



EUROPEAN  
REGULATORS GROUP  
FOR POSTAL SERVICES

**ERGP Report**  
**on environmental sustainability**  
**in the postal sector**

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# 1. Introduction

## 1.1. Objective of the report

The ERGP Work Programme 2022 has included in its agenda the objective for the ERGP to deliver an ERGP Report on environmental sustainability in the postal sector. This report builds further on the results of the ERGP 2021 report on the Green Deal and the postal sector<sup>1</sup>, including the follow-up report on the sector and the practices of postal operators and taking into account, among others, the results of the European Commission's study analysing the impact of e-commerce driven transport and parcel delivery on air pollution and CO2 emissions.

The report seeks to study the sustainability measures implemented by postal operators in the field of CO2 emission reduction, cleaner delivery and emission free city logistics, highlighting some good practices.

Furthermore, the report examines the different tools to promote sustainability in the postal sector, the last mile delivery methods and their effect on the environment. The report analyses the potential impacts of sustainability measures in the postal sector, e.g. on quality, customers' experience, competition, performance and economic viability. The report formulates recommendations based on these findings to integrate environmentally supporting provisions into the postal regulatory framework if justified.

Finally, the report identifies the role and competences NRAs could play on national and European level to support environmental sustainability.

The report is structured in 6 chapters:

1. Introduction
2. Background and sources
3. Changes in regulation and practice related to environmental sustainability
4. Impact of the sustainability measures on the environment, competition, prices, quality and user experience
5. Future role of the NRAs
6. General conclusions

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<sup>1</sup> ERGP Report on Green Deal impact on postal sector ERGP (21) 27

## 1.2. Methodology

The report was drafted using a combination of the analysis of the answers provided by NRAs and stakeholders, data of previous ERGP reports and desktop theoretical research.

To gather information and to conduct the analysis on sustainability in the postal sector, a questionnaire was circulated to the ERGP members and observers (NRAs).

30 NRAs<sup>2</sup> have answered the questionnaire. The report references in footnotes the precise sources (NRA's country of origin) of the answers given. A majority of the questions required a "yes"/"no" answer. Where the NRA did not give a definite "yes"/"no" answer, the charts indicate "did not answer yes/no" if the NRA nevertheless provided relevant information related to the question, in which case this input has been reflected textually in the report.

## 2. Background and sources

### 2.1. ERGP Report on the Green Deal

The ERGP report<sup>3</sup> adopted in 2021 acknowledges that the objective of achieving climate neutrality by 2050 will require a significant contribution from all sectors of the economy, including the postal sector. It is inevitable that the Green Deal will have a major impact on the postal sector, as the postal sector will be most affected by measures such as decarbonisation of the transport sector, energy efficiency or the circular economy.

However, the path towards conveying postal items with diminished or zero emission is a long and challenging one. Current industry trends require continuous innovation and efforts to focus on productivity and effectiveness. With the changing structure of the postal industry, resulting, for example, from digitalisation, postal entities need to change their organisation, and provide creative responses to improve delivery efficiency.

The report had concluded that there is currently no clear regulatory framework that allows national regulators to intervene in sustainability issues in the postal sector. NRAs therefore have little or no experience of integrating environmental sustainability considerations into postal sector regulation. However, while on the one hand NRAs have no legal obligations to address sustainability issues, on the other hand the report pointed postal operators have taken steps to take sustainability into account. In addition, some postal market players have taken proactive measures to take sustainability issues into account, such as reducing CO<sub>2</sub> emissions, introducing electric vehicles, reusable packaging, green buildings and educational measures.

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<sup>2</sup> AT, BE, BG, HR, CY, CTU, DK, FR, DE, EL, HU, IE, IT, LV, LT, LU, MT, NL, NO, PL, PT, RO, MK, RS, SK, SI, ES, SE, TR.

<sup>3</sup> ERGP Report on Green Deal impact on postal sector ERGP (21) 27.

Likewise, the responses received from the various stakeholders form part of the following conclusions in the ERGP report on the Green Deal:

- Regulators should open the debate on environmental sustainability in the postal market and provide incentives for postal operators to adopt specific measures, which should also be incorporated into the Postal Directive. Postal regulators have a role to play in promoting environmental sustainability. Further research is needed to assess how environmental sustainability can affect the evolution of competition. These can be used to identify areas where NRAs may need to intervene in defining environmental sustainability criteria, maintaining and stimulating competition, and, as soon as the methodology for monitoring sustainability is available, both the authorities and the ERGP can integrate their analysis into existing market monitoring systems.
- The impact of the Green Deal on the postal sector could be very relevant, but it is difficult to have a specific conclusion at this stage.

Further analysis of the potential impact of the environmental measures is needed. Apart from postal service providers, policymakers at State, regional and municipal level as well as regulators should play a leading role addressing risks from climate change. The Green Deal should be seen as an opportunity to rebuild a more sustainable decarbonized economy, including the postal sector.

## 2.2. Other sources

### 2.2.1. EC Environmental study to assess and analyse the impact of e-commerce driven transport and parcel delivery on air pollution and CO2 emissions

On 30<sup>th</sup> of March 2022, on the initiative of the European Commission, the main conclusions of the report ‘Study to assess and analyse the impact of e-commerce driven transport and parcel delivery on air pollution and CO2 emissions’<sup>4</sup> was presented by Consultants Prognos, KE Consult and Sphera to various stakeholders during a workshop.

The study focuses on the environmental impacts of e-commerce in terms of the related greenhouse gas (GHG) emissions and air pollution<sup>5</sup>.

The consultants:

- analysed the factors that influence the generation of these environmental effects;
- modelled the estimated effect of the e-commerce delivery sector; and

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<sup>4</sup> <https://data.europa.eu/doi/10.2873/868271>

<sup>5</sup> The study focusses on the B2C (Business to Consumer) market in the EU-27 member states, incl. domestic, cross-border and intercontinental shipments, non-food shipments not exceeding a weight of 31 kg, solely transport activities in a strict sense, disregarding all wider activities of transport logistics like warehousing, accounting, marketing or customer relations and similar organizational, financial, and commercial aspects of the supply chain, no consideration of transport legs before manufacturing like the transport of raw materials and an assessment of the current situation and a future time horizon limited to 2030

- provided quantitative and qualitative assessments of these environmental effects across ten different case studies.

For each case study, the consultants assessed the changes likely to arise from the current situation (2020) to a default base case in 2030, comparing this counterfactual with a possible alternative 2030 case. The default base case assumed continuing existing trends, such as vehicle electrification, whereas the alternative future case took into account changes that the consultants proposed could take place in shopping or logistical behaviour, as well as through regulation.

The EC Environmental study concludes with the following main findings:

- The clear separation between e-commerce and B&M retail is no longer a suitable differentiation as omnichannel retail modes become more and more common. Modern retail transport chains have to be understood as hybrids between e-commerce and B&M retail transport chains, combining elements of both as required.
- The most important legs influencing GHG emissions of retail transport chains are long-distance pre carriage legs before the first parcel hub inside the EU and post carriage legs after the parcel distribution centre (last mile). While GHG emissions for the last mile are heavily influenced by load factors and mode choice, GHG emissions for long-distance legs are influenced by the distance between origin and destination of the retail item.
- A host of trends and drivers affect transport emissions. During the study, the following observations regarding these drivers and their impact on GHG emissions were made:
  - Electrification of road transport reduces emissions, but not to zero.
  - In combination with environmentally friendly pick-up mobility, the use of pick-up points in highly frequented locations increases transport efficiency and reduces GHG emissions.
  - Additional transport hubs for the last mile (such as city logistics or micro hubs) do not necessarily lead to emission savings.
  - The modal choice of the consumer for pick-up, shopping and return traffic has big potential for emission savings, especially if private car trips are replaced.
  - Consumers taking over responsibility can make a change and reduce emissions.
  - Deceleration of the supply chains such as abandoning same-day deliveries and air freight requires an increased awareness of overall purchase impacts.
  - Rail freight is a solution to reduce emission on long distance legs.
- Five main mitigation measures could be identified with a host of supporting measures:
  1. Increased use of zero emission vehicles, for example by restricting the use of diesel and other internal-combustion engine vehicles.
  2. Increased density of pick-up points, for example by the revision of building law regulations to facilitate the installation of open-access pick-up points/locker boxes or local amenities in new residential areas.

3. Conscious consumer decisions, for example enabled by awareness campaigns that provide simple but strong messages for consumers and how their decisions influence GHG emissions.
  4. Optimised use of delivery vehicles in urban city centres, for example by the provision of areas for the establishment of city logistic hubs in the urban hinterland.
  5. Shift from road, air and maritime transport to rail transport, for example by providing an easier access to cross-border train paths facilitated by rail freight corridors and the TEN-T network.
- However, these measures can only address certain parts of the supply chain and are not open to all stakeholders. Therefore, a comprehensive effort is needed to bring all involved stakeholders together and combine measures suited for local circumstances.

### **2.2.2. ERGP Report on access to the postal network in a context of booming e-commerce**

In 2022 the ERGP has analysed the aspects associated with access to the postal network, going into more detail in some specific areas of delivery networks and complementing the work previously developed.

The ERGP Report on access to the postal network in a context of booming e-commerce explores, taking into account the development of e-commerce deliveries through postal networks, the accessibility to the last mile delivery network, emerging last mile distribution solutions and its interdependence with the environmental sustainability in the postal sector.

Some of the outcomes of this report<sup>6</sup>, especially those with environmental sustainability implications, have been used as input for our report:

- Some NRAs recommend different access models with a positive impact on environmental sustainability in the last mile delivery: e.g. use and common access of parcel lockers, delivery hubs and pick up/drop off points, use of electric cars and electric bicycles, optimization of the delivery routes.
- The variety of sustainability approaches identified that could be introduced in the context of e-commerce delivery to provide sustainable services (including access regulatory framework, symmetric regulation, interoperability of networks approach etc.) show the growing relevance of sustainability features.
- New forms of access regulation within the last mile delivery process have, according to NRAs, a potential positive effect on environmental sustainability: centralization of hubs outside the cities and downtown depots, development of open access parcel lockers and pick up/drop off points, collaboration agreements with local delivery operators using green fleets.

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<sup>6</sup> [The ERGP Report on access to the postal network in a context of booming e-commerce will be adopted at Plenary II 2022]

### 2.2.3. Inputs from stakeholders (UPU, PostEurop)

The ERGP Sustainability WG received input through bilateral meetings with UPU and PostEurop, which was used as source and background for this report.

#### *UPU*

The 2021 UPU Congress in Abidjan agreed on the harmonized measurement and reporting of carbon and GHG emissions (Resolution C17/2021). The implementation is supported by the International Bureau and the new SPSG (Sustainable Postal Services Group).

The interactive online platform tool OSCAR is being implemented to analyze, compare and report carbon and GHG emissions, based on 20 carbon KPIs, e.g. emissions per postal item, per employee:

- Focus on scope 1 and 2 emissions<sup>7</sup>. A wide definition of elements specific to scope 3 (e.g. waste management, water use), OSCAR take account of the challenges specific to the postal sector.
- Identification of financing and investment needs.
- The tool to be opened up to non-designated operators.

The UPU stresses how “sustainability” objectives are multi-connected: gender equality, waste, education, decent employment conditions, health.

The role for NRAs is, according to the UPU, related to raise awareness of users, monitor the sustainability in the postal market, not necessarily to impose new regulation.

#### *PostEurop*

PostEurop’s Environment WG (CSR-C) provides a platform of cooperation, learning and progress of postal operators to increase environmental awareness and performance. PostEurop has an agreement with IPC on carbon emissions measurement and reporting.

A balanced and holistic approach is according to PostEurop needed towards sustainability in the postal sector:

- It is difficult to isolate environmental sustainability from other objectives, e.g. social role & economic role and financial sustainability).
- Include buildings and waste management.

According to their views, sector-specific provisions are not needed at this stage. Different country characteristics are important to take into account: e.g. high popularity of parcel lockers in northern countries. It is needed to give users the possibility of informed decisions on the ecological impact of deliveries. NRAs do not have the expertise to monitor or regulate sustainability targets.

### 2.2.4. Internal ERGP workshop

On the 30th of June, the ERGP held an internal Workshop on “Sustainability Strategies and Regulation”, on which occasion NRAs had the opportunity to express their views around 3 pre-set

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<sup>7</sup> <https://www.upu.int/en/Postal-Solutions/Technical-Solutions/Products/OSCAR> Scope 1 emissions are direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organization (e.g., emissions associated with fuel combustion in boilers, furnaces, vehicles). Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling.



questions:

- 1) Is a specific legal or regulatory intervention in the field of sustainability necessary, at national or EU level? What role and contribution can standardisation play in this field?

Different arguments, pros and cons were explained about the need for specific legal or regulatory intervention at national and EU level in the area of sustainability. The instrument of standardization was identified as crucial to measure and calculate reductions of GHG emissions and to validate the progresses made, but also taking into account the need to leave sufficient room for innovation and new initiatives.

- 2) What are the challenges for NRAs concerning environmental sustainability in the postal sector? What regulatory instruments would be effective towards users and postal operators to reduce the ecological impact in the postal sector?

NRAs expressed the need to see a role of information and transparency towards users' awareness, monitoring and collection of data towards operators, even if clear NRA competencies are absent yet. Other examples of important challenges the national regulators face include the management of return shipments, better coordination of transport processes and green last mile delivery.

- 3) Should a future regulatory framework develop provisions on access to certain infrastructure (e.g., parcel lockers) based on environmental sustainability criteria?

New specific access-regulation to certain specific infrastructures, as parcel lockers and city hubs, could according to the participants of the workshop be useful for the future regulatory framework to be integrated and define our regulatory competences.

These inputs were included as a source and background in the preparation of this report.

### **3. Changes in regulation and practice related to environmental sustainability**

Postal markets are undergoing radical changes with the impact of technological innovations. For example, brick and mortar stores opened new online sales channels, SMEs could access new markets through e-commerce, and merchants increasingly adopted holistic-channel commerce solutions such as click and collect to meet ever-changing consumer needs. However, the conversion may not be fully complete. To fulfil the potential of digital commerce and support more new technologies and digital skills there is a need for a coherent, channel-neutral, and future-proof legal framework that takes into account sustainability challenges. With the acceleration of technological innovations, it is crucial that regulations can adapt to the environmental developments at the same speed.

The postal market continues to develop rapidly. The consumer or recipient should be in an informed position to be able to decide when, where, and how delivery is performed (for example, to decide whether they wish deliveries in their mailbox, to a parcel box, to a post office or an agent). Furthermore, the e-commerce industry and mail and parcel distributors have increased their focus on sustainability. A wide range of activities is underway to make supplies more sustainable from an environmental, social, and economic perspective. These include a higher proportion of fossil-free deliveries, less air in packages, better opportunities for shared shipping from different carriers, more efficient and environmentally friendly returns, and good working conditions for employees.

Considering all these changes, it can be seen how the issue of environmental sustainability has become important for the postal industry with the evolution of the postal market. The chart below gives an overview of the categories of the measures taken by designated operators (Figure 1). It is thought that these numbers will increase gradually. All USPs have replaced parts of their fleet with electric vehicles, most are using renewable energy to provide power across at least some property portfolio, while others planned to include waste management and other general environmental measures. USPs have set specific environmental targets and initiatives in Austria, Belgium, Finland, France, Denmark, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Spain, Sweden, United Kingdom<sup>8</sup>. Examples on the subject will be given in more detail in Section 3.3.

Finally, as the current energy crisis accelerates the need for energy savings and the sustainable use of resources, operators and authorities are reminded of the need and urgency to take action rapidly.

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<sup>8</sup> See Cullen International report “Environmental measures in the postal sector” of March 28 2022. <https://www.cullen-international.com/client/site/documents/CTPOEU20220013>.

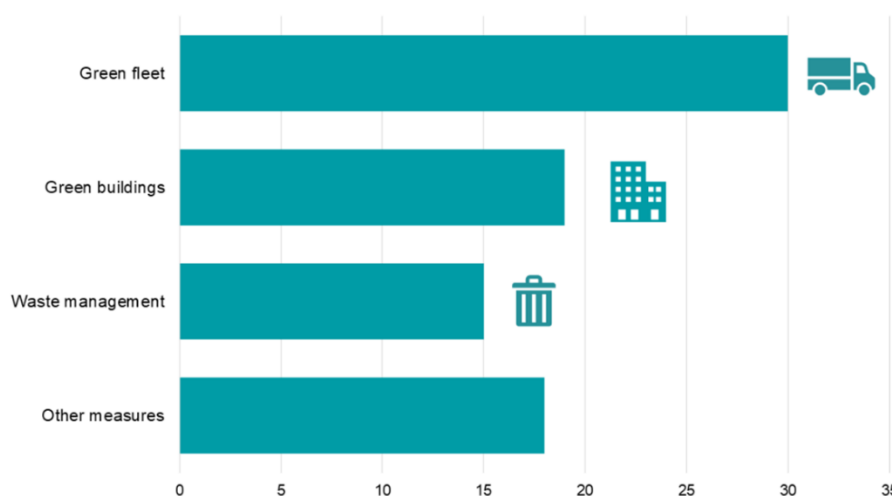


Figure 1 Number of European USP's adopting environmental measures (Cullen International, March 2022)

### 3.1. Development of strategies, legal framework, and definitions

The strategies of NRAs, legal framework, and definitions are essential for determining the measures on environmental sustainability. Hence, it is necessary to keep the information about these measures taken by the countries up-to-date. This report covers the updates to the ERGP Green Deal report published in 2021.<sup>9</sup>

As seen in the chart below (Figure 2), 20<sup>10</sup> of 30 NRAs stated they know a national or sectoral environment strategy in their country that includes objectives for, or may affect, the postal sector. 9<sup>11</sup> NRAs were not aware of a strategy. The remaining 1<sup>12</sup> NRA did not answer yes/no. Therefore, significant progress can be observed in general regarding NRAs' awareness of the national or sectoral environmental strategy in their country.

<sup>9</sup> ERGP Report on Green Deal impact on postal sector ERGP (21) 27.

<sup>10</sup> BE, HR, DK, FR, DE, EL, HU, IE, IT, LU, MT, ME, NL, NO, PT, RS, SK, ES, SE, TR.

<sup>11</sup> AT, BG, CY, CZ, LV, LT, MK, PL, SI.

<sup>12</sup> RO.

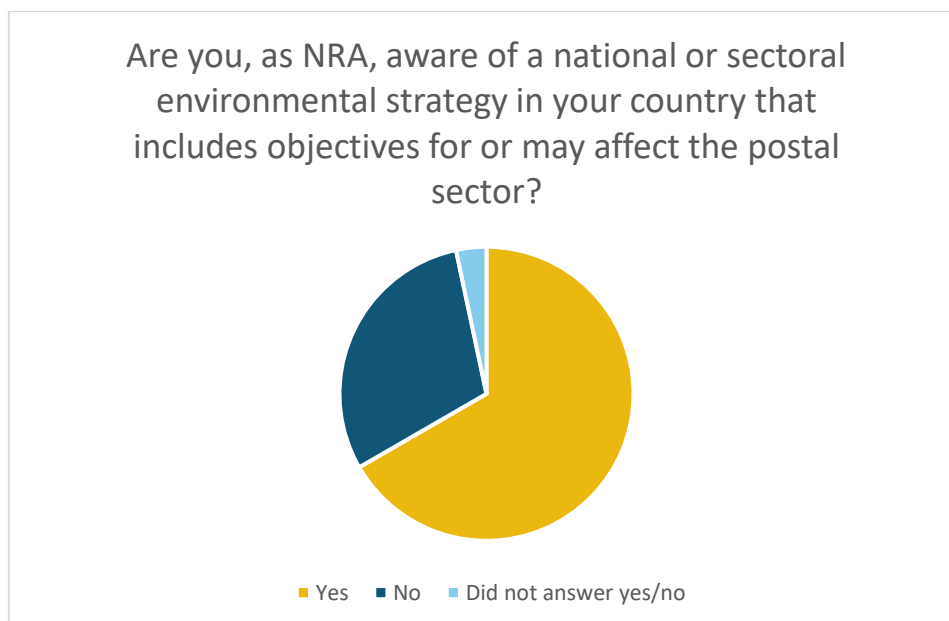


Figure 2- Awareness regarding national or sectoral environmental strategy ; Source: ERGP Sustainability WG questionnaire 2022.

However, as stated by the NRAs who answered positively to the relevant question, there was an awareness of the subject, but not specifically in the postal sector. For example, the response from the NRA from PT stated that decarbonization of transport and the promotion of the energy transition in industry could affect the postal sector, SK and HU stated that the postal sector could be affected by their national environmental strategy. Without categorizing on “yes” or “no”, the NRA from RO indicates the measures aiming at improving the environmental sustainability envisaged in the other sectors, particularly the road transport mode, might stimulate some developments within the postal sector (e.g. public electric vehicles charging network and other fiscal and financial measures).

With the investments made in electric vehicles (EV), climate action plans followed, initiatives such as extending the network of electrical vehicles charging points, more public transport, and the establishment of zero-emission city logistics, a national environmental awareness has been created. It has been stated that this awareness is expected to have an impact on the postal sector as well.

On the other hand, as seen in the graphic below (Figure 3), the NRAs<sup>13</sup> (30) stated that there is no definition of an environmentally sustainable postal service. As the European postal legal framework (PSD) is much older than the recent evolutions related to ecological sustainability, likewise most national postal legal frameworks in the most ERGP member countries today do not define these aspects.

<sup>13</sup> AT, BE, BG, HR, CY, CZ, DK, FR, DE, EL, HU, IE, IT, LV, LT, LU, MT, ME, NL, NO, PL, PT, RO, MK, RS, SK, SI, ES, SE, TR.

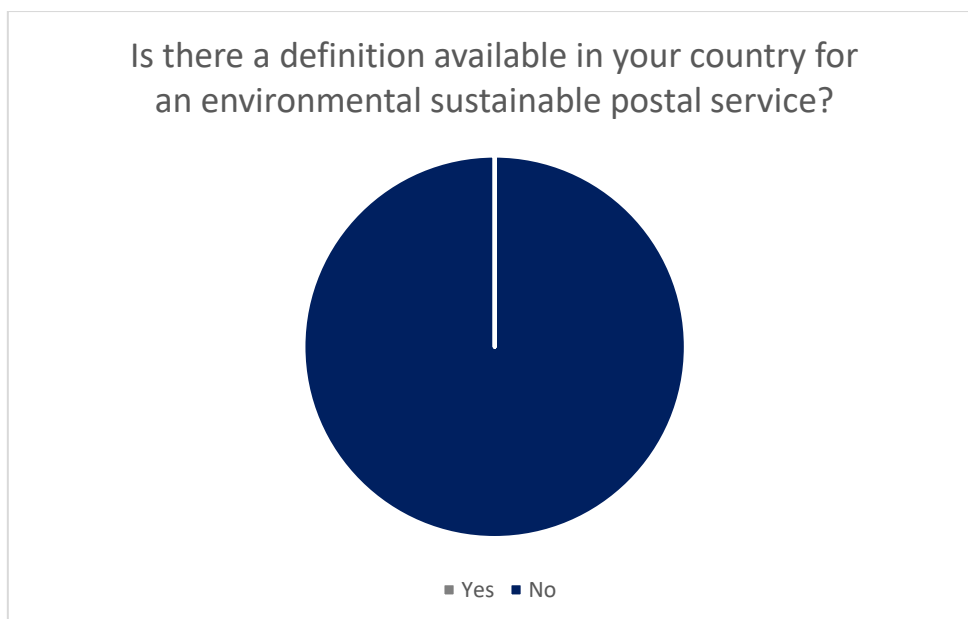


Figure 3. Definition of an environmental sustainable postal service; Source: ERGP Sustainability WG questionnaire 2022.

Most of the NRAs<sup>14</sup> (22) stated that regarding environmental sustainability, there are not many new provisions or emerging initiatives in their national postal law or regulatory framework compared to last year (Figure 4). However, EETT, one of the NRAs that responded positively, has an initiative to modify its secondary legislation specifically regarding the framework for general authorization, which will include elements regarding environmental sustainability, taking into consideration that postal operators face a challenge in reducing the environmental impact of their operations.<sup>15</sup> NRAs stated that there are emerging initiatives to introduce environmental sustainability provisions in their national postal law. The remaining 2<sup>16</sup> NRAs did not answer yes/no. One can thus observe a positive trend towards new provisions or new initiatives underway to include environmental sustainability in the national postal law or regulatory framework.

<sup>14</sup> AT, HR, CY, CZ, DE, DK, FR, HU, IE, IT, LV, LT, LU, MT, ME, NL, NO, PL, PT, RO, MK, RS.

<sup>15</sup> BE, EL, SK, ES, SE, TR.

<sup>16</sup> BG, SI.

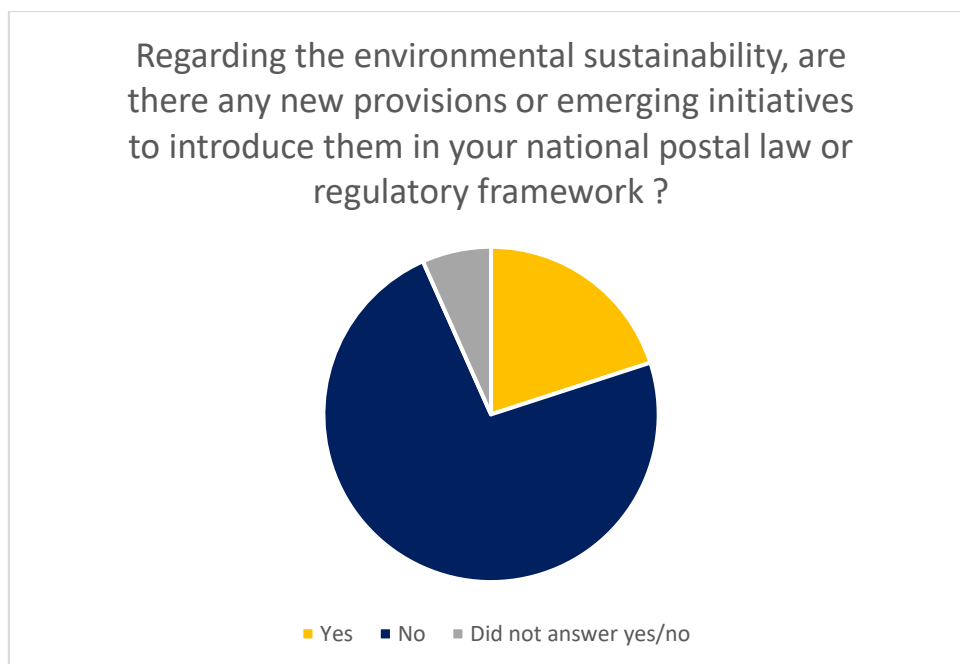


Figure 4. New provisions in national postal law or regulatory framework; Source: ERGP Sustainability WG questionnaire 2022.

### 3.2. International tools

The International Bureau of the Universal Postal Union (UPU) launched its OSCAR project (online solution for carbon analysis and reporting) in 2016. This project provides a procedure to report emissions from postal operators and to track their performance in reducing such emissions<sup>17</sup>. The tool was especially designed, developed and provided by the UPU to measure and analyze the postal sector's carbon footprint in such a way to enable their members to upload the information that they have with regard to carbon emissions and it can also be used to see where the greatest funding needs are and link investment opportunities with businesses that need them, in order to favour the operators endeavours for improvement of their impact on the environment. OSCAR can also be employed for purposes of external reporting and is being currently fine-tuned to reduce the distortion of data provided in detail by countries implementing measures so that publications may be extracted from the processing of data that it performs and its results can be reported.

The International Post Corporation (IPC) developed a standard measurement and reporting program called Sustainability Measurement and Management System (SMMS) in 2019. The new system was launched after achieving the targets set in 2008 in the Environmental Measurement and Monitoring System (EMMS). The program provides a benchmark by which postal operators can measure progress and strategies against other leading postal operators, including insights into how to improve

<sup>17</sup> <https://oscar.post/#/dc>

sustainability performance. The SMMS offers postal operators the opportunity to engage with employees through international initiatives such as the IPC Drivers' Challenge.

Another interesting tool analyzing the impact of carbon emissions, is being developed by the University of Antwerp and is designed to show the carbon emissions from point to point while also performing a sensitivity analysis based on solutions like a green fleet, thereby illustrating the “before and after” in each given situation with regard to impact. Its analysis is detailed i.e. per parcel, while it includes features showing results regarding the best green city visible as well as an analysis of the higher averages of emissions as opposed to year averages. This tool can also be used to extract results per operator, per city or region or country and be also employed for other countries by implementing the local largest players and networks. While the use of collection points like parcel lockers are not yet in the model of the tool developed and recently launched and neither is the economic return of a possible renewal of fleet, these data have the potential to be processed by this model in the future. While this tool was developed mainly for commercial purposes, catering for the need of retailers to know their specific impact and cost, it can be of great use to NRAs seeking to gather data and information from operators in their effort of increasing transparency in the sector with regard to environmental impact.

### 3.3. Initiatives taken by the operators

When asked about taking initiatives or analyzing new aspects of environmental sustainability (Figure 5), 18<sup>18</sup> NRAs answered positively in response to the questionnaire sent this year, while 6<sup>19</sup> NRAs stated that government and postal operators had not taken any initiatives yet.

NRAs describe some of the initiatives taken by postal operators in their countries as follows:

- EL: Reduce fleet emissions, replacement of existing vehicles with electric, green last-mile solutions for pick up & delivery, develop an environmental management system.
- IE USP: reducing carbon emission by 50% by 2025 and to net zero from own operations by 2030, electrical vehicles, invest 80 million Euro in capital expenditure on sustainability by 2025, route optimization, increased EVs, tracking emissions.<sup>20</sup>
- IT: the USP aims to reduce post emissions by 30% by 2025<sup>21</sup>, Amazon aims to achieve net-zero CO2 emissions by 2040

The NRA from SK indicated that some data regarding green energy, in general, are collected, but these are not data specific to the postal sector.

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<sup>18</sup> AT, BE, CY, DK, FR, DE, HU, IE, IT, LU, MT, NL, NO, RO, MK, SI, SE, TR.

<sup>19</sup> BG, ES, ME, PT, RS, SK.

<sup>20</sup> <https://www.anpost.com/>

<sup>21</sup> <https://www.posteitaliane.it/>



*Figure 5. Initiatives or analysed new aspects related to environmental sustainability; Source: ERGP Sustainability WG questionnaire 2022.*

Many NRAs stated that there are no clear and specific postal sector sustainability goals; postal operators in all countries have taken measures though to lower their impact on environment and reduce carbon emissions.

The use of renewable energy sources and the use of electric vehicles are frequently mentioned as measures taken by operators to reduce carbon emissions (e.g. in EL and IE) as well as last mile route planning (DK).

DHL<sup>22</sup> express is increasing its focus on car-free and environmentally friendly deliveries in CY, including bicycle couriers, hubs, and service points. In addition, DHL can help customers to calculate their carbon footprint and reduce it with customized solutions.

At the Belgian company Bycykel, companies, organizations, and self-employed people can try out different cargo bikes, trailers, and transport boxes freely.<sup>23</sup> This way, customers can experience for themselves which cargo bike or trailer best suits their needs. Bpost aims to reduce the CO<sub>2</sub> emissions generated by its operations by 20% by 2030, despite expected growth in parcels traffic<sup>24</sup>.

<sup>22</sup> <https://www.dpdhl.com/en/>

<sup>23</sup> <https://bycykel.be/>

<sup>24</sup> <https://press.bpost.be/bpost>



In Finland, Posti, the Finnish postal universal service provider (USP), has become globally the first company in the postal sector, as well as the first company<sup>25</sup> in Finland, to have its net zero emission targets approved by the Science Based Targets initiative (SBTi)<sup>26</sup>.

In Spain, Correos<sup>27</sup> proposes a reflection on the impact of urgent shipments on the environment and opens the debate on the responsible use of this service. Correos wants to make this reality visible in the middle of the Black Friday campaign (that day is considered the most polluting day of the year since six times more CO<sub>2</sub> emissions are emitted than on an average day, according to a Greenpeace 2019 study). The difference between sending an urgent package in a single vehicle and waiting for that means of transport to be complete represents significant savings in emissions since it allows the number of routes to be optimized. Another Correos initiative to promote the sustainability of shipments is the "Forest Line" of packaging, made with recycled and recyclable materials, part of whose sale goes to the fight against deforestation, in collaboration with WWF to project fire prevention and preservation of biodiversity.

Finally in France, according to its website, La Poste has become the first major postal operator in the world to make its mail and package delivery products carbon neutral through a mix of carbon offsets and planned emissions reductions programs, including replacing traditional delivery vehicles with low- and no-emissions alternatives<sup>28,29</sup>.

### 3.4. Initiatives taken by governments

14<sup>30</sup> NRAs stated that the recent initiatives in their country contributed to lower carbon emissions in the postal sector. 10<sup>31</sup> NRAs stated that there aren't initiatives in their country that have contributed to carbon emissions in the postal sector (Figure 6). According to the questionnaire results, postal operators are expected to further contribute to lower carbon emissions in the future.

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<sup>25</sup> <https://www.posti.com/en/>

<sup>26</sup> The SBTi defines and promotes best practice in science-based target setting. Offering a range of target-setting resources and guidance, the SBTi independently assesses and approves companies' targets in line with its strict criteria. More information: <https://sciencebasedtargets.org/>

<sup>27</sup> <https://www.correos.com/press-release-category/sostenibilidad/>

<sup>28</sup> <https://www.lapostegroupe.com/en/carbon-neutrality>

<sup>29</sup> <https://postandparcel.info/>

<sup>30</sup> BE, CY, DK, FR, DE, EL, IE, IT, LU, MT, NO, PL, SK, SE.

<sup>31</sup> BG, HU, LV, ME, NL, PT, MK, RS, ES, TR.

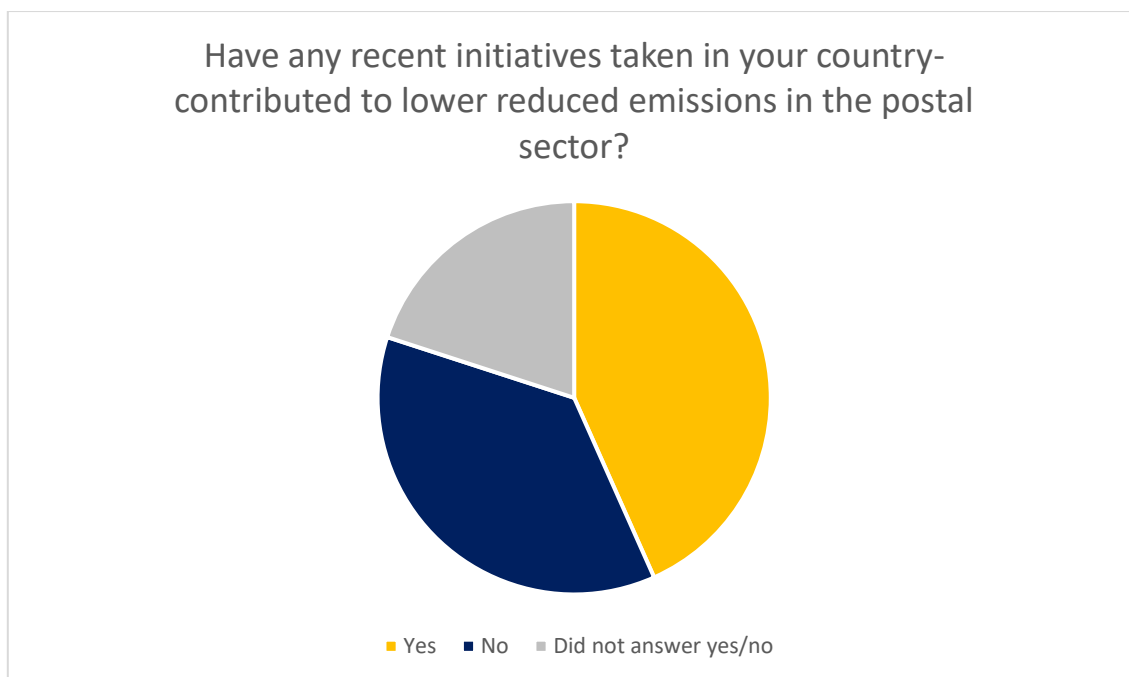


Figure 6. Recent initiatives taken to contribute to lower reduced emissions in the postal sector; Source: ERGP Sustainability WG questionnaire 2022.

In France, a law enacted on December 24<sup>th</sup>, 2019 enables local authorities, among others, to limit access to all parts of their territory to the most atmospheric pollutants emitting vehicles during a given period. This is not specific to the postal sector but might significantly impact how postal providers operate in such zones.

In Italy, The Italian Government has promoted the EcoBonus 2022<sup>32</sup>, an incentive for sustainable mobility. It offers contribution for the purchase of “green” vehicles and the initiative is also valid for the postal sector. Therefore, this incentive can influence the postal sector’s approach to sustainability, fostering energy efficiency works.

In Germany, the increase in carbon tax on oil, gas, and fossil fuels from January 2021<sup>33</sup> encourages the transition to electric vehicles in the postal sector as in other sectors. In addition, clean vehicles procurement law<sup>34</sup>, for competitive tendering procedures, which consider all, also mail and parcel services sustainability criteria should be considered. This gives the postal operators an incentive to invest in electric vehicles or vehicles using alternate fuels.

In Ireland, the Government developed the Climate Toolkit 4 Business<sup>35</sup> website. The toolkit supports companies in finding practical ways to reduce carbon emissions. The Toolkit asks questions about the business type, for example, “transport, freight & logistics”, size of business, buildings owned or leased,

<sup>32</sup> <https://ecobonus.mise.gov.it/ecobonus>

<sup>33</sup> <https://www.bundesregierung.de/breg-de/themen/klimaschutz/weniger-co2-emissionen-1790134>

<sup>34</sup> <https://www.gesetze-im-internet.de/saubfahrzeugbeschg/>

<sup>35</sup> <https://www.climate toolkit4business.gov.ie/>

energy consumption, travel, materials used, and water usage. This allows companies to create action plan reports on areas to act and create an account to track goals. It also provides estimates on carbon production based on details provided, e.g. “company travel or freight data”.

In Poland, along with the amendment to the act on electromobility and alternative fuels on 2021<sup>36</sup>, the topic of creating Clean Transport Zones (CTZ) returned. One change is that from 2022 CTZs can be established cities. The first of them is in Krakow. On March 31st, 2022, the Minister of Climate and Environment signed the ordinance on the sticker model for vehicles authorized to enter the clean transport zone. During the consultations, a new sticker model was proposed, which considered the year of vehicle production, fuel type, name of the commune, and registration number. With the changes, owners of low- and zero-emission vehicles without special license plates will be able to enter regions all over Poland.

### 3.5. Case studies

As discussed above, postal operators and governments are implementing many practices to help reduce postal sector emissions. In this section two more country cases are detailed concerning initiatives taken in Austria and Sweden.

The Austrian Post's comprehensive sustainability master plan will last until 2030. In line with this plan, they aim to increase customer satisfaction and make products and services more sustainable and eco-efficient. Austrian Post became the first postal company to guarantee carbon-neutral delivery for its customers in 2011.

Austrian Post's objective is to continuously decrease its greenhouse gas emissions to the greatest extent possible. The first stage involves improving the efficiency of the core processes. This includes optimizing the energy efficiency of buildings, lighting, and continually modernizing the vehicle fleet. However, the energy efficiency of technical infrastructure such as conveyor systems in the logistics centers is also being analyzed. The second step involves the use of alternative forms of energy. Austrian Post has only used electricity from renewable energy sources and technologies since 2012. Since the beginning of 2017, all renewable electricity has come from Austria. They also operate nine photovoltaic systems with around 3,000 kilowatt-peak (kWp). They see another critical strategic area for reducing carbon emissions in the expansion of e-mobility. The third stage involves compensating for all unavoidable emissions. All carbon emissions related to collection, sorting, delivery, and overhead processes, inevitable at this time, would be paid in the third step through support provided to national and international climate protection projects. This will make the entire value chain carbon-neutral, from delivery and all operations in logistics centers and delivery bases to the emissions of our external service providers. These measures have enabled Austrian Post to provide 100% carbon-neutral deliveries within Austria since 2011.

Austrian Post has begun calculating a new science-based target for a 1.5°C economy as part of a companywide project run by the WWF and supported by the Climate and Energy Fund.

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<sup>36</sup> <https://eur-lex.europa.eu/>

Austrian Post subsidiary Aras Kargo is one of the Turkish parcel service providers and is taking action to protect nature and the environment. Aras Kargo has collected more than four tons of waste in the last four years with its coastal cleaning project. However, the “Environmentally friendly Araslar forest” project is working to regenerate Turkish forest areas in collaboration with the Aegean Forest Foundation.

Austrian Post sees sustainability as an essential factor in the design of logistics centers. In order to control further soil sealing on the former landfill site, the land was prepared for building on around one-third of the plot. Biodiversity and environmentally friendly activities were promoted with green spaces and all-green roofs around logistics centers.

In Sweden, carriers are testing electric vehicles for heavier distribution, renewable aviation fuel for cargo flights and improved renewable energies for road transport. In addition, there is an industry initiative from the retail sector to develop an industry agreement on the definition of fossil-free transport in e-commerce. This definition is planned to be used as a description of fossil-free transport when customers choose a delivery mode with their e-retailer.

More sustainable packaging with less air and better cooling properties to reduce the use of refrigeration units in vehicles, etc., are other initiatives to increase sustainability. With less air in the packages, more consignments can be packed in vehicles and the number of transports can be reduced. One such initiative is the Packaging Journey project<sup>37</sup>, which Postnord and Chalmers University of Technology, among other things, have been working on to find solutions for how the packaging can be smaller.

Research of actual supply flows in urban and rural areas to gather knowledge to enable shared-shipping and create better conditions for future urban planning (e.g. the e-COMSTRAT project<sup>38</sup> and the Predictive movement collaborative site<sup>39</sup>) are other ongoing efforts. Predictive Movement aims to make a digital platform that becomes a common place for transporting people and goods with the help of Artificial Intelligence. In the first phase, the project will solve the challenge of package deliveries in rural areas. Furthermore, the project aims to optimize accessibility from urban environments to rural areas.

In addition, the Government has commissioned the Swedish Transport Analysis Agency and the Swedish Consumer Agency to propose concrete actions to support consumers in making more sustainable delivery choices in e-commerce. Their task also includes defining how transport affected by e-commerce has evolved.

### 3.6. Conclusion

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<sup>37</sup> <https://www.postnord.se/>

<sup>38</sup> <https://closer.lindholmen.se/projekt/e-comstrat>

<sup>39</sup> <https://predictivemovement.se/>

As society is getting more aware of environmental sustainability both governments and operators have started to work on several measures on how to reduce emissions. In the national postal legal frameworks of the ERGP member countries, however, so far, there are no definitions of environmental sustainability or competences for the postal NRAs related to sustainability. This as a result of European postal legislation dating from a time when sustainability was not yet central and therefore still tacit on the subject of sustainability. Neither do most national postal laws or regulatory frameworks include yet new initiatives on environmental sustainability. On the other hand, there are general national and EU targets set as well as provisions for other sectors, which have an influence on the postal market. However, considering the current regulations and initiatives that governments and postal operators have already taken, the postal regulatory field could make the delivery sector benefit significantly from improvements of environmental performance<sup>40</sup>.

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<sup>40</sup> See Cullen International report “More could be done to reduce the environmental impact of e-commerce deliveries” of March 30 2022. <https://www.cullen-international.com/>

## 4. Impact of the sustainability measures on the environment, competition, prices, quality and user experience

The measures regarding sustainability discussed in the previous chapter are aimed at the environment as such and as an additional effect externalities (i.e. effects that were not set as a goal) might occur as well. For instance, measures taken by operators can also have an influence on competition, prices and the quality of postal services, or can even have an impact on the user experience in general.

### 4.1. Measurement of the impacts

The environmental impact of the initiatives taken should ideally be measured in order to create a clear and detailed view on the progress made. As indicated below in figure 7, 9<sup>41</sup> out of the 30 NRAs stated that they were indeed aware of the precise environmental impact of the initiatives taken by operators. Most NRAs (19<sup>42</sup>) were not (yet) aware of the precise impact. The remaining 2 NRA<sup>43</sup> did not answer yes/no.

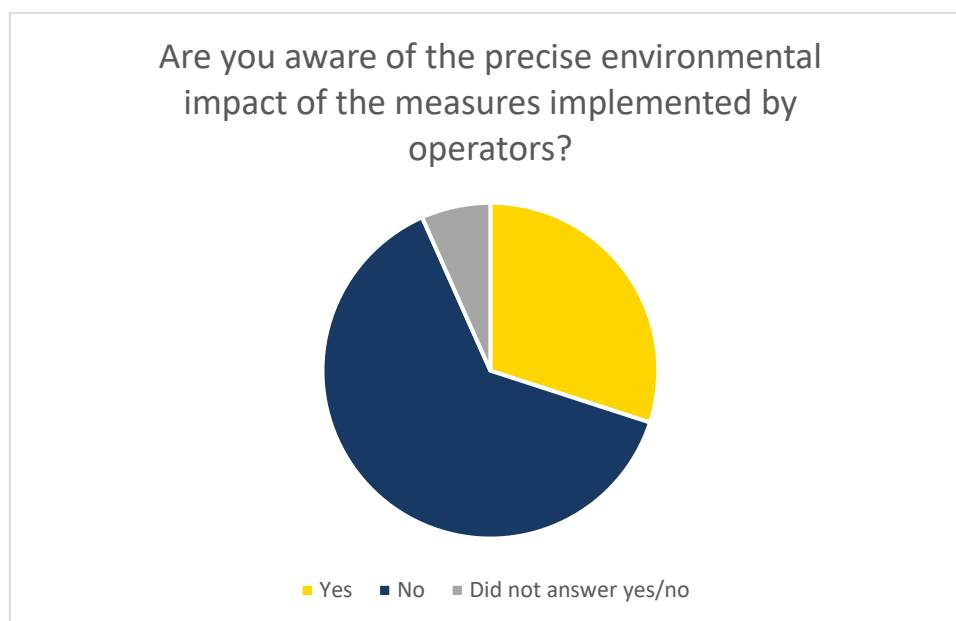


Figure 7. Awareness regarding precise environmental impact of measures; Source: ERGP Sustainability WG questionnaire 2022

Out of these 10 positive responses, we can see in figure 8 that most often (7<sup>44</sup>) the impact is being measured by the postal operators themselves. Regarding BE, studies of the University of Brussels (VUB) and University of Antwerp (with a CO2 calculator for the largest postal operators active in Belgium) were given as examples.

<sup>41</sup> BE, DK, DE, HU, IE, IT, NL, NO and RS.

<sup>42</sup> AT, BG, HR, CY, CZ, FR, EL, LV, LT, LU, PL, PT, RO, MK, SK, SI, ES, SE and TR.

<sup>43</sup> ME, MT.

<sup>44</sup> DK, HU, IE, IT, MT, NO and RS.

The impact measured is verified in almost half of the cases (4<sup>45</sup> out of 10<sup>46</sup>), mostly by a consultancy firm. In the majority of cases (7<sup>47</sup> out of 10), operators do publish the figures measured.

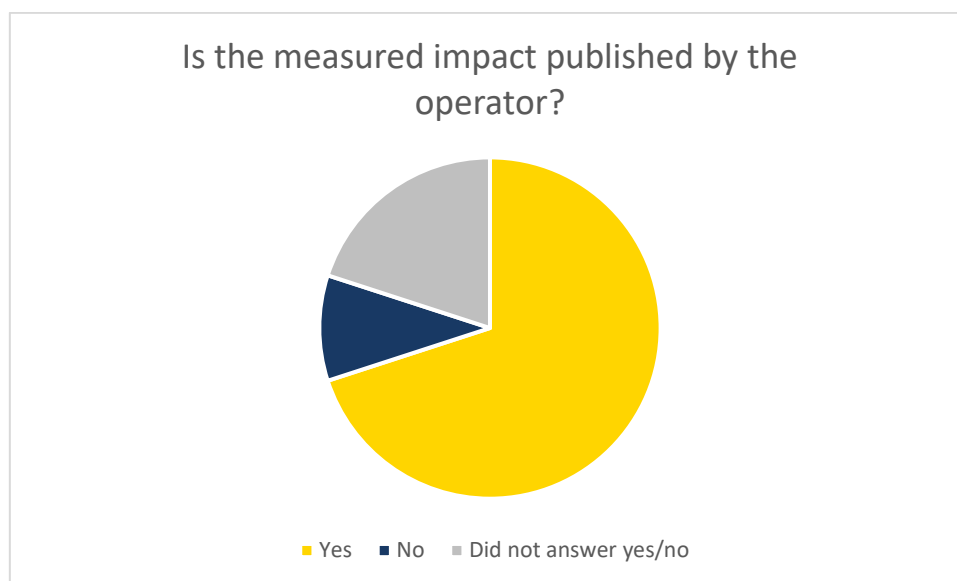


Figure 8 – Impact measured by the operator or another party; Source: ERGP Sustainability WG questionnaire 2022.

## 4.2. Methodologies, indicators and data sources used

Based on the answers to our questionnaire and (recent) literature, we see a large diversity of methodologies, indicators and data sources that are currently being used in the field of sustainability in the postal sector. These are described in the following section, without being cross-checked by the ERGP.

### Data sources and indicators

In response to the questionnaire, the NRA of MT stated that a particular operators in their country take precise energy consumption data and make various internal reports for internal distribution. Readings are also takes of the mileage before and after every delivery, which are then analyzed against fuel consumption. One operator claimed that they evaluate the emissions of each vehicle by gathering data from its GPS according to the mileage covered during deliveries. Other NRAs<sup>48</sup> refer to science-based targets. The NRA of NO referred to the IR-framework, used to accelerate the adoption of

<sup>45</sup> DK, IT, MT and NO.

<sup>46</sup> Not verified according to the NRA of AT, DE, HU, IE, and RS. PT no view.

<sup>47</sup> DK, DE, HU, IE, IT, NL and NO. No according to MT and no view according to the NRA of BE and PT.

<sup>48</sup> BE and DK.

integrated reporting across the world, by the international integrated report council as well as GRI standards<sup>49</sup>.

Indicators often cited in literature used to report are the average of the direct and indirect emissions of CO<sub>2</sub> generated by the collection, sorting, transport and distribution of postal items. Cullen International recently<sup>50</sup> gave an overview on the environmental impact of operators. Based on the total CO<sub>2</sub>e<sup>51</sup> emissions published by DOs in their yearly reports, Cullen calculated the average emission per revenue (in euro). Ideally, as pointed out by Cullen themselves, volume would be used, but since this isn't always mentioned, revenue was being used as an indicator of scale (size). For half of the DOs examined (11 in total<sup>52</sup>) the level of CO<sub>2</sub>e was about 75 per euro in revenue. This may be an easy way to calculate and to track improvements regarding sustainability. Additional indicators can be the percentage of the vehicle kilometers travelled by zero-emission vehicles, the percentage of renewable energy used for the provision of postal services, the percentage of electric vehicles and zero-emission vehicles that are active within the fleet.

## Methodologies

Regarding methodologies, responses pointed towards the methodology used by Amazon<sup>53</sup>, by which Amazon accounts for a diverse set of direct and indirect emissions that occur both upstream and downstream of operations. It sets a comprehensive system boundary that includes the following emissions sources:

- Amazon's last-mile delivery fleet;
- Amazon-operated freight, including trucks and airplanes;
- Purchased delivery services (e.g., postal services) and other contracted freight;
- Electricity used in our fulfilment centres, data centres, physical stores and other facilities;
- Amazon packaging;
- Amazon product manufacturing, such as Echo devices, Kindles e-readers, AmazonBasics, Whole Foods Market brands and other Amazon Private Brands products;
- Customers' use of Amazon devices;
- Capital goods, such as emissions from building construction, manufacturing of servers and equipment and the production of other Amazon infrastructure;
- Corporate operating expenses, such as business travel, office supplies, corporate events, outside consulting services and other expenditures;
- Customers' trips to Amazon's physical stores (e.g., Whole Foods Market);

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<sup>49</sup> The GRI Standards are a modular system of interconnected standards. They allow organizations to publicly report the impacts of their activities in a structured way that is transparent to stakeholders and other interested parties.

<sup>50</sup> See Cullen International report "Environmental measures in the postal sector" of March 28 2022

<sup>51</sup> Meaning carbon dioxide equivalent (CO<sub>2</sub>e) used to measure their emissions. CO<sub>2</sub>e compares the emissions from various greenhouse gases based upon their global warming potential by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

<sup>52</sup> AT, BE, DE, ES, FR, FI, IT, NL, PT, SE and UK.

<sup>53</sup> <https://sustainability.aboutamazon.co.uk/carbon-methodology.pdf>  
<https://sustainability.aboutamazon.co.uk/renewable-energy-methodology.pdf>



- Refrigerants used for cooling in our data centres, corporate offices, grocery stores and fulfilment centres.

Amazon evaluates the quantity of GHG emitted for each of these activities by taking the amount of the activity conducted (e.g., miles travelled or gallons of fuel burned) multiplied by its appropriate life cycle “emissions factor” (e.g., grams CO<sub>2</sub> per kilowatt-hour (kWh) of electricity used), which provides a representative value for the carbon dioxide emissions associated with that activity. Once the emissions for all activities are calculated, a sum is taken to produce the total carbon footprint for Amazon’s entire business, spanning our physical and online retail businesses, cloud computing, device manufacturing and beyond.

Other indicators pointed by operators and Cullen in literature are, as discussed under section 3.2, the initiatives and measurements developed by UPU (OSCAR) and IPC (EMMS/SMMS). Furthermore, it was stated by Cullen that many organizations adopt the standards of the Greenhouse Gas Protocol (GHGP) to measure and manage greenhouse gas emissions. This GHGP approach divides emissions into three scopes:

- scope 1: direct emissions generated by the organization, i.e. from sources owned and controlled by the organization;
- scope 2: indirect emissions from the consumption of purchased energy; and
- scope 3: indirect emissions from the upstream and downstream activities of the organizations, i.e. value chain emissions not generated directly by the organization, e.g. from purchased goods and services.

Concerning this topic, CEN/TC 331 indicated on the 30<sup>th</sup> of June 2022, during the internal ERGP workshop on Sustainability Strategies and Regulation, that it will also be working on a European harmonization regarding CO<sub>2</sub> and GHG. More specifically on a methodology to calculate and report the environmental impact (Green House Gas emissions and air pollutant emissions) of end-to-end parcel transportation and handling. And this starting from the original collection point to the point of final delivery, while being in alignment with the principles of recognized environmental accounting frameworks, standards and guidance.

Furthermore, the indicators DIN EN 17837 PDEF (Parcel Delivery Environmental Footprint) standard, which is already available as a draft<sup>54</sup>, establishes a common methodology for calculating and declaring direct and indirect greenhouse gas (GHG) and air pollutant emissions associated with parcel delivery services. These take into account both upstream as downstream, as well as direct and indirect emissions (including well-to-tank emissions). Even waste disposal from the parcel logistics service providers locations is included. In essence, standard 17837 also covers the air pollutants carbon monoxide, nitrogen oxides, particulate matter PM2.5 and PM10, and sulfur oxides that are generated from the use of vehicles of all modes of transportation in the form of exhaust and non-exhaust emissions, as well as all associated direct and indirect emissions from the use and processes at logistics sites, i.e., offices, sites, and buildings. Standard 17837 includes the following elements:

- Step-by-step guidance on quantifying emissions from parcel logistics services;

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<sup>54</sup> Released May 2022

- Calculation method for GHG emissions;
- Calculation method for air pollutants (carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter PM<sub>2.5</sub> and PM<sub>10</sub>, and sulfur oxides (SO<sub>x</sub>));
- Allocation rules per shipment (parcel); and
- Reporting frameworks and data exchanged with business customers or recipients.

It establishes general principles, definitions, system boundaries, calculation procedures, allocation rules for packages, and data requirements with the goal of promoting standardized, accurate, reliable, and verifiable declarations in which emissions are calculated. It further provides examples of how to apply these principles. The PDEF is designed to be applied by all parcel logistics service providers and is accessible to a broad user group, from multinational organizations to a small local carrier. As a result, the standard attempts to provide a balance between the desire for maximum precision and scientific rigor, and a degree of pragmatism to achieve ease of use.

A recent paper by Borsenberger et al (2022)<sup>55</sup> underlined the need for such a uniform and regulated way of presenting emissions. The authors show that operators will find it beneficial to reveal their level of emissions, in order to stimulate the consumers' environmental awareness utility, but in practice, it may be difficult to do this in a credible way. Consequently, a regulatory intervention associated with some kind of certification is certainly desirable.

Also on the 30<sup>th</sup> of June 2022, during the internal ERGP workshop on Sustainability Strategies and Regulation, the University of Antwerp presented "Do we speak the same language? The need for a cross-modal CO<sub>2</sub> calculation model in the EU", while underlying the need for a standard measurement that improves comparability. Their CO<sub>2</sub> calculator, already mentioned in section 5.1, does exactly that, taking into account the complete network of operators to make comparisons on the level of shipments.

To conclude this section, the Swedish NRA stated in its 2022 report on the Swedish postal market that the existing data should be better used and shared. According to the NRA, there are large amounts of data on transport, but they are scattered among different stakeholders and an overall picture is lacking. There is thus a clear risk that transport flows will be sub-optimised and that it will be difficult to achieve sustainability goals, whether in terms of resource use, greenhouse gas emissions, and pleasant urban environments, services to remote parts of the country or the economic sustainability of transport systems. At the same time, data need to be collected and shared in a way that does not affect the conditions for effective competition.

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<sup>55</sup> "E-commerce and parcel delivery: environmental policy with green consumers"; Claire Borsenberger, Helmut Cremer, Denis Joram, Jean-Marie Lozachmeur and Estelle Malavolti (Rutgers Conference 2022)

### 4.3. Impact on competition, prices, quality and user experience

Measures taken which are aimed at improving sustainability can also have externalities or effects that impact users. As shown in the figure 9 below, it is clear that most NRAs are, at this moment, not aware of such an impact. Only 5<sup>56</sup> out of the 30 NRAs state that they have a view on this impact, while 25<sup>57</sup> NRA did not answer yes/no .

When looking specifically at quality or performance (for instance when the delivery speed would be reduced), consolidation of parcels in vans as sustainability measure could for instance slow down the delivery process, and being perceived as an negative impact to the user experience and/or quality. The few answers received though do not point in the direction of a clear negative impact. For instance, as indicated by an NRA<sup>58</sup>, because any possible effect will be counterbalanced by the work of transport planners and optimized routes.

More input was given with regard to the impact on users' experience and awareness due to the implemented sustainability measures. Possible effects in this case could be for instance a higher level of awareness of the environmental impact of the delivery of a parcel (including parcel returns) or identified behavioural change. A consumer study done by one NRA<sup>59</sup> in 2020 indicated that Belgians are open to a slower delivery period, up to a maximum of three days, if parcels can then be bundled, thus reducing the ecological impact. Other answers<sup>60</sup> indicate that consumers are indeed becoming increasingly aware and attach increasing importance to the carbon footprint, and influencing their choice of the sender (e-shops) or buying more locally in order to shorten the delivery way. According to the "Baromètre Fevad/Médiamétrie" in France, 70% of e-shoppers tend to favour eco-friendly e-commerce websites (2019 data), 66% of them tend to choose the pick-up point delivery options (2020 data), and 45% of them say they reuse the packaging from their e-commerce parcels (2020 data). In Germany, a so called GoGreen Plus program is able to create awareness by offering customers a variety of sustainable products they can choose from. Such awareness can even be stimulated by operators, as is the case in Malta where one particular postal operator launched a marketing campaign to promote its transition from fossil fuel powered vehicles to electric vehicles.<sup>61</sup> Although awareness is clearly on the rise, it was also noted<sup>62</sup> that it seems that users of postal services still attach more importance to prices and the quality of services provided.

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<sup>56</sup> DE, DK, FR, IT and SI.

<sup>57</sup> AT, BE, BG, EL, HR, CY, CZ, HU, IE, LV, LT, LU, ME, NL, NO, PL, PT, RO, MK, MT, RS, SK, ES, SE and TR.

<sup>58</sup> DK

<sup>59</sup> BE

<sup>60</sup> CZ, DK and IT.

<sup>61</sup> The NRA of PT, SI and TR also gave an answer in this direction.

<sup>62</sup> PL

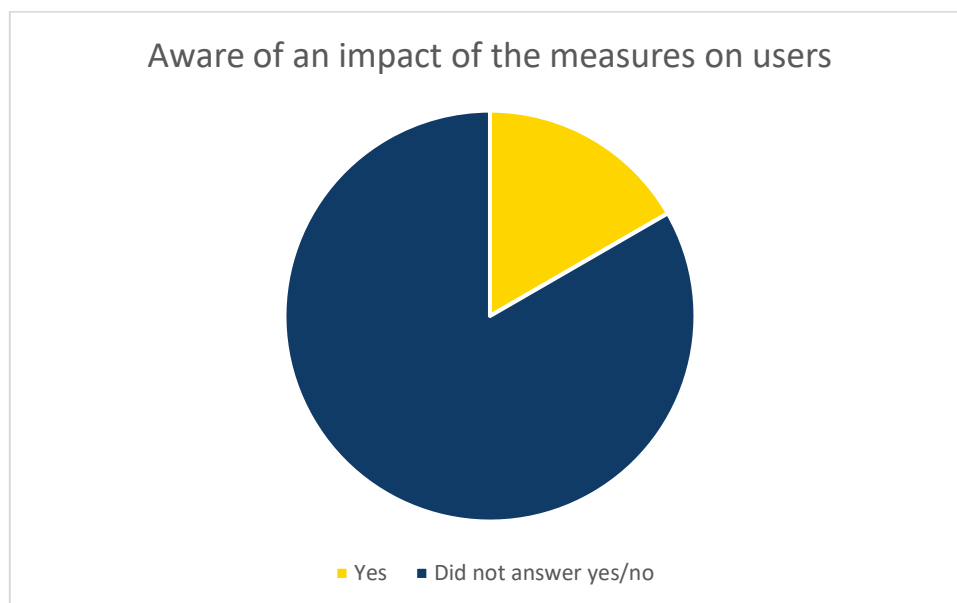


Figure 9 – Awareness regarding impact on users; Source: ERGP Sustainability WG questionnaire 2022.

Regarding the impact on competition, the views are more diverse. While 7<sup>63</sup> NRAs stated that there is an impact of the measures taken in pursuit of sustainability on competition, 17<sup>64</sup> NRAs indicated that there is no such impact. 665 NRA did not answer yes/no to the question.

Both larger as medium to small sized operators can have a competitive advantage from the focus on sustainability according to the answers given. Two NRAs<sup>66</sup> assumed that financially strong operators are in better position to sustain any new challenges. For instance in Germany, the new law about the procurement of clean vehicles might have an influence on competition: there are certain sustainability criteria, which postal service providers need to fulfill, when they want to be selected for a service order. For smaller competitors it is harder to fulfill these criteria as they do not particularly have the budget to invest in sustainability measures, which allow them to fulfill these criteria. The carbon tax may also have an influence on competition: The carbon tax leads to higher costs, whenever postal providers use vehicles, for which they need fossil fuels. This leads to an incentive to invest in electric vehicles or vehicles with alternate fuels. For smaller postal service providers it is harder to invest in electric vehicles or vehicles with alternate fuels. Moreover, as this carbon tax is not only for the postal sector, but applies to every sector and also private persons, also other sectors have the incentive to invest in electric vehicles. This might lead to the point, where there are not enough electric vehicles on the market, causing the price to rise, because of the high market demand. (The similar argumentation applies when it comes to postal operators' building usage (energy and heating) – there

<sup>63</sup> BE, CZ, DK, FR, IT and TR, DE indicated that it "might have an influence on competition".

<sup>64</sup> AT, BG, CY, ES, HR, HU, LV, LT, LU, MT, NL, NO, RO, RS, SK, Sland SE.

<sup>65</sup> EL, IE, ME, PL, PT and MK.

<sup>66</sup> DE and SK.

may be enough supply, but a refitting may be too costly for smaller operators). Another NRA<sup>67</sup> on the other hand stated that it is notable that new environment regulations gives smaller and more flexible actors opportunities to challenge the market.

One answer<sup>68</sup> referred to the Grant Thornton survey, a survey carried out among 5,000 medium-sized companies in the world in the period from May to June 2021. Conclusion of this study is that the introduction of a sustainable development strategy not only results in increased interest of investors, employees and customers, but also improves the company's management efficiency. Moreover, this study explains how that midsize companies can often use their less complex structures and entrepreneurial spirit to stay ahead of their sustainable growth plan – and thus create a competitive advantage. In addition, overtaking the sustainability curve is a way to signal the strength of the company and establish a leadership position in the market. One of the most important arguments for introducing a sustainable development strategy in the company is to improve efficiency and reduce costs. According to the survey, 42% of companies emphasize the real business benefits they see in the area of sustainable development.

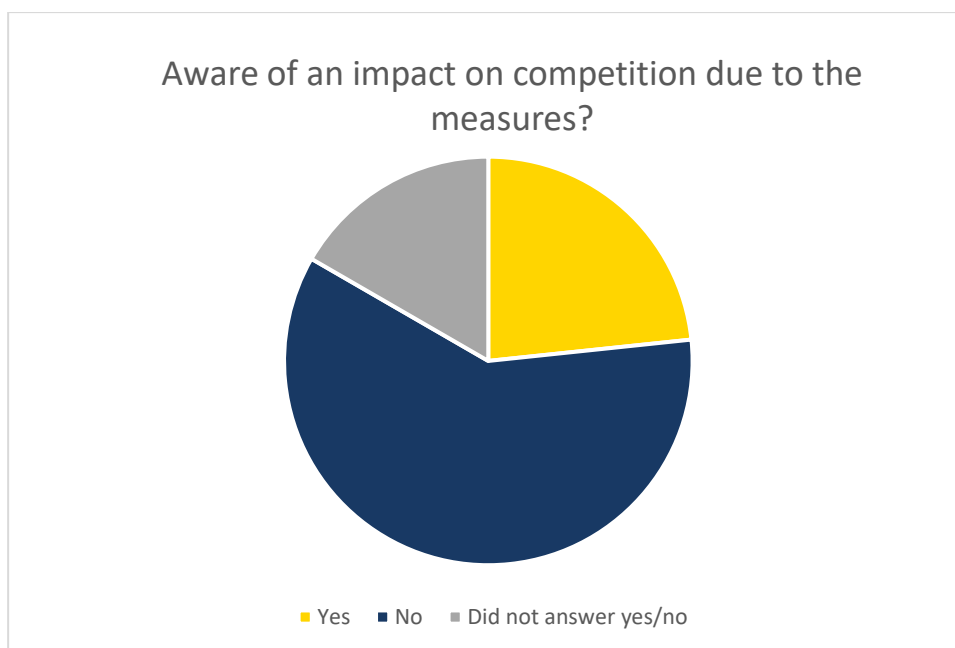


Figure 10 – Awareness regarding impact on competition, Source : ERGP Sustainability WG questionnaire 2022

On the question concerning the eventual impact on tariffs, we see similar diversity in figure 11. 6<sup>69</sup> NRAs indicated that there is an impact or that it could occur, while 10<sup>70</sup> stated the opposite. 14<sup>71</sup> NRAs did not answer yes/no to the question.

<sup>67</sup> SE

<sup>68</sup> PL, see <https://www.grantthornton.com.br/en/insights/articles/creating-competitive-advantage-through-sustainability/>.

<sup>69</sup> BE, DE, IT, LV, LT and LU.

<sup>70</sup> AT, HR, FR, EL, HU, , NL, PL, PT, MK and RS.

<sup>71</sup> BG, CY, CZ, DK, IE, ME, MT, NO, RO, SK, SI, ES, SE and TR.

Regarding tariffs, different factors are stated that could have an influence. One NRA<sup>72</sup> for instance indicated not only the effect of a carbon tax. The higher costs for postal operators may mean that for users, prices might go up as postal operators may try to pass on the costs to their customers. But this NRA also indicated that the rising costs for services and products for the shift to more sustainability (conversion to electromobility, use of synthetic fuels, optimizing their transport and delivery networks, climate-friendly renovation of existing buildings or planning energy-efficient new buildings, renewing packaging management) could result in higher prices for all end-users. With a DHL CO<sub>2</sub>-neutral international parcel for instance, customers need to pay an extra fee for the parcel to be sent carbon-neutral. This is not the only such example, but can be found elsewhere as well.<sup>73</sup>

Two NRAs added that customer prices could be affected, but with the rise of fuel prices, the resulting effect might not be clear. These investments might be used as a mean to counterbalance the expenses for fuel.

Another NRA<sup>74</sup> stated that in general there shouldn't have to be an impact on tariffs, but that they do see that investments of the DO have increased significantly compared to the previous three-year period. This was mostly due to the building of new sorting centers (Zagreb and Rijeka) and the renewal of the vehicle fleet. The prices of postal services have also risen, but the NRA indicated that it can't be concluded with certainty that this is solely due to investment relate to environmental measures.

As a sidenote, two NRAs<sup>75</sup> indicated that their operators would take the impact on tariffs into account when making investment decisions regarding sustainability. This in order to avoid a large price effect for the postal users.

In recent literature, Stanford et al (2022)<sup>76</sup> mentioned three possible pricing strategies with regard to sustainability. First of all, according to the authors, the most common strategy among DOs is to include the cost of carbon-neutrality into the underlying cost of the product. Which is, again according to the authors, the simplest and most direct way to achieve carbon neutrality, particularly with a large and varied product line. Secondly, a differentiated offer could be implemented. A number of surveys indicate that there is a proportion of postal customers that would be willing to pay a price premium in order to ensure that their mail is carbon neutral or otherwise eco-friendly. However, there is also a proportion of postal customers that either have no interest in paying to offset emissions or are extremely price sensitive and have a preference for the lowest priced product available. Given this reality, DOs could potentially employ a premium pricing strategy, where it introduces a "green" version of each of its products priced so that it covers the cost of emissions offsets for each mailpiece or package. Finally, DOs could use their pricing to develop a discount for sustainability measures upstream. For instance, for mailers that reduce their own carbon emissions from mail creation, preparation, and transportation. The value of such a discount could be set at or near the cost USPs would avoid either offsetting or decarbonizing its own operations. However, if the goal of DOs is to

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<sup>72</sup> DE

<sup>73</sup> EL: optional service called GoGreen Climate where the customer (if he chooses to) can pay a very small amount (0.10 € per kilo with a min of 0.10 € per shipment) and this will be used to take additional carbon emission reduction measures.

<sup>74</sup> HK

<sup>75</sup> MK and TR.

<sup>76</sup> "Using pricing strategies as a tool to achieve carbon neutrality: implications for the United States Postal Service", (V. Ian Stanford, Lawrence Buc, Adam Houck, Ethan Jost (2022).

use its public position to maximize emissions reductions in the entire mail and delivery sector, then it could offer an incentive in the form of a rate discount for mailers that provide verification of their own (GHG) emissions reductions in the production, preparation, and transportation of mail. During this period, DOs can research different discount levels to find the right price without incurring any price cap effects.

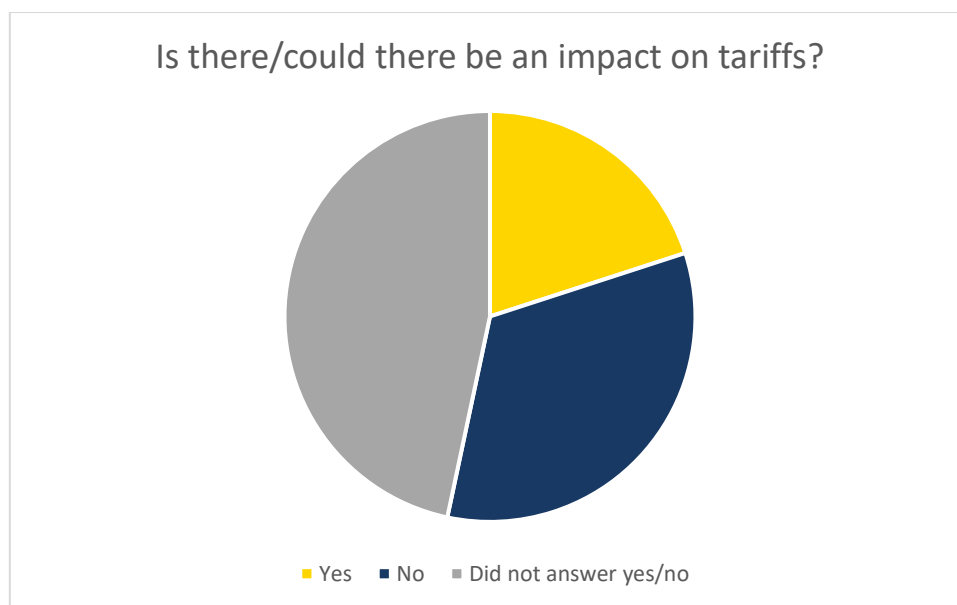


Figure 11 – Awareness regarding impact on tariffs ; Source : ERGP Sustainability WG questionnaire 2022.

#### 4.4. Conclusion

The environmental impact of the sustainability measures taken is increasingly being monitored, but in many different ways and not necessarily cross-checked by independent bodies. Not only do many DOs/incumbents look at sustainability in their own way, but also other market players, for instance Amazon, have developed a specific methodology. Recently, clear and independent methodologies have been developed, by for instance the University of Antwerp or the DIN EN 17837 PDEF indicator. The main benefit of these methodologies is these provide a comparison of the same operator' performance in time and they also enable a comparison between operators at the same moment in time. Moreover, the PDEF indicator attempts to provide a balance between the desire for maximum precision and scientific rigor, and a degree of pragmatism to achieve ease of use (for small local operators as well as multinationals).

It is important to keep in mind that externalities (i.e. effects that were not set as a goal) can occur. For instance, measures taken by operators to enhance sustainability can also have an influence on competition, prices and the quality of postal services, or can have an impact on the user experience in general. Although there might be an impact of sustainability measures on users, the NRAs do not have enough data to distinguish any impact. Due to the various sustainability measures there may be different impacts on competition and tariffs that might counteract each other. The final outcome will depend on which impact will have the strongest influence on the market. The Grant Thornton survey concluded that for medium sized firms, the introduction of a sustainable development strategy not only results in increased interest of investors, employees and customers, but also can improve the

company's management efficiency. Midsize companies can often use their less complex structures and entrepreneurial spirit to stay ahead of their growth plan - and thus create a competitive advantage. Regarding pricing, Stanford et al (2022) mention three possible strategies with regard to sustainability: adding the increased underlying cost, differentiating by adding a sustainable alternative to the portfolio and finally a DO could use its pricing to develop a discount for sustainability measures taken upstream.



## 5. Future role of the NRAs

In order to form a more complete view on what can be envisaged to be accomplished with regard to environmental sustainability in the postal sector, it is important to take into consideration the views of the NRAs, regarding their role on the subject. Having elaborated on the issues of changes in regulation and the impact of the sustainability measures taken or to be taken in the postal services field on the environment, competition, prices, quality and user experience, the report assesses in this section the role regulators can play actively in the setting and application of rules aimed towards a more environmentally sustainable postal sector across Europe.

### 5.1. NRAs role and actions in the postal sector today

Considering the role of the NRAs, this report tries to identify the state of play today with regard to NRA’s views in order to use it as a reference point to identify the possible unexplored areas of action in the field of sustainability.

Dealing with the matter of whether the NRAs have already introduced themselves environmental sustainability aspects in any of the regulation of the postal sector (e.g. implementing specific measures, monitoring, gathering data or otherwise), 27<sup>77</sup> NRAs responding to the questionnaire offered a negative response: Only 2 have answered positively. This largely reflects the timing of the questionnaire and current limited remits, but at the same time, the outlook was much more positive than illustrated, when studying what the NRAs had to comment about their actions.

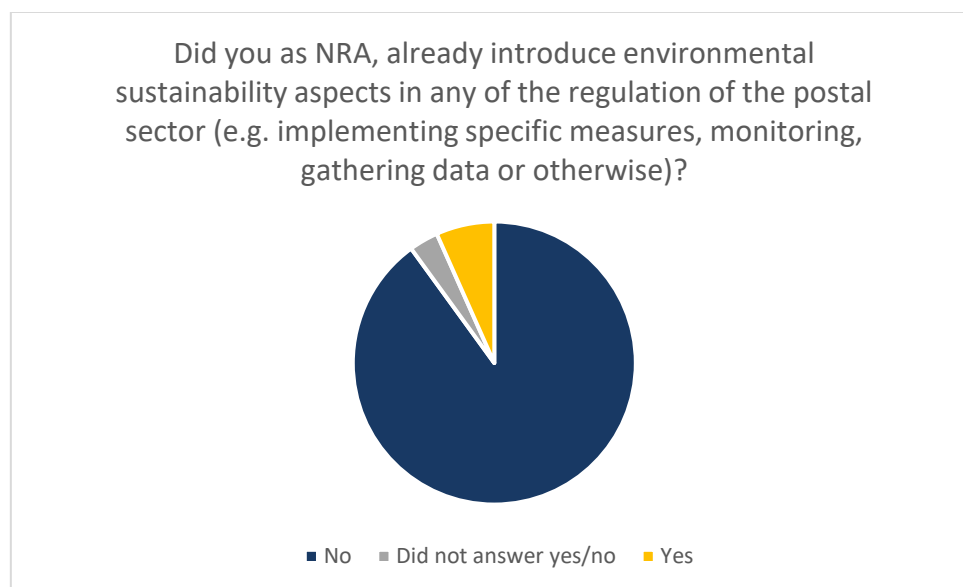


Figure 12 – Illustration of whether the NRAs have introduced environmental sustainability aspects in any of the regulation of the postal sector

<sup>77</sup> Negative: AT, BE, BG, HR, CY, CZ, DK, FR, DE, HU, IE, IT, LV, LT, LU, MT, NO, PL, PT, RO, ME, MK, RS, SK, SI, ES, SE.

Even though the figure above shows an overwhelming ‘no’ answer, the additional feedback received from NRAs pointed to positive direction with regard to the future in regulation of environmental aspects in postal services.

ACM indicates that while they did not introduce a regulation, they did initiate monitoring action. The Netherlands regulator has specifically mentioned that in the present year they collect data about the number of parcels delivered per mode of transport in the four largest cities of the Netherlands as well as in the rest of the nation. At the same time they have enquired about the amount of return parcels for the ten largest online retailers. The NRA opines that the insights provided by the data gathered might support and corroborate possible action to introduce sector specific regulations in the future. TR states that regular meetings are held with postal service providers and the NRA is working in collaboration with the providers towards environmental sustainability while they also closely follow sustainability-related projects carried out by enterprises and relevant ideas are exchanged. The NRA stated that questionnaires are sent to postal service providers, and the latter are requested to inform the NRA of new developments.

The Bulgarian regulator included since 2022 a new section in their questionnaires for collection of data from the postal operators regarding postal environmental sustainability measures. Similarly, RO also mentioned that they are currently monitoring the developments in the field and building up relevant knowledge with a view to update the list of indicators and conduct research studies and PT state that they hold specific and sporadic random consultations to some postal operators’ websites and annual reports.

Such responses offer an insight on which might the immediate actions to be taken in the field of environmental sustainability be, in the postal sector. They assist in the initial shaping of the spectrum of the potential role of the NRAs and guide us towards what the NRAs could possibly be ready to carry out in the shorter term, while further expertise, policy and legal and technical framework is developed in the field of environmental sustainability in this highly specific sector.

Meanwhile, some NRAs that have not responded positively, have in fact offered reasoning and willingness to go forward with potential regulation as aforementioned. For instance, FR mentioned that while due essentially to a lack of competences, i.e. that they have no specific powers for instance to collect data, no specific regulatory measures were introduced, they do consider environmental issues as a matter of high importance for the postal sector that needs to be addressed, and expressed their support for endeavours to this effect. The French regulator has expressly underlined the importance of the effort to raise awareness among NRAs on environmental issues and to develop their expertise in this field to enable them to better grasp these issues. IE has noted in its Postal Strategy Statement 2022 – 2024<sup>78</sup> that responding to environmental sustainability is a key challenge now and into the future and IE offered that the reason for the non-introduction of regulation in the field of environmental issues was the lack of legal remit, similar to FR and to SE.

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<sup>78</sup> [21122.pdf \(comreg.ie\)](#)

Studying the above, and despite the current rather limited outlook of present concrete regulatory measures in place, it is evident that some actions are indeed taking place and some developments are evident among the work plan of NRAs with regard to environmental sustainability related measures.

## **5.2. Possible future role and competences for NRAs in the field of environmental sustainability**

This section of the report refers to potential and possible future actions and the concept of a potential role and possible competences according to the NRAs views. As opposed to the first section, this is a more means (tools and competences in NRAs' disposal used to form their forward-looking views provided in this section) rather than outcome (as opposed to the current regulation and impact analyses above) section that encompasses real estimations of the NRAs in their effort to view themselves and position the NRA in the environmental sustainability playing field.

The aforementioned ERGP Workshop provided some insights with regard to how the NRAs view their role and the matter at hand in general. It was evident from the inputs of the participants and stakeholders involved that the matter of environmental sustainability is regarded as an urgent matter which needs to be given attention at both European and local levels and that it needs to be addressed by NRAs, which need to be further empowered to make a significant contribution towards the relevant goals set.

The outcomes of the discussions in the workshop translated well with the responses received in the relevant ERGP questionnaire where, when being asked whether NRAs consider that they could play a role in relation to environmental sustainability in the postal sector, an overwhelming majority responded positively. 21<sup>79</sup> out of 30 responding NRAs thought they could play a role. Only 9 NRAs responded negatively<sup>80</sup> or did not answer yes/no.

Some NRAs had interesting insights and comments as to how they see their place in the implementation of such responsibilities:

- The Irish regulator (COMREG) opined that the implementation method for the role of the NRAs would be a matter for policy makers at European level, for example through a new Directive, specifying clear policy objectives with regard to an expanded role that the NRAs would be called to aim to achieve;
- The Roumanian NRA (ANCOM) stipulated that they see some parts of the role of the NRAs being exercised voluntarily while noting that others require additional legal powers; and
- The Swedish regulator (PTS) viewed the role of the NRAs as exerted not necessarily through regulation. PTS expressed the opinion that other authorities may have the regulatory role concerning environmental sustainability while the NRAs may have a supporting role and encourage and or support good initiatives. The Swedish NRA feels that there might be a conflict in roles when it comes to the social sustainability of postal service where the NRA should be the competent authority and environmental sustainability where other authorities

<sup>79</sup> AT, BE, CY, DE, HR, FR, EL, HU, IE, IT, LV, LU, MT, NL, NO, RO, RS, PL, SI, SE, TR.

<sup>80</sup> 5 Negative answers: DK, MK, SK, ES, LT.

might be better suited to issue guidelines and regulation. They also offered that the NRAs can also assist with regulating and implementing the postal directive concerning distance to mailboxes and a sustainable way of making environmentally friendly distribution possible; for instance, by only using green routes or by distribution in postbox collections.

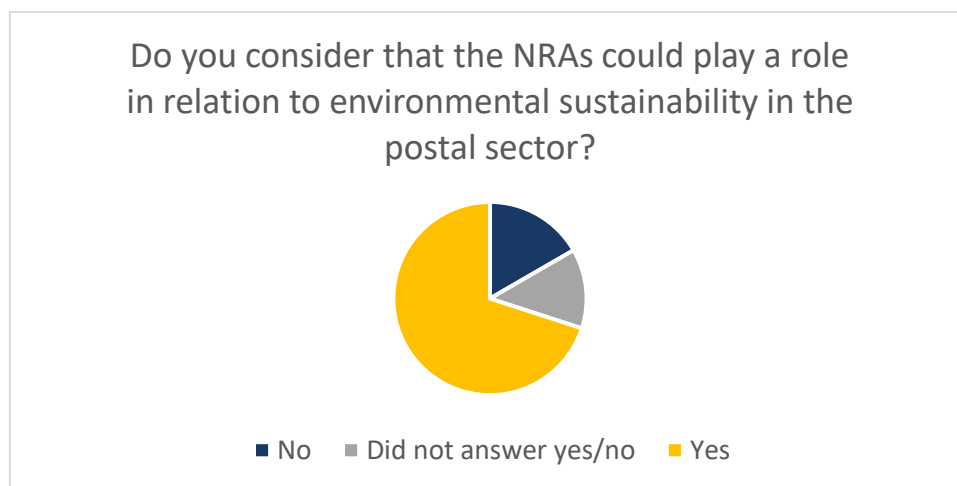


Figure 13 – Role of the NRAs in relation to environmental sustainability in the postal sector

Of the NRAs responding positively with regard to a potential regulatory role in the field of environmental sustainability, 16<sup>81</sup> NRAs felt they would have a role towards operators, 15<sup>82</sup> NRAs believed they would have a role towards users and only 4<sup>83</sup> thought they could potentially also have a role towards other stakeholders.

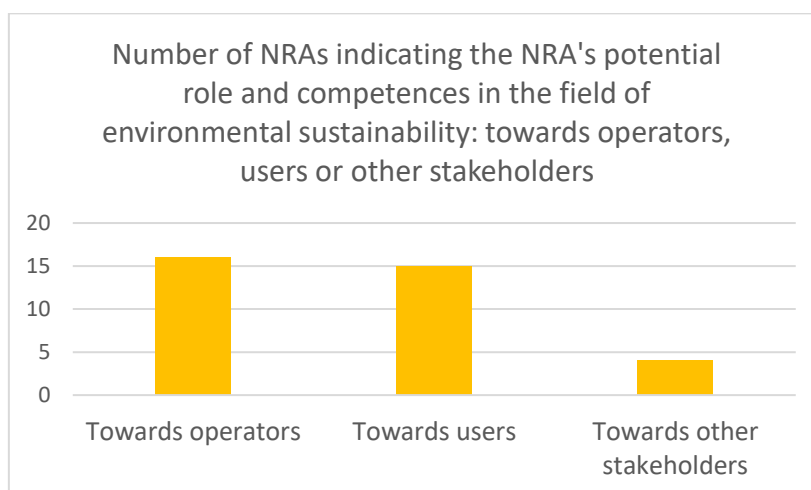


Figure 14 – Potential role and competences of the NRAs in relation to environmental sustainability in the postal sector;

<sup>81</sup> AT, BG, HR, CY, CZ, DE, IT, LV, LU, MT, NO, PL, PT, RO, RS, TR.

<sup>82</sup> BE, BG, HR, CY, CZ, IT, LV, LU, MT, NO, PL, PT, RO, RS, TR.

<sup>83</sup> NO, PT, RO, RS.

Positive feedback indicating the importance of the role of the NRAs towards operators is placed in their power to collect data about their actions in the field, processing them and publishing them thereby increasing transparency and comparability but also in the provision of incentives to encourage environmentally sustainable projects and practices by the operators (such as to reduce the volumes of returned parcels).

At the same time, some NRAs expressly provide innovative suggestions that go beyond the collection of data, which show the potential for development of the NRAs role in the near future. Such is a view by IT and NO which opine that the NRAs should also be able to define indicators (IT) and objectives (IT and NO), i.e. imposing regulation with regard to environmental impact. MT, provides the view that NRAs may support operators by playing an active interlocutory role between the latter and the relevant environmental agency and/or Ministry for the Environment of each country, and RO mentions taking into account the operators' sustainability commitments in the designation process (as operators). Analysis regarding methodologies that might be used when considering the role of the regulators in environmental matters has been provided above in sub-paragraph 4.2, which notes the express strategies/methods that operators have implemented and that NRAs consider significant concerning the development of relevant competences.

Furthermore, the NRAs have provided important feedback on the modalities of the actions that would fit within the exercise of competencies in the field of sustainability. Feedback from CZ includes the opinion that the power to collect data should be of an optional character, thereby not creating any obligations to NRAs and only be granted after the provision of an unbiased measurement method for the data to be processed, compared and assessed preferably on EU level ensuring cross-border comparability, while offering that the NRA's published annual comparison, could potentially be done by national customer protection groups.

PT provides the view that the possible definition of specific objectives should reflect the objectives already defined at EU level, while taking into account and ensuring the application of the objectives established in the Postal Directive and encompassing notions of wider economic sustainability of the postal sector as whole particularly regarding the efficient provision of a universal postal service, while maintaining adequate quality of service levels to ensure a good user experience.

PL is positive about the potential of NRAs to collect data from operators but at the same time provides a reservation with regard to the limitation of the role of the postal regulator drawing attention to the competences of the bodies established to protect the environment, for example Ministries of Environment and governmental and local authorities of the Inspection for Environmental Protection performing tasks in the field of environmental protection.

The German regulator offers a rather detailed account of their analysis regarding the potential role of NRAs in the field of environmental sustainability. With regards to transparency, DE states that there is no visible measurement or certain total numbers, in the data coming from the operators taking action in the field. DE opines that in order to assess the situation in accordance to the Green Deal a certain model of transparency is needed, while it could also be helpful to establish sustainability officers as control authority, parallelizing them to the role of the data protection officers. DE also indicates that the collection of data might be necessary for the assurance and fulfilment of the aims

of the Green Deal indicating its’ correlation with the need to monitor emissions (via the collection and processing of relevant figures) to achieve the attainment of the goals for the postal sector. It was highlighted that the rise of emissions within the Covid19 pandemic has further heightened the need for monitoring indicating that we need to be ready in case other non anticipated crises appear. Simultaneously and complementing the above, DE highlights that there are already indirect incentives that influence the postal sector, but there are no such in the postal law in Germany nor in the postal framework. Therefore, there is a need of development of the aforementioned transparency and collection of data measures in order to determine impact of such incentives for the postal sector and introduction of relevant provisions exclusively for the sector. DE marks as possible incentive provisions, funding and cost takeover when certain criteria is fulfilled.

With regard to regulatory provisions, DE opines that these would be helpful for the postal sector so that the NRAs may tackle situations where in certain cases the data may show that critical developments are endangering the reach of the environmental goals, including sanction options when deemed necessary. DE also provides the view that due to the impact of the measures on competition, some regulatory provisions might be needed in order to reduce the effect on competition towards smaller competitors (and their financial challenges) coming from these indirect incentive measures in place: sustainability in DE’s view should not become another competition barrier. The German regulator concludes by taking into consideration the need for provisions aiming at user protection and price regulation, stating that although measures with positive effects for users exist, there could potentially be rising costs for operators while trying to comply with environmental sustainability measures which might be passed on to users in the form of increased prices to their customers. Relevant provisions must then be put in place, in DE’s opinion, to ensure that postal service will stay affordable for all end-users. Finally, DE’s NRA marks the need for acquisition of new personnel to be able to discharge the new role and duties relating to environmental sustainability and the expansion of the NRAs competences towards this direction.

Following the aforementioned, the figure below illustrates that the vast majority of NRAs answering positively in the potential role they could have towards operators, responded that such role would entail competences enhancing transparency in the field and expressly including the collection of relevant data.

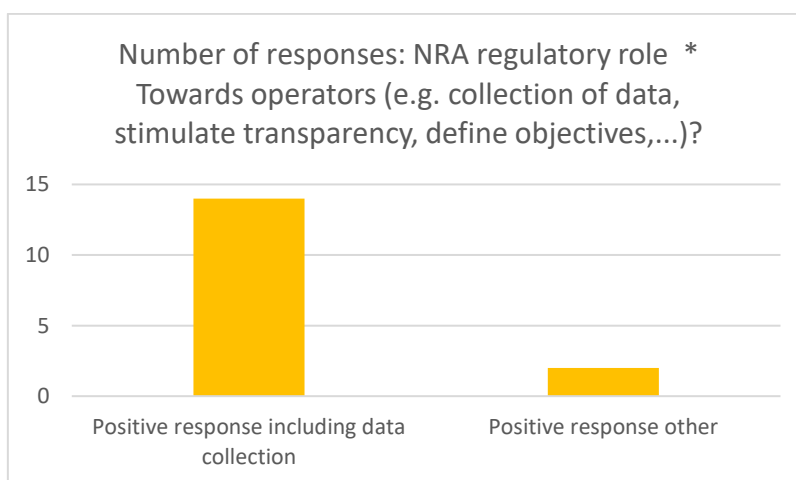


Figure 15 – Potential regulatory role of the NRAs towards operators

At the same time and analogously to the graph above, in the graph below it can be observed that the great majority of NRAs answering positively in the potential role they could have towards users, responded that such role would entail raising users' awareness for instance through campaigns run by the NRAs.

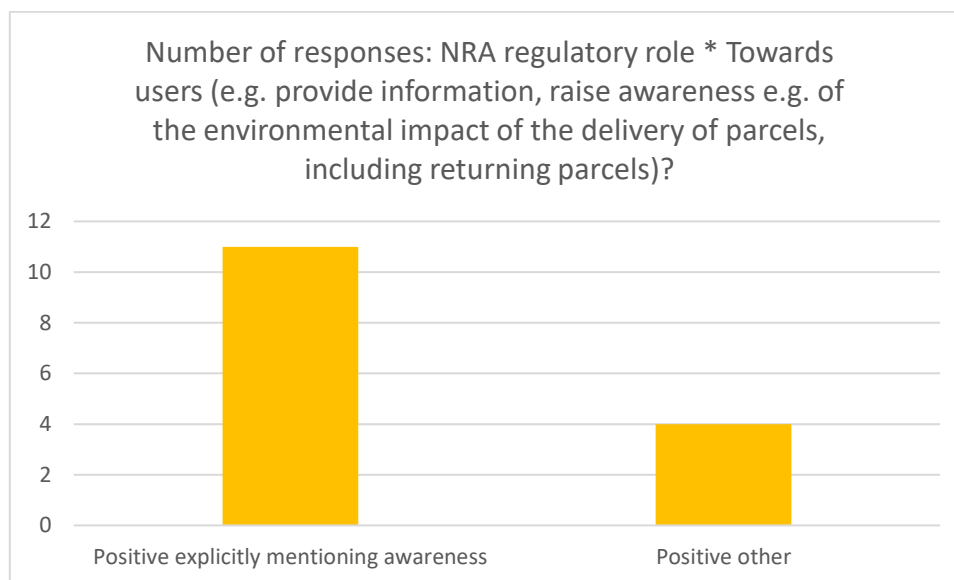


Figure 16 – Potential regulatory role of the NRAs towards users

Some very interesting insights with regards to how the NRAs could go about their role towards users were provided by a number of NRAs who specified how they position themselves in this respect, supporting the view that users' behaviour has a big potential role in the mitigation of climate change impact in the postal services. This could be done by publication of data about good practices in the postal sector, for example through media campaigns or simply by posting on NRAs online content, the publication of environmental sustainability measures adopted and the indicators defined by/used by the NRAs and the publication by the NRAs of their analysis of the data from postal service operators (or specifically of the impact in specific matters such as the return of parcels), offering greater transparency and informing the public accordingly, raising the awareness of the public in a non-discriminatory way. At the same time, there were opinions including the introduction of incentives for reducing the volumes of returned parcels (BG), the suggestion to publish sustainability in price-comparison tools (LU), the potential provision of education of the public of the way of use and promotion thereof, of facilities available to reduce mechanized mobility in the last-mile such as postal lockers if such infrastructure is available and the education with regard to post-purchasing behaviour of users aiming towards a systematic reduction of returning parcels (MT), the suggestion that postal and competition authorities could cooperate on the subject of free returning parcels within electronic commerce – especially amid bigger corporations (e.g. online clothing shopping), since further to the environmental impact this could also have an impact on the development of competition (PT), and the highlighting of the importance of careful reporting, monitoring, categorization and evaluation of users' complaints about environmental sustainability (TR).

At this point, it is important to mention a few reservations shared among the NRAs who provided positive answers with respect to having a role towards users, while also indicating that in order to define objectives and take monitoring action plans the NRAs need legal basis (HR), that in order to assess and compare the performance of postal service providers and publish it, the NRAs should have made available to them the criteria and methodology to discharge such task on EU level (CZ), and that in order to urge users to more environmentally friendly practices, relevant facilities must be available and accessible to the users (MT).

Recent literature by Barnéoud, Borsenberger and Doussaint<sup>84</sup> has analysed the issue of the way of induction of users behaviour, citing the authority from Van de Velde et al., 2010 where it was noted that positive formulated messages increase consumers' perceived value, especially when it comes to consumers who are less informed on and less engaged towards environment; highlighting that to give consumers more accurate information, e-retailers could make the greener delivery solution the default solution for the less engaged users; suggesting that the use of social media to promote green behaviour could be powerful to ease the transition (Buldeo Rai 2021) and that the enabling of consumers to share their choice for environmental friendly time windows for delivery on social media strengthens their motivation; as well as noting that green labels could also be displayed to enhance user awareness.

An article by Borsenberger, Cremer, Joram, Lozachmeur and Malavolti<sup>85</sup> provides insight regarding the considerable increase in consumers' environmental awareness over the last decades and their behaviour in relation to environmentally sustainable matters. They note that it appears to affect their demand behaviour in all sectors thereby drawing significant attention in the public debate and the appeals for policy intervention, which have become increasingly pressing as e-commerce has been expanding. They suggest that being more conscious means that individuals clearly identify and are more sensitive to new characteristics for the goods such as brand responsibility, ethical labour, if repair is feasible, transparency, etc. This will translate into deciding to refuse consuming goods or to reduce the consumption of these goods that would not be compliant with their tastes in regards to the environment. This could also translate into refusing to buy imported goods and being willing to pay more for goods satisfying these new characteristics. The article notes that it is oftenly assumed that the delivery cost decreases with the level of emissions, at least up to some level. In other words, it is more expensive for the delivery operator to use "green" technologies. Because of consumers' environmental awareness consumer's utility decreases with the environmental cost associated with the product they buy. Specifically, the level of emissions generated by its delivery involves a monetary cost in utility. When this level of emissions is not revealed by the operator, consumers assume that it uses a dirty technology. Going on to consider different aspects of the impact of the consumers' environmental awareness, the article goes on to conclude that results of their studies reveal that delivery operators will find it beneficial to reveal their level of emissions but in practice it may be difficult to do this in a credible way. Consequently, a regulatory intervention associated with some kind of certification is certainly desirable.

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<sup>84</sup> The environmental footprint of home and out-of-home delivery, Muriel Barnéoud, Claire Borsenberger and Antoine Doussaint, (Rutgers Conference 2022).

<sup>85</sup> E-commerce and parcel delivery: environmental policy with green consumers (Claire Borsenberger, Helmut Cremer, Denis Joram, Jean-Marie Lozachmeur and Estelle Malavolti (Rutgers Conference 2022).



Regarding the NRA regulatory role towards other stakeholders, 8 NRAs provided responses to this potential role, 4 of which considering that the NRAs could potentially have a positive regulatory role towards other stakeholders. More specifically, NKOM (NO) mentioned that the NRAs should have the competence to impose regulations regarding environmental sustainability, for instance to define objectives and collect data regarding sustainability, ANACOM (PT) expressed that the NRAs should have the same regulatory role towards other stakeholders as the one they expressed towards operators and users, namely through data collection and increasing awareness, ANCOM (RO) stated that the NRAs could have the role in cooperation with the environmental authorities and in building the NRAs' knowledge of the initiatives and the studies in this field, and RATEL (RS) indicated that based on Serbia's Strategy for development of postal services they have the task to develop a research study about sustainability of USO, thereby also supporting the view that the NRAs should be able to cooperate with state authorities in these matters, which seems to be the consensus among the ones answering positively in this subquestion.

Following on from the subject of the potential role of NRAs in operators' environmentally sustainable future, user engagement and other stakeholder relationships in order to establish a complete framework of actions which will be capable of tackling the goals set with regard to the move towards an environmentally sustainable postal sector, it is important to examine what are the key elements or indicators that the NRAs would suggest as a best practices. Half of the NRAs<sup>86</sup> responding to the questionnaire, included as an important element to be measured the CO<sub>2</sub>/GHG emissions (for example CO<sub>2</sub> emissions per parcel delivered, with details of the whole postal value chain CO<sub>2</sub> emissions split per activity: clearance, sorting, transport and distribution). It was highlighted and underlined that other types of emissions apart from CO<sub>2</sub> should not be neglected. There was also specific mentions as a best practice the publication of carbon footprint. Other aspects important to be measured as a best practice were:

- The existence/increase/energy consumption of an electric fleet and or the existence of alternative sustainable modes of delivery (8 NRAs<sup>87</sup>)
- The use of renewable energy sources for postal establishments and their energy efficiency/consumption (7 NRAs<sup>88</sup>).
- The measurement/existence/usage of sustainable packaging and/or whether this is recycled/reused/returned (6 NRAs<sup>89</sup>) as well as others including the reconfiguration of the distribution network (MT), the examination and measurement of environmental life cycle (HU, LU) and the environmental assessment of a transported item, the existence of parcel lockers (RS, RO), indicators relating to managing waste, and in general the examination and analysis of data received from operators (TR).

A third of the NRAs<sup>90</sup> did not opine with regard to the issue of elements/indicators and best practices, while some of them mentioned the early timing and the need for further study of the matter, while

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<sup>86</sup> BE, HR, CZ, DK, FR, DE, HU, IT, LT, LU, NL, NO, PL, RO, ES.

<sup>87</sup> IT, MT, NO, PL, RO, RS, SK, ME.

<sup>88</sup> HR, IT, ME, MT, NO, RO, SK.

<sup>89</sup> HR, HU, IT, MT, NO, RO.

<sup>90</sup> AT, BG, CY, EL, IE, LV, PT, MK, SI, SE.

one NRA mentioned that matters such as measurement of use of renewable energy and the regulation of materials used in postal establishments should be regulated by the Ministry of Environment and not a specific NRA.

At the same time, there were NRAs that provided a more detailed account with regard to measuring practices.

BE for example, stated that it can be difficult to measure and compare the effect of the different steps taken to address environmental issues, but at the same time it noted that many organisations adopt the standards of the Greenhouse Gas Protocol (GHGP) to measure and manage greenhouse gas emissions. It continued to list a division of emissions based on the GHGP approach, into three scopes:

- scope 1: direct emissions generated by the organisation, i.e. from sources owned and controlled by the organisation;
- scope 2: indirect emissions from the consumption of purchased energy;
- and scope 3: indirect emissions from the upstream and downstream activities of the organisations, i.e. value chain emissions not generated directly by the organisation, e.g. from purchased goods and services.

BE refers to some types of emissions' standard modes of measurement. It noted that many organisations use carbon dioxide equivalent (CO<sub>2</sub>e) to measure their emissions, which compares the emissions from various greenhouse gases based upon their global warming potential by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential. Others, it states, often measure their emissions in tonnes of CO<sub>2</sub>e (tCO<sub>2</sub>e). There are also multiple ways to compare organisations in terms of their carbon intensity, i.e. the volume of their carbon emissions in relation to a common business metric. BE opined that for the postal sector, the most appropriate business metric for comparison would probably be postal items carried but, since not all countries publish detailed information on volumes, another metric that could be used is revenue.

CZ opined that attention should be paid to measures taken to decrease the energy consumption of premises of PSOs, introducing digital innovations to decrease the environmental impact of postal services in the whole delivery chain, choices of long distance transportation means, choices of last mile delivery means, offer of low- or zero-emission last mile delivery, introducing pick-up services to avoid drives to housing areas and city centers, support of joint deliveries of parcels from more PSOs by one, incentivize decrease of return deliveries (e.g. by price offer for senders/shops), etc. At the same time it warned that NRAs have to be aware of the possibility, that users might have to drive to pick up their parcels from the lockers and the planned effect on emissions would be negated; thus, these strategies should be accompanied by a users' awareness raising campaigns to support environmentally sustainable behaviours also on the side of users.

DK noted the practice of offsetting in the last mile delivery, while also underlining the need for collaboration on cross border data in future emissions on item specific data, targets based on science or other standards.

DE approached the question as if the NRA would have to make a first draft of what kind of data might be collected for the specific purpose: they underlined that if they indeed had competence of data

collection in order to fulfill the requirements of the EU Green Deal with focus on the emission reductions they would need to gather current level of CO<sub>2</sub>-emissions (total and splitted in last mile emission, air freight emissions, road transport emission, building emission, sea freight emissions) CO<sub>2</sub>-emission reduction (total and splitted in last mile emission, air freight emissions, road transport emission, building emission, sea freight emissions), CO<sub>2</sub>-emission expectation CO<sub>2</sub>-emission compensation (climate protection projects and life-cycle projects (e.g. packaging) and how much is compensated). DE stated that other measures/aims of the Green Deal are either not directed at the postal sector or the postal sector will be influenced directly by the implementation of the measures from the Green Deal, and therefore opined that NRAs do not have to intervene additionally.

Finally, this matter for consideration revealed that NRAs have various ideas with regard to potential elements to be examined and best practices to be adopted, but are torn in that many still believe that while there is an idea of what might work, to pick the right indicator, more research would be needed.

### 5.3. Regulatory tools

This section attempts to follow a forward-looking approach to regulatory tools and explore what the NRAs had to say with regard to the the presence of current tools in their jurisdiction that might assist with the endeavour of possible environmentally sustainable regulatory norms in the postal sector.

Encouragingly, throughout the report, several tools able and capable to aid in the effort of regulation towards a more environmentally sustainable postal services sector have come across: some in their initial stages, others running and being developed further to meet operators and other stakeholders' needs; complementing the formation of various working groups in many agencies that are formed specifically to tackle matters that touch upon the subject. In section 3.2 of the report, the OSCAR tool's capabilities are analysed as well as the innovations brought by the tool developed by the University of Antwerp in Belgium.

The study performed shows that a clear majority of the NRAs is positive, as illustrated in the graph below, in believing that NRAs can or could potentially develop regulatory tools as well, to further stimulate environmental sustainability in the postal sector, such as data collection, monitoring and other measurements. 18<sup>91</sup> NRAs opined that they could contribute to the sector. Two NRAs<sup>92</sup> presented a different view: one of them mentioning that in their jurisdiction such is not one of the NRA's tasks, rather a task of the Ministry of the Environment while the other opining that no more data collection is necessary for the field, considering it saturated from reporting.

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<sup>91</sup> AT, BE, BG, HR, CY, CZ, DE, EL, HU, IT, ME, MT, NL, PL, PT, RO, RS, TR.

<sup>92</sup> SK and ES.

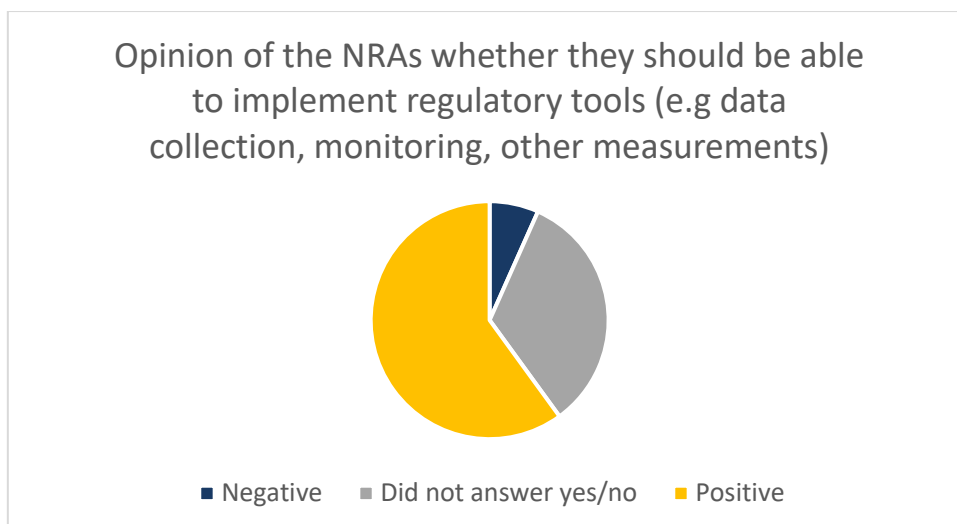


Figure 17 – Opinion of the NRAs on which regulatory tools they believe they could potentially develop to further stimulate green actions

Having as a given the positivity shown by the NRAs to develop regulatory tools as seen above and considering the availability of technical tools as aforementioned to assist this procedure and add to its accuracy and effectiveness, it is now a matter of utilisation of such technical knowledge and information in order to come to a harmonised effective approach towards the subject. The fact remains that tools and initiatives such as the ones mentioned in section 3.2 which measure some parts affecting environmental sustainability is certainly of a great importance, since, the issue of measuring the environmental impact in the postal services is a determining factor in introducing matter-specific regulation aimed to reducing such impact. These tools could potentially play an important role in the specification of measurement and indicated methodologies in the future.

In the figure below, we can observe that the majority of NRAs could not recommend a specific methodological approach for measuring the environmental sustainability of the postal sector. More specifically, 14<sup>93</sup> out of 30 NRAs have indicated a negative response to the question while 7<sup>94</sup> provided no answer to the inquiry in question. Out of the 9<sup>95</sup> that have responded positively to the question, the majority offered specific input regarding the potential origin of methodologies to be implemented. Below reflected are the insights and suggestions of some of the aforementioned:

- AT opined that International standards would be necessary in order to measure environmental sustainability;
- FR indicate that they favour the establishment of metrology works at European level in order to harmonize how to quantify the environmental impact of the postal sector and therefore have comparable data between European countries;
- LU stated that existing industry standards and tools may be also employed and applied to the postal sector;

<sup>93</sup> BE, BG, DE, HR, CY, HU, LV, LT, MT, PT, MK, RS, SK, ES.

<sup>94</sup> CZ, EL, IE, NO, RO, SI, TR.

<sup>95</sup> AT, DK, FR, IT, LU, NL, PL, SE, ME.

- NL mentions OSCAR and SMSS tools in terms of reference for measurements but express the concern that they are not aware of the feasibility and effectiveness of these tools as they have merely heard of them;
- SE recommends ecolabelling and/or specific definitions of fossil free transports; and
- ME notes that measurements should be made in collaboration with experts on the subject, despite the fact that there is not a clear regulatory framework that allows NRA to intervene in issues concerning sustainability.

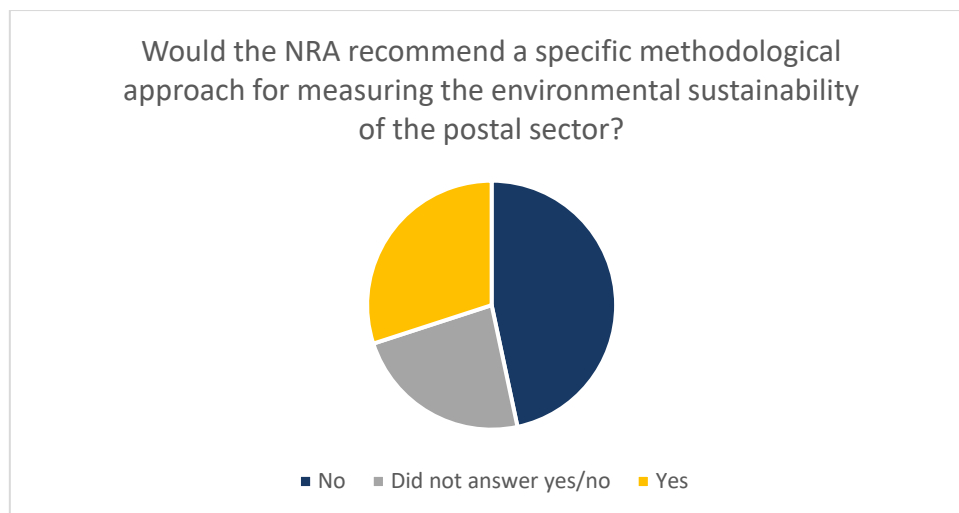


Figure 18 – Recommendations of the NRAs on specific methodological approach with regard to measuring the environmental sustainability in the postal sector

Noted however are the comments of DE with regards to the issue of the recommendation of a specific methodological approach, who indicated that its response is negative due to lack of professional expertise on the technical environmental parameters and input from other countries (since a solution fitting for one might not be for another) but did indeed go on to state that given the aims of the EU Green Deal for all European member countries and also among other sectors the postal sector, a harmonized approach would be probably be advisable. DE opined that key data of all countries' situations has to be collected, analyzed and compared in order to come up with a solution fitting to all countries. When asked whether any studies have been initiated in their jurisdiction, DE pointed out that since their NRA doesn't have competence in the matter, they did not perform studies to this respect.

<sup>196</sup> NRA has indicated that either them, or another stakeholder in their country/jurisdiction, have already initiated a study in such field. The majority of the NRAs that responded support a harmonised approach in general, when dealing with issues of environmental sustainability thereby supporting ERGP's work towards that goal.

#### 5.4. Conclusion

The answers to the questionnaire from NRAs and the consultation of the stakeholders of the sector have revealed that there is still a lot to explore and develop in order to become ready to tackle in full

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the issue of environmental sustainability. At the same time, the outcomes of this report show that there is a great willingness to set sustainability as one of the main objectives to actively oversee and manage. Environmental sustainability is thought of, across the board, as a very much present and pressing issue, especially as discussed in the ERGP workshop. According to the findings of the questionnaire, a large majority of NRAs think that they should play a role in the setting of environmental sustainability rules, even if in the means of lighter regulation, noting that in order to do so, there is a heightened need to increase expertise, experience and competences required for the measurement of impact and the establishment of the respective methodology. Concrete examples of ways of monitoring, increase of transparency and collection of data have been provided by the NRAs, while they are also expectant of the setting of a framework at EU level, possibly by the provision of specific indicators and standards as well as the reinforcement of their legal mandate with enhanced data collection powers, to enable them to pursue a uniform and harmonized approach in developing their role in the field and acquiring further expertise in the matter.

Most NRAs, as seen above, while seeing their role as significant but confined in the endeavour to make postal services more sustainable, call for legal competence in the matter as they envisage to contribute to a general effort towards a development of a greater and deeper environmental conscience to the consumers when employing the services of the sector and in their own practices as individuals.

## 6. General conclusions

Most NRAs indicate they are aware of environmental objectives and strategies in their countries, even though in most countries there is no legal definition of sustainability in the postal sector. A large number of initiatives are taken in several countries to reduce carbon emissions in the postal sector, while only a few provisions are set so far in national postal legislation and regulation.

Postal services providers do take initiatives or analyze new aspects related to environmental sustainability. The environmental impact of these initiatives is mostly being calculated by the operator themselves and in a few cases verified by an independent party. It is difficult for the NRAs to calculate or verify a precise impact of the implemented measures on competition, tariffs, quality and also the impact on the users, in the absence of sufficient data. The NRAs are therefore only able today to indicate possible effects of the implemented measures by postal operators or by the Governments. In absence of established common methodology to measure the emissions in the postal sector today, the impacts of the applied measures on the postal market are not defined. The environmental impact of the sustainability measures taken is increasingly being monitored, but in different ways. Not only designated universal service providers look at environmental sustainability, but also other market players have developed specific methodologies, without being cross-checked. Recently a common standardized methodology for calculating and declaring direct and indirect greenhouse gas (GHG) and air pollutant emissions associated with parcel delivery services has been drafted by the CEN Technical Committee 331. The DIN EN 17837 PDEF indicator is currently being submitted to CEN members for enquiry.

A large majority of NRAs do believe that they have to take responsibility for environmental sustainability in the postal market in order to support the objectives of the Green Deal. NRAs express to see a role of information and transparency towards users' awareness, monitoring and collection of

data towards operators, even if today clear NRA competences are absent yet in the the field of environmental sustainability. A framework with more clear legal competences in the field of sustainability for NRAs should therefore be embedded in the European postal legislative framework to enable NRAs to pursue a uniform and harmonized approach in developing the NRAs role in the field of environmental sustainability and acquiring further expertise.

# Annexes

## ANNEX 1 - Abbreviations

CSR-C : Corporate Social Responsibility Circle

CTZ: Clean Transport Zones

DO: designated operator

EMMS : Environmental Measurement and Monitoring System

GHG : Greenhouse Gas

GHGP: Greenhouse Gas Protocol

IPC : International Post Corporation

NRA : National Regulatory Authority

OSCAR : Online Solution for Carbon Analysis and Reporting

PDEF: Parcel Delivery Environmental Footprint

PM: Particulate Matter

SBTi : Science Based Targets initiative

SME : Small and Medium-sized Enterprise

SMMS : Sustainability Measurement and Management System

SPSG : Sustainable Postal Service Group

UPU : Universal Postal Union

US : Universal Service

USO: Universal Service Obligations

USP : Universal Service Provider



## ANNEX 2 – Table of figures

Figure 1	<i>Number of European USP's adopting environmental measures</i>
Figure 2	<i>Awareness regarding national or sectoral environmental strategy</i>
Figure 3	<i>Definition of an environmental sustainable postal service</i>
Figure 4	<i>New provisions in national postal law or regulatory framework</i>
Figure 5	<i>Recent initiatives taken to contribute to lower reduced emissions in the postal sector</i>
Figure 6	<i>Recent initiatives taken to contribute to lower reduced emissions in the postal sector</i>
Figure 7	<i>Awareness regarding precise environmental impact of measures</i>
Figure 8	<i>Impact measured by the operator or another party</i>
Figure 9	<i>Awareness regarding impact on users</i>
Figure 10	<i>Awareness regarding impact on competition</i>
Figure 11	<i>Awareness regarding impact on tariffs</i>
Figure 12	<i>Illustration of whether the NRAs have introduced environmental sustainability aspects in any of the regulation of the postal sector</i>
Figure 13	<i>Role of the NRAs in relation to environmental sustainability in the postal sector</i>
Figure 14	<i>Potential role and competences of the NRAs in relation to environmental sustainability in the postal sector</i>
Figure 15	<i>Potential regulatory role of the NRAs towards operators</i>
Figure 16	<i>Potential regulatory role of the NRAs towards users</i>
Figure 17	<i>Opinion of the NRAs on which regulatory tools they believe they could potentially develop to further stimulate green actions</i>
Figure 18	<i>Recommendations of the NRAs on specific methodological approach with regard to measuring the environmental sustainability in the postal sector</i>

## ANNEX 3 – List of countries

Austria	AT	RTR
Belgium	BE	BIPT
Bulgaria	BG	CRC
Croatia	HR	HAKOM
Cyprus	CY	OCECPR
Czech Republic	CZ	CTU
Denmark	DK	FSTYR
Estonia	EE	ECA
Finland	FI	Traficom
France	FR	Arcep
Germany	DE	BNetzA
Greece	EL	EETT
Hungary	HU	NMHH
Ireland	IE	COMREG
Italy	IT	Agcom
Latvia	LV	SPRK
Lithuania	LT	RRT
Luxembourg	LU	ILR
Malta	MT	MCA
Montenegro	ME	EKIP
Netherlands	NL	ACM
Norway	NO	Nkom
Poland	PL	UKE
Portugal	PT	ANACOM
Romania	RO	ANCOM
Republic of North Macedonia	MK	AEC
Republic of Serbia	RS	RATEL
Slovakia	SK	RU
Slovenia	SI	AKOS
Spain	ES	CNMC
Sweden	SE	PTS
Turkey	TR	BTK