of live performance services by the EU-27, 2020, million €



Source Eurostat [BOP_ITS6_DET]

¹⁹² In political discussions and policy decisions at European level the live performance sector might be overlooked. This might be due to its small size, especially compared to road freight transport. For instance, during the recent debates on the revision of the Posting of Workers Directive as well as on the revision of the Regulations on the coordination of social security systems, some concerns of the social partners in the live performance sector received little or no attention.

¹⁹³ See, for instance, van Ooij (2022).

¹⁹⁴ One explanation lies in the fact that in a number of receiving Member States the sector is exempted from making a notification in the prior declaration tool.

¹⁹⁵ In 2020, due to the COVID-19 pandemic, activities in this sector fell sharply.

¹⁹⁶ Bulgaria, Czechia, Croatia, Lithuania, Poland, and Finland.

3. Impact of intra-EU posting on the economic actors involved

When discussing the impact of intra-EU posting, the academic, political, and public debate seems to focus mainly on the negative consequences of intra-EU posting, in particular the risks of ‘social dumping’ (although the definition of this concept is not always clear). That the effects of the provision of services in the EU and thus of intra-EU posting are not neutral and have implications for all economic actors involved cannot be denied. Neither is the fact that posting poses challenges in a number of labour-intensive sectors (which becomes clear in *Chapter 4* when discussing the infringements associated with posting). However, any academic and political discussion benefits from an exhaustive approach that examines both the advantages and disadvantages of intra-EU posting. This should allow for targeted European or national measures when needed.¹⁹⁷ However, we should not throw the baby out with the bath water.

Figure 24 gives a general overview of the costs and benefits of intra-EU posting from both the perspective of the Member State of origin (i.e., the ‘sending’ Member State) and the host Member State (i.e., the ‘receiving’ Member State) without defining the economic actors (i.e., economic agents) (posted workers, posting undertakings, local employers and workers, service recipients (i.e., ‘clients’), tax authorities, competent public authorities (incl. labour inspectorates), etc.) to which these costs and benefits are applicable. Indeed, costs and benefits of posting, and the final outcome of it, may vary greatly between these economic actors, as well as according to the sector of activity concerned. Apart from the impact of posting on these economic actors from a micro-economic perspective, it also has an impact on ‘the economy’ of the host and sending Member State from a macro-economic perspective, such as on the level of employment (the impact on employment was already discussed in *section 2.8*), the level of trade in services, and the level of tax revenues. Furthermore, it can be argued that intra-EU posting embodies the principle of the freedom to provide services (*Article 56 TFEU*), one of the main principles of the European internal market.¹⁹⁸ It also has a ‘redistributive’ effect by creating a flow of income from ‘richer’ economies to ‘poorer’ economies (in terms of GDP per capita). In that respect, higher revenues for posting undertakings and wages for posted workers benefit not only them but also the consumption and tax receipts in these ‘poorer’ economies. Finally, it can be argued that the provision of services by intra-EU posting has several benefits compared to other types of intra-EU labour mobility.¹⁹⁹ For instance, expenditures for travel and housing are covered,²⁰⁰ and posted workers do not have to apply for a job in the foreign country. Furthermore, EU-movers of working age are no longer taxed in their Member State of origin. Consequently, emigration erodes the number of people left to pay taxes. This in contrast to posted workers who continue to pay taxes in their Member State of origin. As a result, intra-EU posting may have positive consequences on the labour tax revenues of Member States. Moreover, there are concerns that emigration may lead to ‘brain drain’, labour shortages, and a worsening of the demographic outlook in the Member State of origin. Such costs may turn up less when persons are posted temporarily to

¹⁹⁷ In that regard see Recital 4 of Directive (EU) 2018/957: “More than 20 years after its adoption, it has become necessary to assess whether Directive 96/71/EC of the European Parliament and of the Council still strikes the right balance between the need to promote the freedom to provide services and ensure a level playing field on the one hand and the need to protect the rights of posted workers on the other.”

¹⁹⁸ See e.g., Recital 3 of the Posting of Workers Directive: “Whereas the completion of the internal market offers a dynamic environment for the transnational provision of services, prompting a growing number of undertakings to post employees abroad temporarily to perform work in the territory of a Member State other than the State in which they are habitually employed.”

¹⁹⁹ For instance, Mussche et al. (2018: 16) argue that posting “is a response to the desire of EU citizens to remain permanently in their home country for cultural, linguistic and family reasons, while at the same time seizing economic opportunities posed by the EU free movements.”

²⁰⁰ See also the Practical Guide on Posting (EC, 2019: 19): “Posting of workers is undertaken at the initiative and in the interest of the employer. It is therefore logic that the employer supports the additional costs linked with the displacement from the usual place of work in the home Member State to the working place in the host Member State. Directive 2018/957/EU introduced a provision according to which the employer must reimburse the posted worker for travel, board and lodging expenditure.”

another Member State. Finally, economists consider intra-EU labour mobility well suited to absorb an economic shock. In such an event, people are moving from high to low unemployment regions in the EU. However, one tends to narrow the discussion on the role of labour mobility in the EU as an adjustment mechanism to mere labour migration. This might be one of the least suitable forms of labour mobility (see the discussion about the disadvantages of labour migration for the Member State of origin), in contrast to intra-EU posting.²⁰¹

Figure 24. Non-exhaustive overview of potential benefits and costs of posting from the perspective of the Member State of origin and the host Member State

	From the perspective of the <u>Member State of origin</u>	From the perspective of the <u>host Member State</u>
Benefits	<ul style="list-style-type: none"> • Increase of export of services and employment; • Higher wages and purchasing power for posted workers; • Higher tax revenues; • Cushioning an economic shock; • Several benefits for both mobile persons (expenditures for travel and housing are covered, they do not have to apply for a job in a foreign language/country, etc.) and Member States of origin (posted workers continue to pay taxes in the Member State of origin, lower risk of 'brain drain' etc.) compared to emigration. 	<ul style="list-style-type: none"> • Address shortages of labour and knowledge (over a period of time): avoid an interruption in economic growth; • Perfect occupational mobility: demand-driven instead of supply-driven; • No threat of 'welfare tourism'; • Competition contributes to lower prices.
Costs	<ul style="list-style-type: none"> • Differences in pay and employment conditions compared to domestic workers; • Other social security coverage compared to domestic workers; • Threats of discrimination, exploitation, and xenophobic attitudes; • Separated from their households, communities, and cultures; • Erosion of the workforce in the Member State of origin. 	<ul style="list-style-type: none"> • Threat of job displacement effects; • No labour tax revenues from posted workers; • Downward pressure on wages and social protection systems (i.e., 'social dumping'); • Increased risks of social fraud and tax fraud; • Small companies are outbid in the market.

Source De Wispelaere & Pacolet (2020)

3.1 The posted worker: "Equal pay for equal work at the same workplace"

Thanks to the amended Posting of Workers Directive, posted workers are entitled from day one to all the elements of remuneration of the host Member State (also covering other advantages such as bonuses and allowances) rendered mandatory by law or by collective agreement made universally applicable. This provision aims to bring the posted workers' wages closer²⁰² to those applicable to local workers (as was announced by the European Commission under the slogan of "equal pay for equal work at the same workplace") but also to other groups of mobile workers who make use of their freedom of movement and have an employment relationship with an employer established in the host Member State. In theory (and in practice), a large proportion of workers will have their wages increased if they are posted to another Member State. This is especially true for workers posted from

²⁰¹ See also <https://hiva.kuleuven.be/nl/nieuws/nieuwsitems/Intra-EU-labour-mobility-as-adjustment-mechanism-for-the-economic-shock-caused-by-COVID-19-pandemic>

²⁰² After all, there will still be differences. This is also reflected in the provisions applicable to a posting of less than 12 or 18 months versus those applicable to a posting of more than 12 or 18 months. See also Recital 9 of Directive (EU) 2018/957: "Posting is temporary in nature. Posted workers usually return to the Member State from which they were posted after completion of the work for which they were posted. However, in view of the long duration of some postings and in acknowledgment of the link between the labour market of the host Member State and the workers posted for such long periods, where posting lasts for periods longer than 12 months host Member States should ensure that undertakings which post workers to their territory guarantee those workers an additional set of terms and conditions of employment that are mandatorily applicable to workers in the Member State where the work is carried out." Moreover, a difference should be made between workers posted by a temporary employment agency versus all other posted workers. Directive 2018/957/EU lays down specific rules for posted temporary agency workers. The employer (the temporary agency) must guarantee to posted temporary agency workers the terms and conditions of employment which apply pursuant to article 5 of Directive 2008/104/EC on temporary agency work, i.e., in principle at least those that would apply if they had been recruited directly by the user undertaking to occupy the same job.

a ‘low-wage’ Member to a ‘high-wage’ Member State. The percentage of posted workers who theoretically should receive a (much) higher wage during their period abroad is calculated in *section 3.1.1*, for the total number of posted workers as well as for those active in the construction sector. The theoretical gross wage cost is also calculated for a number of receiving Member States, as well as by how much the wages of the posted workers have (theoretically) increased. Subsequently, in *section 3.1.2* we discuss the effects of the ‘unequal’ treatment between posted workers and local workers in terms of paying employee social security contributions. Finally, in *section 3.1.3* we argue that the purchasing power of posted workers will in practice often be higher than that of local workers due to the differences in price levels between the sending and receiving Member State.

Finally, it should be noted that intra-EU posting is an ‘employer-driven’ form of labour mobility. In that respect, Bottero (2021: 54) rightly notes that “this means that, since both the initiative, responsibility and costs of the mobility fall entirely on the employer, the posted workers’ chances to benefit from the economic opportunities offered by the secondment across borders are directly dependent on their employers’ competitiveness.”

3.1.1 Increase of the gross wage

Posted workers are entitled to all the elements of ‘remuneration’ of the host Member State.²⁰³ For most posted workers, the remuneration they are entitled to in the host Member State will be much higher than the remuneration they receive in the sending Member State, especially if it concerns EU-13 workers being posted to the EU-14. The larger wage differences between Member States, the larger the potential welfare gains for posted workers. In this regard, it is possible to compare wage differences among Member States and estimate how much more should/could be earned if workers are posted from one Member State to another (at least in theory, based on differences in national minimum wages among Member States as well as, for the construction sector, differences in the average hourly wages)²⁰⁴. Based on Eurostat data²⁰⁵ it can be seen that the top five directions for posted workers to get the highest multiplication in gross wage all have Bulgaria as the Member State of origin (see *Table 9*). This is not surprising, as the monthly minimum wage in Bulgaria is the lowest in the EU-27, namely € 332. A posted worker from Bulgaria would earn (in theory – no legal advice) 6.6 times the Bulgarian minimum wage when being posted to Luxembourg where he/she would receive the Luxembourg minimum wage, 5.2 times more when being posted to Ireland, 5.1 times more when being posted to the Netherlands, 4.9 times more when being posted to Belgium, and 4.8 times more when being posted to Germany.

In a next step it is possible to ‘apply’ this cross-table (*Table 9*) to the actual number of posted workers according to Article 12 in 2020 (*Table 10*). As a result, it is possible to see how many posted workers should receive a higher wage. In this exercise, the Member States which do not have a minimum wage are also included. For these Member States (Denmark, Italy, Cyprus, Austria, Finland, and Sweden), the first decile monthly earnings are used. This gives us the most exhaustive estimated view possible on the increase of the minimum wages when workers are posted.

Table 8 shows an estimation of the share of workers posted who should receive a higher minimum wage. More than 95% of the workers posted from Bulgaria, Czechia, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Portugal, and Romania should receive a higher wage. On the other hand, more than 95% of the workers posted to Denmark, Ireland, Luxembourg, the Netherlands, Austria, Finland, and Sweden should receive a higher wage. This does not only indicate that these Member

²⁰³Under Directive 96/71/EC, only ‘minimum rates of pay’ were granted to posted workers. With Directive 2018/957/EU, posted workers are entitled to all the elements of ‘remuneration’ rendered mandatory by law or by collective agreement made universally applicable. In practice, posted workers may also receive overtime rates, an allowance for working at night, an allowance for working on Sundays, or on public holidays, a holiday remuneration, an extra holiday allowance, an end of the year bonus and the 13th month bonus.

²⁰⁴Ideally, a comparison should be made between differences in ‘remuneration’, but this is not possible on the basis of the available data.

²⁰⁵Eurostat [EARN_MW_CUR] data second semester 2021

States have low or high minimum wages respectively, but also the most important flows for these Member States. For example, workers posted from Portugal should only receive a higher wage when being posted to 15 Member States²⁰⁶, and not when they are posted to the remaining 11 Member States²⁰⁷. However, *Table 8* shows that the number of PDs A1 issued for workers posted to these 15 Member States account for 98.6% of all PDs A1 issued. Thus, almost all workers posted from Portugal should receive a higher wage, even though wage levels in Portugal are not one of the lowest in the EU. This indicates that the flows of workers posted from Portugal mainly go to Member States with a higher wage.

Similar calculations can be made for posted workers active in the construction sector, as shown in *Table 8* as well. The complete analysis is included in *Table 11* and *Table 12*.²⁰⁸ For this analysis, the average wages and salaries in the construction sector are used (data 2020, except 2017 for Romania). The analysis in *Table 8* indicates that all posted workers in the construction sector posted from Hungary and Romania should receive a higher wage. On the other hand, all construction workers posted to Denmark, the Netherlands, and Austria should receive a higher wage.

Some remarkable differences can be noticed between the shares in total and in the construction sector specifically. For the persons posted from Luxembourg, only 0.2% should receive a higher wage in total, while 64.8% of construction workers should receive a higher wage (*Table 8*). In general, only a small number of PDs A1 under Article 12 were issued by Luxembourg to workers posted to Denmark, Finland, and Sweden, the three Member States with a higher minimum wage than Luxembourg (or the first decile monthly earnings in this case). However, in the construction sector, the average wages in Belgium are higher than in Luxembourg (hourly wage of € 25.9 versus € 24.9 respectively, see *Table 11*), and more than 64% of PDs A1 in Luxembourg are issued for a posting in the Belgian construction sector (15,444 out of 23,988 PDs A1; see *Table 12*).

The other point of view also shows some differences. The share of persons posted to Czechia, Estonia, Spain, Latvia, and Slovenia who should receive a higher wage is much higher in the construction sector than in general. For Czechia the difference mainly occurs because many workers in the construction sector are posted to Czechia from Poland and Slovakia, who will receive a higher wage in Czechia in this sector, but not a higher minimum wage in general when being posted to Czechia. In Estonia and Latvia, the same is true for workers posted in the construction sector to Estonia or Latvia from Lithuania and Poland. For workers posted to Spain, the difference mainly occurs because of the different profile of the important flows. In general, 53% of PDs A1 received have Germany as an issuing Member State, for whom no higher wage has to be paid, and only 12% has Portugal as an issuing Member States, for whom a higher wage has to be paid. However, in the construction sector, only 19% of received PDs A1 is issued by Germany, while 62% is issued by Portugal. Therefore, whereas in general it is estimated that only 17.8% of posted workers to Spain should receive a higher wage, this share amounts to 76.5% in the construction sector. Finally, for postings to Slovenia, the difference can also be explained by the difference in profile of the received posted workers. In general, more than half of the PDs A1 received by Slovenia are issued by Germany, for whose workers no higher minimum wage should be paid, while the share from Croatia ‘only’ amounts to 18.1%. In the construction sector, however, the share of received posted Germans only amounts to 9.3%, while 62.2% come from Croatia, for whom a higher wage must be paid. As a result, in general only 24.9% persons posted to Slovenia should receive a higher wage, while in the construction sector it amounts to 79.3%.

206 Belgium, Denmark, Germany, Ireland, Spain, France, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Slovenia, Finland, and Sweden.

207 Bulgaria, Czechia, Estonia, Greece, Croatia, Latvia, Lithuania, Hungary, Poland, Slovenia, and Slovakia.

208 Both tables are also useful for analysing the main reasons for posting in the construction sector (cost-driven vs skills-driven). For example, if *Table 12* indicates that there is a large flow of posted workers between country X and country Y while the average hourly wage does not differ much between both countries (*Table 11*), reasons other than labour costs may be at play (for instance, from NL to BE).

Table 8. Estimate of share of persons posted from and to EU-27 Member States that should receive a higher gross wage, in general and in the construction sector, 2020

	In general**		In the construction sector**	
	Share of persons posted from ... who should receive a higher gross wage	Share of persons posted to ... who should receive a higher gross wage	Share of persons posted from ... who should receive a higher gross wage	Share of persons posted to ... who should receive a higher gross wage
BE	49.6%	81.0%	33.2%	98.3%
BG	100.0%	0.0%		30.6%
CZ	96.8%	1.3%	82.1%	67.1%
DK	0.0%	100.0%		100.0%
DE	67.9%	81.8%	86.5%	89.5%
EE	99.2%	3.1%	99.8%	64.9%
IE	47.2%	97.0%		97.0%
EL	92.9%	6.0%		14.7%
ES	73.1%	17.8%		76.5%
FR	73.9%	29.0%	76.3%	77.0%
HR	99.1%	6.7%	99.7%	4.4%
IT	19.0%	94.7%		63.6%
CY	12.8%	27.9%		
LV	98.3%	2.8%	98.0%	80.5%
LT	97.6%	31.8%	99.5%	75.5%
LU	0.2%	100.0%	64.8%	70.1%
HU	99.1%	4.2%	100.0%	25.0%
MT	88.3%	11.7%		39.7%
NL	8.1%	99.4%	5.5%	100.0%
AT	2.8%	99.8%	0.9%	100.0%
PL	97.1%	1.6%	98.9%	18.2%
PT	98.6%	2.1%	99.1%	22.4%
RO	99.6%	0.9%	100.0%	0.0%
SI	94.5%	24.9%	93.4%	79.3%
SK	86.8%	14.3%	97.3%	11.3%
FI	47.6%	99.2%	2.3%	99.9%
SE	13.4%	98.9%	64.3%	95.5%

* This exercise is based on PD A1 data from 2020 and minimum wages of 2020.

** Based on the applicable statutory minimum wages. In this exercise, the Member States which do not have a minimum wage are also included. For these Member States (Denmark, Italy, Cyprus, Austria, Finland, and Sweden), the first decile monthly earnings are used.

*** In the construction sector, the exercise is based on the average wages in 2020, except for Romania where 2017 is used.

Source Eurostat [EARN_MW_CUR] and [LC_LCI_LEV], De Wispelaere et al. (2022a forthcoming)

Table 9. Cross-table monthly minimum wages: factor by which the gross wage is multiplied when posted to another Member State, 2020 (no legal advice)

			Member State of origin																											
	MMW***	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE		
Host Member State	BE	1,625.7		4.89	2.73		1.03	2.78	0.94	2.14	1.47	1.05	2.87			3.25	2.53	0.74	3.42	2.07	0.96		2.62	2.10	3.48	1.59	2.61			
	BG	332.3	0.20		0.56		0.21	0.57	0.19	0.44	0.30	0.21	0.59			0.66	0.52	0.15	0.70	0.42	0.20		0.54	0.43	0.71	0.32	0.53			
	CZ	596.4	0.37	1.79			0.38	1.02	0.35	0.79	0.54	0.38	1.05			1.19	0.93	0.27	1.25	0.76	0.35		0.96	0.77	1.28	0.58	0.96			
	DK																													
	DE	1,585.0	0.97	4.77	2.66			2.71	0.92	2.09	1.43	1.02	2.79			3.17	2.47	0.72	3.33	2.02	0.93		2.56	2.04	3.40	1.55	2.54			
	EE	584.0	0.36	1.76	0.98		0.37		0.34	0.77	0.53	0.38	1.03			1.17	0.91	0.27	1.23	0.74	0.34		0.94	0.75	1.25	0.57	0.94			
	IE	1,723.8	1.06	5.19	2.89		1.09	2.95		2.27	1.56	1.11	3.04			3.45	2.69	0.78	3.62	2.20	1.01		2.78	2.22	3.69	1.68	2.77			
	EL	758.3	0.47	2.28	1.27		0.48	1.30	0.44		0.68	0.49	1.34			1.52	1.18	0.34	1.59	0.97	0.45		1.22	0.98	1.62	0.74	1.22			
	ES	1,108.3	0.68	3.33	1.86		0.70	1.90	0.64	1.46		0.71	1.95			2.22	1.73	0.50	2.33	1.41	0.65		1.79	1.43	2.37	1.08	1.78			
	FR	1,554.6	0.96	4.68	2.61		0.98	2.66	0.90	2.05	1.40		2.74			3.11	2.42	0.71	3.27	1.98	0.91		2.51	2.00	3.33	1.52	2.50			
	HR	567.3	0.35	1.71	0.95		0.36	0.97	0.33	0.75	0.51	0.36				1.13	0.88	0.26	1.19	0.72	0.33		0.92	0.73	1.22	0.55	0.91			
	IT																													
	CY																													
	LV	500.0	0.31	1.50	0.84		0.32	0.86	0.29	0.66	0.45	0.32	0.88				0.78	0.23	1.05	0.64	0.29		0.81	0.64	1.07	0.49	0.80			
	LT	642.0	0.39	1.93	1.08		0.41	1.10	0.37	0.85	0.58	0.41	1.13			1.28		0.29	1.35	0.82	0.38		1.04	0.83	1.38	0.63	1.03			
	LU	2,201.9	1.35	6.63	3.69		1.39	3.77	1.28	2.90	1.99	1.42	3.88			4.40	3.43		4.63	2.81	1.29		3.55	2.84	4.72	2.15	3.53			
	HU	476.0	0.29	1.43	0.80		0.30	0.82	0.28	0.63	0.43	0.31	0.84			0.95	0.74	0.22		0.61	0.28		0.77	0.61	1.02	0.46	0.76			
	MT	784.7	0.48	2.36	1.32		0.50	1.34	0.46	1.03	0.71	0.50	1.38			1.57	1.22	0.36	1.65		0.46		1.27	1.01	1.68	0.77	1.26			
	NL	1,701.0	1.05	5.12	2.85		1.07	2.91	0.99	2.24	1.53	1.09	3.00			3.40	2.65	0.77	3.57	2.17			2.75	2.19	3.64	1.66	2.73			
	AT																													
	PL	619.5	0.38	1.86	1.04		0.39	1.06	0.36	0.82	0.56	0.40	1.09			1.24	0.96	0.28	1.30	0.79	0.36			0.80	1.33	0.60	0.99			
	PT	775.8	0.48	2.33	1.30		0.49	1.33	0.45	1.02	0.70	0.50	1.37			1.55	1.21	0.35	1.63	0.99	0.46		1.25		1.66	0.76	1.25			
	RO	466.7	0.29	1.40	0.78		0.29	0.80	0.27	0.62	0.42	0.30	0.82			0.93	0.73	0.21	0.98	0.59	0.27		0.75	0.60		0.46	0.75			
	SI	1,024.2	0.63	3.08	1.72		0.65	1.75	0.59	1.35	0.92	0.66	1.81			2.05	1.60	0.47	2.15	1.31	0.60		1.65	1.32	2.19		1.64			
	SK	623.0	0.38	1.87	1.04		0.39	1.07	0.36	0.82	0.56	0.40	1.10			1.25	0.97	0.28	1.31	0.79	0.37		1.01	0.80	1.33	0.61				
	FI																													
	SE																													

* How to read this table? The monthly minimum wage (data second semester 2021) in Belgium is € 1,625.7 while the monthly minimum wage in Bulgaria is € 332.3. When a person from Bulgaria is posted to Belgium, he/she will earn at least 4.89 the Bulgarian minimum wage.

** A coloured cell indicates that a person posted from the Member State of origin should receive a higher minimum wage in the host Member State.

*** MMW stands for monthly minimum wage and is presented in euros. Data from second semester 2021.

**** DK, IT, CY, AT, FI, and SE do not have a national minimum wage.

Source Eurostat [earn_mw_cur]

Table 10. Number of PDs A1 issued according to Article 12 of the Basic Regulation, breakdown by receiving Member State, 2020, and share of PDs A1 issued to persons who should receive a higher gross wage (estimate)

		Sending Member State																												
	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	EU-27	A*	
Receiving Member State	BE		1,484	335	100	58,744	47	113	237	3,381	12,023	2,311	6,181	2	63	1,432	23,841	1,763	1	7,007	533	17,038	14,751	3,951	7,435	3,936	67	51	166,827	81.0%
	BG	41		12	4	3,708	0	0	145	186	210	45	702	0	30	27	14	37	0	7	116	328	78	163	23	99	4	5	5,984	0.0%
	CZ	243	32		38	44,830	6	12	20	594	921	210	2,091	1	14	8	73	379	2	46	894	3,365	160	122	401	5,887	30	7	60,386	1.3%
	DK	421	206	130		25,581	71	191	75	729	470	133	1,992	0	23	928	41	311	22	315	184	1,843	88	231	143	223	139	154	34,644	100.0%
	DE	4,799	5,534	2,500	931		1,099	264	2,509	9,966	9,923	36,727	23,991	7	1,559	8,820	8,893	21,904	19	3,380	31,532	113,138	2,965	14,859	61,139	40,898	394	153	407,903	81.8%
	EE	24	12	13	18	1,402		0	3	79	66	0	90	0	61	242	7	2	2	2	227	279	0	7	14	39	79	18	2,686	3.1%
	IE	101	33	23	49	4,476	0		13	387	378	21	901	0	9	23	77	26	2	43	81	456	118	40	33	96	9	3	7,398	97.0%
	EL	154	248	52	55	5,713	3	4		553	533	41	2,052	59	8	3	64	23	5	75	94	143	67	53	88	44	66	68	10,268	6.0%
	ES	971	508	128	348	42,711	57	76	360		6,124	174	14,106	0	7	63	275	118	43	466	616	1,869	9,890	294	514	308	302	146	80,474	17.8%
	FR	21,522	1,126	271	205	124,414	115	182	573	28,979		926	46,034	0	156	2,445	18,294	1,036	46	1,548	1,664	21,199	19,795	6,117	1,993	2,676	214	163	301,693	29.0%
	HR	70	75	42	10	4,194	1	6	4	190	190		1,663	0	9	2	23	644	8	11	408	315	20	44	3,574	82	6	8	11,599	6.7%
	IT	899	208	182	134	60,290	36	29	437	5,143	4,817	2,155		1	38	210	343	602	94	521	2,625	1,595	234	5,385	2,422	665	135	79	89,279	94.7%
	CY	15	27	5	15	969	0	5	268	61	35	132	108		0	0	15	0	1	15	14	43	0	13	6	6	6	13	1,772	27.9%
	LV	19	15	2	2	1,584	41	1	2	73	87	1	98	0		237	4	55	0	6	55	245	3	3	28	48	7	3	2,619	2.8%
	LT	30	68	9	42	2,589	22	1	0	92	131	11	183	0	268		37	33	2	3	12	994	0	11	13	57	14	3	4,625	31.8%
	LU	9,081	38	20	11	28,309	5	5	34	325	5,463	34	1,466	0	4	12		280	1	200	129	502	664	31	542	184	5	1	47,346	100.0%
	HU	136	38	95	35	19,123	3	10	19	588	595	330	1,610	8	17	11	269		2	49	994	1,017	103	1,232	270	2,693	7	7	29,261	4.2%
	MT	17	32	4	3	860	0	7	19	142	101	9	982	0	9	1	14	6		3	24	204	2	0	15	3	3	1	2,461	11.7%
	NL	19,048	855	445	224	317,887	66	468	1,065	2,529	2,144	812	3,904	0	38	3,258	386	2,617	7		1,295	17,877	2,356	2,173	3,218	4,023	53	43	386,791	99.4%
	AT	271	326	300	198	187,738	8	13	59	715	854	1,041	7,696	0	14	61	215	4,753	2	447		4,177	656	893	13,451	7,312	91	56	231,347	99.8%
	PL	318	52	197	103	48,893	66	33	108	1,594	1,264	59	3,255	0	137	86	221	181	2	231	582		66	250	353	512	25	11	58,599	1.6%
	PT	216	118	18	38	10,291	0	15	114	14,420	1,499	66	1,459	0	2	3	112	14	1	69	144	97		171	9	17	49	10	28,952	2.1%
	RO	71	163	25	9	12,130	0	4	132	764	838	55	2,237	0	21	0	32	286	6	73	251	361	42		155	215	2	4	17,876	0.9%
	SI	51	32	35	8	5,701	1	1	9	167	191	2,047	1,410	0	13	1	11	210	3	23	883	123	0	56	31	287	2	2	11,298	24.9%
	SK	53	47	689	7	12,507	21	0	14	396	459	37	1,012	0	15	5	36	448	2	4	435	1,197	201	142	379	6	13	5	18,130	14.3%
	FI	78	138	105	65	11,149	3,506	102	23	749	577	577	737	0	271	1,472	31	256	1	89	423	2,328	221	294	238	535		133	24,098	99.2%
	SE	224	84	183	643	28,589	758	790	92	1,082	925	1,010	1,243	0	1,174	6,724	45	301	0	106	526	10,758	293	494	645	1,963	1,300		59,952	98.9%
	EU-27	58,873	11,499	5,820	3,295	1,064,382	5,932	2,332	6,334	73,884	50,818	48,964	127,203	78	3,960	26,074	53,373	36,285	274	14,739	44,741	201,491	52,773	37,029	97,132	72,814	3,022	1,147		
	B**	49.6%	100.0%	96.8%	0.0%	67.9%	99.2%	47.2%	92.9%	73.1%	73.9%	99.1%	19.0%	12.8%	98.3%	97.6%	0.2%	99.1%	88.3%	8.1%	2.8%	97.1%	98.6%	99.6%	94.5%	86.8%	47.6%	13.4%		

* Column A depicts the share of persons posted to the receiving Member State who should receive a higher minimum wage (sum of coloured cells/EU-27).

** Row B depicts the share of persons posted from the sending Member State who should receive a higher minimum wage (sum of coloured cells/EU-27).

*** A coloured cell indicates that a person posted from the Member State of origin should receive a higher minimum wage in the host Member State.

**** How to read this table? The monthly minimum wage in Belgium is higher than the monthly minimum wage in Bulgaria, that is why this cell is coloured. There were 1,484 PDs A1 issued by Bulgaria for persons posted to Belgium. This means that the persons to whom these PDs A1 were issued should receive a higher minimum wage in Belgium. In total, of all the PDs A1 issued by Bulgaria, 100.0% of PDs A1 were issued for postings in a Member State with a higher minimum wage. Of all the PDs A1 received by Belgium, 81.0% should receive the higher minimum wage applied in Belgium.

***** DK, IT, CY, AT, FI, and SE do not have a national minimum wage. For these Member States, the first decile monthly earnings were used as an approximation of the minimum wage.

Source Eurostat [EARN_MW_CUR], De Wispelaere et al. (2022a forthcoming)

Table 11. Cross-table average hourly wages in the construction sector: factor by which average gross wage is multiplied when posted to another Member State, 2020 (no legal advice)

			Member State of Origin																											
		HAW***	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	
Host Member State	BE	25.9		6.17	2.82	0.71	1.09	2.33	1.03	3.12	1.73	1.06	3.08	1.51		2.88	2.91	1.04	3.75	2.59	0.86	1.00	3.12	3.12	7.19	1.90	3.32	0.91	1.02	
	BG	4.2	0.16		0.46	0.12	0.18	0.38	0.17	0.51	0.28	0.17	0.50	0.25		0.47	0.47	0.17	0.61	0.42	0.14	0.16	0.51	0.51	1.17	0.31	0.54	0.15	0.16	
	CZ	9.2	0.36	2.19		0.25	0.39	0.83	0.37	1.11	0.61	0.38	1.10	0.54		1.02	1.03	0.37	1.33	0.92	0.31	0.36	1.11	1.11	2.56	0.68	1.18	0.32	0.36	
	DK	36.4	1.41	8.67	3.96		1.54	3.28	1.45	4.39	2.43	1.49	4.33	2.13		4.04	4.09	1.46	5.28	3.64	1.21	1.41	4.39	4.39	10.11	2.68	4.67	1.28	1.43	
	DE	23.7	0.92	5.64	2.58	0.65		2.14	0.94	2.86	1.58	0.97	2.82	1.39		2.63	2.66	0.95	3.43	2.37	0.79	0.92	2.86	2.86	6.58	1.74	3.04	0.83	0.93	
	EE	11.1	0.43	2.64	1.21	0.30	0.47		0.44	1.34	0.74	0.45	1.32	0.65		1.23	1.25	0.45	1.61	1.11	0.37	0.43	1.34	1.34	3.08	0.82	1.42	0.39	0.44	
	IE	25.1	0.97	5.98	2.73	0.69	1.06	2.26		3.02	1.67	1.02	2.99	1.47		2.79	2.82	1.01	3.64	2.51	0.83	0.97	3.02	3.02	6.97	1.85	3.22	0.88	0.98	
	EL	8.3	0.32	1.98	0.90	0.23	0.35	0.75	0.33		0.55	0.34	0.99	0.49		0.92	0.93	0.33	1.20	0.83	0.28	0.32	1.00	1.00	2.31	0.61	1.06	0.29	0.33	
	ES	15.0	0.58	3.57	1.63	0.41	0.63	1.35	0.60	1.81		0.61	1.79	0.88		1.67	1.69	0.60	2.17	1.50	0.50	0.58	1.81	1.81	4.17	1.10	1.92	0.53	0.59	
	FR	24.5	0.95	5.83	2.66	0.67	1.03	2.21	0.98	2.95	1.63		2.92	1.43		2.72	2.75	0.98	3.55	2.45	0.81	0.95	2.95	2.95	6.81	1.80	3.14	0.86	0.96	
	HR	8.4	0.32	2.00	0.91	0.23	0.35	0.76	0.33	1.01	0.56	0.34		0.49		0.93	0.94	0.34	1.22	0.84	0.28	0.32	1.01	1.01	2.33	0.62	1.08	0.30	0.33	
	IT	17.1	0.66	4.07	1.86	0.47	0.72	1.54	0.68	2.06	1.14	0.70	2.04			1.90	1.92	0.69	2.48	1.71	0.57	0.66	2.06	2.06	4.75	1.26	2.19	0.60	0.67	
	CY																													
	LV	9.0	0.35	2.14	0.98	0.25	0.38	0.81	0.36	1.08	0.60	0.37	1.07	0.53			1.01	0.36	1.30	0.90	0.30	0.35	1.08	1.08	2.50	0.66	1.15	0.32	0.35	
	LT	8.9	0.34	2.12	0.97	0.24	0.38	0.80	0.35	1.07	0.59	0.36	1.06	0.52		0.99		0.36	1.29	0.89	0.30	0.34	1.07	1.07	2.47	0.65	1.14	0.31	0.35	
	LU	24.9	0.96	5.93	2.71	0.68	1.05	2.24	0.99	3.00	1.66	1.02	2.96	1.46		2.77	2.80		3.61	2.49	0.83	0.96	3.00	3.00	6.92	1.83	3.19	0.88	0.98	
	HU	6.9	0.27	1.64	0.75	0.19	0.29	0.62	0.27	0.83	0.46	0.28	0.82	0.40		0.77	0.78	0.28		0.69	0.23	0.27	0.83	0.83	1.92	0.51	0.88	0.24	0.27	
	MT	10.0	0.39	2.38	1.09	0.27	0.42	0.90	0.40	1.20	0.67	0.41	1.19	0.58		1.11	1.12	0.40	1.45		0.33	0.39	1.20	1.20	2.78	0.74	1.28	0.35	0.39	
	NL	30.1	1.16	7.17	3.27	0.83	1.27	2.71	1.20	3.63	2.01	1.23	3.58	1.76		3.34	3.38	1.21	4.36	3.01		1.16	3.63	3.63	8.36	2.21	3.86	1.06	1.18	
	AT	25.9	1.00	6.17	2.82	0.71	1.09	2.33	1.03	3.12	1.73	1.06	3.08	1.51		2.88	2.91	1.04	3.75	2.59	0.86		3.12	3.12	7.19	1.90	3.32	0.91	1.02	
	PL	8.3	0.32	1.98	0.90	0.23	0.35	0.75	0.33	1.00	0.55	0.34	0.99	0.49		0.92	0.93	0.33	1.20	0.83	0.28	0.32		1.00	2.31	0.61	1.06	0.29	0.33	
	PT	8.3	0.32	1.98	0.90	0.23	0.35	0.75	0.33	1.00	0.55	0.34	0.99	0.49		0.92	0.93	0.33	1.20	0.83	0.28	0.32	1.00		2.31	0.61	1.06	0.29	0.33	
	RO	3.6	0.14	0.86	0.39	0.10	0.15	0.32	0.14	0.43	0.24	0.15	0.43	0.21		0.40	0.40	0.14	0.52	0.36	0.12	0.14	0.43	0.43		0.26	0.46	0.13	0.14	
	SI	13.6	0.53	3.24	1.48	0.37	0.57	1.23	0.54	1.64	0.91	0.56	1.62	0.80		1.51	1.53	0.55	1.97	1.36	0.45	0.53	1.64	1.64	3.78		1.74	0.48	0.53	
	SK	7.8	0.30	1.86	0.85	0.21	0.33	0.70	0.31	0.94	0.52	0.32	0.93	0.46		0.87	0.88	0.31	1.13	0.78	0.26	0.30	0.94	0.94	2.17	0.57		0.27	0.31	
	FI	28.4	1.10	6.76	3.09	0.78	1.20	2.56	1.13	3.42	1.89	1.16	3.38	1.66		3.16	3.19	1.14	4.12	2.84	0.94	1.10	3.42	3.42	7.89	2.09	3.64		1.11	
	SE	25.5	0.98	6.07	2.77	0.70	1.08	2.30	1.02	3.07	1.70	1.04	3.04	1.49		2.83	2.87	1.02	3.70	2.55	0.85	0.98	3.07	3.07	7.08	1.88	3.27	0.90		

* How to read this table? The average hourly wage in Belgium is € 25.9 while the hourly average wage in Bulgaria is € 4.2. When a person from Bulgaria is posted to Belgium, he/she should earn around 6.17 times the Bulgarian hourly average wage.

** A coloured cell indicates that a person posted from the Member State of origin should receive a higher average wage in the host Member State.

*** HAW stands for hourly average wage and is presented in euros.

**** Data for CY are not available. Data for RO concern reference year 2017.

Source Eurostat [LC_LCI_LEV]

Table 12. Number of PDs A1 issued according to Article 12 of the Basic Regulation in the construction sector, breakdown by receiving Member State, 2020, and share of PDs A1 issued to persons who should receive a higher hourly average gross wage (estimate)

		Sending Member State																													
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	EU-27	A*	
Receiving Member State	BE			75		4,027	41				2,403	483		0	18	508	15,444	672		924	43	9,147	11,385	2,354	5,103	2,775	0	2	55,404	98.3%	
	BG	3		4		122	0				32	2		0	0	14	0	0		0	19	25	11	108	2	11	0	0	353	30.6%	
	CZ	131				1,574	0				29	17		0	0	2	0	0		6	41	1,278	12	29	41	2,380	0	1	5,541	67.1%	
	DK	123			86		3,132	44				58	18		0	0	282	0	56		94	17	729	33	39	1	92	20	39	4,863	100.0%
	DE	970			1,202			233				729	17,673		0	973	3,242	3,137	12,543		478	11,044	46,254	2,013	10,295	23,371	21,446	47	14	155,664	89.5%
	EE	0			8			53				2	0		0	12	83	0	0		0	2	66	0	0	13	14	21	8	282	64.9%
	IE	5			12		193	0				13	0		0	0	0	0	0		10	4	349	27	0	20	11	0	0	644	97.0%
	EL	9			6		197	0				15	0		1	0	3	0	0		2	0	13	45	23	25	33	10	0	382	14.7%
	ES	23			52		1,252	19				179	30		0	5	25	26	0		3	45	524	4,115	168	13	133	31	1	6,644	76.5%
	FR	4,931			112		5,942	50					228		0	98	780	5,262	482		77	103	10,424	12,021	2,803	292	1,523	22	7	45,157	77.0%
	HR	6			11		170	0				17			0	4	0	0	0		1	53	33	18	28	2,556	52	0	0	2,949	4.4%
	IT	69			64		1,499	17				150	357		0	6	204	3	0		18	205	368	122	1,344	694	231	0	4	5,355	63.6%
	CY	1			3		137	0				1	4			0	0	0	0		5	6	28	0	5	1	4	0	0	195	
	LV	2			2		54	0				1	0		0		172	0	0		2	6	86	3	3	4	29	0	0	364	80.5%
	LT	1			3		108	5				3	0		0	36		0	0		1	3	471	0	0	0	21	0	0	652	75.5%
	LU	4,462			5		7,259	0				1,912	19		0	0	2		0		9	27	349	391	6	501	112	0	0	15,054	70.1%
	HU	2			40		499	0				33	13		0	0	0	0			0	118	413	0	715	41	989	0	0	2,863	25.0%
	MT	1			0		24	0				7	8		0	0	1	0	0		1	0	14	0	0	5	2	0	0	63	39.7%
	NL	5,197			254		7,622	24				51	125		0	16	990	9	1,325			78	6,408	1,084	961	889	2,495	0	1	27,529	100.0%
	AT	20			137		18,337	7				15	449		0	0	47	92	963		2		2,710	481	445	7,980	4,748	0	1	36,434	100.0%
	PL	41			89		1,184	0				58	19		0	0	43	0	0		30	78		40	147	40	166	0	0	1,935	18.2%
	PT	32			6		153	0				98	8		0	0	0	13	0		6	10	20		98	3	3	0	0	450	22.4%
	RO	8			6		185	0				31	6		0	0	0	1	0		28	25	112	18		20	58	0	0	498	0.0%
	SI	2			1		147	0				15	986		0	0	0	0	0		0	149	37	0	0	16	233	0	0	1,586	79.3%
	SK	1			310		165	0				6	16		0	0	0	0	121		0	82	390	187	28	12	2	0	0	1,320	11.3%
	FI	2			64		332	2,083				21	31		0	82	561	1	43		7	19	1,414	183	153	30	131		20	5,177	99.9%
	SE	9			130		1,336	677				45	650		0	742	4,849	0	59		7	165	8,252	194	344	353	1,121	711		19,644	95.5%
	EU-27	16,051			2,682		55,703	3,200				5,924	21,142		1	1,992	11,808	23,988	16,264		1,711	12,342	89,914	32,383	20,096	42,026	38,815	862	98		
	B**	33.2%			82.1%		86.5%	99.8%				76.3%	99.7%			98.0%	99.5%	64.8%	100.0%		5.5%	0.9%	98.9%	99.1%	100.0%	93.4%	97.3%	2.3%	64.3%		

* Column A depicts the share of persons posted to the receiving Member State who should receive a higher average wage (sum of coloured cells/EU-27).

** Row B depicts the share of persons posted from the sending Member State who should receive a higher average wage (sum of coloured cells/EU-27).

*** A coloured cell indicates that a posted construction worker from the Member State of origin should receive a higher average wage in the host Member State.

**** How to read this table? The average hourly wage in Belgium in the construction sector is higher than the average hourly wage in Czechia in the construction sector, that is why this cell is coloured. There were 75 PDs A1 issued by Czechia for construction workers posted to Belgium. This means that the persons to whom these PDs A1 were issued should receive a higher average wage in Belgium. In total, of all the PDs A1 issued by Czechia, 82.1% of PDs A1 were issued for postings in a Member State with a higher average wage. Of all the PDs A1 received by Belgium, 98.3% should receive the higher average wage applied in Belgium.

***** Information on the number of PDs A1 issued in the construction sector in 2020 was not available for BG, DK, IE, EL, ES, IT, and MT.

***** Information on the average wages in the construction sector in CY was not available (see *Table 11*). For this reason, cells in the column and row for CY are not coloured and the shares for CY cannot be calculated.

Source Eurostat [LC_LCI_LEV], De Wispelaere et al. (2022a forthcoming)

For three of the six most important receiving Member States of posted workers in the POSTING.STAT project²⁰⁹, a more detailed analysis can be conducted. Data from the prior declaration tools in 2020 allow us to look at the number of incoming posted workers and the average duration per posted worker. Consequently, the wage level (i.e., national minimum wage) at the sending Member State for these posted workers can be compared to the wage level (i.e., national minimum wage) of the receiving Member States, after which the wage increase for the posted worker per sending Member State can be looked at.

It is estimated that the gross wages for the workers posted to Belgium in 2020 amounted to € 2.0 billion (*Table 13*), to France to € 1.3 billion (*Table 14*), and to Luxembourg to € 155.4 million (*Table 15*). If these workers were not posted, their wages would have been (much) lower. More specifically, in general, the wages of workers posted to Belgium increased by around 53%, to France by 49%, and to Luxembourg by 72%. The high gross wage increase for workers being posted to Luxembourg is mainly due to workers being posted from Germany, Belgium, and Poland. For German posted workers, the total difference in wage amounts to € 56.7 million, for Belgian workers to € 25.6 million, and for Polish workers to € 24.3 million, which together make up almost 69% of the total difference of € 155.4 million (*Table 15*).

A wage increase does of course not occur for all posted workers, seeing that when the minimum wage in the country of origin is higher, posted workers are entitled to this minimum wage, and not the minimum wage of the host country. For instance, persons posted from Denmark, Ireland, Luxembourg, the Netherlands, Austria, Finland, and Sweden to Belgium will receive the minimum wage of their country of origin and not the Belgian minimum wage as the latter is lower. Therefore, the wage increase for these countries of origin amounts to 0% (*Table 13*).

²⁰⁹Data for Germany and the Netherlands on the number of incoming posted persons and the average posting duration per posted person in 2020 are not available (De Wispelaere et al., 2022a forthcoming). Data for Austria are available, but they would present a strong overestimation, as they (together with Germany) apply a broad approach when it comes to the declaration of services in road freight transport. Therefore, the increase of the gross wages for persons posted to Austria is not estimated as it would present a misguided image.

Table 13. Estimated increase of the gross wages for persons posted to Belgium, in €, 2020

	Monthly minimum wage (2020 figures) (A)	Number of incoming posted persons** (B)	Duration (in days) (C)	Average duration in months (D = C/31)	Wage at the level of the sending Member State (E = A*B*D)	Wage at the level of Belgium (F = A Belgium*B*D)	Difference (F - E)	% increase ((F-E)/E)
Belgium	1,625.7							
Bulgaria	311.9	5,620	196	6.3	11,078,947	57,748,773	46,669,827	421%
Czechia	546.0	3,145	149	4.8	8,267,074	24,615,289	16,348,215	198%
Denmark*	3,107.0	891	164	5.3	14,684,484	14,684,484	0	0%
Germany	1,544.0	19,481	95	3.1	92,299,473	97,184,650	4,885,177	5%
Estonia	584.0	155	102	3.3	297,199	827,334	530,135	178%
Ireland	1,706.9	438	212	6.8	5,114,258	5,114,258	0	0%
Greece	758.3	492	161	5.2	1,940,273	4,159,588	2,219,315	114%
Spain	1,108.3	3,416	147	4.7	17,972,465	26,362,361	8,389,896	47%
France	1,539.4	16,435	131	4.2	106,937,846	112,932,790	5,994,944	6%
Croatia	546.1	1,743	153	4.9	4,683,413	13,943,119	9,259,705	198%
Italy*	1,611.0	4,406	134	4.3	30,786,782	31,068,086	281,304	1%
Cyprus*	886.0	281	130	4.2	1,047,166	1,921,444	874,277	83%
Latvia	430.0	591	116	3.7	948,289	3,585,237	2,636,948	278%
Lithuania	607.0	14,704	175	5.6	50,302,286	134,723,941	84,421,655	168%
Luxembourg	2,142.0	7,951	124	4.0	67,984,690	67,984,690	0	0%
Hungary	451.5	2,171	183	5.9	5,796,529	20,871,151	15,074,622	260%
Malta	777.1	25	94	3.0	58,909	123,240	64,331	109%
Netherlands	1,680.0	53,927	198	6.4	579,898,823	579,898,823	0	0%
Austria*	1,852.0	739	106	3.4	4,684,485	4,684,485	0	0%
Poland	583.5	41,737	182	5.9	142,785,254	397,835,133	255,049,879	179%
Portugal	740.8	18,029	175	5.6	75,288,283	165,216,942	89,928,659	119%
Romania	460.8	13,074	202	6.5	39,323,881	138,745,185	99,421,305	253%
Slovenia	940.6	4,917	177	5.7	26,384,907	45,604,278	19,219,370	73%
Slovakia	580.0	5,624	184	5.9	19,390,242	54,350,180	34,959,938	180%
Finland*	2,381.0	247	94	3.0	1,782,601	1,782,601	0	0%
Sweden*	2,665.0	314	169	5.5	4,562,824	4,562,824	0	0%
Total					1,314,301,382	2,010,530,884	696,229,502	53%

* DK, IT, CY, AT, FI, and SE do not have a national minimum wage. First decile monthly earnings are used for these Member States.

** The number of incoming posted persons includes self-employed persons. It is therefore assumed that they will charge an amount that is comparable to the Belgian minimum wage. Which, of course, is not necessarily the case in practice.

*** The results also depend on which data are used. For example, the prior declaration tool of Belgium registers a high number of posted workers from the Netherlands (53,927), while the PD A1 data show that the Netherlands issued 'only' 7,000 PDs A1 under Article 12 for activities in Belgium.

Source Eurostat [EARN_MW_CUR], De Wispelaere et al. (2022a forthcoming)

Table 14. Estimated increase of the gross wages for persons posted to France, in €, 2020

	Monthly minimum wage (2020 figures) (A)	Number of incoming posted persons (B)	Duration (in days) (C)	Average duration in months (D = C/31)	Wage at the level of the sending Member State (E = A*B*D)	Wage at the level of France (F = A France*B*D)	Difference (F - E)	% increase ((F-E)/E)
Belgium	1,625.7	13,984	144	4.6	105,572,421	105,572,421	0	0%
Bulgaria	311.9	2,617	190	6.1	5,010,473	24,730,584	19,720,111	394%
Czechia	546.0	2,150	99	3.2	3,757,607	10,594,388	6,836,781	182%
Denmark*	3,107.0	810	128	4.1	10,353,827	10,353,827	0	0%
Germany	1,544.0	26,338	89	2.9	116,243,626	116,243,626	0	0%
Estonia	584.0	748	179	5.8	2,523,558	6,652,082	4,128,524	164%
Ireland	1,706.9	497	131	4.2	3,589,501	3,589,501	0	0%
Greece	758.3	411	243	7.8	2,444,978	4,963,338	2,518,360	103%
Spain	1,108.3	26,796	202	6.5	193,535,977	268,812,676	75,276,699	39%
France	1,539.4							
Croatia	546.1	1,010	155	5.0	2,763,009	7,789,167	5,026,159	182%
Italy*	1,611.0	21,331	132	4.3	146,595,439	146,595,439	0	0%
Cyprus*	886.0	463	204	6.6	2,698,356	4,688,378	1,990,022	74%
Latvia	430.0	950	253	8.2	3,332,264	11,929,661	8,597,397	258%
Lithuania	607.0	3,799	252	8.1	18,736,152	47,516,979	28,780,828	154%
Luxembourg	2,142.0	4,546	115	3.7	36,019,980	36,019,980	0	0%
Hungary	451.5	984	119	3.8	1,704,581	5,811,757	4,107,176	241%
Malta	777.1	94	169	5.5	399,304	791,014	391,710	98%
Netherlands	1,680.0	4,999	101	3.2	27,243,530	27,243,530	0	0%
Austria*	1,852.0	1,700	59	1.9	6,005,498	6,005,498	0	0%
Poland	583.5	16,951	139	4.5	44,405,275	117,156,318	72,751,043	164%
Portugal	740.8	21,806	219	7.1	114,099,506	237,094,963	122,995,457	108%
Romania	460.8	10,427	211	6.8	32,727,259	109,340,881	76,613,621	234%
Slovenia	940.6	1,509	117	3.8	5,359,425	8,771,615	3,412,190	64%
Slovakia	580.0	2,127	182	5.9	7,253,948	19,253,228	11,999,280	165%
Finland*	2,381.0	627	118	3.8	5,687,364	5,687,364	0	0%
Sweden*	2,665.0	625	94	3.0	5,060,233	5,060,233	0	0%
Total					903,123,092	1,348,268,450	445,145,358	49%

* DK, IT, CY, AT, FI, and SE do not have a national minimum wage. First decile monthly earnings are used for these Member States.

Source Eurostat [EARN_MW_CUR], De Wispelaere et al. (2022a forthcoming)

Table 15. Estimated increase of the gross wages for persons posted to Luxembourg, in €, 2020

	Monthly minimum wage (2020 figures) (A)	Number of incoming posted persons (B)	Duration (in days) (C)	Average duration in months (D = C/31)	Wage at the level of the sending Member State (E = A*B*D)	Wage at the level of Luxembourg (F = A Luxembourg*B*D)	Difference (F - E)	% increase ((F-E)/E)
Belgium	1,625.7	5,368	69	2.2	19,422,831	25,590,821	6,167,990	32%
Bulgaria	311.9	41	85	2.7	34,957	240,074	205,117	587%
Czechia	546.0	174	65	2.1	200,619	787,039	586,420	292%
Denmark*	3,107.0	19	280	9.0	533,201	533,201	0	0%
Germany	1,544.0	12,161	67	2.2	40,876,187	56,707,502	15,831,315	39%
Estonia	584.0	2	7	0.2	264	967	704	267%
Ireland	1,706.9	2	149	4.8	16,455	20,650	4,195	25%
Greece	758.3	31	35	1.1	26,850	75,840	48,990	182%
Spain	1,108.3	87	81	2.6	251,150	485,380	234,230	93%
France	1,539.4	2,807	69	2.2	9,584,669	13,336,364	3,751,695	39%
Croatia	546.1	20	58	1.9	20,519	80,485	59,967	292%
Italy*	1,611.0	527	92	3.0	2,521,238	3,352,244	831,007	33%
Cyprus*	886.0	46	281	9.1	369,433	893,141	523,707	142%
Latvia	430.0	58	38	1.2	30,882	153,837	122,955	398%
Lithuania	607.0	3,735	58	1.9	4,250,948	15,000,804	10,749,856	253%
Luxembourg	2,142.0							
Hungary	451.5	166	114	3.7	275,299	1,306,033	1,030,734	374%
Malta	777.1	19	38	1.2	17,861	49,231	31,370	176%
Netherlands	1,680.0	251	67	2.2	912,357	1,163,250	250,893	27%
Austria*	1,852.0	173	49	1.6	505,243	584,355	79,112	16%
Poland	583.5	2,036	173	5.6	6,617,658	24,293,818	17,676,160	267%
Portugal	740.8	657	103	3.3	1,619,196	4,681,643	3,062,447	189%
Romania	460.8	258	122	3.9	468,651	2,178,628	1,709,976	365%
Slovenia	940.6	247	194	6.3	1,456,200	3,316,215	1,860,015	128%
Slovakia	580.0	95	84	2.7	149,180	550,934	401,754	269%
Finland*	2,381.0	2	6	0.2	883	883	0	0%
Sweden*	2,665.0	2	37	1.2	6,419	6,419	0	0%
Total					90,169,148	155,389,758	65,220,610	72%

* DK, IT, CY, AT, FI and SE do not have a national minimum wage. First decile monthly earnings are used for these Member States.

Source Eurostat [EARN_MW_CUR], De Wispelaere et al. (2022a forthcoming)

3.1.2 Differences in net wage between posted workers and local workers

The application of the principle “equal pay for equal work at the same workplace” may result in an (almost) equal *gross* wage between a posted worker and a local worker, but this is not necessarily the case for their *net* wage. Indeed, as a result of the exception to the ‘lex loci laboris’ principle, social security contributions for the posted worker are paid in, and thus at the level of, the sending Member State.²¹⁰ Figure 25 illustrates the differences in employee social security contributions for all EU Member States in the OECD.²¹¹ The average rate of employees’ social security contributions for the 22 EU Member States amounted to 11.9% in 2021. This rate has remained stable over the past

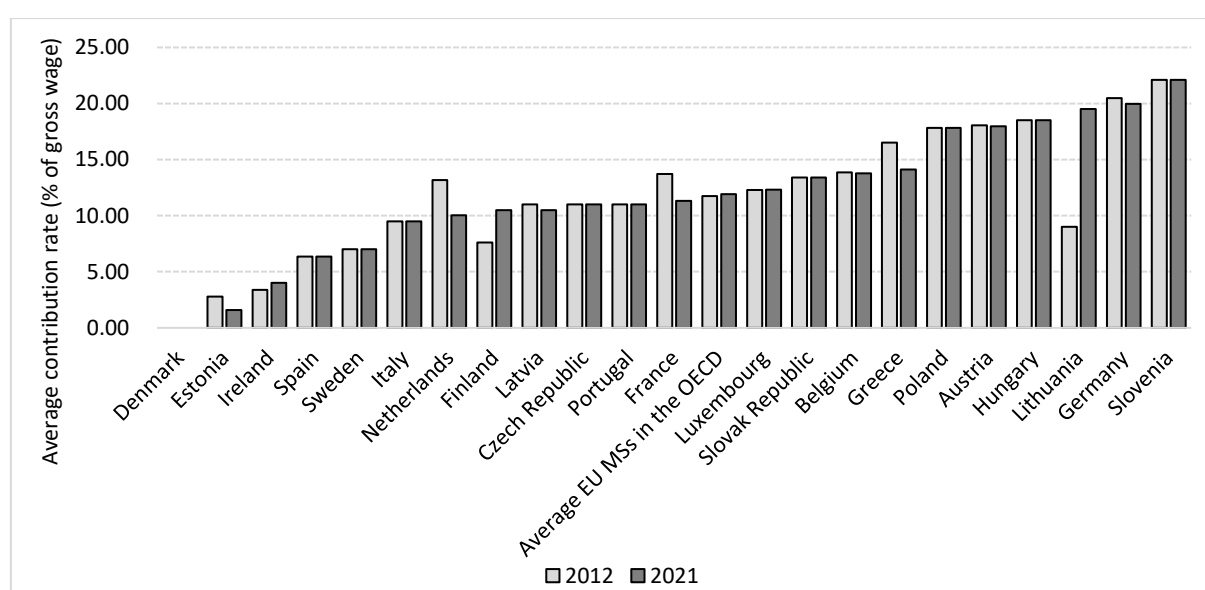
²¹⁰ Moreover, the right to tax the employment income remains with the country of residence of the posted worker in case the period abroad is less than 183 days within a period of 12 months that commences or ends in the fiscal year concerned (see e.g., Spiegel et al., 2022).

²¹¹ A similar exercise could be made for the differences in personal income taxes (see https://stats.oecd.org/Index.aspx?DataSetCode=TABLE_17)

decades (in 2012 it was 11.75%). Only for Lithuania there has been a sharp increase since 2018 (from 9% to 19.5%). This is to compensate for the sharp decline in the rate of employers' social security contributions (from 31.2% to 1.79%) (see *Figure 27*).

In the case of posting, this implies that a worker posted from Lithuania to France will not pay a rate of employees' social security contributions of 11.3% (i.e., contribution rate applicable in France) on his/her higher remuneration received in France but 19.5% (i.e., contribution rate applicable in Lithuania). It is therefore not the case that a posted worker will have a higher net wage compared to local workers who were employed at the same working place. In some 'popular' sending Member States of posted workers such as Slovenia (22.1%), Germany (19.98%) and Lithuania (19.5%) but also Poland (17.83%), rates of employees' social security contributions are higher than in some 'popular' receiving Member States of posted workers such as the Netherlands (10.3%), France (11.3%), and Belgium (13.7%).

Figure 25. Average rate of employees' social security contributions (% of gross wage), 2012 and 2021



* Two-earner married couple, one at 100% of average earnings and the other at 100%, with two children.

Source OECD Tax database

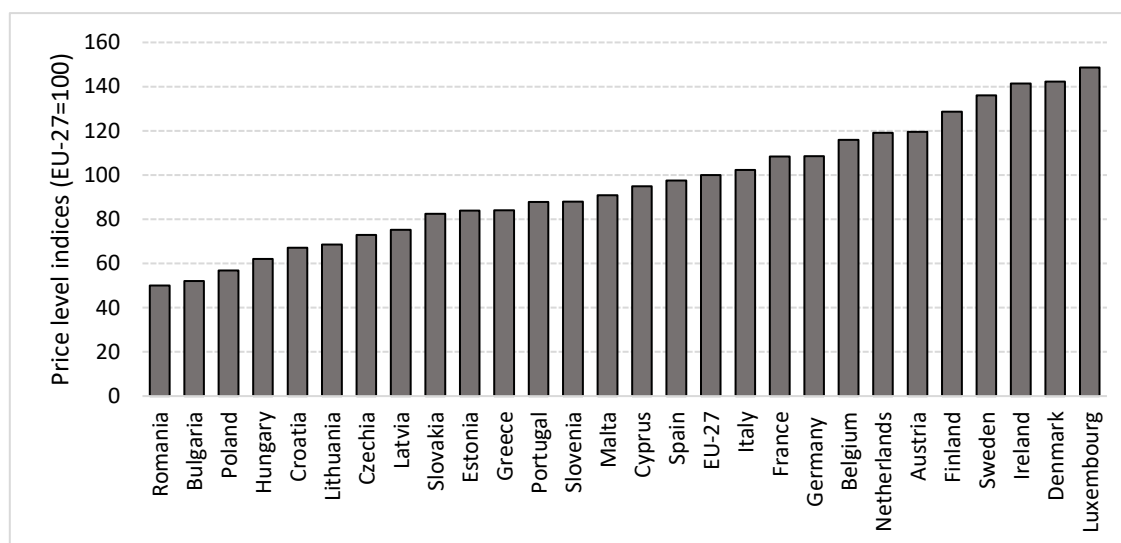
3.1.3 Differences in purchasing power between posted workers and local workers

In 2021, the highest price level among the EU Member States was observed in Denmark (49% above the EU average) and the lowest in Romania and Bulgaria (almost 50% below the average). Due to price level differences among sending and receiving Member State, a posted worker residing in a Member State with low price levels may have a (much) higher purchasing power than a local worker residing in a Member State with high price levels.²¹² Indeed, price levels in some main sending Member States of posted workers (e.g., Poland) are (much) lower than in main receiving Member States (mainly West-European Member States such as Germany, France, Austria, the Netherlands, and Belgium). This means that posted workers will be able to consume (substantial) 'more' with their wages (at the level of the receiving Member State) compared to local workers employed at the same workplace.²¹³

²¹²At least if his/her consumption takes place in the sending Member State.

²¹³It may also be a reason for accepting a salary below the 'remuneration' that should be paid according to the Posting of Workers Directive. This reality may also contribute to the phenomenon of 'social dumping'.

Figure 26. Differences in price levels among Member States (EU-27 = 100)



Source Eurostat [prc_ppp_ind]

3.1.4 Theory versus practice (i.e., law in books vs law in action)

Despite the theoretical assumption that posted workers should often receive a much higher salary, day-to-day reality can be less favourable to them. This is because they were (are?) only paid the ‘minimum wage’, which means that their wage still (strongly) differs from the average wage received by local workers. The amended Posting of Workers Directive stipulates that a ‘remuneration’ should be paid and not just a ‘minimum rate of pay’. As a result, when the legislation is correctly applied, the chance that such wage disparities still occur is strongly reduced since mid-2020. However, rules are sometimes violated by paying a remuneration (e.g., a lower wage or no additional allowances to which one is entitled) that lies far below the level of the remuneration that should be paid when applying the current rules.²¹⁴

Wage differentials between local and posted workers seem to be quite substantive (based on data from 2019 and thus before the revised rules came into force). Figures for France for 2019 show that posted workers are often paid only the legal minimum and that their gross wage still tends to be (much) lower than those of comparable local workers (with the same qualifications and age) (Muñoz, 2022). For instance, almost 25% of all posted workers to France and even 75% of the posted workers employed in the agricultural sector were paid at the French minimum wage in 2019.²¹⁵ Consequently, posted workers earned on average 30% less than comparable French workers employed at the same workplace.²¹⁶ This result suggests that the amended Posting of Workers Directive may have a substantial effect if applied correctly in practice.

²¹⁴ See also the 2020 annual report from the Slovenia Labour Inspectorate: “The inspectors note that there is an increasing number of workers (especially) from third countries who often perform heavy labour in construction or metal industry abroad and whose rights are violated. They perform work either as agency workers provided to foreign employers by temporary work agencies or as workers provided to foreign employers under the guise of cross-border provision of services. For the work performed by workers posted abroad, the employers registered in Slovenia receive regular high payments by foreign user undertakings (foreign business partners), while workers most often only receive a minimum wage, although they work overtime (which is difficult to prove) or a part of salary is paid to them in cash or in the form of commuting costs. The payment is still far from the (verbally) promised and prescribed hourly rates for working abroad.” <https://www.gov.si/en/state-authorities/bodies-within-ministries/labour-inspectorate/about-the-inspectorate/>

²¹⁵ However, the risk exists that for the same monthly remuneration posted workers have to work (much) more hours compared to local workers employed at the same workplace (remark made by Jan Cremers at the ETUI-conference ‘Challenges associated with short-term labour mobility’ (13 June 2022)).

²¹⁶ This observation is not new. Already ten years ago, in the Impact Assessment of the Commission on the revision of the legislative framework on the posting of workers in the context of provision of services (SWD(2012) 63 final) (2012: 20), it was stated that “In France, a report delivered by the French Senate in 2006 estimated wage differences between foreign posted workers and French workers to be around 50%. In Denmark, a study of the construction sector indicated that, in the mid-2000s, workers from Eastern European countries were paid on average 25-28% less than Danish building workers.”

In addition, wage differences do not only appear between posted workers and local workers but also between posted TCNs and posted EU citizens. For instance, in 2019, Moroccan and Senegalese workers posted from Spain to France earned € 4 less per hour than Spanish citizens (Muñoz, 2022). This was also the case for Bosnians posted from Slovenia to France. They earned € 2 less per hour than Slovenian citizens.

3.2 The posting undertaking

Not that much is known about the profile of companies that send their workers abroad to provide services, and to what extent their profile differs from the ‘average’ profile of a company.²¹⁷ The question arises whether trade in services through the (temporary/permanent) movement of persons abroad can be a ‘business model’ in the EU. After all, the provision of services abroad without any substantial activities in the Member State of establishment seems to indicate the application of the freedom of establishment (principle applicable to the company concerned) and the free movement of workers (principle applicable to the workers concerned) rather than the application of the free movement of services. The same situation occurs in case the service abroad is of a ‘permanent’ rather than ‘temporary’ nature.²¹⁸ The legislator seems to be aware of this reality by introducing a number of ‘corrections’ in case a situation points to the use of the freedom of establishment and the free movement of workers rather than of the use of the freedom to provide services, indicating a sufficient close link with the host Member State.²¹⁹

Figures on the duration of posting give the impression that posting is mostly temporary in nature. Yet there are also indicators that point to a permanent supply of posting activities by companies. In the road freight sector, this is reflected by the strong importance of cabotage and cross-trade activities in several ‘sending’ Member States such as Lithuania, Luxembourg, Bulgaria, Slovenia, and Romania. Furthermore, some 30% of the companies providing services in France have filed a posting declaration each year between 2017 and 2019 (Muñoz, 2022). This means that the posting of workers has become a permanent practice for a substantial share of foreign undertakings.

Irrespective of whether posting is a business model or not, it is observed that because of the exception to the ‘*lex loci laboris*’ principle, a difference exists between the rate of employer’s social security contributions to be paid by posting companies in the ‘sending’ Member State versus those to be paid by local companies in the ‘receiving’ Member State. Such differences will lead to a competitive advantage or disadvantage for posting undertakings. The average rate of employer’s social security contributions for the 22 EU Member States in the OECD amounted to 21.86% in 2021. This is a strong decrease compared to a decade ago when the average rate was 24.55%. Moreover, there are strong differences between Member States, ranging from very low in Denmark (0%) and Lithuania (1.79%), to high in France (36.3%) (despite the decrease compared to 2012). Therefore, when workers are posted from Lithuania to France, Lithuanian posting undertakings will not pay a rate of 36.3% but only of 1.79%. This gives them a competitive advantage over local French companies to which the 36.3% rate applies.

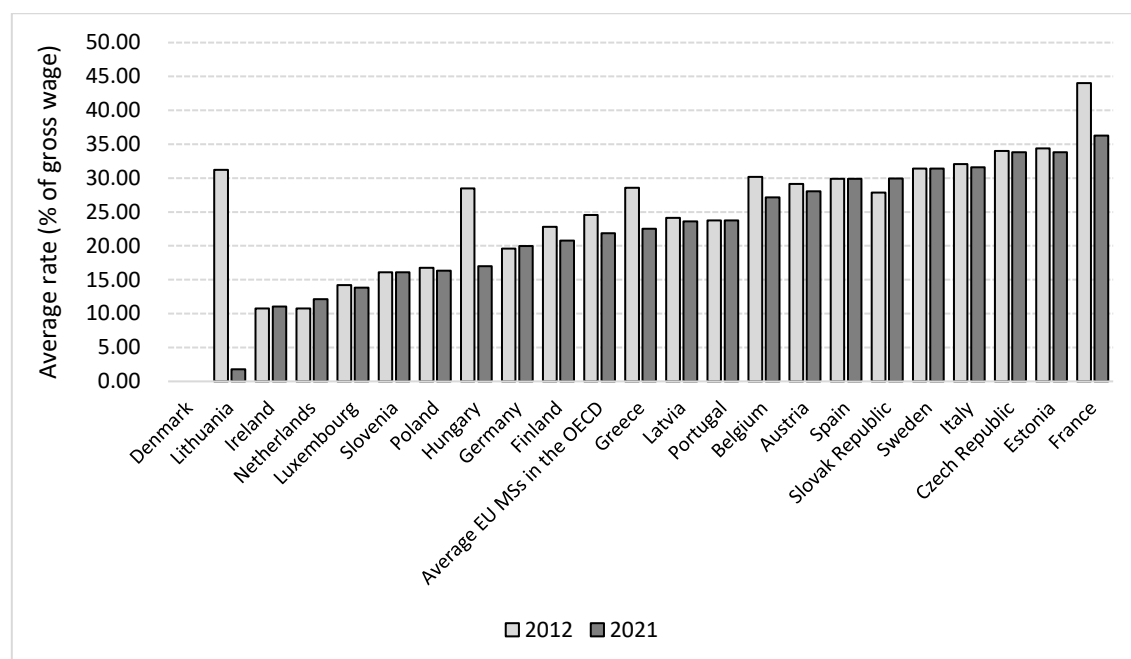
²¹⁷This observation certainly calls for further research. It is also best to make a division between sectors here, as the profile of companies may vary greatly depending on the sector.

²¹⁸See also Recital 9 of Directive (EU) 2018/957: “Posting is temporary in nature.”

²¹⁹For instance, from a social security point of view, the exception the ‘*lex loci laboris*’ principle in the case of posting (as defined by Article 12 of Regulation 883/2004) is restrictive in nature, as the ‘posting conditions’ have been tightened over the period of 60 years through case law and amendments to the Coordination Regulations. See Practical guide of the applicable legislation (EC, 2013): “Accordingly, in addition to the temporary nature of the posting and the fact that it is not designed to replace another worker, there are several important points to note about this special rule. In the first instance, the employer must normally carry out its activities in the posting State. Additionally, the rule that the worker ‘pursues an activity on behalf of an employer’ means that there must exist throughout the period of posting a direct relationship between the posting employer and the posted worker. Corrections in the field of social security (i.e., the Member State where services are provided becomes the competent Member State) will therefore be applied, *inter alia*, if posting becomes permanent or if no substantial activities are carried out in the Member State of establishment. Corrections are also made from a labour law point of view in case of long-term postings, postings through temporary employment agencies and if no substantial activities are carried out in the Member State of establishment.” Moreover, the issue of whether a driver is posted or not under the Posting of Workers Directive depends on “the degree of connection with the territory of the host Member State”.

Finally, higher wages of posted workers are not always entirely taxed by the sending Member State, sometimes because a maximum level of social contributions applies, or social contributions are still levied on an average wage in the sending Member State (see Slovenia) or another favourable tax regime exists. Such (il)legal constructions result in posting companies having a competitive advantage over local companies.

Figure 27. Average rate of employer's social security contributions (% of gross wage), 2012 and 2021



* Two-earner married couple, one at 100% of average earnings and the other at 100%, with two children.

Source OECD Tax database https://stats.oecd.org/Index.aspx?DataSetCode=TABLE_III2

3.3 The client (i.e. the user undertaking)

Not only for foreign service providers can the use of posted workers be a 'business model', but also for local clients.²²⁰ For instance, a quarter of the 'larger' Belgian clients that already benefited from the services of posted workers in 2010 were still doing so in 2019 (De Wispelaere et al., 2022c).²²¹ Furthermore, some 30% of the companies providing services in France have filed a posting declaration each year between 2017 and 2019 (Muñoz, 2022).

Furthermore, empirical evidence shows that French and Belgian 'clients' of posted workers are substantially larger than non-using firms in the same sector (De Wispelaere et al., 2022c; Muñoz, 2021; 2022). They are characterized by a much higher level of turnover, number of employees, assets, and amount of subcontracting, compared to non-using firms operating in the same sector of activity. The fact that clients of posted workers tend to be larger than non-using firms is consistent with the idea that large firms connect more easily with foreign suppliers or exhibit larger economies of scale while searching for a foreign supplier. This suggests that access to foreign service suppliers through posting of workers mostly benefits the larger firms in a given sector. Consequently, competition will mainly be between subcontracting local SMEs and subcontracting posting undertakings. And it is the larger local companies that will benefit from this competition.

²²⁰ In that respect, the question arises as to how the strong increase of posted workers ever came about, was it 'demand-driven' (from the 'old' Member States in Western Europe) or 'supply-driven' (from the 'new' Member States in Eastern Europe).

²²¹ Belgian clients had on average 3.7 foreign suppliers of posted workers in 2019

Finally, the question arises whether the use of intra-EU posting is cheaper for the client than the recruitment of workers or the subcontracting of local companies.²²² Again, the answer is not so simple because it will depend on many factors. Moreover, the question comes up as to whether their use can also reduce the price for the end user, which in some cases will be a private household. And thus, that the cheaper labour cost is taken into account in the price to be paid by the consumer.

3.4 Local workers and companies

French clients represent approximately 16% of total salaried employment in France and 21% of all hours worked by local workers (2018 figures) (Muñoz, 2022). These figures show that at a macro-level a substantial share of the French economy is exposed to posting. This reality may have an impact on the employment of local workers and the use of French subcontractors by these French clients. For instance, at micro-level, for French clients of posted workers operating in masonry work and building, the hours worked by posted workers represented on average 43% of the total number of hours worked by French workers that same year in that same firm. In French companies specialised in the growing of vegetables and melons, the average intensity of posting use was even above 100%, meaning that more hours of work were performed by posted workers than by local workers. This raises the question of whether the use of posted workers is a complement or a substitute for the employment of local workers.

Indeed, posting of workers can have an effect on local workers, as there is a risk of job displacement,²²³ meaning that local workers might be pushed out/replaced by posted workers. It is found that the risk of displacement is especially high in labour-intensive sectors such as the construction sector, the meat processing industry, and road freight transport, seeing that these sectors are also price sensitive, which puts additional pressure on labour costs. On a macro-level, figures for the Belgian construction sector show a decrease of about 15,000 workers between the period 2011 and 2016 (from 220,000 workers in 2011 to 215,000 workers in 2016).²²⁴ Consequently, during this period there was a negative correlation between the evolution of investments in construction and the evolution of the employment of local workers. This while there was a positive correlation between the evolution of investments in construction and the evolution of posted workers. However, job displacement effects did not appear for every activity in the Belgian construction sector, and mainly occur(ed) in the 'Construction of buildings; development of building projects' (NACE 41) (i.e., activities at large construction sides) and 'Plastering' (NACE 43.31) sub-sectors. At micro-level, Muñoz (2021) found that the employment of 'Belgian' workers decreased in Belgian companies that benefit from the services of posted workers. Employment in these companies decreased by 2% the year they started subcontracting services to posted workers.

One of the most interesting sectors when talking about displacement effects is without any doubt the German meat processing sector (Albrecht et al., 2022). Some 44,000 workers in the meat industry from the core workforce of Germany (subject to German social security system) lost their jobs between 1999 and 2014, this while the sector was experiencing a strong growth during that period and an increasing number of incoming posted workers. For instance, according to 2015 figures, approximately 4 out of 10 of the workers employed in the German meat processing industry were posted workers. As a result of a number of targeted measures (e.g., a voluntary agreement stipulated to waive the employment of posted workers and there was the introduction of the Minimum Wage Act), the number of workers covered by German social security increased from 2015/2016 onwards, while the number of incoming posted workers fell sharply. While in 2014 'only' 143,145 employees

²²² Also because of the recent change from 'minimum rates of pay' to 'remuneration'. In addition, travel and accommodation costs should also be taken into account.

²²³ The national involvement with posting and the first national measures go back to 1986, when the European Community was enlarged to include Portugal and Spain. Public debates about the feared mass influx of workers from the Iberian peninsula created a climate in favour of legislation with regard to temporary foreign workers. The main argument was not one of equal treatment but 'they will take our jobs' (Cremers, 2006: 170).

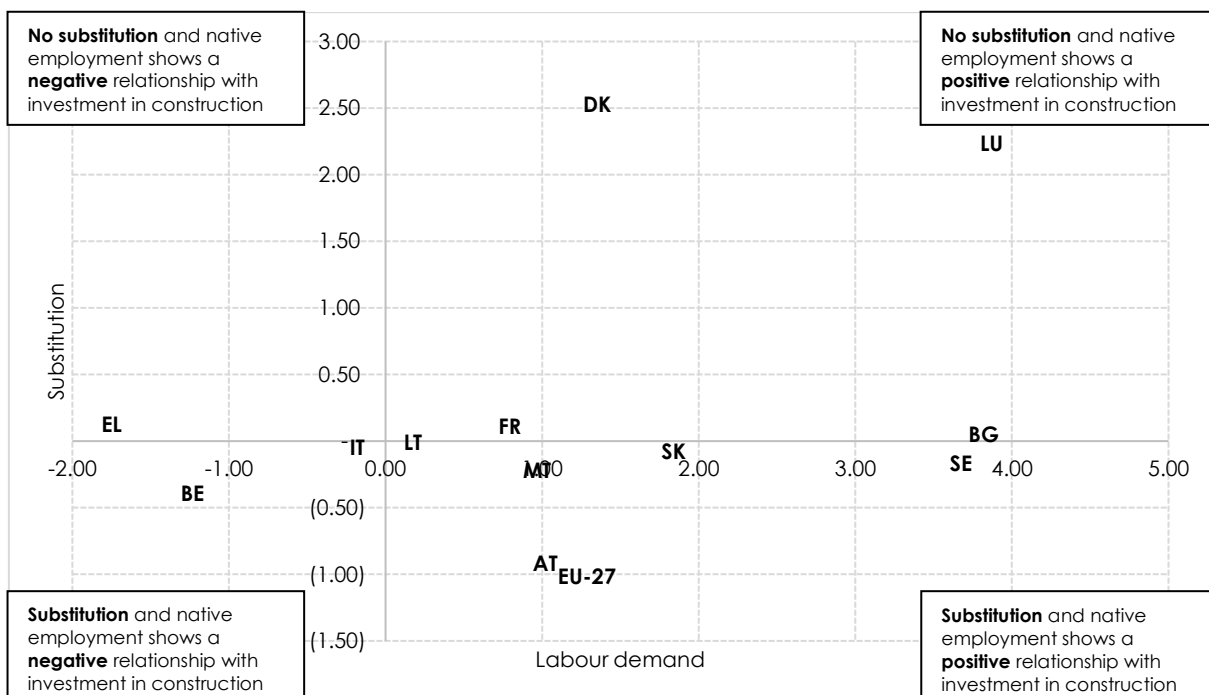
²²⁴ <https://stat.nbb.be/?lang=en&SubSessionId=2401a963-336f-4c50-ad53-3e4dbe6255bd&themetreeid=-200>

were subject to social security contributions worked in the industry, the number increased to 181,570 in 2021, surpassing the number of reference year 2000 when 175,007 persons were employed.

As posting has an extensive impact on the construction sector, and previous research surrounding job displacement effects has focussed on this sector, more detail about this sector is provided. In a first step, one can wonder whether there is a correlation between the change in investments and the change in national employment in the construction sector. Data on investments is found by looking at the European Economic Forecast in autumn 2021 (European Commission, 2021), and data on national employment through Eurostat ([sbs_na_con_r2]). From 2017 to 2018, the correlation only amounted to +0.30, while from 2018 to 2019 the correlation reached +0.74. Seeing that both are positive, it can be said that if investments in the construction sector increase, national employment increases as well, or the other way around. However, correlation does not imply causality. It is not *because* investments increase that national employment will increase. In a next step, it is then possible to add the change in the number of posted persons in the mix. These data are retrieved from the annual reports on the national declaration tools, which collect data on the number of incoming posted workers (De Wispelaere & Pacolet, 2018c; De Wispelaere et al., 2021b). *Figure 28* and *Figure 29* show the exercise for 2017 to 2018 and 2018 to 2019 respectively, for the Member States for which all data are available. On the horizontal axis the labour demand is shown (% change national employment/% change investment in construction), while the vertical axis displays the substitution (% change national employment/% change incoming posted workers²²⁵). Member States below the horizontal axis are experiencing substitution, meaning that national employment is decreasing while the number of posted workers is increasing. This is the case for Belgium, Italy, Austria, Malta, Slovakia, and Sweden from 2017 to 2018, and for Belgium, Bulgaria, Denmark, Greece, Lithuania, Austria, and Slovenia from 2018 to 2019. When a Member State is also positioned on the left-hand side of the vertical axis, it means that there is a negative relationship between national employment and investments in the construction sector. This is indeed the case for Belgium and Italy from 2017 to 2018, and for Bulgaria and Denmark from 2018 to 2019. Thus, for these four Member States, not only did the number of national workers decrease and the number of posted workers increase, but the investments in construction increased at the same time. For the EU-27 in general, from 2017 to 2018 investments in construction and national employment increased, while the number of posted persons in the construction sector decreased. From 2018 to 2019, all three variables increased. However, it should be kept in mind that these figures do not say anything about the *extent* of the substitution effect. For most Member States this effect might be very limited. Moreover, the effect might be more pronounced in certain subsectors of the construction sector.

²²⁵It concerns the change in the number of incoming posted workers in the construction sector specifically, or, when not available, the change in the number of total incoming posted workers. The total incoming posted workers are used for BE, EL, FR, MT, and SE in *Figure 28* (2017 to 2018), and for FR, MT, and SI in *Figure 29* (2018 to 2019).

Figure 28. Displacement effects in the construction sector, 2017 to 2018

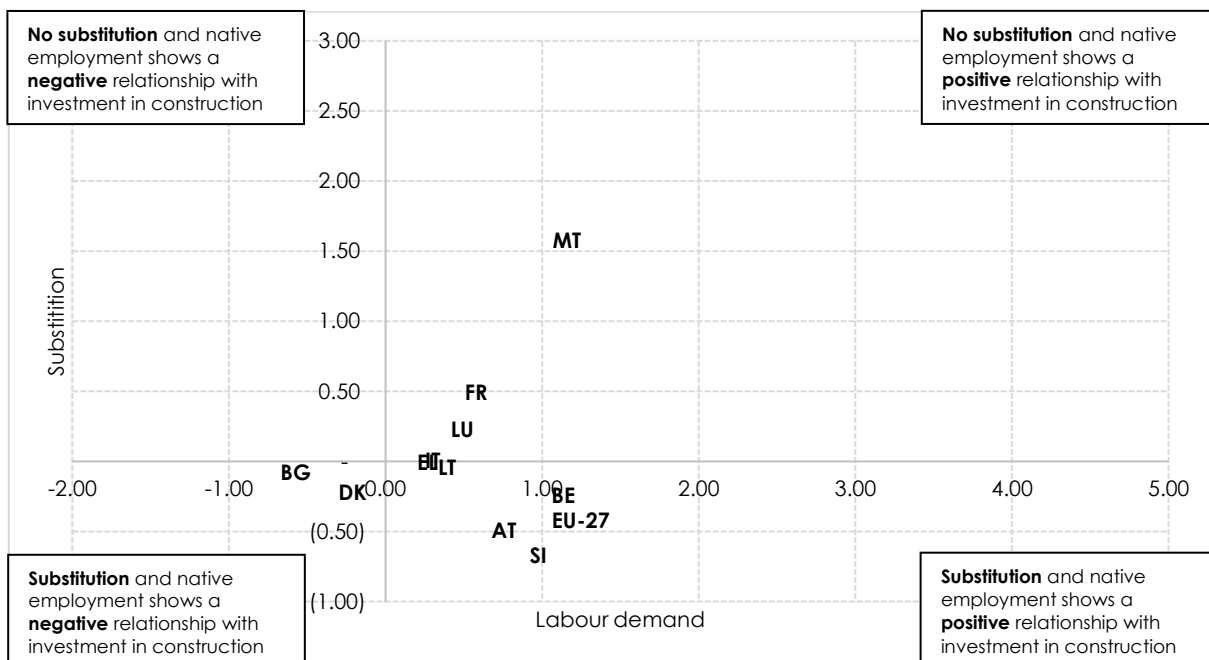


* Vertical axis: Substitution: % change national employment/% change incoming posted workers. Horizontal axis: Labour demand effect: % change national employment/% change investments in construction.

** For BE, EL, FR, MT, and SE the Substitution effect was calculated by dividing the change in national employment in the construction sector by the change in incoming posted worker in the total economy, and not specifically the change of incoming posted workers in the construction sector.

Source Eurostat [sbs_na_con_r2], European Commission (2021), De Wispelaere & Pacolet (2018c)

Figure 29. Displacement effects in the construction sector, 2018 to 2019



* Vertical axis: Substitution: % change national employment/% change incoming posted workers. Horizontal axis: Labour demand effect: % change national employment/% change investments in construction.

** For FR, MT, and SI, the Substitution effect was calculated by dividing the change in national employment in the construction sector by the change in incoming posted worker in the total economy, and not specifically the change of incoming posted workers in the construction sector.

Source Eurostat [sbs_na_con_r2], European Commission (2021), De Wispelaere et al. (2021b)

3.5 The competent tax authority in the 'sending' and 'receiving' Member State

Since the majority of posted workers will receive a (much) higher remuneration for the period they perform activities abroad, this will also benefit (at least in theory) the tax authority of the host Member State. After all, it is the sending Member State that is competent to levy social security contributions on the often higher wages of posted workers. The extent of the additional benefit for the recipient Member States is calculated in *section 3.5.1* for Italy, Luxembourg, Poland, and Slovenia. However, as already noted, higher wages of posted workers are not always entirely taxed by the sending Member State, sometimes because a maximum level of social contributions applies, or social contributions are still levied on an average wage in the sending Member State (see Slovenia), or because another favourable tax regime exists. This reality is briefly discussed in *section 3.5.2*.

3.5.1 Higher labour tax revenues for the 'sending' Member State

During a posting period of maximum 24 months, the posted worker (and the employer) is exempted from paying social security contributions in the host Member State. Thus, the posted worker is not subject to the social security system of the host Member State, but to that of the Member State of origin. As a result, social security contributions (but also personal income taxes)²²⁶, have to be paid in the Member State of origin, though on the higher wages earned by the posted worker in the host Member State.

For four of the main sending Member States²²⁷, the exercise is conducted to calculate the 'gain' in social security contributions received.²²⁸ Based on data on the number of PDs A1 issued under Article 12, the posting period, and the wages of the posted workers, such an estimate can be made for 2020. First, a calculation is made based on the wage that the posted worker should receive in the host Member State, and then the wages at the Member State of origin are calculated as well (estimate based on the statutory minimum wage from Member States). Social security contributions are levied on the wages earned in the host Member State, but there is only a gain for the Member State of origin when the wage in the host Member State is indeed higher than the minimum wages in the Member State of origin.

In Italy, around € 5.7 million social security contributions were earned more because persons were posted to Member States where they received a higher minimum wage than they would receive in Italy (*Table 17*). This is mainly coming from social security contributions from persons posted to Denmark (€ 1.9 million) and Austria (€ 2.0 million), as they make up 67% of the total gain in social security contributions.

In Luxembourg, the gain only amounts to € 5,117 (*Table 18*). This is because the minimum wage in Luxembourg is one of the highest in the EU, and only persons posted to the Nordic countries (Denmark, Finland, and Sweden) will receive a higher minimum wage on which higher social security contributions can be levied.

The increase in social security contributions in Poland is the highest of the four discussed sending Member States, namely € 359 million (*Table 19*). As Poland has one of the lower minimum wages in the EU, many posted workers are entitled to a higher minimum wage in the host Member State, on which social security contributions can be levied. The majority of the gain, € 204 million of the € 359 or 57%, comes from persons posted to Germany. This is the main flow of posted workers from Poland, as it concerns over 110,000 PDs A1 issued.

Finally, for Slovenia, the estimated gain amounts to € 47 million (*Table 20*). Around 55% of this amount originates from social security contributions levied on the higher minimum wage for persons posted to Germany. However, Slovenia is currently not collecting this gain in social security

²²⁶ But also personal income taxes. Indeed, the right to tax the employment income remains with the country of residence of the posted worker in case the period abroad is less than 183 days within a period of 12 months that commences or ends in the fiscal year concerned (see e.g., Spiegel et al., 2022).

²²⁷ The exercise is conducted for Italy, Luxembourg, Poland, and Slovenia. For Spain and Germany data on the average duration of the posting period are not available, which prevented the exercise from being performed.

²²⁸ The 'gain' will be even higher if these were former unemployed persons who have been recruited for being posted.

contributions, as the rule is followed that social security contributions for workers posted under Article 12 of the Basic Regulation are not to be calculated based on the actual wage earned but based on the wage they would have earned in Slovenia for comparable work (Vah Jevšnik et al., 2022 – see below).

This gain in social security contributions for the four analysed main Member States of origin can be compared to the total social security contributions they received in 2019, the most recent year on which data are available.²²⁹ Table 16 shows that the impact remains very limited for all four Member States, with a share under 0.7%. For Italy and Luxembourg, the impact even remains under 0.01%, seeing that the minimum wage in these sending Member States is on the high(er) side and not much is gained from levying social security contributions on higher minimum wages.

Table 16. Estimated gain in social security contributions for main Member States of origin

	Estimated gain in social security contributions received through sending of posted workers (2020) (A)	Estimated total social contributions received (2019) (in million €) (B)	Share (A/1,000,000/B)
Italy	5,743,663	276,972	0.002%
Luxembourg	5,117	7,680	0.0001%
Poland	359,467,035	67,287	0.53%
Slovenia*	47,481,169	7,719	0.62%

* The amount calculated for Slovenia in the country report (Vah Jevšnik et al., 2022) amounted to € 48,883,433. However, the current calculations do not include the United Kingdom, Iceland, Liechtenstein, Norway, and Switzerland. Moreover, in the current calculations, rounding to two decimal places was used, while in the country report no digits behind the comma were used.

Source Table 17, Table 18, Table 19, Table 20, Eurostat [SPR_REC_SUMT]

²²⁹ A similar exercise could be made for personal income taxes.

Table 17. Estimated financial impact of calculation social security contributions for posted workers under Article 12, Italy as Member State of origin, 2020

	PDs A1 issued under Art. 12 (A)	Average duration (days) (B)	Monthly minimum wages (in €) (C)	First decile monthly earnings (in €) (D)	Total wages			Social security contributions		
					Wage at the level of the host country* (E=A*(B/30)*(C or D))	At the level of the Italian wage (minimum wage € 1,611) (F=A*B*€ 941)	Difference (G=E-F)	Employer social security contributions (H=G*31.58%)	Employee social security contributions (I=G*9.49%)	Sum (H+I)
Belgium	6,181	96	1,626		32,239,179	31,947,271	291,908	92,185	27,702	119,887
Bulgaria	702	63	312		457,964	2,365,512				
Czechia	2,091	41	546		1,560,304	4,603,755				
Denmark	1,992	46		3,107	9,541,597	4,947,381	4,594,216	1,450,853	435,991	1,886,845
Germany	23,991	38	1,544		47,228,683	49,278,114				
Estonia	90	12	584		20,148	55,580				
Ireland	901	23	1,707		1,166,254	1,100,729	65,524	20,693	6,218	26,911
Greece	2,052	95	758		4,901,693	10,413,182				
Spain	14,106	33	1,108		17,197,513	24,997,243				
France	46,034	48	1,539		113,975,604	119,275,245				
Croatia	1,663	101	546		3,064,886	9,041,939				
Italy										
Cyprus	108	45		886	142,735	259,532				
Latvia	98	36	430		49,866	186,822				
Lithuania	183	8	607		30,547	81,074				
Luxembourg	1,466	36	2,142		3,742,021	2,814,390	927,631	292,946	88,032	380,978
Hungary	1,610	42	452		1,005,588	3,587,966				
Malta	982	28	777		718,597	1,489,719				
Netherlands	3,904	48	1,680		10,384,640	9,958,128	426,512	134,692	40,476	175,168
Austria	7,696	78		1,852	36,939,004	32,132,147	4,806,857	1,518,006	456,171	1,974,176
Poland	3,255	29	583		1,835,920	5,069,012				
Portugal	1,459	57	741		2,044,648	4,446,266				
Romania	2,237	48	461		1,640,598	5,736,059				
Slovenia	1,410	110	941		4,851,747	8,309,941				
Slovakia	1,012	65	580		1,276,638	3,545,972				
Finland	737	52		2,381	3,041,648	2,057,999	983,649	310,636	93,348	403,985
Sweden	1,243	43		2,665	4,775,658	2,886,899	1,888,759	596,470	179,243	775,713
Total							13,985,057	4,416,481	1,327,182	5,743,663

* The Posting of Workers Directive States that whenever the working conditions applicable to the worker in accordance with the rules of the sending Member State are more favourable than would result from the application of the host Member State rules, these are applied instead. The minimum wage in Italy is higher than the minimum wage in Bulgaria, Czechia, Germany, Estonia, Greece, Spain, France, Croatia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Portugal, Romania, Slovenia, and Slovakia. Consequently, workers posted to these countries receive the higher Italian minimum wage.

** DK, IT, CY, AT, FI, and SE do not have a national minimum wage. For these Member States, the first decile monthly earnings were used as an approximation of the minimum wage.

***Data on the number of PDs A1 issued under Art. 12 and the average duration concern reference year 2019.

Source De Wispelaere et al. (2021a), Eurostat [EARN_MW_CUR], OECD Stat (2022)

Table 18. Estimated financial impact of calculation social security contributions for posted workers under Article 12, Luxembourg as Member State of origin, 2020

	PDs A1 issued under Art. 12 (A)	Average duration (days) (B)	Monthly minimum wages (in €) (C)	First decile monthly earnings (in €) (D)	Total wages			Social security contributions		
					Wage at the level of the host country* (E=A*(B/30)*(C or D))	At the level of the Luxembourg wage (minimum wage € 2,142) (F=A*B*€ 941)	Difference (G=E-F)	Employer social security contributions (H=G*13.76%)	Employee social security contributions (I=G*11.05%)	Sum (H+I)
Belgium	23,841	8	1,626		10,335,677	13,617,916				
Bulgaria	14	66	312		9,606	65,973				
Czechia	73	18	546		23,915	93,819				
Denmark	41	6		3,107	25,477	17,564	7,913	1,089	874	1,963
Germany	8,893	13	1,544		5,950,010	8,254,444				
Estonia	7	5	584		681	2,499				
Ireland	77	14	1,707		61,335	76,969				
Greece	64	40	758		64,711	182,783				
Spain	275	46	1,108		467,346	903,206				
France	18,294	14	1,539		13,142,336	18,286,597				
Croatia	23	55	546		23,026	90,321				
Italy	343	49		1,611	902,536	1,200,014				
Cyprus	15	5		886	2,215	5,355				
Latvia	4	126	430		7,224	35,985				
Lithuania	37	20	607		14,973	52,836				
Luxembourg										
Hungary	269	10	452		40,485	192,065				
Malta	14	43	777		15,594	42,983				
Netherlands	386	18	1,680		389,088	496,085				
Austria	215	16		1,852	212,363	245,615				
Poland	221	31	583		133,247	489,159				
Portugal	112	48	741		132,757	383,845				
Romania	32	53	461		26,049	121,094				
Slovenia	11	64	941		22,072	50,265				
Slovakia	36	4	580		2,784	10,282				
Finland	31	7		2,381	17,223	15,494	1,729	238	191	429
Sweden	45	14		2,665	55,965	44,982	10,983	1,511	1,214	2,725
Total							20,625	2,838	2,279	5,117

* The Posting of Workers Directive States that whenever the working conditions applicable to the worker in accordance with the rules of the sending Member State are more favourable than would result from the application of the host Member State rules, these are applied instead. The minimum wage in Luxembourg is higher than the minimum wage in Belgium, Bulgaria, Czechia, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, and Slovakia. Consequently, workers posted to these countries receive the higher Luxembourg minimum wage.

** DK, IT, CY, AT, FI, and SE do not have a national minimum wage. For these Member States, the first decile monthly earnings were used as an approximation of the minimum wage

Source De Wispelaere et al. (2022b), Eurostat [EARN_MW_CUR], OECD Stat (2022)

Table 19. Estimated financial impact of calculation social security contributions for posted workers under Article 12, Poland as Member State of origin, 2020

	PDs A1 issued under Art. 12 (A)	Average duration (days) (B)	Monthly minimum wages (in €) (C)	First decile monthly earnings (in €) (D)	Total wages			Social security contributions		
					Wage at the level of the host country* (E=A*(B/30)*(C or D))	At the level of the Polish wage (minimum wage € 583) (F=A*B*€ 941)	Difference (G=E-F)	Employer social security contributions (H=G*19.2%)	Employee social security contributions (I=G*13.7%)	Sum (H+I)
Belgium	17,038	179	1,626		165,270,804	59,316,616	105,954,188	20,353,799	14,526,319	34,880,119
Bulgaria	328	58	312		197,780	370,004				
Czechia	3,365	97	546		5,940,571	6,348,360				
Denmark	1,843	62		3,107	11,834,149	2,222,398	9,611,751	1,846,417	1,317,771	3,164,188
Germany	113,138	171	1,544		995,704,910	376,278,433	619,426,477	118,991,826	84,923,370	203,915,196
Estonia	279	69	584		374,753	374,419	334	64	46	110
Ireland	456	117	1,707		3,035,551	1,037,661	1,997,890	383,795	273,911	657,705
Greece	143	68	758		245,800	189,125	56,675	10,887	7,770	18,657
Spain	1,869	63	1,108		4,350,084	2,290,101	2,059,984	395,723	282,424	678,147
France	21,199	61	1,539		66,356,135	25,150,691	41,205,443	7,915,566	5,649,266	13,564,832
Croatia	315	97	546		556,172	594,274				
Italy	1,595	70		1,611	5,995,605	2,171,518	3,824,087	734,607	524,282	1,258,889
Cyprus	43	91		886	115,564	76,105	39,459	7,580	5,410	12,990
Latvia	245	87	430		305,515	414,563				
Lithuania	994	68	607		1,367,611	1,314,619	52,992	10,180	7,265	17,445
Luxembourg	502	87	2,142		3,118,309	849,430	2,268,879	435,852	311,063	746,915
Hungary	1,017	51	452		780,616	1,008,779				
Malta	204	60	777		317,057	238,060	78,997	15,175	10,830	26,006
Netherlands	17,877	148	1,680		148,164,576	51,458,968	96,705,608	18,577,147	13,258,339	31,835,486
Austria	4,177	204		1,852	52,603,467	16,572,933	36,030,535	6,921,466	4,939,786	11,861,252
Poland										
Portugal	97	125	741		299,419	235,823	63,596	12,217	8,719	20,936
Romania	361	79	461		438,023	554,676				
Slovenia	123	35	941		134,973	83,729	51,244	9,844	7,026	16,869
Slovakia	1,197	83	580		1,920,786	1,932,311				
Finland	2,328	113		2,381	20,878,513	5,116,419	15,762,093	3,027,898	2,160,983	5,188,881
Sweden	10,758	210		2,665	200,690,490	43,939,545	156,750,945	30,111,857	21,490,555	51,602,411
Total							1,091,941,175	209,761,900	149,705,135	359,467,035

* The Posting of Workers Directive States that whenever the working conditions applicable to the worker in accordance with the rules of the sending Member State are more favourable than would result from the application of the host Member State rules, these are applied instead. The minimum wage in Poland is higher than the minimum wage in Bulgaria, Czechia, Croatia, Latvia, Hungary, Romania, and Slovakia. Consequently, workers posted to these countries receive the higher Polish minimum wage.

**DK, IT, CY, AT, FI, and SE do not have a national minimum wage. For these Member States, the first decile monthly earnings were used as an approximation of the minimum wage.

Source De Wispelaere et al. (2022b), Eurostat [EARN_MW_CUR], PWC (2022)

Table 20. Estimated financial impact of calculation social security contributions for posted workers under Article 12, Slovenia as Member State of origin, 2020

	PDs A1 issued under Art. 12 (A)	Average duration (days) (B)	Monthly minimum wages (in €) (C)	First decile monthly earnings (in €) (D)	Total wages			Social security contributions		
					Wage at the level of the host country* (E=A*(B/30)*(C or D))	At the level of the Slovenian wage (minimum wage € 941) (F=A*B*€ 941)	Difference (G=E-F)	Employer social security contributions (H=G*16.1%)	Employee social security contributions (I=G*22.1%)	Sum (H+I)
Belgium	7,435	95	1,626		38,276,223	22,145,172	16,131,050	2,597,099	3,564,962	6,162,061
Bulgaria	23	159	312		38,019	114,657				
Czechia	401	35	546		255,437	440,035				
Denmark	143	43		3,107	636,831	192,788	444,044	71,491	98,134	169,625
Germany	61,139	56	1,544		176,210,750	107,344,758	68,865,991	11,087,425	15,219,384	26,306,809
Estonia	14	38	584		10,356	16,680				
Ireland	33	42	1,707		78,859	43,455	35,404	5,700	7,824	13,524
Greece	88	16	758		35,591	44,145				
Spain	514	43	1,108		816,544	692,957	123,587	19,898	27,313	47 092
France	1,993	47	1,539		4,806,634	2,936,836	1,869,798	301,037	413,225	714,263
Croatia	3,574	70	546		4,553,860	7,843,810				
Italy	2,422	72		1,611	9,364,421	5,467,403	3,897,017	627,420	861,241	1,488,661
Cyprus	6	70		886	12,404	13,168				
Latvia	28	58	430		23,277	50,917				
Lithuania	13	14	607		3,682	5,706				
Luxembourg	542	57	2,142		2,205,821	968,609	1,237,212	199,191	273,424	472,615
Hungary	270	39	452		158,480	330,144				
Malta	15	60	777		23,313	28,217				
Netherlands	3,218	47	1,680		8,469,776	4,741,965	3,727,811	600,178	823,846	1,424,024
Austria	13,451	62		1,852	51,483,254	26,146,933	25,336,322	4,079,148	5,599,327	9,678,475
Poland	353	30	583		205,968	332,025				
Portugal	9	117	741		26,003	33,014				
Romania	155	13	461		30,948	63,176				
Slovenia			941							
Slovakia	379	63	580		461,622	748,608				
Finland	238	71		2,381	1,341,138	529,797	811,341	130,626	179,306	309,932
Sweden	645	49		2,665	2,807,578	990,901	1,816,676	292,485	401,485	693,970
Total							124,296,253	20,011,697	27,469,472	47,481,169

* The Posting of Workers Directive States that whenever the working conditions applicable to the worker in accordance with the rules of the sending Member State are more favourable than would result from the application of the host Member State rules, these are applied instead. The minimum wage in Slovenia is higher than the minimum wage in Bulgaria, Czechia, Estonia, Greece, Croatia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Portugal, Romania, and Slovakia. Consequently, workers posted to these countries receive the higher Slovenian minimum wage.

** DK, IT, CY, AT, FI, and SE do not have a national minimum wage. For these Member States, the first decile monthly earnings were used as an approximation of the minimum wage.

Source De Wispelaere et al. (2022b), Eurostat [EARN_MW_CUR], OECD Stat (2022)

3.5.2 Theory versus practice

In Slovenia, according to the Pension and Disability Insurance Act (ZPIZ-2, Article 144, paragraph 4), social security contributions for workers posted under Article 12 are not to be calculated on the basis of, in most cases, higher wage earned during the posting period abroad (by applying the principle “equal pay for equal work at the same workplace”) but based on the wage they would have earned in Slovenia for comparable work. There are doubts as to whether this legal provision violates the EU legal order.²³⁰ This does not only mean that the Slovenian state is missing out of additional incomes (€ 47 million; see *Table 16* and *Table 20*), but also that the posted worker builds up his/her pension on a lower amount of wage, as it is calculated on a comparable Slovenian wage instead of the actual higher wage earned. Furthermore, it gives an additional competitive advantage to Slovenian posting undertakings, as they are paying a lower amount of social security contributions than required (it is estimated that this policy exempts an amount of € 128 million from social security contributions). For a full discussion of this delicate issue, see *Chapter 5* of the country report of Slovenia (Vah Jevšnik et al., 2022). The example of Slovenia shows that Member States sometimes maintain a dual policy regarding posting. On the one hand, Slovenia stimulates posting by levying lower social security contributions, but on the other hand, they limit its use as they have become much stricter in issuing a PD A1 under Article 12, which is the condition for benefiting from the favourable regime.

The higher wages received by Polish posted workers are also partly exempted from social security contributions (Kielbasa et al., 2022).²³¹ Moreover, social security contributions levied on the higher wages of posted workers earned in the receiving Member State might be capped at a maximum level when an income ceiling is exceeded (see for instance, in Romania and Bulgaria (Mesure, 2019)).

3.5.3 Lower labour tax revenues for the ‘receiving’ Member State

Several, mainly West-European, Member States of posted workers do not receive a considerable amount of labour tax revenues because social security contributions for incoming posted workers have to be paid in the sending Member State. It is estimated that this amounts to more than € 750 million for Belgium.²³² Still this is ‘only’ about 1% of the annual sum of labour tax revenues received by the Belgian State from social security contributions. It is estimated that France loses an annual amount of € 641 million in labour tax revenues from social security contributions because posted workers pay social security contributions in the sending Member State.²³³ Please note that, due to the fact that they are not the competent Member State, receiving Member States should not pay social benefits (e.g., unemployment benefits, sickness benefits in cash and in kind, pensions, etc.) to posted workers either.

²³⁰This issue was brought to the attention of the European Commission by the European Federation of Building and Woodworkers (EFBWW), which submitted a formal complaint against Slovenia, alleging that it is granting illegal state aid to companies that post workers abroad. <https://www.efbww.eu/publications-and-downloads/press-releases/ec-must-act-and-stop-the-slovenian-state-sponsored-business-mode/1761-a>

²³¹See section 2 Paragraph 1 point 16 of the Regulation of the Minister of Labour and Social Policy of 18 December 1998. To calculate the social security contributions, the actual remuneration of a worker posted abroad is to be reduced by an amount of the equivalent of a daily allowance for business trips abroad (e.g. € 49 per day for Germany), with the reservation that the monthly revenue of the posted workers may not be lower than an average remuneration (approximately PLN 5,922 or € 1,273 as of 31 March 2022). See also Otto (2020: 96): “In the case of posting of workers abroad, pursuant to the established line of judicial decisions, setting the basis for the calculation of social security contributions requires the exclusion of only the equivalent of daily subsistence allowances (but no longer the lump sum for accommodation). Notably, the relevant regulations allow the worker to deduct costs related to posting abroad only to the level of the aforementioned average remuneration. Thus, if the employee earns less abroad, he or she will pay contributions on the actual wage.”

²³²Based on a total amount of gross wages earned by workers posted to Belgium of some € 2 billion. By taking into account an employee social security contribution rate of 13.07% and an employer social security contribution rate of 24.9%.

²³³Based on a total amount of gross wages earned by workers posted to France of some € 1.35 billion. By taking into account an employee social security contribution rate of 11.31% and an employer social security contribution rate of 36.3%.

4. Scale and characteristics of infringements related to intra-EU posting

4.1 Introduction

Intra-EU posting is often linked to irregular practices such as ‘law/regime/forum shopping’ by the establishment of ‘letterbox companies’ (see also Cremers, 2020; Rennuy, 2021); bogus self-employment; the application of terms and conditions of employment below those specified by the law or the collective agreements in the receiving Member State, to name only a few. Therefore, this chapter looks deeper into the scale and characteristics of infringements of the posting rules. However, it does not aim to provide an exhaustive overview and only shows a ‘tip of the iceberg’ by referring to data available from labour inspectorates about their inspections on the posting of workers rules, the extent to which these rules are violated, and the types of infringements. In that respect, the aim was to gather data at a national level for a number of basic indicators concerning the fight against violations to the posting rules: 1) number of labour inspectors involved; 2) number of inspections; 3) outcome of these inspections; 4) main types of infringements; 5) recovery of un(der)paid remunerations, social security contributions, and financial sanctions. In order to estimate the real extent of infringements in case of intra-EU posting, research methodologies other than the analysis of inspection results are more suitable. This could involve a survey of the economic actors involved in posting (workers, self-employed, posting undertakings, clients) as well as inspections of a random selected group of posting undertakings/posted workers in all sectors of activity.

The collection of administrative data from the labour inspectorates should allow us to make a preliminary assessment of the extent to which posting is ‘infected’ by all kinds of infringements related to the labour and social security aspects of posting. As already noted, the use of inspection data has several limitations of which the reader should be aware when reading the analysis below. Inspection data probably bias the real relationship between posting and cross-border social fraud. After all, inspections mostly take place on the basis of a risk assessment, mostly focused on specific ‘sectors at risk’ (e.g., in the construction sector, in road transport, in the meat processing industry etc.). Such inspections will yield higher infringement rates and may therefore give a distorted view of the actual number of infringements related to intra-EU posting in the receiving Member State. Nevertheless, these data will show whether or not the terms and conditions of employment of posted workers are more prone to infringements than those of local workers. And in which sectors these infringements mainly occur (main in construction and road freight transport?) or for which flows of posted workers (mainly for ‘low to high movements?’).

In *section 4.2*, a non-exhaustive overview is given of the type of infringements that can occur in the case of intra-EU posting from both a labour and a social security law perspective.²³⁴ This overview is the steppingstone to identify ‘red flags’ by looking at the posting flows at risk (*section 4.3*) but also by using the Orbis database to detect possible forms of infringements based on the indicator ‘no substantial activities in the Member State of establishment’ (*section 4.4*). Data on the efforts by labour inspectorates to enforce the posting rules are reported by looking at the number of labour inspectors involved, and the number of inspections carried out (*section 4.5*). The extent to which an infringement is found during these inspections is reported by calculating the infringement rate (*section 4.6*). Finally, data are reported on transnational cooperation and enforcement (*section 4.7*).

4.2 Infringements related to intra-EU posting

With regard to the application of the Posting of Workers Directive, infringements such as bogus self-employment and failure to respect the terms and conditions of employment may occur (sometimes even

²³⁴ For an overview of possible infringements, see e.g. Verschueren, 2021b: 648 as well as the corresponding footnote 19.

leading to labour exploitation) (European Union Agency for Fundamental Rights, 2019).²³⁵ Section 4.3 shows that wages applicable in several main receiving Member States of posted workers are much higher than those of a number of main sending Member States. Large differences between the wage applicable in the receiving Member States compared to that applicable in the sending Member State (i.e., low to high movements) make it likely that posted workers agree with a wage below the minimum wage applicable in the receiving Member State.²³⁶ Consequently, some of these flows could be considered a ‘red flag’. Infringements related to the application of the Posting of Workers Directive may also include not respecting ‘administrative obligations’ such as not reporting the activities in the prior declaration tools of the recipient Member State. With regard to the application of the Coordination Regulations, infringements such as the non-compliance with the posting conditions, as well as not paying the correct level of social security contributions are the main concerns. Ideally, it is possible to quantify the extent to which the above violations occur. However, data of the labour inspectorates only reveal the ‘tip of the iceberg’ of the extent of these infringements, if any information can be found on this at all.

Infringements may, of course, also apply to other branches of law, such as migration law. Think for instance about the posting of TCNs from one Member State to another without these persons having a valid residence or work permit. Setting up a letterbox company is another example where several aspects of the law may be violated. Furthermore, during the COVID-19 pandemic a long list of incidents have made it clear and apparent, due to non-compliance with (additional) Occupational Safety and Health legislation (OSH), that workers’ safety in different labour-intensive sectors came under pressure (De Wispelaere & Gillis, 2020; Rasnača, 2020). Especially migrant/mobile workers, including posted workers, found themselves in a particularly vulnerable situation. In that respect, the COVID-19 pandemic has highlighted that OSH legislation, and (non-)compliance with it, is equally relevant when discussing infringements related to intra-EU posting.^{237,238} Finally, infringements related to intra-EU posting might in some cases be linked to criminal activities.²³⁹

Table 21. Non-exhaustive overview of infringements related to intra-EU posting

Law labour aspects	Social security law aspects
<i>Mainly related to the application of the Posting of Workers Directive and the Enforcement Directive</i>	<i>Mainly related to the application of the Coordination Regulations</i>
Bogus self-employment: workers being temporarily posted under the false status of being self-employed	Notify the competent Member State, whenever possible in advance, about the cross-border work-related activity
The posting undertaking does not genuinely perform substantial activities in the sending country	Circumventing the conditions as defined by Art. 12 BR and by Art. 13 BR (active in two or more MSs)
The posted worker does not temporarily carry out his or her work in the host country	Bogus self-employment: workers temporarily posted under the false status of being self-employed
Not respecting the terms and conditions of employment, related to:	Not respecting the posting conditions, related to:
<ul style="list-style-type: none"> the payment of the remuneration, including overtime rates; 	<ul style="list-style-type: none"> the 24-month time limit;

235 Recently, victims of human trafficking have been discovered on a large construction site of Borealis in the port of Antwerp (BE). <https://www.borealisgroup.com/news/borealis-suspends-construction-in-kallo-after-serious-allegations-against-contractor-and-continues-to-support-belgian-authorities-in-investigation> ; https://www.europarl.europa.eu/doceo/document/E-9-2022-002755_EN.html ;

236 This also applies to posted self-employed persons who charge a price for their services that is significantly below the minimum wage applicable in the host Member State.

237 For more research on OSH and posted workers see <http://www.poosh.eu/>

238 In Belgium, the importance of health and safety at work in case of the posting of workers has come to the fore, unfortunately, due to the deadly accident of five posted construction workers that occurred on 18 June 2021 on a construction site in Antwerp (BE).

239 E.g., <https://www.europol.europa.eu/newsroom/news/employment-fraud-in-construction-sector-twelve-arrested-in-belgium-and-italy>: “The criminal organisation, managed by a single Italian family, had several companies in Italy, Romania and Slovakia, which recruited workers locally. The workers were then sent to in the construction sectors in Western European countries, mainly in Belgium and Luxembourg. In Belgium, about 20 local subcontractors then hired the workers. The working conditions were often poor and the working legal conditions were not met including limit of working hours per day/week, minimum salary and annual leave. The investigation uncovered that the hiring companies had no activity in the countries they were based in and the employees they hired had never actually worked for the original companies. The fraud is estimated at € 20 million without the possible VAT losses.”

Law labour aspects	Social security law aspects
Mainly related to the application of the Posting of Workers Directive and the Enforcement Directive	Mainly related to the application of the Coordination Regulations
<ul style="list-style-type: none"> the payment of allowances or reimbursement of expenditure to cover travel, board and lodging expenses; 	<ul style="list-style-type: none"> the non-replacement condition;
<ul style="list-style-type: none"> the payment of minimum paid annual leave; 	<ul style="list-style-type: none"> the requirement of a substantial connection with the sending country;
<ul style="list-style-type: none"> the maximum work periods and minimum rest periods; 	<ul style="list-style-type: none"> the requirement of a direct employment relationship between the posted worker and the sending employer;
<ul style="list-style-type: none"> health, safety and hygiene at work; 	<ul style="list-style-type: none"> the requirement that workers are attached to a posting undertaking that 'normally carries out its activities' in the sending country.
<ul style="list-style-type: none"> the conditions of hiring-out of workers; 	Not paying the correct level of social security contributions
<ul style="list-style-type: none"> the conditions of workers' accommodation; 	The use of false Portable Documents A1 to evade the posting conditions
<ul style="list-style-type: none"> long-term posting: additional terms and conditions of employment. 	
Unauthorised temporary work agencies / labour market intermediaries / gang masters ²⁴⁰	
Posted TCNs without a valid residence/work permit	
Labour exploitation	
Not respecting the 'administrative' requirements, related to:	
<ul style="list-style-type: none"> the obligation for a service provider established in another Member State to make a simple declaration; 	
<ul style="list-style-type: none"> the obligation to keep or make available the employment contract and other documents, to deliver these documents within a reasonable period of time, to provide a translation of these documents; 	
<ul style="list-style-type: none"> the obligation to designate a person to liaise with the competent authorities in the host country in which the services are provided. 	

Source Authors

4.3 Main flows of posted workers 'at risk'

The flows of posted workers which can be 'at risk' can be analysed by looking at the cross-table of the increase in wage that follows from the posting (*Table 9 in section 3.1.1*). For example, workers posted from Bulgaria should receive a wage almost seven times higher than the wage applicable in Bulgaria when they are posted to Luxembourg. The flows where the increase in wage is highest are the riskiest flows (i.e., 'low to high movements'), as abuse is 'easier' in these cases. For instance, when a posted worker is supposed to receive five times the minimum wage he/she would normally receive at home, it is 'easy' to only give the posted worker three or four times the minimum wage, as he/she would probably still be willing to accept this wage. Paying posted workers more than they would receive in the sending Member State, but less than the mandatory (minimum) wage in the host Member State, gives the posting undertaking an illegal (and thus unfair) competitive advantage.

The flows 'at risk' can be quantified by looking at the increase in minimum wages (*Table 9 in section 3.1.1*) and the number of PDs A1 issued in 2020 (*Table 10 in section 3.1.1*).²⁴¹ The number of PDs A1 issued are divided in three categories based on the increase in minimum wage: 'no risk' when the minimum wage in the host Member State is lower than in the Member State of origin, 'medium risk' when the minimum wage

²⁴⁰ <https://www.euractiv.com/section/economy-jobs/interview/we-want-positive-action-to-combat-exploitative-labour-in-eu-construction/>

²⁴¹ This concerns a theoretical exercise. These flows at risk could also be determined on the basis of other variables (e.g., earnings statistics from Eurostat) (ideally based on differences in 'remunerations' between the sending and receiving Member State). A more sectoral approach could also be applied (for instance, for the construction sector).

in the host Member State is higher than in the Member State of origin up until double the minimum wage, and 'high risk' when the minimum wage in the host Member State is more than double the minimum wage in the Member State of origin. As a result, *Table 22* indicates for which Member States of origin the posted workers might be more at risk.²⁴² For instance, (almost) no posted persons coming from Ireland, Luxembourg, and the Netherlands are at a high risk of fraud, as they are almost always entitled to the higher minimum wage of the Member State of origin. On the other hand, a high share of posted workers from Lithuania (95.9%), Bulgaria (95.2%), Poland (94.2%), Croatia (93.0%), Hungary (93.0%), and Romania (92.6%) are potentially at risk, as they should receive more than double the minimum wage they would normally receive in the Member State of origin.

²⁴² It is an interesting hypothesis whether the number of infringements detected (both in absolute and relative terms) by labour inspectorates is highest for these flows at risk.

Table 22. Risk analysis of flows of posted persons, based on number of PDs A1 issued under Article 12 BR by the Member State of origin, 2020

Share of posted persons from...with	no risk (Minimum wage in host MS is lower)	medium risk (Minimum wage in host MS is higher up until the double wage)	high risk (Minimum wage in host MS is more than double compared to MS of origin)
BE	50.4%	49.6%	0.0%
BG	0.0%	4.8%	95.2%
CZ	3.8%	23.0%	73.1%
DK			
DE	45.4%	54.6%	0.0%
EE	2.9%	11.3%	85.8%
IE	99.6%	0.4%	0.0%
EL	8.3%	9.3%	82.4%
ES	30.3%	69.7%	0.0%
FR	30.6%	69.4%	0.0%
HR	1.0%	6.0%	93.0%
IT			
CY			
LV	2.8%	21.4%	75.8%
LT	3.7%	0.4%	95.9%
LU	100.0%	0.0%	0.0%
HU	1.1%	5.9%	93.0%
MT	20.8%	59.7%	19.5%
NL	98.2%	1.8%	0.0%
AT			
PL	3.3%	2.6%	94.2%
PT	1.4%	19.3%	79.3%
RO	0.5%	6.8%	92.6%
SI	6.6%	92.7%	0.7%
SK	15.4%	1.2%	83.4%
FI			
SE			

* DK, IT, CY, AT, FI, and SE are excluded, both as host Member State and Member State of origin as they do not have a minimum wage in place.

Source Based on increase in minimum wages (Table 9 in section 3.1.1) and the number of PDs A1 issued (Table 10 in section 3.1.1) in 2020

The exercise above can also be done for the opposite perspective, so looking at the flows at risk for the receiving Member State. This can be particularly interesting for inspection bodies to know which share of postings they should focus on. Table 23 shows that especially Germany as a host Member State receives many postings ‘at a high risk’, of which the majority comes from Poland. Furthermore, of all incoming postings to Belgium and France, more than one fifth forms a high risk. On the contrary, almost all postings to Bulgaria, Czechia, Estonia, Greece, Croatia, Latvia, Hungary, Poland, Portugal, and Romania are not considered a risk as the minimum wage in these Member States is mostly lower than the minimum wage in the sending Member State.

Table 23. Risk analysis of flows of posted persons, based on number of PDs A1 issued under Article 12 BR and received by the host Member State, 2020

Share of posted persons to...with	no risk (Minimum wage in host MS is lower)	medium risk (Minimum wage in host MS is higher up until the double wage)	high risk (Minimum wage in host MS is more than double compared to MS of origin)
BE	19.4%	51.0%	29.6%
BG	100.0%	0.0%	0.0%
CZ	98.7%	1.3%	0.0%
DK			
DE	4.9%	23.1%	72.0%
EE	96.4%	3.6%	0.0%
IE	1.2%	85.3%	13.5%
EL	92.2%	4.7%	3.1%
ES	77.9%	20.6%	1.4%
FR	65.5%	12.2%	22.3%
HR	91.9%	8.1%	0.0%
IT			
CY			
LV	97.0%	3.0%	0.0%
LT	66.3%	33.7%	0.0%
LU	0.0%	94.9%	5.1%
HU	95.2%	4.8%	0.0%
MT	80.0%	17.7%	2.2%
NL	0.2%	90.4%	9.3%
AT			
PL	98.3%	1.7%	0.0%
PT	97.7%	1.8%	0.4%
RO	98.9%	1.1%	0.0%
SI	68.6%	28.0%	3.5%
SK	84.4%	15.6%	0.0%
FI			
SE			

* DK, IT, CY, AT, FI, and SE are excluded, both as host Member State and Member State of origin as they do not have a minimum wage in place.

Source Based on increase in minimum wages (Table 9 in section 3.1.1) and the number of PDs A1 issued (Table 10 in section 3.1.1) in 2020

Through these exercises it can be calculated that out of the 1,502,363 PDs A1 issued in 2020 (excluding DK, IT, CY, AT, FI, and SE both as sending and receiving Member States), 32.8% is at no risk, 40.8% at medium risk, and 26.4% at a high risk. Therefore, it is estimated that about 73.6% of the postings within the EU are ‘at risk’ as they include a flow of posted workers from a ‘low wage’ Member State to a ‘high wage’ Member State.

The flows of posted workers ‘at risk’ can also be looked at in more detail, by analysing how much exactly the minimum wage of posted workers should increase. The top five flows at risk go from Bulgaria to Germany (4.77 times the minimum wage), from Bulgaria to Belgium (4.89), from Bulgaria to the Netherlands (5.12), from Bulgaria to Ireland (5.19), and from Bulgaria to Luxembourg (6.63) (see Table 9 in section 3.1.1). The number of PDs A1 issued for these flows amount to 5,534, 1,484, 855, 33, and 38 respectively in 2020 (Table 10 in section 3.1.1). From a receiving perspective in 2020, Germany received 24,501 posting declarations from Bulgaria, Belgium 24,594, Ireland one, and Luxembourg eight (De Wispelaere et

al., 2022a forthcoming)²⁴³. In general, it is clear that especially posted workers coming from Bulgaria are at risk, as the minimum wage in Bulgaria is the lowest in the EU. Bulgarian posted workers might therefore be ‘attracted’ by a minimum wage in the host Member State which is lower than what they are entitled to. Especially the flows of posted workers going from Bulgaria to Belgium and from Bulgaria to Germany are impressive in terms of absolute numbers.

4.4 Defining and quantifying ‘red flags’ based on Orbis-data, with a focus on construction and transport

Red flags could for instance indicate the existence of letterbox companies. Although no universal definition of the concept of letterbox companies exists, it often entails two distinct elements: 1) there is a lack of economic activity; 2) for active companies the cross-border or foreign element often appears (Morel et al., 2021). For this reason, before looking into the lack of substantial activities, the cross-border element is discovered further. This is done using the Orbis database, which contains (non-)financial information from private companies around the world.

We look specifically at active companies located in the EU-27 with a foreign shareholder or a foreign subsidiary^{244,245}, first in general and then with a focus on the construction and transport sector. In the Orbis database, data on the exact location of the foreign shareholder and foreign subsidiary are sometimes not available. Therefore, the exact number of companies with a foreign shareholder or subsidiary lies in a certain range (i.e., a lower and higher bound).²⁴⁶

Out of the 49.1 million companies in the EU-27, there are between 187,072 and 209,827 companies with a *foreign subsidiary*²⁴⁷. Out of the 187,072 companies for which the location of the foreign subsidiary is known, 68.4% has a foreign subsidiary in the EU-27, while 31.6% has one outside of the EU-27. When looking at the *construction* sector specifically (NACE 41 Construction of buildings), out of the 1.2 million companies, around 0.2% has a foreign subsidiary. Only 1,560 construction companies have a foreign subsidiary located in the EU-27. In the *transport* sector (NACE 4941 Freight transport by road), approximately 0.2% of the 509,060 EU-27 companies have a foreign subsidiary. There are 774 transport companies in the EU-27 with a foreign subsidiary located in the EU-27. A remarkable finding is that in Luxembourg (2.7%) and Malta (7.4%) a high share of transport companies has a foreign subsidiary located in the EU-27.

Out of the 49.1 million companies in the EU-27, there are between 833,517 and 2,778,398 companies with a *foreign shareholder*. Out of the 833,517 companies for which the location of the foreign shareholder is known, 56.9% has a foreign shareholder in the EU-27, while 43.1% has one outside of the EU-27. In the *construction* sector, between 2% and 9% of EU-27 companies have a foreign shareholder. A little over 17,000 EU-27 construction companies have a foreign shareholder located in the EU-27, or 1.4% of all construction companies in the EU-27. In some Member States, a high share of construction companies has a foreign shareholder located in the EU-27. This is the case in Malta (5.4%), Romania (5.7%), Slovakia (5.8%), Croatia (5.8%), and Luxembourg (17.9%). In the *transport sector*, between 2% and 10% of EU-27 companies have a foreign shareholder, and 1.3% of companies has a foreign shareholder located in the EU-27 itself. However, in Slovakia (9.9%) and Luxembourg (32.5%) the share of transport companies with a foreign shareholder located in the EU-27 is remarkably higher.

Although having a foreign shareholder or subsidiary does by no means indicate the existence of fraudulent posting or letterbox companies, it can be regarded as a first red flag. The remainder of this

243Data from the Netherlands are not available.

244The ownership database in Orbis is a database of links, and a link establishes an ownership relationship between two entities: a shareholder and a subsidiary. Therefore, the terms ‘shareholder’ and ‘subsidiary’ in Orbis should be regarded in a broad way: it is about entities at both end of a link. A shareholder can consist of different ‘types’, for instance a bank, a financial company, a corporate company, a foundation/research institute, a public authority, an individual or family, self-ownership, a publicly quoted company, a venture capital, a hedge fund, etc. A subsidiary, however, is always a corporation. Therefore, when analysing shareholders in this section, it is not about shareholders in a narrow sense (e.g., a holder of shares of a company), but about an ownership relation in a broad sense.

245For both companies with a foreign shareholder and a foreign subsidiary, the minimum participation is set at 51%, meaning that it concerns a company with a foreign majority shareholder, or a company which owns a foreign subsidiary for at least 51%.

246This range lies between the lower bound, excluding all the companies for which the location of the ‘foreign’ shareholder/subsidiary is not available, and the upper bound, including all companies for which the location of the ‘foreign’ shareholder/subsidiary is not available.

247Data in this section are based on the data update of 18 February 2022.

analysis therefore focusses on these companies specifically, namely those *construction and transport companies located in the EU-27 with a foreign shareholder or subsidiary in the EU-27*. The main indicator that is looked at is the lack of substantial activities in the Member State of establishment. This is captured by looking at two red flags: when the turnover created in the Member State of establishment is very low (*section 4.4.1.1*), and when many companies are located at the same address (*section 4.4.1.2*).

4.4.1 No substantial activities in the 'Member State' of establishment

4.4.1.1 Turnover in the Member State of establishment very low

In Orbis, there is a variable available which compares the export revenue to the operating revenue. This gives an idea of the turnover created by export of services in the total turnover created. If this share is on the high side, it means that the turnover created in the Member State of establishment is very low and a red flag could be appointed to that company.

Two important remarks should be made regarding this variable of export revenue in total revenue. Firstly, for a lot of companies, this variable is not available, and it seems that in a lot of Member States, this variable is not reported. For construction companies in our dataset, this variable is only reported in seven Member States (DE, EE, FR, HR, HU, IE, and SI), for transport companies with a foreign shareholder in six Member States (EE, FR, HR, HU, IE, and SI), and for transport companies with a foreign subsidiary in five Member States (EE, FR, HR, HU, and SI). Therefore, for these Member States only, one can look at the share of companies with a high value for this variable in the total number of companies. Secondly, the variable may also include the exports of goods and is therefore not limited to the export of services only.

In both sectors, for a large number of companies, the variable export revenue on operating revenue is indeed not available (*Table 24*). However, there are certainly companies where this variable is on the high side (established in countries for which information is available). For instance, there are 14 construction companies and 15 transport companies in the EU-27 with a *foreign subsidiary* in the EU-27 which earn more than 75% of their turnover from exporting services. Out of the 14 construction companies, 8 are located in Slovenia, 2 in Hungary, 1 in France, 1 in Estonia, 1 in Ireland, and 1 in Croatia. When comparing it to the total number of companies, it can be seen that 50% of the Slovenian construction companies with a foreign subsidiary in the EU-27 earn more than 75% of revenue from the export of services.²⁴⁸ This is the case for 4.4% of Hungarian companies, 2.9% of French companies, 4.3% of Estonian companies, 4.5% of Irish companies, and 10% of Croatian companies.

Of the 15 transport companies with a foreign subsidiary in the EU-27 and a share above 75%, 11 are located in Slovenia, 3 in Estonia, and 1 in Croatia. This equals 73.3% of all Slovenian companies with a foreign subsidiary in the EU-27, 30% of Estonian companies, and 25% of Croatian companies.

Out of the 64 EU-27 construction companies with a *foreign shareholder* in the EU-27 and an export share of over 75%, 28 are located in Croatia (4.5% of all Croatian construction companies with a foreign shareholder in the EU-27), 26 in Slovenia (51.0%), 5 in Estonia (6.8%), and 5 in France (0.9%). The EU-27 transport companies with a foreign shareholder in the EU-27 and a share of export revenue above 75% are mainly located in Slovenia (65 companies, or 85.5% of all Slovenian transport companies with a foreign shareholder in the EU-27), Croatia (23 companies or 22.1%), Estonia (13 companies or 19.4%), Hungary (7 companies or 15.9%), and France (6 companies or 3.7%).

Although this variable can only be analysed for a handful of Member States, Slovenia often emerges from the analysis. It seems that a high share of Slovenian construction and transport companies with a foreign shareholder or subsidiary strongly rely on the export of services to earn revenues. This reality becomes even more evident when looking at the total group of construction companies in Slovenia, regardless of whether they have a foreign shareholder or not. According to Orbis, 2,558 construction companies in Slovenia

²⁴⁸ Why is this 75% threshold important? The existence of 'substantial activities' in the posting State can be checked via a series of objective factors. One of these objective factors is "the turnover achieved by the posting undertaking in the posting State and in the State of employment during an appropriate typical period (e.g. turnover of approximately 25% of total turnover in the posting State could be a sufficient indicator, but cases where turnover is under 25% would warrant greater scrutiny) (EC, 2013: 9).

generate 75% or more of their income from abroad, of which 1,267 companies even do so exclusively. This concerns 6 out of 10 construction companies in Slovenia and even 9 out of 10 construction companies if the companies for which no information on this indicator is known are left out of the denominator.

Table 24. Share of export revenue in total operating revenue for EU-27 construction and transport companies with a foreign subsidiary or shareholder in the EU-27

Export revenue/operating revenue	Number of EU-27 companies with a foreign subsidiary in the EU-27		Number of EU-27 companies with a foreign shareholder in the EU-27	
	Construction sector	Transport sector	Construction sector	Transport sector
n.a.	1,492	731	16,280	6,524
0-10%	42	18	665	135
10-50%	7	9	18	27
50-75%	6	4	14	21
>75%	14	15	64	114
Total	1,561	777	17,041	6,821

Source Orbis database [last data update 25 February 2022]

4.4.1.2 At the same address

A second indicator to have a look at is the address of the company. When multiple companies are located at the same address, this could indicate that no substantial activities are taking place at this address. Especially in the road freight transport sector, this is an important indicator. It is stipulated in Regulation No 1071/2009 (amended by the Mobility Package) which conditions transport companies should adhere to, and one is 'having an effective and stable establishment in a Member State', which in its turn means among others that appropriate equipment and facilities for vehicles should be available at the Member State of the premises. Especially with regard to the Mobility Package, which states that a driver and a truck should return to the premises every four and eight weeks respectively, this is an interesting variable to analyse (De Smedt & De Wispelaere, 2020). Indeed, when there is no real company established at an address, where are the drivers and trucks going to return to?

Out of the 17,041 construction companies with a foreign EU-27 shareholder, the address was known for 16,888 companies. There are 76 addresses where 10 or more companies are located each. In total at these 76 addresses, 1,170 construction companies with a foreign EU-27 shareholder are located. At one address in Slovakia, 52 construction companies are located, and at an address in Poland, 73 construction companies are located. A search in Orbis reveals that at the addresses in Slovakia, a total of more than 4,200 companies are located. This address appears in other research as well (Morel et al., 2021) and seems to be an apartment building when looking at Google Maps. The Polish address is home to almost 700 companies and looks like a large office building on Google Maps. If the exercise is made for the construction companies in Slovenia, regardless of whether they have a foreign shareholder, 12 addresses are found where 10 or more construction companies are located at the same address. At one particular address as many as 37 construction companies are established.

Most peculiar, for the transport companies with a foreign shareholder, an industry which has more stringent rules on having a stable establishment, as discussed above, there are many companies located at the same address. Of the 6,821 EU-27 transport companies with a foreign shareholder in the EU-27, the address was known for 6,811. At 12 addresses, 10 or more companies are located each. These 12 addresses are home to a total of 188 EU-27 transport companies with a foreign EU-27 shareholder. The 'top' address, with 32 located companies, is the same address in Slovakia as was found above for 52 construction companies with a foreign EU-27 shareholder. Out of the top 12 addresses where 10 or more transport companies with a foreign EU-27 shareholder are located, 9 can be found in Slovakia, one in Romania, one in Italy, and one in Czechia. Although it cannot be said with absolute certainty that companies located at these addresses are fraudulent, they are worth investigating further, as it signals a red flag, especially for transport companies.

4.5 Enforcement of the posting rules

Among Member States, strong differences may exist in the enforcement of the posting rules, *inter alia*, in terms of human capacity available and sanctions implemented. This section looks at the number of labour inspectors involved in the enforcement of the posting of workers rules and the number of inspections carried out that focus on this (see section 4.5.1). Finally, the question arises as to what extent the posting conditions are verified before a PD A1 is issued under Article 12. This is briefly discussed in section 4.5.2.

4.5.1 Number of labour inspectors involved and number of inspections

In most country reports, incomplete information is available on the number of labour inspectors involved in the enforcement of the posting rules and on the number of inspections aimed at doing so (see Table 25). This of course hinders any assessment and monitoring of the efforts made by Member States to enforce the posting rules. We first focus on the enforcement of incoming postings. There is a mismatch between the political announcements made regarding the fight against ‘social dumping’²⁴⁹ and the low number of labour inspectors and inspections focusing on the enforcement of the posting rules.²⁵⁰

For instance, about 5% of the inspectors (64 out of 1,182 inspectors in 2020) employed within the Belgian labour inspectorates focus on the fight against cross-border social fraud, and thus on the compliance with the posting rules (De Wispelaere et al., 2022c).²⁵¹ In 2020, some 5,270 out of 131,577 inspections related to the issue of cross-border social fraud. Consequently, only 4% of the labour inspections in Belgium relate to the cross-border dimension of social fraud.

The French labour inspectorate (*DGT*) carried out nearly 300,000 ‘interventions’ in 2019, of which 24,623 interventions, or 8% of total interventions, focused on the posting of workers.²⁵² However, the number of inspections that focused on the posting of workers decreased to 12,687 interventions in 2020. As a result, only 5% of the interventions in 2020 were aimed at controlling the posting of workers. The target for 2021 was to organise around 20,000 inspections on the enforcement of the posting rules.

In 2021, the Luxembourg Labour Inspectorate (*ITM*) counted 96 labour inspectors, 69 persons who are active ‘on the ground’ and 27 persons of who mainly perform administrative tasks.²⁵³ Eleven of the 69 labour inspectors ‘on the ground’ (16%) focus on the enforcement of the posting rules. The number of labour inspectors focusing on the enforcement of the posting rules increased from four persons in 2019 to 11 persons in 2020. Between 2017 and 2021, the number of inspections carried out by the labour inspectors in Luxembourg with the focus on the posting rules strongly increased. In 2017, ‘only’ 1,689 inspections were carried out by ITM. This figure increased to 3,540 in 2019, to 4,297 in 2020 and even to 5,509 in 2021. The number of inspections on the posting rules has thus more than tripled between 2017 and 2021. The number of inspections on the compliance with the posting rules cover a large part of the total number of inspections carried out by ITM. A total of 8,511 inspections were carried out in 2021, as well as 2,774 inspections that specifically focused on the compliance with COVID-19 measures. Consequently, approximately half of the total number of inspection (incl. those aimed at COVID-19) in 2021 were aimed at checking the posting rules.

Enforcement of the Posted Workers Act (*Arbeitnehmer-Entsendegesetz*, *AEntG*) is in Germany the responsibility of the Unit for the Financial Control of Undeclared Work within the German Customs Administration (*Finanzkontrolle Schwarzarbeit*, *FKS*). In 2021 there were 7,339 permanent members of staff working for the FKS unit. Unfortunately, there is no view on the number of staff members who focus on the enforcement of the posting rules. For 2021, the recruitment of 121 additional persons that focus on the enforcement of AEntG was announced (Albrecht et al., 2022).

249 Nor is this consistent with the high infringement rates (see section 4.6).

250 About the reasons for ‘non-enforcement’ (i.e., willingness and capabilities) see a recent paper from Heindlmaier & Kobler (2022). The authors argue that there are two important reasons for the non-enforcement of the posting rules: 1) the demand for cheap labour by societies and economies of destination and 2) the isolation of mobile workers. While the former reduces especially the willingness to (let) execute police patrol, the latter hampers the capabilities of both control authorities and interest representation to reach mobile workers.

251 In 2021, the number of Belgian labour inspectors focusing on the fight against cross-border social fraud increased from 64 FTEs to 69 FTEs compared to 2020.

252 https://travail-emploi.gouv.fr/IMG/pdf/dossier-de-presse_inspection_du_travail_2021.pdf

253 <https://gouvernement.lu/dam-assets/documents/actualites/2022/05-mai/17-itm-2021/rapport-annuel-2021.pdf>

In Austria, the Financial Police is responsible for the detection of violations of the provisions and regulations of the Austrian Anti-Wage and Social Dumping Act (*Lohn- und Sozialdumpingbekämpfungsgesetz, LSD-BG*) (Geyer et al., 2022). In 2020, the Financial Police conducted 28,631 inspections, with a total of 70,285 individuals undergoing checks.²⁵⁴ According to the most recent report (2021 figures), the Financial Police inspected 1,395 posting undertakings active in Austria in 2021.²⁵⁵ The report also says the 54,164 workers were controlled. The Financial Police had an equivalent of 431 FTEs in 2020, though it is unclear how many of them are inspectors focussing on incoming posted workers.

The Netherlands Labour Authority (*NLA*) is the national labour inspectorate in the Netherlands and part of the Ministry of Social Affairs and Employment (*SZW*). Their MPO-programme²⁵⁶ focusses on the risks of underpayment, working hours, and illegal employment, including those related to the Posting of Workers Directive (Heyma et al., 2022). In 2020, the MPO-programme examined 267 cases in total, including 107 inspections related to the Posting of Workers Directive.

Between 2018 and 2020, the Spanish labour inspectorate carried out a total of 469,185 inspections to control compliance with the legal obligations in the field of labour relations (Carrascosa & Contreras Hernández, 2022). Only 0.3% (i.e., 1,543) of the total number of inspections were aimed at controlling compliance with the labour and social security obligations of incoming posted workers.

In 2020, more than 56,000 inspections were carried out by the Polish National Labour Inspectorate (PIP), of which only around 0.4% were aimed at checking incoming and outgoing posted workers (Kielbasa et al., 2022). Indeed, a total of 156 inspections were carried out by the Polish National Labour Inspectorate (PIP) on the posting of workers from the territory of Poland to work in other European countries.²⁵⁷ Furthermore, in 2020, the Polish Labour Inspectorate conducted 70 inspections on the posting of workers on the territory of Poland (in 2019 there were 132 inspections and in 2018 there were 137 inspections).

The lack of labour inspectors that focus on the enforcement of the posting rules could be linked in a number of Member States to a general need for more labour inspectors. For instance, the number of labour inspectors in Italy fell from 6,463 persons in 2007 to 4,509 persons in 2020 (Dorigatti, 2022). This resulted in a strong reduction of the number of yearly inspected companies, which fell from 290,326 companies in 2006 to 103,857 companies in 2020. This implies that annually 0.6% of the companies in Italy are inspected. In Spain, too, there is a worrying lack of labour inspectors. In 2021, there were only 858 inspectors and 994 sub-inspectors in total. Finally, in Slovenia there are only 89 labour inspectors in total. This number has remained stable since 2008.²⁵⁸

Table 25. Estimated number of labour inspectors and inspections that focus on the enforcement of the posting rules, mainly from a receiving perspective (incomplete overview)

	Enforcement of the posting rules (A)		Total (B)		Share in total (A/B)	
	<i>Inspectors</i>	<i>Inspections</i>	<i>Inspectors</i>	<i>Inspections</i>	<i>Inspectors</i>	<i>Inspections</i>
Austria		1,395	431 FTE			
Belgium	64 FTE	5,270	1,182 FTE	131,577	5%	4%
France		12,687				5%
Germany			7,339			
Italy			4,509	103,857		
Luxembourg	11	5,509	69	11,285	16%	49%
Poland		226		56,371	0.4%	
Slovenia			89	17,334		
Spain		1,543	1,852	469,185		0.3%
The Netherlands			1,510 FTE			

Source Data from the country reports and additional information

²⁵⁴ <https://www.bmf.gv.at/en/press/press-releases/2021/January-2021-1/Financial-Police-take-stock-of-a-successful-year-in-2020-.html>

²⁵⁵ https://www.parlament.gv.at/PAKT/VHG/XXVII/III/III_00362/index.shtml# For 2022, the Financial Police sets the goal of inspecting 1,300 posting undertakings: https://www.parlament.gv.at/PAKT/VHG/XXVII/III/III_00686/index.shtml#

²⁵⁶ Programma 'Melding Preventie Oneerlijk werk' (Reporting Prevention of Unfair Work)

²⁵⁷ In 2019, this number amounted to 247 inspections and in 2018 to 204 inspections.

²⁵⁸ See also <https://www.gov.si/en/state-authorities/bodies-within-ministries/labour-inspectorate/about-the-inspectorate/>

4.5.2 A stricter monitoring of the posting rules before issuing a PD A1

Member States have an important margin of discretion for designing the granting procedure of a PD A1. Nonetheless, it is clearly stated by Recommendation No A1 of 18 October 2017 that “It is recommended that, prior to issuing a Portable Document A1, institutions assess all the relevant facts, whether by means of data contained in official sources, or by requesting the applicant to provide the necessary information. To guide institutions, a non-exhaustive standardised list of common questions and questions specific to the different relevant articles of Regulation (EC) No 883/2004 can be found in the Annex. These may be adapted as appears appropriate in the case involved.” However, research shows that competent public authorities do not always check the posting conditions before issuing a PD A1 (Eurofound, 2020a; Jorens & De Wispelaere, 2019). Nevertheless, evidence from the country reports shows that competent administrations in Poland and Slovenia have tightened their internal assessment procedures and sometimes even implemented stricter measures before granting a PD A1 under Article 12 (Vah Jevšnik et al., 2022; Kielbasa et al., 2022).

In Slovenia, the Transnational Provision of Services Act (in force since 1 January 2018) regulates posting under Article 12. The Act was implemented to prevent abuses, primarily the existence of letterbox companies. It introduced additional conditions and stricter rules (for instance, not having outstanding tax liabilities).²⁵⁹ As a result of the stricter rules, the share of rejected applications for a PD A1 under Article 12 amounted to 10% in 2020. The main reason for the rejection was related to taxation (i.e., outstanding tax liabilities, failure to regularly submit tax deduction forms, no bank account, or blocked bank account) (Vah Jevšnik et al., 2022). An effect of the Act was a reduction in tax debts of companies that are posting workers abroad, which is a precondition for obtaining a PD A1 under Article 12. According to the Financial Administration, the tax debt of these companies decreased from € 17 million in 2017 to € 7.6 million in 2019. Furthermore, following the implementation of the Transnational Provision of Services Act in 2018, the total number of PDs A1 issued under Article 12 decreased drastically while many employers started asking a PD A1 under Article 13, which is not regulated by the Act. It shows that any change to the procedure for issuing a PD A1 under Article 12 may have implications for the number of applications for a PD A1 under Article 13. Although it must be said that a very high percentage of applications (19%) for a PD A1 under Article 13 were rejected in both 2019 and 2020. Any (mis)use of this ‘back door’ (or loophole) therefore seems to be verified by the Slovenian administration.

Data for 2021 on the number of negative decisions taken by the Polish competent institution (ZUS) after an application for a PD A1, show that there were 3,493 negative decisions, of which in 1,020 cases the conditions were not met (Kielbasa et al., 2022). This figure for 2021 is higher compared to 2020 (3,309 negative decisions) but much lower compared to 2019 (6,889 negative decisions). Thus, in approximately 0.5% to 1% of the total applications for a PD A1, a negative decision has been taken by ZUS.

4.6 Violations to the posting rules: calculation of the ‘infringement rate’

Quantitative information on the type of infringements that occur during posting is scarce.²⁶⁰ In the case of ‘irregular’ posting mainly underpayments that seem to occur.²⁶¹ Indeed, the high number of infringements to the core aspects of the Posting of Workers Directive, namely the payment of the ‘remuneration’ and respecting working time and rest periods, seems a major concern in most of the receiving Member States. Moreover, the sharp increase of the number of posted TCNs led to some problematic situations and

²⁵⁹ Such a practice, where a Member State unilaterally introduces additional conditions can be perceived as legally problematic.

²⁶⁰ At EU-level, some data is reported in Jorens et al. (2022). For instance, based on data reported by Jorens et al. (2022), it can be seen that Germany (1,472 cases) and Belgium (1,216 cases, amounting to € 6.9 million), two Member States with a high number of incoming persons with a PD A1, identified a significant number of cases of inappropriate use in the field of applicable legislation, mostly because the posting conditions were not met. For example, the assignment of the workers was not of a temporary nature or the posting undertakings did not carry out any significant business activity in the Member State of origin.

²⁶¹ Although there are other infringements reported as well. Surprisingly, more than one out of ten workers posted to France have the French nationality (Muñoz, 2022). They are mainly posted (by temporary employment agencies) from Luxembourg. The phenomenon of French workers posted to France has sometimes been considered as a fraudulent use of the posting rules (Belkacem and Pigeron-Piroth, 2016). In any case, it can be considered a red flag. Not least because 80% of the French citizens posted to France are resident in France. However, only 23% of them pay social security contributions in France.

abuses.²⁶² For instance, for Belgium, in some cases, wages were paid far below the Belgian minimum wage, sometimes amounting to only € 2 or € 3 per hour. Moreover, in several cases posted TCNs were employed in precarious working conditions, sometimes even leading to labour exploitation.

Below, the extent to which infringements on the posting rules are detected by the labour inspectorates is calculated via the 'infringement rate'. The 'infringement rate' can be calculated by dividing the number of inspections where an infringement of the posting rules was found by the total number of inspections aimed at checking these rules.²⁶³ However, for several Member States covered by the POSTING.STAT project, no information is available on one or even both variables. A distinction should be made between inspections on the compliance with the posting rules in the case of outbound postings versus those in the case of inbound postings. We mainly focus on the receiving perspective.

Table 26. Outcome of the inspections related to the posting rules

MS	Outcome
Austria	<ul style="list-style-type: none"> It is estimated that between 0.9% and 10% of all individuals posted to Austria were underpaid in 2019; The underpayment of posted workers is most prevalent in the construction sector; Inspection data show that posting companies are much more likely to underpay their workers than local companies, especially in the construction sector where 0.9% of inspected Austrian companies were suspected of underpayment compared to 38% of inspected posting undertakings; In 2020, particular attention was paid by the Financial Police to enforcement of the posting rules, which led to a total of 3,250 criminal complaints and a penalty volume of just under € 7 million. The entire labour market generated a total penalty volume of over € 20.2 million in 2020, with 8,060 criminal complaints filed.
Belgium	<ul style="list-style-type: none"> In 2020, an infringement was found in more than half of the inspections carried out by the Belgian inspection services relating to the compliance with the posting rules; The infringement rate for inspections related to the cross-border dimension of social fraud was much higher than for inspections related to the national dimension of social fraud; Between June 2015 and 1 January 2021, almost 1,600 cases to withdraw a PD A1 have been processed by Belgium, of which nearly half concern PDs A1 issued by Poland; The construction sector is the most inspected sector in Belgium regarding the compliance with the posting rules. Still, about half of the inspected posting undertakings active in the construction sector do not respect the applicable wage and working conditions to posted workers; In 2021, some € 15.3 million claims related to unpaid social security contributions within a cross-border context (including additional contributions imposed). Furthermore, due to non-compliance with the minimum wages and conditions, an additional amount of € 20.3 million of wages and allowances was paid to employees involved in cases of 'social dumping'; In 2021, the amount applicable to 'social dumping' amounted to 4.5% of the total amount of unduly paid social contributions/benefits claimed by the Belgian labour inspectorates. This percentage was lower in 2020 (3%) but higher in 2018 (8%) and 2019 (11%).
France	<ul style="list-style-type: none"> Figures provided by the French authorities state that 11,579 controls were performed in 2017; These inspections were concentrated in the construction sector (59% of controls in 2017); The same year, the national authorities reported 1,034 fines related to violations of the rules related to the posting of workers for a total amount of € 5.9 million.
Germany	<ul style="list-style-type: none"> If a posted worker arrives in Germany, the employer must register this posted worker under the Posted Workers Act (<i>Arbeitnehmer-Entsendegesetz, AEntG</i>). In 2019 the number of detected violations against the responsibility to register posted workers amounted to 258 in total; 242 out of 258 violations against the responsibility to register took place in the construction sector;

²⁶² See also the 2020 annual report from the Slovenia Labour Inspectorate: "The inspectors note that there is an increasing number of workers (especially) from third countries who often perform heavy labour in construction or metal industry abroad and whose rights are violated. They perform work either as agency workers provided to foreign employers by temporary work agencies or as workers provided to foreign employers under the guise of cross-border provision of services. For the work performed by workers posted abroad, the employers registered in Slovenia receive regular high payments by foreign user undertakings (foreign business partners), while workers most often only receive a minimum wage, although they work overtime (which is difficult to prove) or a part of salary is paid to them in cash or in the form of commuting costs. The payment is still far from the (verbally) promised and prescribed hourly rates for working abroad." <https://www.gov.si/en/state-authorities/bodies-within-ministries/labour-inspectorate/about-the-inspectorate/>

²⁶³ Absolute figures on the number of infringements detected by labour inspectorates may give a wrong impression of the level of compliance. See also Heindlmaier and Kobler (2022: 13): "These small numbers of violations do not implicate that brokering agencies follow the rules. They rather speak in favour of administrations' unwillingness and incapability to conduct controls."

MS	Outcome
	<ul style="list-style-type: none"> There were some 1,900 administrative fine proceedings due to violations of minimum working conditions pursuant to the AEntG, amounting to € 17.5 million fines.
Italy	<ul style="list-style-type: none"> The number of infringements detected by the Italian Labour Inspectorate is relatively low (108 in 2019) and involves a limited number of posted workers (549 in 2019); The infringements are concentrated in some specific sectors, mainly in construction and road freight transport; Sector specific data were provided by a research project carried out among outgoing Italian posted workers in the construction sector. The research identified irregularities in the terms and conditions of employment among 60% of the outgoing posted workers.
Luxembourg	<ul style="list-style-type: none"> In Luxembourg, 3,577 compliance orders, requiring companies to comply with regulation within a specified period, were issued to foreign companies in 2021 and 1,543 administrative fines were imposed (representing an amount of € 6.6 million); The number of compliance orders on the number of inspections increased between 2017 and 2020. In 2017, 51% of the inspections resulted in compliance orders versus 72% in 2019 and 79% in 2020. However, the percentage decreased in 2021 (65%).
Poland	<ul style="list-style-type: none"> Violations to the posting rules were detected by the Polish National Labour Inspectorate in 63% of the inspected cases (59% in 2019, 65% in 2018).
Slovenia	<ul style="list-style-type: none"> The number of violations of Article 208 and 209 of the Employment Relationships Act that ensure the rights of workers posted from Slovenia to other countries was much higher than the number of violations in cases of workers posted to Slovenia. For example, there were 156 such violations in 2017. In 2018, 73 violations were registered of Article 209 of the Act that stipulates the necessary parts of employment contracts for workers posted abroad. In 2019, a higher number of 199 violations of Article 209 of the Act were registered, with the number again decreasing to 73 in 2020; In 2018, the labour inspectorate also began to control the implementation of the Transnational Provision of Services Act, which came into force in 2018. The inspectorate noted 20 violations pertaining to this act in 2018, 12 in 2019 and 13 in 2020.
Spain	<ul style="list-style-type: none"> In approximately one out of five checks for compliance with the posting rules, an infringement was found by the Spanish labour inspectorate during the period 2018-2020, mainly identified in the industry (including the construction sector).
The Netherlands	<ul style="list-style-type: none"> In 2019, 70 inspections with regard to PDs A1 were conducted, of which in 19 cases (27%) an infringement was detected; in 2020, a total of 539 PDs A1 issued to the Netherlands were withdrawn by the competent authorities in the sending Member States at the request of the competent institution in the Netherlands (SVB). As result of the enforcement of PDs A1 by the SVB, the Tax and Customs Administration was able to levy € 1.8 million in premiums (or some € 3,340 per withdrawn PD A1). In 2020, 107 inspections with regard to the Posting of Workers Directive were conducted, of which in 27 cases (25%) an infringement was detected.

Source Data from the country reports + additional information

4.7 Transnational cooperation, enforcement, and recovery

Transnational cooperation between inspection services contains many facets, ranging from, *inter alia*, the exchange of information, dialogue and conciliation concerning the validity of documents, joint inspections, to the recovery of unpaid wages, contributions, and sanctions. This section discusses only some of these dimensions.

The Internal Market Information System (IMI) is an online tool that facilitates the exchange of information between public authorities involved in the practical implementation of EU law. One of the aims of IMI is to support administrative cooperation and mutual assistance between the competent authorities of the Member States concerning the application and enforcement of the Posting of Workers Directive. Indeed, the tool can be used by labour inspectorates to request and exchange information. On average, there are between 1,000 and 1,500 ‘posting information exchanges’ per quarter within the EU,²⁶⁴ mainly related to ‘information requests’, and to a lesser extent ‘to send documents’. Austria and Belgium are the most intensive users of the IMI tool. During the first three quarters of 2020, Austria sent 2,394 requests and Belgium 840 requests. It is striking how little Germany (136 requests) and France (83 requests) use IMI despite being the main receiving Member States of posted workers. By far the most questions during the

264 Q1 2020: 1,494; Q2 2020: 1,159 and Q3: 1,414. See https://ec.europa.eu/internal_market/imi-net/statistics/2020/10/posting-of-workers/index_en.htm

first three quarters of 2020 were received by Slovenia (787), and to a lesser extent by Poland (487), Slovakia (441), and Romania (428). In 2020, the Polish National Labour Inspectorate (PIP) cooperated with foreign institutions of EU/EEA countries and Switzerland in 726 cases (763 cases in 2019, 572 cases in 2018), including 20 cases on the initiative of PIP (Kielbasa et al., 2022). In 2020, cooperation in the IMI system covered a total of 718 different requests. It was carried out most intensively with Austria (348 cases), Belgium (165), Germany (53), and the Netherlands (40). Of the total number of requests, 700 were referred to the Polish National Labour Inspectorate from foreign institutions. In 2020, the National Labour Inspectorate received 185 requests for notification of a decision to impose an administrative fine or an administrative penalty, including 184 from Austria and one from Romania. In 2020, the State Labour Inspectorate received 24 applications for enforcement of administrative fines and penalties imposed by foreign institutions on Polish entities posting workers to work in their territory, including 20 applications from Austria, 3 from Latvia, and 1 from Slovakia.

Decision No A1 of 12 June 2009²⁶⁵ lays down the rules for the application of a dialogue and conciliation procedure concerning the validity of documents, the determination of the applicable legislation and the provision of benefits under Regulation (EC) No 883/2004. There are three phases defined in the dialogue and conciliation procedure. In the first stage, in the event of doubts concerning the validity of the PD A1 issued by the competent institution of another Member State, or in the event of a dispute relating to the (provisional) determination of the applicable law, the inspection services send a reasoned request to the competent institution(s) in the other Member State concerned, asking them to provide the necessary clarifications concerning its decision and, if necessary, to withdraw the PD A1. If the institutions cannot reach an agreement during the first stage of the dialogue procedure, the institutions notify their competent authorities. They each appoint a central contact person. These contact persons shall endeavour to seek an agreement on the matter. If no agreement is reached at the end of the second phase of the dialogue, the parties concerned may go to the Administrative Commission, with the possibility of a referral to a Conciliation Board if both parties to the dispute and the Administrative Commission agree.

Between June 2015 and 1 January 2021, almost 1,600 cases have been processed by Belgium, of which nearly half concern PDs A1 issued by Poland. Ultimately, this may lead to a withdrawal of the PD A1 by the competent institution in the issuing Member State. Every year, between 0.5 and 1% of the total number of PDs A1 issued to workers posted to Belgium are withdrawn by the competent institutions in the issuing Member States (De Wispelaere et al., 2022). Furthermore, in 2020, a total of 539 PDs A1 issued to the Netherlands were withdrawn by the competent authorities in the sending Member States at the request of the competent institution in the Netherlands (*SVB*) (Heyma et al., 2022). This concerns about 0.1% of the annual number of PDs A1 issued for activities in the Netherlands. Furthermore, there were still 1,6543 outstanding requests to withdraw the PD A1 pending. As result of the enforcement of PDs A1 by the SVB, the Tax and Customs Administration was able to levy € 1.8 million in premiums (or some € 3,340 per withdrawn PD A1). Poland, as one of the main issuing Member States, withdrew 569 PDs A1 in 2020 which is 0.1% of their total number of PDs A1 it issued in that year (Jorens et al., 2022).

²⁶⁵[https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010D0424\(01\)&from=de](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010D0424(01)&from=de)

5. Conclusions and recommendations: “No statistics, no reality, no problems”²⁶⁶

Recital 5 of Directive (EU) 2018/957 states that “sufficient and accurate statistical data in the area of posted workers is of utmost importance, in particular with regard to the number of posted workers in specific employment sectors and per Member State. The Member States and the Commission should collect and monitor such data.” Statistical evidence provided at EU-level (by the PD A1 report, the report on the prior declaration tools, and the report on fraud and error in the field of social security coordination) reveals a part of the statistical information available at national level on the posting of workers. The POSTING.STAT project aimed to complement these data by bringing together a consortium of universities and research centres from ten different Member States in order to increase empirical evidence on intra-EU posting through the collection and analysis of national administrative (micro-)data.

Towards a better mapping of intra-EU posting

The data reported in several country reports of the POSTING.STAT project hardly go beyond the macro-data provided at EU-level. Indeed, in several Member States, more detailed information on intra-EU posting is not collected or not available. For instance, it is remarkable to observe that for Italy, a major sending Member State, hardly anything is known about the profile of outgoing posted workers, and that the focus is mainly on the much smaller group of incoming posted workers. Germany, which is both the main receiving and sending Member State of posted workers, seems to pay little or no attention to the collection of data on intra-EU posting. Moreover, the fact that a request for a PD A1 or the notification of a posted worker is still not digitalised or decentralised in several Member States does not make the data collection any easier.

Annual reporting at EU-level on intra-EU posting has the advantage of allowing a comparative exercise based on indicators available for a high number of (and sometimes for all) EU/EFTA countries. In contrast, mostly fragmented information is reported in the country reports for the POSTING.STAT project. Nonetheless, thanks to the POSTING.STAT project, steps forward have been taken to better understand a recent phenomenon such as posted TCNs. The collected empirical evidence also showed a clear discrepancy between ‘law in books’ and ‘law in action’ (see below for some examples).

Empirical evidence on intra-EU posting may refute, nuance, or confirm existing perceptions (e.g., risks of ‘social dumping’) and may support evidence-based policy both at national and European level.^{267,268} However, a number of research questions remain un(der)explored due to the lack of administrative data. For instance, what are the main characteristics of temporary agency posting or of posting in case of subcontracting²⁶⁹? What is the profile of the posting undertakings?²⁷⁰ What are the actual terms and conditions of employment of posted workers?²⁷¹ To what extent is intra-EU posting a ‘business model’ for posting undertakings and user undertakings?²⁷² While for some stakeholders the collection of additional data on intra-EU posting may be considered as really necessary, others may consider this as ‘nice-to-have’ and as an additional burden.

²⁶⁶ Well reflected by following citation from Heindlmaier and Kobler (2022: 13): “Interestingly, the number of controls of brokering agencies for the placement of live in care workers is not statistically recorded by the Financial Control of Undeclared Work Unit. This suggests that brokering agencies are rarely monitored and that controls in the live-in care sector are de facto non-existent. In sum, there is a lack of willingness for police patrol in the live-in care sector.”

²⁶⁷ Or it may support the review of legislation (e.g., the review of the revised Posting of Workers Directive).

²⁶⁸ Moreover, empirical evidence should avoid that legal scholarship turns to what Schlegel (1978: 330) called ‘data-free social science’.

²⁶⁹ Moreover, there is hardly any empirical evidence about the size and profile of the subcontracting chain in the construction sector.

²⁷⁰ For example, does their profile differ from the average profile of a company active in the same sector?

²⁷¹ And more importantly, what is the impact of the revised Posting of Workers Directive (from ‘minimum rates of pay’ to ‘remuneration’)? This requires data from after August 2021 to be compared with data from before August 2021.

²⁷² Do the same user undertakings rely on the same posting undertakings, and do they then rely on the same posted workers?

The mapping of intra-EU posting at EU-level faces some challenges in the near future. As of 2 February 2022, the ‘EU Portal for road transport posting declarations’ became the only obligatory system that operators must use to send declarations when posting drivers to another Member State. Consequently, the prior declaration tools should no longer be used when it comes to posting of drivers in road transport which fall within the scope of Directive 2020/1057. It is important that data on intra-EU posting in road freight transport continues to be collected and reported at EU-level (and are added to the data collected from the prior declaration tools). Otherwise, one risks losing sight of an important sector when discussing intra-EU posting. Finally, recent European initiatives such as the Electronic Exchange of Social Security Information (*EESSI*) as well as a possible introduction of the European Social Security Pass (*ESPASS*) may contribute to a better data collection and mapping.

At national level, steps should be taken by Member States to answer at least the ‘basic’ variables requested at European level, such as the number of postings, the number of persons involved, the duration of the posting period, ideally broken down by sector of activity, by sending and receiving country, and by nationality. A digital application for a PD A1 or a digital notification in the prior declaration tool may facilitate the accessibility of these variables, even when this application/notification procedure is decentralised. Finally, efforts should be made by Member States to report these data (see the various reports at national level or sectoral level)²⁷³ and/or to make these data available for academic research.

Towards a better estimation of the actual number of posted workers in the EU

The complexity in defining a ‘posted worker’ leads to a *legal imbroglio*, which at the same time creates a *statistical imbroglio*. Differences in the personal scope of the Posting of Workers Directive and the Coordination Regulations make it almost impossible to put a single figure on the number of posted workers in the EU. In that respect, it is best to make a distinction between the number of workers and self-employed persons who fall under Article 12 of the Basic Regulation and the number of workers who fall under the application of the Posting of Workers Directive. Otherwise, there is a risk of comparing ‘apples with oranges’. This is the case both when counting the number of individuals involved as well as when analysing their profile (e.g., by sector of activity or by average duration of the posting period).²⁷⁴

Not every posting activity will be reported in the sending Member State (by the request of a PD A1) or the receiving Member State (by a notification in the prior declaration tool)²⁷⁵, even when this should be reported. Consequently, available data only show the scale and profile of the ‘reported’ postings, which may differ from the real scale and profile of intra-EU posting. Steps could be taken regarding the measurement of the ‘real’ number of posted workers in the EU. However, there might be a trade-off between this ambition and the burden this may impose to companies and public authorities.

Finally, the integration of different kinds of data sources, such as surveys and administrative data sources, should be aimed for. New data sources may supplement or even refute existing data collected on the basis of the number of PDs A1 issued and the number of notifications made in the prior declaration tools. In particular, the collection of data on the export of services involving the presence of persons in the territory of another country for the purpose of providing a service (*GATS mode 4*) could be an important step forward. In addition, a specific question on posting could be included in the European Labour Force Survey (EU-LFS).

²⁷³Several Member States publish figures/annual reports based on the data extracted from the national prior declaration tools (e.g., [Denmark](#), [France](#), [Luxembourg](#), [the Netherlands](#), [Romania](#) and [Sweden](#)). Or published by SOKA-BAU for the [German construction sector](#).

²⁷⁴Not least because of the fact that ‘business trips’ are taken into account under the application of the Coordination Regulations but not under the Posting of Workers Directive.

²⁷⁵Or in the ‘EU Portal for road transport posting declarations’ for road freight transport.

Towards taking better account of the number of incoming and outgoing posted workers in the employment statistics

The increasing importance of cross-border temporary labour mobility, including trade in services through the movement of persons, should be better reflected in national employment statistics. As stated by Howe and Owens (2016: 14) “When an international contract for the delivery of a service by a provider in one country to a consumer in another country also entails the workers of the provider moving into the other country for the period in which they will produce and deliver the service, this might ordinarily be characterised as an example of a temporary migration of the worker who will be participating in the labour market of the country in which they work.”

However, this is not how such movements, and the labour of these workers, are currently conceptualised in employment statistics. In that respect, the idea that posted workers do not access the labour market of the host Member State might not only be a *‘legal fiction’* but also a *‘statistical fiction’*. Indeed, the current boundaries of ‘the labour market’ might be too strict if we want to have a reliable view on the number of persons working in a country at any given moment. This could be unrelated to whether or not the employer is established there. Under the current definition, employment in certain (labour-intensive) sectors that are highly dependent on incoming posted workers might be significantly underestimated. In contrast, countries that have a high number of outgoing posted workers may overestimate the actual level of employment in certain (labour-intensive) sectors. Therefore, it could be argued that labour mobility by the provision of cross-border services also needs to be taken into account when calculating the employment of a country. Already ten years ago, the challenge of better reflecting the impact of increasing cross-border labour mobility, including trade in services through the movement of persons, in the employment statistics within national accounts was acknowledged in a report of the United Nations Economic Commission for Europe (UNECE, 2011a). As a solution, a satellite account was proposed that could be integrated into the national accounts. In this satellite account, foreign employees and self-employed who are employed by or have a contract with a foreign institutional unit and are providing services should be included. It is shown in this report that this would be a relevant exercise.

Towards a better monitoring of (the fight against) ‘irregular’ postings

The POSTING.STAT project did not aim to provide an exhaustive view of the extent and profile of the infringements to the posting rules. It only shows a ‘tip of the iceberg’ by referring to data from labour inspectorates about their inspections on the posting of workers rules, the extent to which these rules are violated, and the types of infringements. In that respect, the aim was to gather data at a national level for a number of basic indicators concerning the enforcement of the posting rules, such as 1) number of labour inspectors involved; 2) number of inspections; 3) outcome of these inspections; 4) main types of infringements; 5) recovery of un(der)paid remunerations, social security contributions, and financial sanctions.²⁷⁶ Data for these indicators are only (partially) available for some of the reporting Member States. This is a remarkable finding and calls for further efforts at national and European level to gain a better insight into this. Otherwise, any initiative at European level by the European Commission or by the European Labour Authority (ELA) in the area of enforcement of the posting rules risks being disconnected from daily reality in Member States in terms of the financial and human capacity of their labour inspectorates (which is often limited)²⁷⁷ or the profile of the violations to the posting rules (in which sectors? for which types?). Moreover, enforcement statistics may reveal a discrepancy between ‘law in the books’ and ‘law in action’. Examples are that only a part of the posted workers apply for a PD A1, or that certain new rules on ‘temporary agency posting’ and ‘remuneration’ are not applied in practice.

²⁷⁶ Moreover, a discrepancy may arise between the amount of financial penalties claimed versus the amount actually recovered.

²⁷⁷ As stated in Chapter 4, there is a mismatch between the political announcements made regarding the fight against ‘social dumping’ and the low number of labour inspectors and inspections focusing on the enforcement of the posting rules.

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