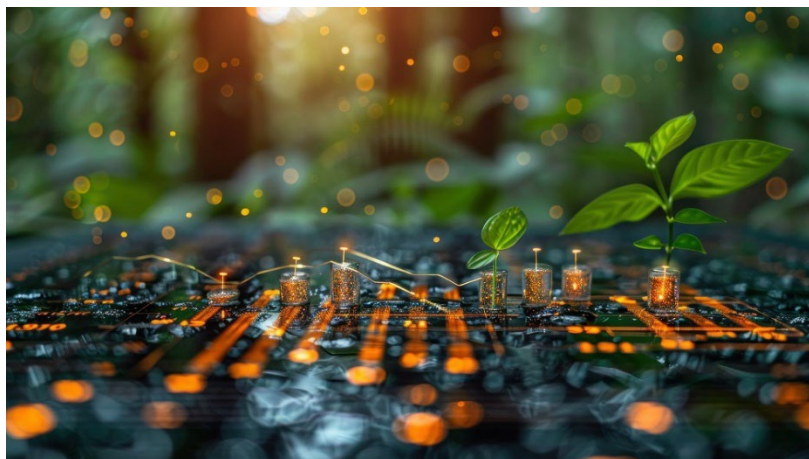


STUDY

Requested by the IMCO Committee



The Impact of EU Legislation in the Area of Digital and Green Transition, particularly on SMEs



Policy Department for Economic, Scientific and Quality of Life Policies
Directorate-General for Internal Policies

Authors: Julia RZEPECKA, Aleksander FUKSIEWICZ, Francesca SQUILLANTE,
Lukas ALIJOŠIUS, Ilsa GODLOVITCH, Peter STAMM, Julia WIELGOSCH and

Martin LUNDBORG

PE 754.213 - June 2024



EN

The Impact of EU Legislation in the Area of Digital and Green Transition, particularly on SMEs

Abstract

EU legislation calls SMEs to contribute to the twin transition. This study analyses the cumulative costs of selected pieces of EU digital and green legislation on SMEs and explores the effectiveness of costs mitigation tools at their disposal.

This document was prepared for the Policy Department for Economic, Scientific and Quality of Life Policies at the request of the Committee on Internal Market and Consumer Protection (IMCO).

This document was requested by the European Parliament's Committee on the Internal Market and Consumer Protection.

AUTHORS

Julia RZEPECKA, EY Economic and Policy Advisory Services
Aleksander FUKSIEWICZ, EY Economic and Policy Advisory Services
Francesca SQUILLANTE, EY Economic and Policy Advisory Services
Lukas ALIJOŠIUS, EY Economic and Policy Advisory Services
Ilsa GODLOVITCH, WIK Consulting
Peter STAMM, WIK Consulting
Julia WIELGOSCH, WIK Consulting
Martin LUNDBORG, WIK Consulting

We gratefully acknowledge the insightful feedback of our reviewer, J. Scott MARCUS.

ADMINISTRATOR RESPONSIBLE

Barbara MARTINELLO

EDITORIAL ASSISTANT

Marleen LEMMENS

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

Policy departments provide in-house and external expertise to support European Parliament committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact the Policy Department or to subscribe for email alert updates, please write to:

Policy Department for Economic, Scientific and Quality of Life Policies

European Parliament

L-2929 - Luxembourg

Email: Poldep-Economy-Science@ep.europa.eu

Manuscript completed: June 2024

Date of publication: August 2024

© European Union, 2024

This document is available on the internet at:

<http://www.europarl.europa.eu/supporting-analyses>

DISCLAIMER AND COPYRIGHT

The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.

For citation purposes, the publication should be referenced as: Rzepecka, J., Fuksiewicz, A., Squillante, F., Alijošius, L., Godlovitch, I., Stamm, P., Wielgosch, J., and Lundborg, M., 2024, *The Impact of EU Legislation in the Area of Digital and Green Transition, particularly on SMEs*, Publication for the Committee on Internal Market and Consumer Protection, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg.

© Cover image used under licence from Adobe Stock

CONTENTS

LIST OF BOXES	5
LIST OF FIGURES	5
LIST OF TABLES	5
LIST OF ABBREVIATIONS	6
EXECUTIVE SUMMARY	9
1. INTRODUCTION	13
2. BACKGROUND	15
2.1. The role of the EU in driving the twin transition of the industry	15
2.2. SMEs and the twin transition	16
3. IMPACT OF EU DIGITAL AND GREEN LEGISLATION	19
3.1. The most relevant digital and green legislation	19
3.2. The impact of the digital legislation on SMEs	20
3.2.1. The General Data Protection Regulation	22
3.2.2. The NIS 2 Directive	25
3.2.3. Proposal for an AI Act	27
3.3. The impact of the green legislation on SMEs	29
3.3.1. The Corporate Sustainability Reporting Directive	30
3.3.2. The Packaging and Packaging Waste Directive	32
3.3.3. Proposal for a new Ecodesign Regulation	33
3.3.4. Proposal for a Repair of Goods Directive	35
3.4. External factors contributing to impact	37
4. SECTORAL CASE STUDIES	39
4.1. Road transport	39
4.1.1. Context	39
4.1.2. EU digital and green legislation relevant to the sector	41
4.1.3. Impact on SMEs	42
4.1.4. Tools for cost mitigation and key expectations from stakeholders	45
4.2. Accommodation	45
4.2.1. Context	45
4.2.2. EU digital and green legislation relevant to the sector	47
4.2.3. Impact on SMEs	48
4.2.4. Tools for cost mitigation and key expectations from stakeholders	50

4.3.	E-commerce	51
4.3.1.	Context	51
4.3.2.	EU digital and green legislation relevant to the sector	52
4.3.3.	Impact on SMEs	53
4.3.4.	Tools for cost mitigation and key expectations from stakeholders	56
4.4.	Manufacturing	57
4.4.1.	Context	57
4.4.2.	EU digital and green legislation relevant to the sector	58
4.4.3.	Impact on SMEs	59
4.4.4.	Tools for cost mitigation and key expectations from stakeholders	61
4.5.	Construction	62
4.5.1.	Context	62
4.5.2.	EU digital and green legislation relevant to the sector	63
4.5.3.	Impact on SMEs	64
4.5.4.	Tools for cost mitigation and key expectations from stakeholders	66
4.6.	Sectoral impact: conclusions from the case studies	68
5.	THE “THINK SMALL FIRST” PRINCIPLE AND ITS TOOLS	72
5.1.	The “Think Small First” principle in brief	72
5.1.1.	The SME test	73
5.1.2.	The REFIT programme	76
5.1.3.	The “one-in, one-out” principle and the Fit for Future Platform	77
5.1.4.	The SME Envoy Network	79
5.2.	Conclusions on the application of the “Think Small First” principle	80
6.	TOOLS TO REDUCE ADMINISTRATIVE BURDEN	81
	REFERENCES	83
	ANNEX 1: METHODOLOGY	92
	ANNEX 2: PRELIMINARY SHORTLIST OF LEGISLATION	101
	ANNEX 3: LIST OF GENERAL INTERVIEWS	104
	ANNEX 4: LIST OF CASE STUDIES INTERVIEWS	105

LIST OF BOXES

Box 1. Obligations and mitigation measures of the GDPR	23
Box 2. Obligations and mitigation measures of the NIS 2 Directive	26
Box 3. Obligations and mitigation measures of the AI Act	27
Box 4. Obligations and mitigation measures of the CSRD	31
Box 5. Obligations and mitigation measures of the PPWD	32
Box 6. Obligations and mitigation measures of the Ecodesign Regulation	34
Box 7. Obligations and mitigation measures of the Repair of Goods Directive	36
Box 8. Sources and limitations of available data	98

LIST OF FIGURES

Figure 1. Share of enterprises adopting a certain technology: large enterprises vs SMEs	17
Figure 2. Estimated tons of CO2 per Euro revenue, 2018 (direct and indirect emissions)	18
Figure 3. Sectoral analysis of employment by enterprise size class	46
Figure 4. Enterprises making e-sales and turnover from e-sales by size class	51
Figure 5. Study phases and activities	92

LIST OF TABLES

Table 1. Estimated cumulative costs of selected digital legislation	21
Table 2. Estimated cumulative costs of selected green legislation	30
Table 3. Application of the SME test overtime	75
Table 4. The results for the REFIT programme overtime	77
Table 5. Frequency of mentions during consultation activities	95
Table 6. Interviews conducted for the consultation activities	104
Table 7. Interviews conducted for the case studies	105

LIST OF ABBREVIATIONS

AI	Artificial Intelligence
B2B	Business-to-Business
BIM	Building Information Modelling
CBAM	Carbon Border Adjustment Mechanism
CO2	Carbon dioxide
CSDDD	Corporate Sustainability Due Diligence Directive
CSRD	Corporate Sustainability Reporting Directive
DAC	Directive on Administrative Cooperation
DMA	Digital Markets Act
DNSH	Do Not Significantly Harm
DPIA	Data Protection Impact Assessment
DPO	Data Protection Officer
DPP	Digital Product Passport
DRS	Deposit Return Scheme
DSA	Digital Services Act
EC	European Commission
EDI	Electronic Data Interchange
eFTI	Electronic Freight Transport Information
EIB	European Investment Bank
eID	Electronic Identification
EP	European Parliament
EU	European Union
EPBD	Energy Performance of Buildings Directive

EPR	Extended Producer Responsibility
ETS	Emission Trading System
EUDR	EU Deforestation Regulation
EUR	Euro
F4F	Fit for Future Platform
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GHG	Greenhouse Gas Emissions
HDV	Heavy-Duty Vehicle
HVAC	Heating, Ventilation And Air Conditioning
IA	Impact Assessment
ICT	Information and Communication Technology
IMI	Internal Market Information
IT	Information Technology
NIS	Network and Information Systems
NRRP	National Recovery and Resilience Plan
OECD	Organisation for economic cooperation and development
OI-OO	One-In One-Out
OOTs	Once-Only Technical System
OTAs	Online Travel Agents
PFAS	Per- and polyfluoroalkyl substances
PPWD	Packaging and Packaging Waste Directive
REFIT	Regulatory Fitness and Performance Programme

SBA	Small Business Act for Europe
SMEs	Small and medium-sized enterprises
US	United States
SCIP	Substances of Concern In articles as such or in complex objects (Products)
VAT	Value Added Tax
VR	Virtual Reality

EXECUTIVE SUMMARY

Background

Small and medium-sized enterprises form the backbone of the European Union's economy. They account for 99% of European enterprises and generate about 52% of the EU's added value, counting on 64% of the total private employment of the non-financial business sector. They are a driver of innovation, competitiveness and growth. However, SMEs are more vulnerable to new regulatory burdens than large businesses. In order to drive the green and the digital transitions, European and national authorities are developing and implementing a great number of new laws, many of which disproportionately impact SMEs.

Aim

The objective of this study is to assess the impact of selected pieces of EU digital and green legislation on companies, particularly SMEs, and how costs can be mitigated. In particular, this study identifies and estimates the costs of EU legislation on SMEs, especially vis-à-vis the green and the digital transitions, and investigates the adoption and usefulness of digital and e-government solutions to support SMEs in facing administrative burdens. The study also aims to offer an overview of the impact of EU legislation on SMEs from the perspective of five different sectors, assessing potential sector-specific factors that increase the cumulative cost of EU legislation. Moreover, it presents the existing tools for the implementation of the "Think Small First" principle in the adoption of EU legislation and the extent to which they are currently applied.

Key Findings

The analysis of the impact of selected pieces of EU digital and green legislation on SMEs allow to identify some key findings and conclusions from the interviews with relevant stakeholders. As many of these concerns appear well-founded, or at least worth investigating, there may be scope for the next European Commission and Parliament to consider the following points with a view to further improving law-making procedures, streamlining the rules and contributing to better enforcement.

Creating a predictable regulatory environment for the twin transition of SMEs

The results of the study indicate that stakeholders are very concerned about the introduction, in a short period of time, of a large number of new EU rules driving the digital and green transition. Concerns are raised in this context about the cumulative impact of the changes and the perception that rules may not be fully consistent in all cases.

While several pieces of legislation are already enforced, SME representatives expressed particular concerns about the upcoming ones, which seem to create an atmosphere of great uncertainty, instability and unpredictability. SMEs find it challenging to understand and comply with the high number of new rules. Additionally, there is general consensus on the fact that SMEs are often affected by rules even when exclusions apply in the legislation due to their involvement in wider value chains, and the pass-down of requirements by larger firms.

This is combined with another layer of difficulty and bureaucratic burdens resulting from the phenomenon of gold-plating by Member States ("gold plating" is the term used by the EU institutions to refer to MS actions that go beyond the requirements of a directive that is not subject to maximum harmonisation) and different applications of EU rules for SMEs engaged in cross-border activities.

SMEs in the EU are struggling to understand and navigate the complex panorama of digital and green legislation at national and European level. Several stakeholders explained that smaller companies, when aware of specific obligations, have to rely on expensive external experts to understand how to comply with new legislation, or be non-compliant. Concerns are also raised around the often significant although short-term cost of adapting systems to ensure compliance with EU rules. Some SMEs also point to challenges in accessing support from EU funds to help cover these costs.

In light of this, SMEs would benefit from the following actions:

- In period of the next European Commission and Parliament it might be advisable that the focus is on appropriate implementation of recently adopted legislation, rather than continuing fast-paced law making. Several stakeholders suggested that the EU institutions should focus on ensuring the correct and uniform implementation and enforcement of existing rules, with a pause on new legislation. Any additional piece of legislation in the digital and green domain should be carefully analysed to avoid overlapping requirements and inconsistencies with previous legislation;
- In line with the REFIT programme, EU institutions could conduct an **inventory of new and recent legislation in the digital, green and consumer protection fields**, with an analysis of potentially overlapping or conflicting provisions, and recommendations for **streamlining**. This could be accompanied by an assessment of the **cumulative impact** of the rules and potential ways to limit this impact, e.g., by aligning information requirements where possible. In the inventory, a filtering mechanism would allow users to identify the legislation that is relevant to them by sector and type of stakeholder. Companies would be able to filter also by firm size. The inventory would indicate both upcoming and already implemented legislation. For the latter, it would also clarify the specific deadlines for the implementation of certain requirements. A collaboration mechanism with national authorities, and specifically with the national SME envoys, could be envisaged to ensure that the information is also updated by country in case of slightly different transpositions of EU directives;
- When it is appropriate to adopt new legislation, European institutions could favour the use of **directly applicable Regulations with maximum harmonisation** where justified. This approach would allow to avoid the phenomenon of gold-plating by Member States; and
- **Compliance material** could be provided for recently adopted and new legislation which is **specifically targeted towards SMEs**, and potentially produced in partnership with SME organisations. Portal sites to exchange best practice could also be considered. All documentation should be available in plain English, with translations in as many EU languages as feasible.

Improving the application of the “Think Small First” principle

The consultation activities, as well as findings from a literature review, revealed that the “Think Small First” principle, and in particular the SME test, is not yet applied in its entirety. According to interviewees, the SME test is – in theory – an exemplary tool in the context of the impact assessments for new legislation. However, it is often seen as an administrative, rather than substantial, procedure at European level, and there is room for improvement in its application. At national level, application of this tool is even more fragmented and less structured.

In particular, there is no regular monitoring and data collection on how the SME test is applied during the legislative process. Reports from SME associations also highlight that, despite the broad adoption of the SME test by the European Commission services, the quality and transparency of the analyses

varies, with limited attention to the quantification of different types of costs for SMEs. There are also concerns that significant amendments adopted late in the legislative process may not have been subject to Impact Assessments.

As a consequence, the mitigation measures proposed to reduce the negative impact of legislation on SMEs, and particularly the “abuse of exemptions” seem not adequate. There is a general consensus that SMEs are often affected by rules even when exclusions apply in the legislation due to their involvement in wider value chains, and the pass-down of requirements by larger firms.

In order to ensure a more effective application of this procedure, EU institutions could:

- Conduct **more structured and uniform SME tests**, for example ensuring that the consultation periods respect the prescribed length, and do not take place in times of the year that could disincentivise stakeholders’ participation (such as winter or summer holidays). If the need for mitigation measures emerges, legislators should avoid an abuse of exemptions if it creates a completely separate regime for smaller companies, disregarding the indirect impacts of the “trickle-down effect”: instead, more detailed SME-friendly requirements could be considered; and
- Conduct **Impact Assessments on significant amendments** to legislation before their adoption.

Increasing the accessibility and availability of cost mitigation tools and funds

The study revealed a multitude of opportunities at the disposal of SMEs to better comply with relevant legislation while at the same time mitigate costs. These include e-government solutions such as the eID and the eSeal, but also other innovative tools such as the Once-Only Technical System and the Single Digital Gateway, and funding programmes targeting SMEs. However, the uptake of these initiatives by SMEs is often very low for two main reasons: first, SMEs may not be aware of the existing opportunities; second, small companies may lack the digital skills required to access them.

In order to maximise the effectiveness of these solutions, the following actions could be considered:

- **Enhancing efforts to** approve measures which could **streamline administrative procedures** in line with the “one-stop-shop” principle such as the proposed VAT in the Digital Age (ViDA) initiative, and the Once-Only Technical System, while providing **support** (e.g., via Digital Innovation Hubs and funding) for systems and process transformation for SMEs in particular;
- Examining the proportion of SMEs from different sectors that have benefited from EU funding programmes to support the digital and green transition and **reviewing the design and application process for any future EU funding initiatives** to ensure that they are readily accessible to SMEs. Targeting training programmes and funds specifically at transformations needed for SMEs to meet requirements under newly adopted digital and green legislation could also be considered, if not already adequately covered by existing instruments; and
- Targeted **communication and information campaigns** both at European and national level would allow to raise the awareness of different SMEs about the existence of specific tools. To maximise the outreach of the communication campaigns, a strong collaboration between national SME envoys and SME representatives both at national and European level would be beneficial.

Increasing the availability of quantitative data on actual costs incurred by SMEs

Another key finding of the study concerns the unavailability of reliable quantitative data on actual costs (and benefits) incurred by SMEs when complying with legislation. In fact, the quantitative assessment presented in this study proved to be a challenging task due to data limitations, as stakeholders were not able to provide an estimate of compliance costs. At the same time, this has an impact on the reliability of costs calculated in Impact Assessments, which also have to rely on several assumptions due to lack of data. In several instances, costs are simply not calculated and are qualitatively discussed, resulting in an underestimate of the total impact of a new legislation, especially on SMEs.

In order to ensure that impact assessments and future similar studies are able to grasp the entire picture of potential costs and benefits of EU legislation on firms of different sizes, it becomes necessary to incentivise a more granular data collection process and monitoring activity after the implementation of EU legislation.

1. INTRODUCTION

KEY FINDINGS

The questions addressed in this study are timely. The strong political will in the EU to drive the transition towards a more digitalised and sustainable industry resulted in a proliferation of ambitious legislative initiatives to this purpose.

It is important to explore the implications and costs of digital and green legislation on companies, particularly SMEs, in order to ensure its full and consistent implementation across the EU. This includes understanding of the cumulative effects of the most impactful pieces of legislation, also with a cross-sectoral perspective. Additionally, it entails the identification of the most effective tools for cost mitigation, which need to be applied both in the legislative and implementation stages.

Small and medium-sized enterprises (SMEs) form the backbone of the European Union's (EU) economy. They account for 99% of European enterprises and generate about 52% of the EU's added value, counting on 64% of the total private employment of the non-financial business sector. They are a driver of innovation, competitiveness and growth¹. However, for a number of reasons SMEs are more vulnerable to new regulatory burdens than large businesses. The twin transition – the green and the digital transitions – entail a great number of new laws, many of which impact SMEs in one way or another. The fundamental question raised in this study is whether enough is being done to avoid putting unnecessary legal and regulatory burdens on SMEs, and if not, what more could be done.

The objective of this study is to assess the impact of EU digital and green legislation on companies, particularly SMEs, and how costs can be mitigated. In detail, this study aims at:

- Estimating the cost of the cumulative effects of EU legislation on SMEs, especially vis-à-vis the green and the digital transitions;
- Presenting the existing tools for the implementation of the “Think Small First” principle in the adoption of EU legislation (e.g., the SMEs test, REFIT) and analysing to what extent they are currently applied;
- Analysing the impact of EU legislation on SMEs from the perspective of different sectors, assessing potential sector-specific factors that increase the cumulative cost of EU legislation;
- Investigating how useful digital and e-government solutions, such as the eID or the eSeal, can be in helping to reduce administrative burden, and assessing how innovative solutions to reduce the administrative costs for SMEs can be integrated into EU legislation; and
- Providing clear conclusions, from which the research may draw up legislative recommendations for consideration by the IMCO Committee.

In terms of scope, this study focuses on selected EU digital and green legislation and its impact on SMEs across the EU27 Member States. Both horizontal and sectoral legislative acts are considered in the analysis.

Since its early stages, the study faced a number of significant challenges to achieve the above-mentioned objectives. The study team properly identified them in the early preparation stage and adopted different solutions to mitigate the risks:

¹ European Commission, 2023, *Annual Report on European SMEs 2022/2023*. Available at: https://single-market-economy.ec.europa.eu/system/files/2023-08/Annual%20Report%20on%20European%20SMEs%202023_FINAL.pdf.

- **Broad scope and limited timeline:** the scope of this study was originally very broad, and not limited to a selected sector of EU economy. The focus was also defined broadly regarding the legislation to analyse, starting from all EU legislation linked with the green and the digital transitions. At the same time, the study was originally limited to 11 weeks, running during a suboptimal period. Therefore, it was proposed and agreed to focus the scope of the study to only a most relevant green and digital legislation and extend the duration of the study;
- **Difficulty to gather quantitative data directly from SMEs:** the cumulative cost assessment is a methodological approach which requires obtaining quantitative data directly from (a sample of model) companies, so that the costs can be extrapolated and provide the basis to estimate cumulative costs of the entire sector or SMEs in general. However, implementing an extensive data collection directly from companies, for instance via a widely promoted pan-European online surveys or extensive interview programme was not an option due to the limited timeframe and the fact SMEs do not have enough capacity to engage in extensive policy research. Therefore, the study team proposed to gather feedback from highly targeted consultation activities with specific stakeholders' profiles (EU- and national-level SME representatives and national SME envoys);
- **Implementation of legislation in process:** for much of the EU legislation in the areas of the green and the digital transitions impacts are yet to observe since most are yet to come into force or have just done so recently. This entails that it is too early for the stakeholders consulted within the study to assess the costs of these acts. Given this constraint, the best solution identified was to rely on the costs estimated by the impact assessments (IAs) of very recent or upcoming legislation; and
- **Difficulty to extract the costs of EU legislation:** it is challenging for companies to extract the costs of EU legislation or distinguish these costs from other costs related to compliance with (national) legislation. This is because companies do not track these costs specifically. Moreover, national legislation may create additional obligations, and costs, to those foreseen in EU legislation, when implementing EU directives (this phenomenon is often referred to as national "gold-plating"). Finally, companies may not be aware of the detailed legal requirements of the legislation or unable to distinguish between national and EU legislation, unless it is new and creates significant costs (for instance, the General Data Protection Regulation)². The same considerations hold true for the associations that represent them at European and national level. As a solution, as also explained in the methodology (Annex 1), the team decided to rely on the data available in the impact assessments for all pieces of selected legislation under analysis, while also highlighting their limitations.

² European Commission, 2015, *Cost of the Cumulative Effects of Compliance with EU Law for SME*, p. 18. Available at: <https://op.europa.eu/en/publication-detail/-/publication/2c74690f-9aa0-11e6-9bca-01aa75ed71a1/language-en>.

2. BACKGROUND

KEY FINDINGS

The digital and green transitions can strongly help SMEs increase their revenues and share of the market, as well as drive efficiency of resources and transparency. At the same time, SMEs themselves can play an important role in fostering the green and digital transformation of the EU economy.

However, SMEs are less well equipped to reap the benefits of the twin transition compared to large companies. This is due to more limited resources and access to capital to make the upfront investments required, as well as skills shortages. Additionally, SMEs find it difficult to navigate the legislative environment, due to the complex regulatory process, the costs of environmental and digital action, and the difficulty in implementing legislation.

2.1. The role of the EU in driving the twin transition of the industry

During the 2019-2024 mandate, one of the main priorities of the EU was to drive the transition towards digitalisation and sustainability both with legislative and non-legislative initiatives. While its efforts span across different public and private stakeholders, this section provides an overview of the recent EU initiatives driving the twin transition of the industry in particular.

The key objectives for the digitisation of the industry were established in the **2022 Digital Decade Policy Programme**³. Particularly relevant targets, especially for SMEs, include:

- 90+% European SMEs should reach at least a basic level of digital intensity⁴;
- 75% of EU companies should use cloud, Artificial Intelligence (AI) and big data; and
- An ambition to grow scale ups and finance to double EU Unicorns⁵.

In addition, the EU introduced measures to streamline commercial transactions and engagement with public authorities through the adoption of the eID, digital signatures and measures to boost e-government solutions. The European Commission (EC) monitors progress at national level on a yearly basis, and findings are published in the report on the State of the Digital Decade⁶.

In parallel, the EU initiatives related to the green transition strive to achieve climate neutrality by 2050, boost the economy through green technology, create sustainable industry and transport, and reduce

³ Decision EU 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030. Available at: <https://eur-lex.europa.eu/eli/dec/2022/2481/oj>.

⁴ The EU Digital Intensity Index DII measures the use of different digital technologies by enterprises and its score 0-12 is determined by how many of the 12 selected digital technologies the enterprises use. Source: Eurostat, 2021, *How digitalised are EU's enterprises?* Available at: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20211029-1#:~:text=The%20DII%20measures%20the%20use,very%20low%20to%20very%20high>.

⁵ An EU unicorn is a “privately owned start-up company, which has reached a valuation of \$1 billion [...] or more”, based in the EU. Source: European Commission, 2022, *In search of EU unicorns – What do we know about them?*, Publications Office of the European Union, p. 5. Available at: <https://op.europa.eu/en/publication-detail/-/publication/7077ce9e-9a9f-11ec-83e1-01aa75ed71a1/language-en/format-PDF>.

⁶ European Commission, 2023, *Report on the state of the Digital Decade 2023*. Available at: <https://digital-strategy.ec.europa.eu/en/library/2023-report-state-digital-decade>.

pollution in an inclusive way⁷. In this context, the **European Green Deal** sets landmark objectives for the European approach to fight climate change. These are:

- No net emissions of greenhouse gases by 2050 (net greenhouse gas emissions reduced by at least 55% by 2030);
- Economic growth decoupled from resource use; and
- No person and no place left behind.

In order to support the achievement of the digital and green objectives mentioned above, the EU has made available significant resources. For example, these areas account for at least 57% of the total €806.9 billion budget of the NextGenerationEU funds (37% of resources should be allocated to the green and 20% to the digital transitions)⁸.

Alongside financial support for the twin transition, the EU has also adopted different pieces of legislation that seek to provide a common regulatory framework to ensure the consistent application of rules and handling of associated challenges (such as those relating to data protection, misinformation, security, competition concerns, etc.).

2.2. SMEs and the twin transition

There is a strong argument in favour of smaller players in the industry embracing the twin transition. In fact, adopting innovations and adapting to more sustainable business models can help SMEs increase their revenues and share of the market. Digitalisation can also drive efficiency of resources, enhance transparency around ecological practices and provide an effective channel for education amongst entrepreneurs. At the same time, SMEs themselves can play an important role in fostering the green and digital transformation of the EU economy. As concluded in a study of the Organisation for Economic Cooperation and Development (OECD), “young and small firms have proved to be key drivers of innovation and growth in the emerging green industries. New and young firms are particularly important for radical green innovations, as they often exploit technological or commercial opportunities which have been neglected by more established companies”⁹.

However, contrary to larger companies, SMEs face specific challenges when implementing initiatives and measures related to the twin transition. Above all, this includes the structural features and constraints (economic, but not only) of small companies, which prevents them from investing heavily in digital and green innovations.

For example, evidence suggests that many SMEs may be less well equipped to reap the benefits of digitisation compared to large companies. According to the 2022 Digital Economy and Society Index, SMEs adopt new technologies to a lesser extent compared to large companies (Figure 1). The gap in technology adoption rate between SMEs and large companies in this regard varies from 10 percentage points (*Selling online cross-border* indicator) to more than 40 percentage points (*Electronic information sharing with an enterprise resource planning*)¹⁰. Reasons include more limited resources and access to

⁷ European Commission, n.d., *Green Transition*. Available at: https://reform-support.ec.europa.eu/what-we-do/green-transition_en#just-transition.

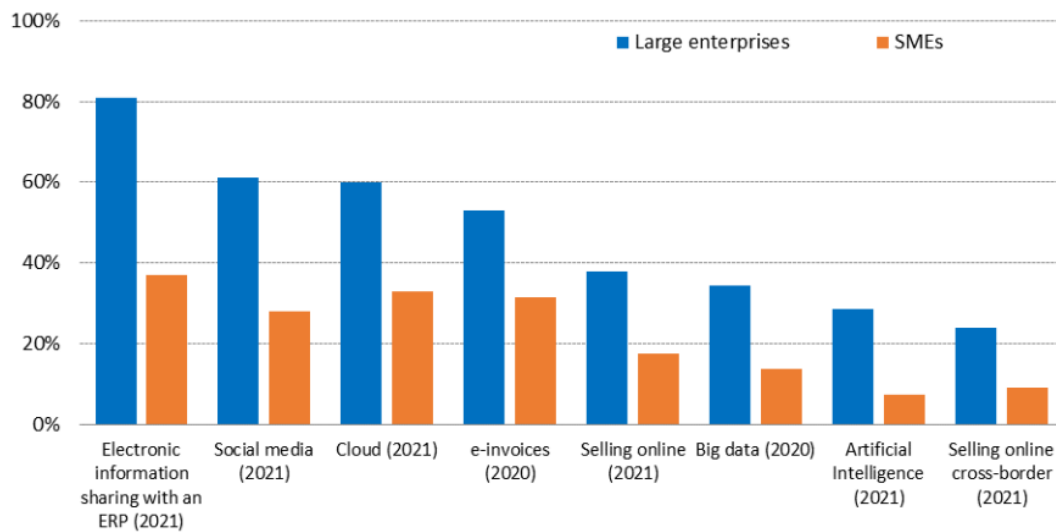
⁸ NextGenerationEU is a recovery package provided by the European Commission in support of Member States following the Covid-19 pandemic.

⁹ OECD, 2013, *Working Party on SMEs and Entrepreneurship WPSMEE - GREEN ENTREPRENEURSHIP, ECO-INNOVATION AND SMEs*, p.8. Available at: <https://one.oecd.org/document/CFE/SME20119/FINAL/en/pdf>.

¹⁰ European Commission, 2022, *Digital Economy and Society Index DESI 2022*. Available at: <https://digital-strategy.ec.europa.eu/en/policies/desi>.

capital to make the upfront investments required, as well as skills shortages, which reduce their propensity to adopt both basic and advanced digital technology¹¹.

Figure 1. Share of enterprises adopting a certain technology: large enterprises vs SMEs



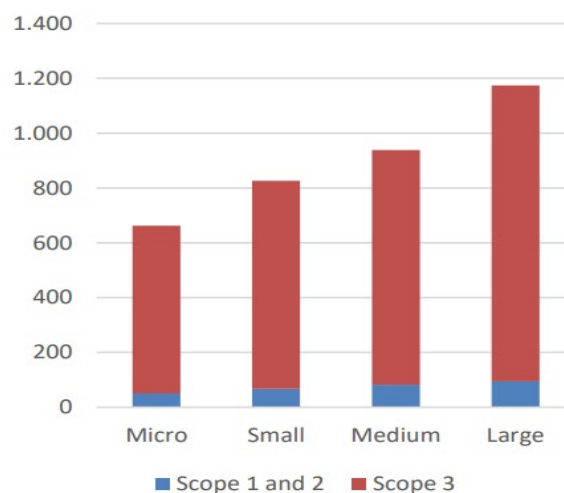
Source: European Commission, 2022, *Digital Economy and Society Index*.

The engagement of SMEs is also particularly important in the green transition. In fact, while their greenhouse gas emissions per one euro of revenues are lower than those of large companies, the EC estimated that SMEs are responsible for 60% of EU emissions by enterprises (Figure 2)¹². The sector where SMEs pollute the most is manufacturing (due to the second highest proportion of SMEs)¹³. In total, it is estimated that SMEs in manufacturing produce more than 400 million tons of carbon dioxide (CO₂) emissions every year. In transportation and storage, which account for about 20% of total greenhouse gas (GHG) emissions, about half of emissions is generated by SMEs.

¹¹ European Commission, 2021, *Annual Report on European SMEs 2020/2021*. Available at: https://single-market-economy.ec.europa.eu/system/files/2023-08/Annual%20Report%20on%20European%20SMEs%202023_FINAL.pdf.

¹² European Commission, 2022, *Annual Report on European SMEs 2021/2022 SMEs and environmental sustainability*. Background document. Available at: <https://op.europa.eu/en/publication-detail/-/publication/0a009ca6-eac2-11ec-a534-01aa75ed71a1/language-en>.

¹³ The sector with the highest proportion of SMEs is retail and wholesale. However in this sector SMEs contribute to less than 5% of total GHG emissions.

Figure 2. Estimated tons of CO2 per Euro revenue, 2018 (direct and indirect emissions)¹⁴

Source: European Commission, 2022, Annual Report on European SMEs 2021/2022 SMEs and environmental sustainability. Background document.

Nonetheless, there are several obstacles impeding or slowing down SMEs' progress towards achieving the green transition. According to a survey carried out by the EC¹⁵, SMEs find it difficult to navigate the regulatory environment, above all due to the complex regulatory process, the costs of environmental action, and the difficulty in implementing legislation. The 2010 report "SMEs and the environment in the European Union" further notes that SMEs find it more difficult to comply with environmental legislation than their large counterparts¹⁶. The report further suggests that, while a large company spends on average one euro per employee to comply with any piece of legislation, a medium-size one can spend around four euros and a small one up to ten euros¹⁷. This is due to the fact that a large part of regulation results in costs that are fixed or do not change much with the size of a business. Additionally, larger businesses have more resources to hire specialists to deal with regulatory duties more effectively and efficiently. A more recent study on the private tax compliance costs by enterprise size found that compliance costs vary depending on firm's size, from 0.1% of the turnover for large companies, 0.3% for medium-sized enterprises, 0.8% for small ones and 1.9% for micro companies¹⁸.

¹⁴ Scope 1 emissions are those direct emissions that are owned or controlled by a company, whereas scope 2 and 3 indirect emissions are a consequence of the activities of the company but occur from sources not owned or controlled by it. Source: National grid, n.d., *What are scope 1, 2 and 3 carbon emissions?* Available at: <https://www.nationalgrid.com/stories/energy-explained/what-are-scope-1-2-3-carbon-emissions#:~:text=Definitions%20of%20scope%201%2C%20owned%20or%20controlled%20by%20it>.

¹⁵ Ibid.

¹⁶ Danish Technological Institute DTI, European Commission, Planet S.A., 2010, SMEs and the environment in the European Union. Available at: <https://op.europa.eu/en/publication-detail/-/publication/aa507ab8-1a2a-4bf1-86de-5a60d14a3977>.

¹⁷ Ibid.

¹⁸ D'Andria, D., and Heinemann, M., 2023, Overview on the tax compliance costs faced by European enterprises – with a focus on SMEs. Publication for the Subcommittee on Tax Matters (FISC). Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2023/642353/IPOL_STU2023642353_EN.pdf.

3. IMPACT OF EU DIGITAL AND GREEN LEGISLATION

KEY FINDINGS

According to the research, the most impactful EU digital legislation for SMEs are the General Data Protection Regulation (GDPR), and the Directive on measures for a high common level of cybersecurity across the Union (NIS 2 Directive). In addition, one legislative proposal is likely to yield high costs, namely the Proposal for a Regulation laying down harmonised rules on Artificial Intelligence (AI Act). It is estimated that the cumulative cost of all SMEs across the EU to comply with the three selected pieces of legislation corresponds to about EUR 53 billion. In other words, if all enterprises were subject to these pieces of legislation, they would face an equivalent cost of EUR 1,681 each. This is an indicative figure, as also specified in the limitations.

The most impactful EU green legislation for SMEs consists of the Corporate Sustainability Reporting Directive, and the Packaging and Packaging Waste Directive. Similarly to digital transition, two legislative proposals are likely to create costs: the Proposal for a new Ecodesign for Sustainable Products Regulation, and the Proposal for a Directive on common rules promoting the repair of goods. Overall, the total cost of compliance for SMEs indicatively corresponds to about EUR 28 billion in the first year of implementation, and about EUR 23 billion for subsequent years. In other words, if all SMEs were subject to these pieces of legislation, they would face an average equivalent cost of about EUR 872 each in the first year of implementation, and EUR 720 from the second year.

The analysis of the impact of EU digital and green legislation on SMEs showed mixed results. Clearly, there are benefits of the twin transition for SMEs, in terms of greater competitiveness with respect to larger companies in the internal market, more interoperability of systems, and improved accessibility of products' technical information. On the other hand, some legislation also imposes significant compliance, regulatory and hassle costs on smaller companies. From the interviews, it is possible to conclude that stakeholders are more concerned about upcoming green, rather than digital, legislation. This seems counterintuitive given the estimated cumulative costs are higher for digital than green legislation. However, this can be explained by the fact that EU digital legislation seems to offer more concrete benefits for SMEs despite the required high upfront investments. Instead, the benefits of the green transition and related legislation remain more uncertain. Additionally, the mitigation measures foreseen in the selected green legislative acts seem to be less effective because they do not take into account the phenomenon of "trickle-down effect".

This section presents the main results of the study building on the findings of the general consultation activities as well as desk research. After summarising the general feedback from stakeholders, the section goes into the details of the shortlisted digital and green legislation, providing an overview of the estimated cumulative costs – subject to the caveats mentioned in the methodology (Annex 1) – and the qualitative feedback from stakeholders.

3.1. The most relevant digital and green legislation

Following our methodology, the final list of EU digital legislation that is most likely to have an impact on a broad number of small and medium-sized companies, regardless of their sector, is as follows:

- General Data Protection Regulation (GDPR)¹⁹;
- Directive on measures for a high common level of cybersecurity across the Union (NIS 2 Directive)²⁰; and
- Proposal for a Regulation laying down harmonised rules on Artificial Intelligence (AI Act)²¹.

The same procedure was applied to operate a final selection of the relevant EU green legislation that is most likely to have an impact on a large number of SMEs, as follows:

- Corporate Sustainability Reporting Directive (CSRD)²²;
- Packaging and Packaging Waste Directive (PPWD)²³;
- Proposal for a new Ecodesign for Sustainable Products Regulation (Ecodesign Regulation)²⁴; and
- Proposal for a Directive on common rules promoting the repair of goods (Right to Repair Directive)²⁵.

Interviewed stakeholders, as also explicitly mentioned during consultations, are more worried about the abundance, uncertainty and complexity of the legislation driving the green transition. The next section provides a more detailed overview of the stakeholders' feedback on each selected piece of legislation.

3.2. The impact of the digital legislation on SMEs

This section provides the results of the quantitative and qualitative analysis of the selected pieces of digital legislation. As further detailed in the methodology (Annex 1), the objective of the quantitative analysis was to assess the cumulative costs of the shortlisted legislation for SMEs. Importantly, the calculations do not include funding programs, even if some of them target SMEs specifically, because they have a different nature compared to other legal acts, and would require a different approach to their analysis, which is not feasible within the scope and timeline of this study.

Since stakeholder consultations did not allow to retrieve specific quantitative data on the compliance costs of legislation, the team relied on the data collected in the desk research phase (a detailed explanation of the data sources and limitations is available in the methodology). Building on the

¹⁹ Regulation EU 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC General Data Protection Regulation. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R0679>.

²⁰ Directive EU 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation EU No 910/2014 and Directive EU 2018/1972, and repealing Directive EU 2016/1148 NIS 2 Directive. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L2555>.

²¹ Council of the European Union, 2024, *Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence Artificial Intelligence Act and amending certain Union legislative acts- Analysis of the final compromise text with a view to agreement*. Available at: <https://data.consilium.europa.eu/doc/document/ST-5662-2024-INIT/en/pdf>.

²² Directive EU 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation EU No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L2464>.

²³ European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01994L0062-20180704>.

²⁴ European Commission, 2022, *Proposal for Ecodesign for Sustainable Products Regulation*. Available at: https://environment.ec.europa.eu/publications/proposal-ecodesign-sustainable-products-regulation_en

²⁵ European Commission, n.d., *Rules promoting the repair of goods*. Available at: https://commission.europa.eu/law/law-topic/consumer-protection-law/consumer-contract-law/rules-promoting-repair-goods_en#documents.

available data, the team developed a formula to estimate the compliance costs for SMEs based on the total estimated costs for all firm sizes and the proportion of compliance costs that SMEs bear. In particular, we first computed the cumulative costs of legislation on all firm sizes by summing all available data on the costs. In order to ensure that data on costs were as comparable as possible across pieces of legislation, the team aggregated them in administrative, regulatory and adjustment costs, following the classification of the ECs Better Regulation Toolbox.

To estimate the cumulative costs of legislation that are expected to be borne specifically by SMEs, it was important to develop an assumption on the proportion of costs that SMEs are likely to bear compared to larger enterprises. To this purpose, relying on a study on the private tax compliance costs by enterprise size²⁶, the proportion of compliance costs relative to SMEs turnover was used to estimate the costs borne by SMEs as a share of the total estimated costs. However, simply relying on these proportions could potentially distort the picture. As previously noted, even though large companies pay less proportionally than SMEs to comply with legislation, they still have a higher absolute expenditure. To enhance the accuracy of calculations, the actual compliance costs were extrapolated from the average turnover for each firm size, thus allowing to identify the exact proportion of compliance costs by firm size.

Table 1 below provides the results of the cumulative cost assessment. These are broken down by individual legislation (columns), but also cost types (rows). It is possible to observe the cumulative cost for all firm sizes per legislation, as well as the specifics for SMEs. For instance, it indicates that the total estimated costs associated to the GDPR are about EUR 3.7 billion (all administrative costs), of which SMEs face about EUR 3.3 billion. Likewise, for the AI Act (about EUR 3 billion), SMEs are projected to bear about EUR 2.7 billion. The NIS 2 Directive costs appear to be the highest. The cumulative cost for all SMEs across all examined legislation totals approximately **EUR 53 billion** (shown in the bottom-right coloured cell).

Table 1. Estimated cumulative costs of selected digital legislation

Costs	GDPR	AI Act	NIS 2	Total
Administrative	€ 3,701,003,368.00	€ 3,000,000,000.00	€ 52,374,175,000.00	€ 59,075,178,368.00
Adjustment	N/A	N/A	N/A	N/A
Regulatory	N/A	N/A	N/A	N/A
Enforcement	N/A	€ 100,000,000.00	N/A	€ 100,000,000.00
Hassle	N/A	N/A	N/A	N/A
Total for all companies	€ 3,701,003,368.00	€ 3,100,000,000.00		€ 59,175,178,368.00
Total for SMEs	€ 3,358,639,462.80	€ 2,813,232,331.73	€ 47,529,265,308.86	€ 53,701,137,103.38

Source: Authors' own elaboration based on the impact assessments and Regulatory Scrutiny Board opinions on the impact assessments for each selected piece of legislation.

While this number may seem very high, especially when compared to the total cumulative costs for all companies, it is important to recall that SMEs are 99% of all enterprises in the EU. In other words, if all enterprises were subject to these pieces of legislation, they would face an equivalent cost of EUR 1,681

²⁶ The study found that compliance costs vary significantly depending on firm's size, from 0.1% of the turnover for large companies, 0.3% for medium-sized enterprises, 0.8% for small ones and 1.9% for micro companies. Source: European Parliament 2023, Overview on the tax compliance costs faced by European enterprises – with a focus on SMEs.

each. However, these numbers are indicative, not definitive, and it is important to recall the data limitations and the assumptions adopted in the calculations:

- the quantitative analysis computes together the costs of already implemented and upcoming legislation. Estimates are provided as if all selected pieces of legislation were implemented together;
- impact assessments and the Regulatory Scrutiny Board opinion on impact assessments²⁷ are the sources of impacts of selected legislation. However, they do not compute all costs (for example, no hassle costs estimates are available). This could result in an underestimation of the final cumulative costs for companies of all sizes and, consequently, SMEs;
- the quantification exercise applies the same computation to all selected pieces of legislation, despite they may have specific exemptions for small companies. This is to account for the so-called “trickle-down effect”;
- the quantification model assumes that the costs borne by SMEs as a share of the total estimated costs for all companies is the same as the proportion of compliance costs relative to their turnover; and
- the analysis only considers the estimated costs, without focusing on the estimated benefits. Therefore, the final estimates represent gross, rather than net, costs.

The following sections go into detail on each piece of legislation, presenting the results of the qualitative analysis. At the beginning the obligations imposed by each legislative act, and the solutions envisaged in the legal text to mitigate the impact on SMEs are summarised.

3.2.1. The General Data Protection Regulation

The GDPR was finalised in 2016 and came into force in 2018. This landmark piece of legislation is arguably the most ambitious legislative framework on data protection in the world. Its objective is to protect individuals when their data is processed by the private and most of the public sector²⁸. It created a single set of EU-wide rules for all companies, including SMEs, dealing with personal data, e.g., customer, supplier and employee data. The GDPR not only affects the business processes and storage within the company but also all sorts of applications and databases hosted in the cloud. Almost every SME is affected by this piece of legislation, due to their processes and storage as well as computation of such data.

²⁷ The Regulatory Scrutiny Board, an independent body within the European Commission, provides quality control, feedback and support to the draft impact assessments produced by the Commission at early stages of the legislative process. Source: European Commission, n.d., *Regulatory Scrutiny Board*. Available at: https://commission.europa.eu/law/law-making-process/regulatory-scrutiny-board_en.

²⁸ Regulation EU 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R0679>.

Box 1. Obligations and mitigation measures of the GDPR

Under the GDPR, businesses are required to implement several rules, including:

- Consent (Article 7): companies must obtain lawful, explicit, freely given, informed consent to process personal data. They must also offer an easy way for people to withdraw this consent at any time;
- Notification of data breaches (Article 33): when a data breach occurs that is likely to result in a risk to the rights and freedoms of individuals, companies are obligated to notify the relevant national supervisory authority, and in some cases the individuals affected, within 72 hours;
- Privacy by design (Article 25): This involves integrating data protection into processing activities and business practices, from the design stage right through the lifecycle;
- Data Protection Impact Assessments, or DPIAs (Article 35): this is required where processing operations, particularly using new technologies, are likely to result in a high risk to the rights and freedoms of individuals; and
- Data Protection Officer, or DPO (Articles 37 to 39): certain companies must appoint a DPO to oversee GDPR compliance. These include organisations that process, on a large scale, special categories of data as outlined in Article 9 of the GDPR, or data relating to criminal convictions and offenses as outlined in Article 10 of the GDPR, and organisations that engage in regular and systematic monitoring of individuals on a large scale as a core part of their operations.

The GDPR includes some mitigation measures to mitigate compliance costs for smaller companies, for example:

- Record-keeping: SMEs are exempt from the requirement of maintaining a record of processing activities, unless the processing they carry out is likely to result in a risk to the rights and freedoms of data subjects, the processing is not occasional, or the processing includes special categories of data (like data about health, race, sexual orientation, religion, etc.) or data relating to criminal convictions and offences;
- DPO: SMEs are not required to appoint a DPO, unless their core activities involve processing operations that require regular and systematic monitoring of data subjects on a large scale or involve processing on a large scale of special categories of data or data relating to criminal convictions and offences;
- DPIAs: SMEs are not always required to conduct a DPIA unless there is a high risk to the privacy rights of individuals; and
- Reporting a data breach: SMEs are also required to report data breaches within 72 hours of discovery as is the case with all entities under GDPR. However, they are exempt from having to notify the individuals affected by the breach if the risk to their data protection is considered low.

Source: Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

Stakeholders consulted within the study considered GDPR as a globally recognised gold-standard in data protection practices. Several position papers from SME organisations recognise, for example, the ability of the GDPR to increase customer trust, and to increase the competitive edge of companies providing technical solutions in privacy innovation²⁹. However, this legislative act was also consistently mentioned by interviewees as the piece of legislation with the highest compliance costs for SMEs, as its introduction resulted in mounting administrative costs for smaller companies.

Legal uncertainty and challenges in interpretation associated with GDPR have weighed heavily on SMEs, which often lack internal resources and expertise to invest in this area. The lack of a clear guidance in the legal text of the GDPR itself has often required them to rely on external legal consultations to understand how to comply with the Regulation. This created additional costs for small companies. Other administrative costs for SMEs result from formal aspects of the Regulation, including documentation requirements and certification or notification mechanisms. For example, the GDPR impact assessment estimates that notifying data breaches to Data Protection Authorities and individuals could impose additional administrative burden of EUR 20 million each year.

According to one interviewee, the most burdensome obligation is the need to carry out Data Protection Impact Assessments (DPIAs): this was described as a sophisticated and expensive tool that should only be required in the case of riskier activities, innovative processes, and several data subjects. On the contrary, it is also required for processing operations that have now become part of the normal business activity of companies and relate to a minimum number of data subjects. For example, it was explained that a micro-business that needs to install surveillance by video cameras in its premises, can only do so after obtaining the administrative authorisations and duly reporting the views of its employers and the justification related to the legitimate interest of the owner, for example, the protection of the company's assets. According to the GDPR impact assessment, it is estimated that a small-scale DPIA would cost EUR 14,000, a medium-scale DPIA would cost EUR 34,500, and a large scale one would be EUR 149,000.

According to another stakeholder, the greatest investment is related to the need to appoint a Data Protection Officer (DPO): as also mentioned by a position paper of the European Digital SME Alliance, "especially in smaller organisations, data protection officers often receive the title on top of their pre-existing full-time duties without any reduction to their workload or obligations. As such, they do not have enough time to focus appropriately on data protection topics"³⁰. According to the impact assessment of the GDPR, the cost to appoint a DPO, available only for large companies, is of about EUR 320 each year.

These findings are aligned with the results of evaluations of the effectiveness of the GDPR. For example, according to estimates of the International Association of Privacy Professionals reported by the Regulatory Studies Centre³¹, medium-sized companies spent about to EUR 2.7 million in 2017-2018 to comply with GDPR-specific obligations. According to the Association, the cost of regulatory requirements also forced firms active in advertising to leave the EU market. The transaction costs associated with obtaining consent negatively affect smaller firms. Consequently, for example, businesses gather less data for targeted services and advertising. The study also revealed that the restrictions on data sharing have an adverse impact on smaller companies: since businesses are now legally responsible for privacy violations by third parties, non-compliance could result in a fine of up to

²⁹ European Digital SME Alliance, 2020, *General Data Protection Regulation GDPR Two-Year Review*. Available at: <https://www.digitalsme.eu/digital/uploads/Position-Paper-GDPR-Review-2020.pdf>.

³⁰ *Ibid.*

³¹ Regulatory Studies Centre, 2020, *Unintended Consequences of GDPR*. Available at: <https://regulatorystudies.columbian.gwu.edu/unintended-consequences-gdpr>.

EUR 20 million or 4% of global revenue. As a consequence, market players have decreased the use of third-party technologies like cookies by 12.8% within the EU. An indirect negative impact on SMEs concerns the fact that some businesses now choose to cooperate with bigger web-technology providers due to their ability to meet legal obligations. A week post the implementation of GDPR, the market's concentration increased by 17% as websites excluded smaller vendors.

The results of the consultation activities indicate a number of possible improvements expected by interviewees in the implementation of the GDPR:

- Increasing legal certainty and ease of interpretation for SMEs: a vademecum on how to implement the GDPR for SMEs could support them without the need to hire external experts. Standard templates for documentation adapted to various sectors would also help them comply with the Regulation; and
- Ensuring a uniform application of the GDPR across Europe: Data Protection Authorities could better coordinate across Member States to guarantee a uniform implementation of the GDPR, so that small businesses operating across borders can be sure that they are fully compliant in all countries.

3.2.2. The NIS 2 Directive

The EU cybersecurity rules introduced in 2016 with Directive (EU) 2016/1148 were updated by the so-called NIS 2 Directive that came into force in 2023. Its objective is to “set out a common cybersecurity regulatory framework aiming to enhance the level of cybersecurity in the EU, requiring EU Member States to strengthen cybersecurity capabilities, and introducing cybersecurity risk-management measures and reporting in critical sectors, along with rules on cooperation, information sharing, supervision and enforcement”³². Therefore, the NIS 2 Directive modernised the existing legal framework to keep up with increased digitisation and an evolving cybersecurity threat landscape. To improve the resilience and incident response capacity of public and private entities, the NIS 2 Directive expanded the scope of the cybersecurity rules to new sectors and entities, including medium-sized and certain types of small companies operating in high-critical sectors listed in Annex I and II of the Directive.

While micro and small enterprises fall outside its scope, there are some exceptions to this criterion: according to Article 2, the Directive applies to providers of public electronic communications networks or publicly available electronic communications services, trust service providers, top-level domain name registries, or system service providers – regardless of their size. In addition, national authorities can identify also micro and small entities as essential or important – and therefore include them in the list of targeted companies - if they are the only service provider, have a significant impact on public safety and security, perform a vital function for society, or are important at the national or regional level.

³² Directive EU 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation EU No 910/2014 and Directive EU 2018/1972, and repealing Directive EU 2016/1148 (NIS 2 Directive). Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L2555>.

Box 2. Obligations and mitigation measures of the NIS 2 Directive

The obligations of the NIS 2 Directive on companies can be summarised as follows:

- They must take appropriate measures to manage and reduce risks to the security of their networks and information systems;
- They should notify relevant authorities or their Computer Security Incident Response Team of significant incidents affecting their services without delay;
- Whenever incidents occur that affect their systems, they have to take measures to prevent and minimise their impact on their services;
- They must comply with jurisdiction and territoriality guidelines set out in the Directive, and if not established in the EU but offer services within the Union, they must designate a representative;
- If they fall under certain categories, they are required to submit specific information to competent authorities. Article 27 mentions for instance providers of domain name registration services, cloud computing service providers, data centre service providers, content delivery network providers; and
- They must ensure the security of their supply chains, taking into account the vulnerabilities of each direct supplier and overall quality of products and cyber security practices of their suppliers and service providers.

As mentioned above, this Directive does not directly target micro and small enterprises, unless they fall under specific exceptions. However, the Directive does apply to medium-sized businesses. For them, no mitigation measure has been identified in the legal text.

Source: Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive).

According to the interviews conducted, the NIS 2 Directive can be both beneficial and adverse to SMEs: while tighter security requirements are generally positively perceived, the increased expenditure for Information and Communication Technology (ICT) security poses financial challenges for smaller firms.

On the one hand, according to an SME envoy, the NIS 2 Directive, as well as other cybersecurity acts, does not cause a severe issue for companies. The topics covered by the Directive are in fact deemed critical for numerous technology companies. Furthermore, cybersecurity requirements can stimulate market opportunities for SMEs to develop new software and technological solutions in the field of digitalisation, especially in the realm of cybersecurity. This can provide an advantageous position for more flexible and innovative SMEs, increasing their competitiveness and adaptation capabilities to the ongoing digital transformation.

However, according to another SME envoy the potential impact of the NIS 2 Directive on SMEs cannot be neglected. The interviewee reported that on average IT expenses account for roughly 4-5% of a company's turnover, with a range of 1.5-5% based on the company's size, cyber maturity and sector. For instance, the risk management obligation is expected to generate one-off costs for companies in

the food and manufacturing sector of approximately EUR 320,000 per company and recurrent costs of EUR 214,000, of which about 27% are labour costs³³.

An interviewee additionally mentioned the impact assessment, according to which the obligations of the NIS 2 Directive are estimated to have an effect of increasing the current IT costs related to cyber security by an average of 12-22% during the first years of implementation, depending on whether the operator subject to the obligations has been covered by the NIS 1 Directive. In fact, in general, the amount of costs is significantly affected by the way in which the company has taken care of and prepared for cyber risks in the past, as well as the scope and quality of the company's operations. Additionally, issues of fragmented implementation of the Directive across Member States can create high burden for smaller companies that would like to act across different markets across borders.

3.2.3. Proposal for an AI Act

The AI Act is a proposal for the first Regulation on Artificial Intelligence in the EU (and the world's first comprehensive AI law), with the objective to develop a legal framework that addresses the risks associated with AI, ensures that AI systems placed on the market are safe, and that there is a governance framework in place to enforce safety requirements. The act tries to ensure that AI complies with human rights, including human safety, privacy, non-discrimination, transparency, human oversight and social and environmental well-being.

Box 3. Obligations and mitigation measures of the AI Act

If a company's AI system qualifies as high-risk, it must meet various requirements during development and post-market phases. Companies that fail to comply with the AI Act may face significant penalties, including fines of up to 6% of the company's annual global turnover or EUR 30 million, whichever is higher. Key obligations for high-risk AI providers include:

- Setting up an extensive quality management system (Article 17);
- Automatically generating logs over the duration of the system's life cycle to enable traceability and monitoring (Article 20);
- Conducting a fundamental rights impact assessment (Article 29a);
- Registering the AI system and undergo conformity assessment to obtain the declaration of conformity and according to CE marking (Article 43);
- Providing contact information for users and other stakeholders (Article 51); and
- Implementing transparency obligations (Article 52).

In order to address possible disadvantages for SMEs, the proposal includes provisions to support their compliance and reduce their costs, including creation of regulatory sandboxes and obligation to consider SMEs interests when setting fees related to conformity assessments. Article 55a also states that SME-friendly guidelines on a simplified quality management systems will be provided.

Source: Council of the European Union, 2024, Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts- Analysis of the final compromise text with a view to agreement.

³³ In the food sector, costs were estimated to be lower on average than in the manufacturing sector. In the food sector, one-time costs were estimated at 274,000 euros and ongoing costs at 148,000 euros. In the manufacturing sector, non-recurring costs were estimated at 367,000 euros and ongoing costs at 279,000 euros.

During interviews, stakeholders appeared appreciative of the principles behind the AI Act proposal, and its objective to safeguard the safety and fundamental rights of users while stimulating the AI market through boosted consumer confidence in AI applications. The findings of the consultations indicated a general appreciation for the fact that the Act provides a clear, limited and internationally recognised definition of what an AI system is and what classifies as a “high-risk” AI system. Only one stakeholder reported that the definition of AI provided in the proposal is too broad³⁴. There is also a positive acknowledgment that the imbalance between big tech companies specialising in AI and SME innovators is also being addressed: in fact, “model contractual clauses will be made available to digital SMEs for usage in negotiations with larger companies, countering their economic dominance. This will grant SME downstream deployers legal certainty when building on immense foundation models”³⁵.

However, given the fact that the act was only at a proposal stage, interviewees mentioned that it is now necessary to derive practical rules from this to provide legal certainty for Information Technology (IT) companies. Indeed, rapidly available, directly applicable rules that offer practical implementation are urgently needed for SMEs. Stakeholders were particularly vocal in arguing the importance to involve SMEs during the standardisation process and enforcement stage, so that they can directly contribute to the process.

The results of the consultations conducted by the EC for the purposes of the impact assessment indicate that “at least 14% of SMEs and 13% of large companies addressed compliance costs as a potential burden resulting from new legislation. [...] At least 10% and 9% respectively also mentioned additional administrative burdens tied to new regulation in this context”³⁶. In fact, AI suppliers are expected to incur fixed compliance costs and administrative burdens including €2,763 for data compliance, €4,390 related to documentation and traceability, and €3,627 for provision of information. Companies not following state-of-the-art business procedures could experience additional compliance costs of €10,733 regarding robustness and accuracy. Also, they could face compliance costs of €7,764 related to human oversight.

A specific element of concern mentioned by interviewees regards Article 28 of the draft agreement of the AI Act, which focuses on the responsibilities along the AI value chain³⁷. It states that “any distributor, importer, deployer or other third-party shall be considered a provider of a high-risk AI system” (Article 28.1). Providers, according to Article 28(2b) are required to “specify the necessary information, capabilities, technical access and other assistance” on the provided AI systems. However, an interviewee explained that distributors are mostly SMEs. Therefore, this requirement puts them in the difficult position to fulfil obligations and find information typically held by AI producers. This has the potential to create significant administrative costs for SMEs which struggle for access information, as they are not involved in the production process.

There are also concerns about the costs associated with the required conformity assessment by a pre-established body. High costs of such services could pose a barrier to smaller players, making it

³⁴ Small Business Standards, 2021, *Position Paper – SBS reply to the Artificial Intelligence Act consultation*. Available at: https://sbs-sme.eu/sites/default/files/publications/SBS_position_paper_AI_Act_consultation_08.21_2.pdf.

³⁵ European Digital SME Alliance, 2021, *Digital SME Position Paper on the EU AI Act*. Available at: <https://www.digitalsme.eu/digital/uploads/DIGITAL-SME-Position-Paper-AI-Act-FINAL-DRAFT-1.pdf>.

³⁶ European Commission, 2021, *Impact Assessment Accompanying the Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain union legislative acts*, p.65. Available at: <https://ec.europa.eu/transparency/documents-register/detail?ref=SWD202184&lang=en>.

³⁷ Council of the European Union, 2024, *Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts- Analysis of the final compromise text with a view to agreement*. Available at: <https://data.consilium.europa.eu/doc/document/ST-5662-2024-INIT/en/pdf>.

challenging for them to continue innovating and maintain their market share. The impact assessment estimates a cost of EUR 5,000-7,000. However, according to interviewees, these are an underestimate of actual costs, whose computation should take into account internal costs and consultancy services besides auditing costs. Additionally, as indicated by Small Business Standards, “conformity assessments will be based on standards, but SMEs are not included in the standards development as they are under-represented in standardisation organisations. Oftentimes, this leads to standards which are written in a way that is impractical, and very difficult to apply for SMEs”³⁸. The results of the consultation activities indicate a number of possible improvements expected by interviewees in the implementation of the AI Act:

- To mitigate compliance costs for SMEs in executing the AI Act, it is crucial to establish a supportive ecosystem for AI innovation that promotes the deployment of SME-led applications in the market. Beyond regulatory sandboxes, European Digital Innovation Hubs and national authorities should hold the additional responsibility of providing technical guidance to assist SME AI innovators in becoming regulation compliant;
- As the AI sector is dominated by large multinational companies, adequate representation of micro, small and medium-sized companies in governance and standardisation bodies is necessary; and
- AI standards should be written with the active participation of SMEs, in order to avoid a “one-size-fits-all” approach often adopted by research organisations, large companies, and legal and ethical experts. The standards referred to in order to comply with the regulation should be available free of charge.

3.3. The impact of the green legislation on SMEs

This section provides the results of the quantitative and qualitative analysis of the selected pieces of green legislation. Differently from the analysis of the digital pieces of legislation, greater data availability in the green impact assessments allowed to identify both one-off and recurrent estimated costs of legislation. This allows to compute the costs for SMEs for the first year in which legislation is implemented, and in the subsequent years.

Subject to the assumptions and caveats detailed above, Table 2 below provides the results of the cumulative cost assessment. First of all, it is possible to notice that costs in the first year of implementation are higher than in subsequent years because they include also one-off costs. For example, the implementation of the CSRD is expected to cost about EUR 4.3 billion for SMEs in the first year, and about EUR 3.2 billion in subsequent years. Out of all pieces of legislation considered, the Ecodesign Regulation displays the lowest costs. This is however due to the lack of available data to estimate different types of adjustment costs in the impact assessment. Overall, the cumulative cost of all SMEs across the EU to comply with the four selected pieces of legislation corresponds to about **EUR 27.9 billion** in the first year, and about **EUR 23 billion** for subsequent years.

³⁸ Small Business Standards, 2021, *Position Paper – SBS reply to the Artificial Intelligence Act consultation*. Available at: https://sbs-sme.eu/sites/default/files/publications/SBS_position_paper_AI_Act_consultation_08.21_2.pdf.

Table 2. Estimated cumulative costs of selected green legislation

	Costs	CSRD	PPWD	Ecodesign	Right to Repair	Total
Year 1	Administrative	€ 3,360,000,000.00	€ 2,430,000,000.00	€ 18,000,000.00	€ 139,600,000.00	€ 5,947,600,000.00
	Adjustment	N/A	€ 7,248,000,000.00	N/A	€ 16,104,840,000.00	€ 23,352,840,000.00
	Regulatory	N/A	N/A	N/A	N/A	N/A
	Enforcement	€ 1,400,000,000.00	N/A	N/A	N/A	€ 1,400,000,000.00
	Hassle	N/A	N/A	N/A	N/A	N/A
	Total for all companies	€ 4,760,000,000.00	€ 9,678,000,000.00	€ 18,000,000.00	€ 16,244,440,000.00	€ 30,700,440,000.00
	Total for SMEs	€ 4,319,672,870.65	€ 8,782,729,840.79	€ 16,334,897.41	€ 14,741,736,715.73	€ 27,860,474,324.58
Year 2 onwards	Administrative	€ 2,180,000,000.00	€ 2,400,000,000.00	€ 18,000,000.00	N/A	€ 4,598,000,000.00
	Adjustment	N/A	€ 4,643,000,000.00	N/A	€ 14,692,640,000.00	€ 19,335,640,000.00
	Regulatory	N/A	N/A	N/A	N/A	N/A
	Enforcement	€ 1,400,000,000.00	N/A	N/A	N/A	€ 1,400,000,000.00
	Hassle	N/A	N/A	N/A	N/A	N/A
	Total for all companies	€ 3,580,000,000.00	€ 7,043,000,000.00	€ 18,000,000.00	€ 14,692,640,000.00	€ 25,333,640,000.00
	Total for SMEs	€ 3,248,829,595.99	€ 6,391,482,358.82	€ 16,334,897.41	€ 13,333,487,060.13	€ 22,990,133,912.35

Source: Authors' own elaboration based on the impact assessments and Regulatory Scrutiny Board opinions on the impact assessments for each selected piece of legislation.

While this number may also seem very high, if all small and medium-sized enterprises were subject to these pieces of legislation, they would face an average equivalent cost of about EUR 872 each in the first year of implementation, and EUR 720 from the second year. Once again, these figures are indicative, and it is important to recall the data limitations and the assumptions adopted in the calculations and mentioned above.

Interestingly, the cumulative estimation of the costs for green legislation is lower than the costs of digital legislation. This is due to the very high estimated costs of the NIS 2 Directive and is in contrast with the findings of the consultation activities according to which SMEs are more concerned about green, rather than digital legislation. The reason may be that the former targets more numerous smaller companies while the latter envisages more mitigation measures for them. Additionally, the mitigation measures foreseen in the selected green legislative acts seem to be less effective because they do not take into account the phenomenon of “trickle-down effect”.

The following sections go into detail on each piece of legislation, presenting the results of the qualitative analysis. For each of them, at the beginning we summarise the obligations of each legislative act, and the solutions envisaged in the legal text to mitigate the impact on SMEs.

3.3.1. The Corporate Sustainability Reporting Directive

The CSRD entered into force in January 2023. Its objective is to provide investors and other stakeholders with more information on the impact of companies on people and the environment, therefore allowing a more accurate assessment of the financial risks related to the company. It requires large companies and listed small and medium-sized companies, as well as parent companies of large groups, to include in a dedicated section of their management report the information necessary to understand the company's impacts on sustainability matters, and the information necessary to understand how sustainability matters affect the company's development, performance and position.

Box 4. Obligations and mitigation measures of the CSRD

According to Article 19a, targeted companies will be required to disclose a wide range of sustainability-related information, including but not limited to:

- A description of the company's business model, including a resilience strategy and sustainability-related financial and investment plans;
- A description of targets and policies to achieve sustainability-related matters;
- A description of the due diligence processes implemented by the undertaking in relation to sustainability matters; and
- A description of the actual or potential adverse impacts of the company's operations and value chain.

The Directive targets companies previously subject to the EU Non-Financial Reporting Directive (broadly, large public interest entities), large EU companies, smaller companies with securities listed on an EU regulated market. Listed companies will have to comply by 2025, large companies by 2026 while for SMEs progressive alignment is required by 2027. Notably, micro-enterprises are exempted from obligations. High-impact medium-sized companies and midcaps would fall under a targeted due diligence regime which implies simplified requirements.

Source: Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting.

In the interviews, this Directive was the most frequently mentioned among stakeholders as causing potentially high burdens for SMEs, for a variety of reasons. Stakeholders heavily criticised the use of exemptions to the issue of administrative burdens for smaller companies. Stakeholders explained that SMEs are excluded from the Directive, but they are anyway part of the supply chain of larger companies falling under the Directive's scope and are therefore very likely to incur in the same obligations. In many cases, larger companies will ask the entire supply chain to report on their environmental footprint, including their suppliers. This phenomenon, known as "trickle-down effect", could place a costly burden on SMEs regardless a derogation formally existing in the legislation. This burden stems from the complexity and high workload brought about by sustainability reporting and data collection, making compliance extremely costly and demanding for SMEs. As stated by an interviewee, this was not reflected in the Commission's Annual Burden Survey, where the CSRD is found as one of the initiatives with no or minimal additional costs for SMEs.

The results of the consultation activities indicate a number of possible improvements expected by interviewees in the implementation of the CSRD:

- Voluntary standards could be designed with as much tailored consideration for SMEs as possible. The goal should be to simplify the administrative burden stemming from the CSRD;
- Capacity building for SMEs needs to be enhanced, enabling them to better navigate the complexities of sustainability reporting and thereby encouraging wide adoption thereof;
- Rather than discussing exemptions, the focus should shift towards outlining more specific, achievable requirements for SMEs during the legislative process, and impact assessments should also take into account the cascading impact on the players in value chains; and

- There needs to be a mechanism to simplify compliance by using either horizontal or product-specific sustainability norms necessitated also by other legislation. Companies should not be mandated to submit duplicated reports but should instead rely on interoperability.

3.3.2. The Packaging and Packaging Waste Directive

The PPWD has been implemented in 1994 and was successively updated overtime. Its most recent amendment is Directive (EU) 2018/852 and contains updated measures aimed at mitigating the environmental impact of packaging waste. It covers all packaging placed on the European market and all packaging waste, including household packaging waste. In particular, it sets out the requirements that all packaging placed on the EU market must meet, and promotes reuse, recycling and other forms of recovery of packaging waste. This Directive covers all packaging placed on the Community market.

Box 5. Obligations and mitigation measures of the PPWD

The directive targets EU countries, asking them to ensure that the packaging placed on the market meets essential requirements contained in Annex II of the directive:

- To limit the weight and volume of packaging to a minimum adequate amount in order to still meet the required level of safety, hygiene and acceptability for the packed product and for the consumers;
- To minimise the content of hazardous substances and materials in the packaging material and its components; and
- To design reusable or recoverable packaging, which may include design for material or organic recycling as well as design for energy recovery.

The legal text does not foresee mitigation measures for SMEs.

Source: European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

Several stakeholders agreed on the widespread impact of the PPWD on the industry as a whole and SMEs in particular. They highlighted that the imposition of restrictions on certain packaging types, the establishment of design criteria and related mandates significantly burdened a multitude of businesses across diverse industries. According to interviewees, minor alterations in design criteria can have significant implications for SMEs, given the breadth and depth of their reach within the packaging sector. As explained by an interviewee, when a company has to adjust to new design criteria, even a small change can trigger a wide-scale, ripple effect throughout the production chain. This can disrupt the status quo, ultimately requiring every facet of the business to adapt. From sourcing materials and adjusting production methods to revamping storage and transportation logistics, every step needs modifications to align with the new criteria. Therefore, it is not just a matter of redesigning a package, but recalibrating the entire production chain, which places immense burden on SMEs in the packaging sector.

A study evaluating the effectiveness of the essential requirements for packaging and packaging waste imposed on companies revealed that the vague and subjective wording of the requirements has inhibited compliance³⁹. In 2022, the EC brought forward a proposal for a Regulation on packaging and packaging waste repealing the currently applied Packaging and Packaging Waste Directive, in order to

³⁹ European Commission, 2020, *Effectiveness of the essential requirements for packaging and packaging waste and proposals for reinforcement*. Available at: <https://op.europa.eu/en/publication-detail/-/publication/05a3dace-8378-11ea-bf12-01aa75ed71a1>.

reach the objectives of the European Green Deal to ensure that all packaging on the EU market is reusable or recyclable in an economically viable way by 2030. The Regulation will impact the daily operations of several companies as it will empower the EC to develop and implement harmonised labelling requirements and formats for packaging and waste receptacles⁴⁰. Also the impact assessment accompanying the upcoming Packaging and Packaging Waste Regulation revealed that the previous Directive had not been uniformly transposed across Member States, one of the reasons being the vague and subjective wording of the essential requirements.

With the upcoming Regulation, Member States will be asked to implement the related obligations with the same timeline and modalities. This is expected to help overcome the above-mentioned issues related to the application of the PPWD⁴¹. Besides the restrictions and bans on certain forms of packaging and the introduction of design criteria, SME representatives interviewed for this study expressed concerns for the imposition of binding deposit and return systems for specific materials. According to them, without proper support, small and micro-companies will face large logistical and organisational issues to adapt their production cycle to a new collection circuit, which would in essence represent a duplication of economic costs once added to the existing recycling system.

3.3.3. Proposal for a new Ecodesign Regulation

A cornerstone of the EC's approach to more environmentally sustainable and circular products, the proposal for an Ecodesign Regulation, builds on the Ecodesign Directive 2009/125/EC focused on energy-related products. The new Regulation will "establish a framework to set eco-design requirements for specific product groups to significantly improve their circularity, energy performance and other environmental sustainability aspects"⁴². It expands the scope of the previous Directive as it will enable the setting of performance and information requirements for almost all categories of physical goods placed on the EU market.

⁴⁰ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on packaging and packaging waste, amending Regulation EU 2019/1020 and Directive EU 2019/904, and repealing Directive 94/62/EC. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A0142%3AFIN>.

⁴¹ Ragonnaud, G., 2023, *Revision of the Packaging and Packaging Waste Directive*. European Parliamentary Research Service, European Parliament, Luxembourg. Available at: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/745707/EPRS_BRI\(2023\)745707_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/745707/EPRS_BRI(2023)745707_EN.pdf).

⁴² European Commission, n.d., *Ecodesign for Sustainable Products Regulation*.

Box 6. Obligations and mitigation measures of the Ecodesign Regulation

The rules proposed under the Ecodesign Regulation will apply to all products placed on the EU market, whether produced inside or outside the EU. Companies will be required to:

- Ensure that the products are designed and manufactured in accordance with the new performance requirements (Article 21(1a));
- Ensure that the products are accompanied by a “Digital Product Passport”, that will provide information about products’ environmental sustainability (Article 21(1c));
- Conduct an internal conformity assessment procedure to declare that the product meets the performance requirements (to be defined in the upcoming delegated acts) (Article 21(2-3));
- Indicate on the product, on its packaging or on an accompanying document their contact details (Article 21(6));
- Ensure that a product is accompanied by instructions that enable consumers and other end-users to safely assemble, install, operate, store, maintain, repair and dispose of the product in a language that can be easily understood (Article 21(7)); and
- In addition, Annex 19 of the impact assessment¹ considers potential mitigation measures, including assistance with environmental and carbon footprint calculation/life cycle assessment methods, and simplified SME procedures for reporting.

Sources: European Commission, 2022, Proposal for Ecodesign for Sustainable Products Regulation. European Commission, 2022, Annexes to the Commission proposal for a Regulation of the European Parliament and of the Council establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC⁴³.

Interviews consulted within the study were also particularly vocal concerning the proposal for an Ecodesign Regulation, foreseeing both positive and negative impacts. On the one hand, interviewees expect its positive repercussions on SMEs, because the Regulation will incentivise repairing practices, and the repair sector mostly consists of small companies. On the other hand, associations expect that it will negatively impact manufacturing SMEs, that will have to invest additional resources to develop products respecting the new measures.

The most concerning obligation for the latter category concerns the proposed use of a Digital Product Passport (DPP). If compulsory for SMEs, it could be particularly burdensome as it would create substantial administrative and reporting costs. SMEs may find it challenging to gather and substantiate all the data points expected in the DPP, given their typically limited resources. A major challenge for SMEs is a lack of necessary skills to conduct a life-cycle analysis and apply the related testing methods. This analytical approach, although valuable, requires specific expertise which many SMEs lack internally. As a result, these businesses may need to depend on external consultants to meet this requirement, which entails additional expenses. A compulsory DPP could be particularly costly for SMEs engaged in producing one-off, custom-made products: despite the product's singular nature, companies would still be expected to provide extensive information concerning the energy

⁴³ Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:bb8539b7-b1b5-11ec-9d96-01aa75ed71a1.0001.02/DOC_2&format=PDF.

performance and environmental sustainability aspects. This could place unnecessary strain on such SMEs, damaging their efficiency and profitability.

Moreover, one stakeholder also expressed concerns about the potential exposure of trade secrets and confidential information related to production processes due to the DPP. The DPP's extensive information requirement may inadvertently lead to the dissemination of sensitive company data, possibly creating a competitive disadvantage for SMEs. This issue underscores the need for a careful balance between transparency and confidentiality in the application of tools like the DPP.

Finally, several interviewees highlighted a more structural issue of the proposal for an Ecodesign Regulation, namely the fact that several specific measures will be decided by means of delegated acts. As explained by several interviewees, and also further explored in a position paper from SMEUnited, "this is not in line with the principle according to which delegated acts are only permitted if they legislate specific and not essential matters. Therefore, all aspects that can be treated uniformly and independently of product groups should be regulated in the framework regulation"⁴⁴. According to interviewees, the use of delegated acts to fine-tune specific measures reduces the predictability and the certainty surrounding the proposal, making it more difficult for SMEs to properly plan their investment cycle accordingly.

The results of the consultation activities indicate a number of possible improvements expected by interviewees in the implementation of the Ecodesign Regulation:

- Ensure the effective participation of SMEs and of their representatives in the Eco-design Consultation Forum and in its working groups, in order to reduce costs and red tape for SMEs⁴⁵;
- Foresee financial support for the participation of SMEs in the development of standards that will support the implementation of the Regulation and its delegated acts⁴⁶;
- The DPP should only require including information with a proven added value and should be developed in an open-dialogue with stakeholders. It should foresee a way to carry data safely, respect privacy rules, business confidentiality, as well as intellectual property; and
- Single, tailor-made products, typically manufactured by SMEs, should be exempted from ecodesign requirements and the DPP upfront.

3.3.4. Proposal for a Repair of Goods Directive

This proposal, adopted in March 2023, was developed under the broader framework of the European Green Deal. While the Ecodesign Regulation promotes reparability of products in the production phase, the proposal on common rules promoting the repair of goods focuses on the after-sales phase and aims at prioritising repair as a remedy for non-conformity of goods whenever repair is cheaper or as costly as replacement. Together with the Ecodesign Regulation and the proposal for a Directive on Empowering consumers for the green transition⁴⁷, it delivers on the so-called "Right to Repair".

⁴⁴ SMEUnited, 2022, *SMEUnited's views on the ecodesign requirements for sustainable products*. Available at: <https://www.smeunited.eu/publications/smeuniteds-views-on-the-ecodesign-requirements-for-sustainable-products>.

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

⁴⁷ European Commission, 2022, *Proposal for a Directive on empowering consumers for the green transition and annex*. Available at: https://commission.europa.eu/publications/proposal-directive-empowering-consumers-green-transition-and-annex_en.

Box 7. Obligations and mitigation measures of the Repair of Goods Directive

The proposal presents several measures to facilitate and encourage repair and reuse of goods that have a direct impact on the industry:

- A European Repair Information Form (Article 4): repairers are required to provide standardised key information on the conditions and price of the repair service via a specific form. Consumers will be able to request the form from any repairer, who may not alter the conditions for 30 days;
- Obligation to repair (Article 5): producers will be obliged to repair goods listed in Annex II outside the legal guarantee. Examples of product groups currently covered are household washing machines, household dishwashers, refrigerating appliances and vacuum cleaners; and
- Informing consumers about producers' repair obligation (Article 6): producers who are obliged to repair need to inform consumers of the obligation and provide information on the repair services.

No specific mitigation measures are foreseen for smaller companies. In general, a producer is exempted from the obligation to repair if the repair is factually impossible (Article 5).

Source: European Commission, n.d., *Rules promoting the repair of goods*.

Similarly to the feedback on the proposal for the Ecodesign Regulation, consulted stakeholders provided both positive and negative feedback on the Repair of Goods Directive. On the one hand, SMEs will benefit from a greater uptake of repair practices across the Single Market. Stakeholders commended the empowerment of independent repairers, who will be able to access more technical documentation on products in order to carry out repairs.

On the other hand, some interviewees reported that the current proposal will not address the issue properly. One interviewee highlighted the issue with costs and affordability of repairs: "The requirement for manufacturers to provide a repair service does not necessarily mean that such service will be affordable. The same argument also applies to the cost of spare parts. Currently, manufacturers determine the price of spare parts which might prevent independent repairers from gaining access to such parts and provide competitive and cost-effective services. Therefore, it is important that the co-legislators lay down additional provisions for manufacturers to provide spare parts for a fair price"⁴⁸.

Businesses in the manufacturing and retail sectors may face considerable losses due to forgone sales and reduced production of new goods. The impact assessment justifies this negative impact because "the losses of businesses reflect a transfer from businesses' revenues to consumers' welfare and the consumers are likely to invest the saved money in the overall economy, which in turn will lead to growth and investment"⁴⁹.

The impact assessment itself recognises that "adjustment and administrative costs relative to business revenues are disproportionately higher for SMEs". In particular, interviewees consulted within this study noted that SMEs will encounter challenges with the compulsory European Repair Information

⁴⁸ European Digital SME Alliance, 2023, *Response to the Right to Repair Directive*. Available at: <https://www.digitalsme.eu/digital/uploads/DIGITAL-SMEs-Response-to-the-Right-to-Repair-Directive.pdf>.

⁴⁹ COMMISSION STAFF WORKING DOCUMENT EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT REPORT Accompanying the document Proposal for a Directive of the European Parliament and of the Council on common rules promoting the repair of goods and amending Regulation EU 2017/2394, Directives EU 2019/771 and EU 2020/1828. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023SC0060>.

Form that manufacturing companies will have to provide with their products (see Box 7). According to SME representatives, this may cause administrative burdens and should ideally be optional to avoid imposing additional bureaucratic strain on small repair firms. This obligation was considered disproportionate.

The results of the consultation activities indicate a number of possible improvements expected by interviewees in the implementation of the Repair of Goods Directive:

- Since product repair and maintenance is a complicated value chain, it becomes fundamental to take into account the viewpoints, needs, and impacts also on digital SMEs, that are critical in offering essential software and hardware tools in aftersales markets, thus actualising the Right to Repair for European consumers and other small businesses⁵⁰;
- In order to facilitate the uptake of the principle of repairability, this should be integrated into product design, and spare parts should be widely accessible at fair prices; and
- The European Repair Information Form and the online national repair platform should not introduce excessive administrative and economic burdens on businesses. The European Repair Information Form should avoid duplicated informational requirements. Moreover, the online platform for repairs should be made available to businesses free of charge and user-friendly, ensuring high-quality repair standards.

3.4. External factors contributing to impact

It is important to keep in mind that the above-mentioned impacts of different pieces of legislation on SMEs do not only depend on the legal text itself, but also on other external factors. During the interviews, stakeholders confirmed that a variety of factors can increase the cost of legislation for firms in the EU, as follows:

- **National context:** in case of directives, the transposition of requirements can play a significant role in enhancing costs of compliance with digital and green legislation for SMEs. The mode of obligation implementation, whether adopting a literal transposition of directives or opting for a stricter model, can greatly impact the extent of costs incurred by businesses. Therefore, choice of implementation model and Member State's decision to reimburse certain costs are crucial factors. The phenomenon of “gold-plating” can add unnecessary layers of regulation at national level. Research conducted by an Italian trade association, Confartigianato, revealed the significant bureaucratic costs burdening SMEs in Italy, demonstrating that Italian enterprises currently bear some of the EU's highest administrative costs⁵¹. This underlines how local administrative burdens can dramatically impact operational costs for SMEs;
- **Proliferation of SME-unfriendly standards:** interviewees also mentioned the proliferation of standards⁵² as a phenomenon that further increase the compliance costs for SMEs in their attempt to embrace digitalisation and sustainability in their practices. Standards are technical specifications that apply to various products, services and processes. Their uptake is often proposed as a solution to uniform application of legislation across the EU and for conformity assessments. However, while several standards already exist, legislation often results in the

⁵⁰ European Digital SME Alliance, 2023, *Response to the Right to Repair Directive*. Available at: <https://www.digitalsme.eu/digital/uploads/DIGITAL-SMEs-Response-to-the-Right-to-Repair-Directive.pdf>.

⁵¹ Confartigianato Imprese, 2023, *Elaborazione Flash 'Il peso della burocrazia: alcune evidenze'*. Available at: <https://ufficiostudi.confartigianato.it/pubblicazioni/elaborazione-flash-il-peso-della-burocrazia-alcune-evidenze/>.

⁵² Standards are voluntary technical specifications that apply to various products, services and processes. They contribute to safety, innovation and interoperability, and are essential to building the single market.

creation of new ones. This proliferation makes it more costly for SMEs to comply with additional, brand-new standards. This is also linked to another issue: SMEs are not proportionally represented in standardisation bodies and often this results in the development of several standards related to new pieces of legislation, sometimes overlapping, that SMEs do not have the resources to comply with. Therefore, an interviewee recommended as a potential solution the creation of a monitoring tool to help SMEs keep track and individuate relevant standardisation activity and the related deliverables. Notably, to this purpose, Small Business Standards has developed an SME compatibility test that stakeholders can apply to verify – similarly to the SME Test – what standards would be challenging for SMEs;

- **Economic and geo-political events:** stakeholders reported that economic fluctuations, geopolitical events, supply chain disruptions and inflation can also significantly disrupt the operations of SMEs, hence enhancing their administrative and compliance costs with respect to green and digital legislation. For example, while it can be argued that the COVID-19 pandemic accelerated the digital transformation of several enterprises, it also hindered the green transition of many others, with rising energy prices causing significant difficulties for businesses. SMEs, with their limited resources, can be particularly vulnerable to such factors; and
- **Features of the company:** Finally, the costs of implementing new legislation are also influenced by a range of factors such as company size, sector, location and maturity. For instance, SMEs operating in emerging markets driven by the green transition, such as renewable energy production and circular economy, may reap the benefits of new growth opportunities. Similarly, innovative start-ups and SMEs active in the cybersecurity field may face lower compliance costs than medium-sized companies with a low cyber maturity level. The possibility of new competition entering the market from outside the EU and not subject to the same obligations can further challenge SMEs.

4. SECTORAL CASE STUDIES

KEY FINDINGS

SMEs from different sectors have differing perspectives on EU green and digital legislation. For example, while the construction sector is characterised by micro-organisations that operate on a local level and thus have limited interest in EU-wide harmonisation, this is vital for SMEs which are engaged in cross-border e-commerce. Meanwhile, SMEs in manufacturing are concerned about how burdens from EU legislation will affect their competitiveness on a global scale.

Common concerns from SMEs interviewed across the different sectors include the large number of new rules in the digital and green fields, with the risk of inconsistencies and significant cumulative impacts; the limited effectiveness of SME exclusions as SMEs often form part of wider value chains; challenges for SMEs to understand and comply with the new rules; concerns around gold plating by Member States and (for SMEs engaged in cross-border activities) varied application of the rules; concerns around the short term costs of adapting systems and challenges in accessing EU funds to support with the transformation process.

Recommendations cutting across all sectors include:

- Focusing on implementation and enforcement of existing rules with a pause on new obligations;
- In line with the REFIT programme, assessing whether digital, green and consumer legislation could be streamlined, and reporting requirements made more consistent;
- When adopting new legislation, favouring the use of Regulations and conducting Impact Assessments on significant amendments;
- Providing compliance material specifically targeted to SMEs, potentially in conjunction with SME organisations.

The sector in which an SME is active can fundamentally influence the costs of complying with relevant legislation. The following sections provide an overview of the impact of (sectoral) EU green and digital legislation on five specific sectors, namely road transport, accommodation, e-commerce, manufacturing, and construction.

4.1. Road transport

4.1.1. Context

With more than 7 million heavy-duty vehicles (HDVs) in the EU, transport by road carries more freight and more passengers than all other modes of inland transport combined (e.g., railroad, inland waterways and pipelines) and provides jobs for more than 10 million people⁵³. Around 80% of transport operators are SMEs (companies managing up to 5-10 vehicles), many of them being micro-sized (one-man one-truck operations)⁵⁴. The sector combines two main sub-sectors, namely **road freight**

⁵³ European Commission, n.d., *Road transport research*. Available at: https://research-and-innovation.ec.europa.eu/research-area/transport/road_en.

⁵⁴ Data provided by an interviewed stakeholder.

transport and road passenger transport, that generate a combined turnover of EUR 470 billion (EUR 330 billion and EUR 140 billion respectively)⁵⁵.

Road freight transport refers to all road haulage operations. The road haulage market in the EU has grown steadily in the past years. Since 2005, it covers 72% of the modal share of transport compared to all other inland freight transport activity (inland waterway, rail and oil pipeline)⁵⁶, and today counts about 6 million vehicles⁵⁷. SMEs represent the vast majority of companies in this sub-sector: an average EU road haulage operator has 5.2 persons employed, and 80% of enterprises are below this average⁵⁸.

For the purposes of this case study, road passenger transport is defined as transport operations conducted by taxi services, particularly coach and bus, which account for 1 million vehicles in the EU⁵⁹. Also in this case, micro and SMEs are heavily present in the sector (about 80%), with an average of 11.5 employees per enterprise⁶⁰.

Overall, both freight and passenger transport face significant pressures in relation to the twin transition. First of all, digital developments entail that road operators can **improve efficiency across the entire system through the use of technologies** such as smart traffic management systems and innovations enabling automated mobility. Intelligent Transport Systems (ITS)⁶¹, also called road telematics, have been developed in the last two decades, and “offer both cars and trucks with on-board navigation systems that allow them to consider real-time traffic and travel information”⁶². Innovations in the road transport sector can offer a wide range of benefits for the stakeholders involved in transport operations and the final consumers, in terms of more efficient, safer, and cleaner transport.

In addition, the transport sector is under the spotlight concerning the green transition, as it currently accounts for **a quarter of the EU’s greenhouse gas emissions**⁶³ (about half of these emissions are generated by SMEs⁶⁴). According to a recent study⁶⁵, the total external costs⁶⁶ of the EU transport sector (including road) amounts to EUR 1,000 billion every year. This is mostly related to the negative impacts of transport on the environment in terms of emissions, noise and pollution, but also accidents and congestion. Importantly, road transport emerged as the largest contributor to this spill over, “accounting for ¾ of total external costs in absolute terms, and also the mode which leaves the biggest amount of external cost unpaid”⁶⁷.

⁵⁵ European Commission, 2017, *An Overview of the EU Road Transport Market in 2015*, p.5. Available at: <https://transport.ec.europa.eu/system/files/2017-06/mobility-package-overview-of-the-eu-road-transport-market-in-2015.pdf>.

⁵⁶ European Commission, 2017, *An Overview of the EU Road Transport Market in 2015*, p.6. Available at: <https://transport.ec.europa.eu/system/files/2017-06/mobility-package-overview-of-the-eu-road-transport-market-in-2015.pdf>.

⁵⁷ Data provided by an interviewed stakeholder.

⁵⁸ European Commission, 2017, *An Overview of the EU Road Transport Market in 2015*, p.8. Available at: <https://transport.ec.europa.eu/system/files/2017-06/mobility-package-overview-of-the-eu-road-transport-market-in-2015.pdf>.

⁵⁹ Data provided by an interviewed stakeholder.

⁶⁰ European Commission, 2017, *An Overview of the EU Road Transport Market in 2015*. Available at: <https://transport.ec.europa.eu/system/files/2017-06/mobility-package-overview-of-the-eu-road-transport-market-in-2015.pdf>.

⁶¹ ITS are advanced applications with the goal of providing innovative services regarding different transport modes, to better manage transport, to improve information for users and to make transport safer and more coordinated.

⁶² European Commission, n.d., *Road*. Available at: https://transport.ec.europa.eu/transport-themes/intelligent-transport-systems/road_en.

⁶³ This number considers the transport sector as a whole, including also air transport. European Environment Agency, 2014, *Transport and mobility*. Available at: <https://www.eea.europa.eu/en/topics/in-depth/transport-and-mobility>.

⁶⁴ European Commission, 2022, *Annual Report on European SMEs 2021/2022 - SMEs and environmental sustainability*. Background document. Available at: <https://op.europa.eu/en/publication-detail/-/publication/0a009ca6-eac2-11ec-a534-01aa75ed71a1/language-en>.

⁶⁵ European Commission, 2019, *From infrastructure costs to health and environmental impacts - European Commission shares first findings on the true costs of EU transport*. Available at: https://transport.ec.europa.eu/news-events/news/infrastructure-costs-health-and-environmental-impacts-european-commission-shares-first-findings-true-2019-01-10_en.

⁶⁶ External costs, also called negative externalities or spill overs, are costs imposed upon third parties during an economic activity.

⁶⁷ Ibid.

This case study builds on the findings of desk research and consultation with relevant stakeholders in the sector, i.e., three interviews with its representatives at the European and international level (the list of interviews is presented in Annex 2). The following sections provide an overview of the EU digital and green pieces of legislation that are most relevant to the sector, their impact on SMEs, and the key expectations of interviewed stakeholders to mitigate costs and burdens for SMEs.

4.1.2. EU digital and green legislation relevant to the sector

We identified a number of relevant pieces of legislation, both already implemented and upcoming, that drive the uptake of digital and green solutions in the transport sector. Stakeholders interviewed focused their feedback on sectoral legislation, disregarding the horizontal legislative acts, described above in Chapter 3. According to them, SMEs are not aware of horizontal green and digital legislation such as the GDPR but are only concerned about what impacts their day-to-day operations. Instead, for the remaining legislative acts, they tend to passively rely on any available support from umbrella organisations such as national and European trade associations.

In the digital domain, interviewees indicated three pieces of legislation as particularly relevant for the sector, namely:

- **Regulation (EU) 165/2014 on tachographs in road transport:** it aims at ensuring that operators drive safely and are well-rested. Tachographs have been introduced as a technology that allows to identify drivers' locations and record their breaks. Starting from August 2023, targeted new vehicles in both freight and passenger transport need to install the latest technology of "intelligent" second-generation tachographs⁶⁸. Already registered vehicles are instead required to install them by August 2025 at the latest⁶⁹;
- **Directive (EU) 2020/1057 laying down specific rules for posting drivers in the road transport sector:** enacted in 2022, it introduced a series of administrative rules for road operators related to the posting of drivers, requiring hauliers to use the IMI system, a digital platform, to send posting declarations to other Member States and any requested information. It also introduced penalties in case of infringements, and 'smart enforcement' requirements for EU Member States; and
- **Regulation (EU) 2020/1056 on electronic freight transport information:** it established a legal framework to allow economic operators to share information concerning the transport of goods by road, rail, inland waterways and air in the EU with enforcement authorities in electronic format (via the so-called electronic freight transport information, or eFTI, platform). The requirement will enter into force in August 2024 and will help regulate exchange of information of haulage documents between operators and national authorities by use of the (eFTI) platform.

In the green domain, the obligations are often directed to vehicle manufacturers rather than transport operators. However, specific requirements can have an indirect impact on the daily operations of the transport operators as well. Therefore, the interviewees indicated the following pieces of legislation are particularly relevant for the sector:

⁶⁸ Targeted vehicles are those having a mass of more than 3.5 tonnes when they are intended for the transport of goods, or vehicles carrying more than 9 persons including the driver, when they are intended for the transport of passengers.

⁶⁹ Given the shortage of second-generation tachographs, the Commission extended the implementation period until the end of 2023 for HDVs registered since August 2023.

- **Directive 1999/62/EC on the charging of vehicles for the use of road infrastructures:** also known as “Eurovignette Directive”, this is a legal framework that provides rules for charging heavy goods vehicles for the use of certain roads. The Directive aims to eliminate distortions of competition between transport undertakings;
- **Regulation (EU) 459/2012 as regards emissions from light passenger and commercial vehicles (Euro 6)** and the Regulation (EU) 2024/1257 on a **Euro 7 standard:** these pieces of legislation introduce emission standards with legal requirements for vehicle manufacturers to reduce the emissions. The so-called “Euro VI” standards are the most recent and currently most stringent standards under the Euro 6 Regulation framework. For example, for HDVs in both freight and passenger transport, the Euro VI standards require a reduction in 77% of oxides of nitrogen emissions from diesel vehicles⁷⁰;
- **Regulation (EU) 2019/1242 setting CO2 emission performance standards for new heavy-duty vehicles:** it sets out the EU’s first CO2 emissions standards for heavy-duty vehicles, of 15% reduction from 2025 and 30% reduction from 2030; and
- **Directive (EU) 2023/959 establishing a system for greenhouse gas emission allowance trading:** this includes more ambitious targets for cutting emissions of the transport sector and, among other obligations, creates a separate Emissions Trading System (ETS) for road transport, the so-called ETS 2, which will be launched in 2027.

4.1.3. Impact on SMEs

a. Impact of digital legislation

According to interviewees, the digital transition of the road transport sector has the potential to provide several benefits. For example, in freight transport it can help increase coordination between so-called “shippers” such as manufacturers and supermarkets, and transport operators: with technological means, it is easier to **identify available slots and opportunities** to load trucks, therefore always ensuring to reach the maximum load capacity and avoiding the issue of empty loads, that generates negative consequences both for the operators and the environment.

However, stakeholders argue that this transition, and the related legislative acts, will create several costs for companies, particularly SMEs. First of all, this is due to the high upfront investments that SMEs will have to face to comply with the legislation. Mobility-as-a-Service (MaaS) automation and digitalisation of the industry will hugely impact SMEs which will not be able to access the necessary finance for the required electrification and automation of trucks. As explained by an interviewee, it is very difficult for SMEs in this sector to access a loan because the nature of transport businesses is considered high-risk due to the fact that contracts are very short (months), and margins are very low (1-5%). The reduction in competitiveness of SMEs could generate negative spill overs also in the public transport sector. When public authorities open calls for tenders to procure a public transport service featuring a high number of electrified or automated vehicles, SMEs will be excluded from this market *a priori*.

Secondly, the digital transition will require several reskilling efforts from companies. As explained by an interviewee, automation in this sector is rapidly progressing: it can be expected to enter a stage of automation during which drivers will stay in the vehicles but will not drive them. Eventually, it is possible to envisage a future where drivers will not be needed inside vehicles. This radical change

⁷⁰ The International Council on Clean Transportation, 2016, *A technical summary of Euro 6/VI vehicle emission standards*. Available at: https://theicct.org/sites/default/files/publications/ICCT_Euro6-VI_briefing_jun2016.pdf.

entails the need to invest in reskilling of 5 million drivers and help them acquire new skills, transitioning them towards “mobility managers”. Of course, investing in digital literacy and automation trainings entails very high costs for smaller companies.

Beside the above-mentioned general concerns, interviewees have specifically emphasised the financial burden of the Tachographs Regulation. According to their estimates, acquiring a new tachograph will cost between EUR 500 and 2,000 for each vehicle. An additional concern expressed by stakeholders in relation to this Regulation is that it further strengthens so-called “**tachograph anxiety**”. This is a phenomenon caused by the more and more precise recording systems introduced with intelligent tachographs, that do not leave rooms for mistakes in recording breaks and driving times. As a result, drivers are more and more “anxious” about using them and making mistakes, which can result in heavy fines. According to an interviewee, the difficulty in adapting to the new technology discourages people to become drivers, which contributes to the shortage of drivers in this sector.

The Posted Drivers Directive, on the other hand, was considered by interviewees as generating both positive and negative impacts on SMEs. This Directive was introduced with a purpose to reduce administrative burden of compliance for companies by providing them with a digital portal to submit posting declarations and any requested information to other Member States. According to an interviewee, the platform, which is considered user-friendly, and a harmonised approach across the EU have indeed considerably reduced the burden on SMEs, in particular related to paperwork. However, the Directive has also generated an indirect effect, due to the rules of the Directive on driver’s salaries and holiday days. According to this Directive operators who have drivers active in another Member State are required to provide them with a salary and holiday counts foreseen by the legislation of the hosting country. This requirement is burdensome because there is no harmonised, clear and accessible method to facilitate calculation of these. Therefore, SMEs have to rely on expensive external consultants and other third parties to calculate them.

Interviewees have expressed appreciation for the electronic freight transport information Regulation as an opportunity to reduce further administrative burdens for SMEs. There are positive expectations in the sector on the ability of the eFTI platform to facilitate the exchange of information of haulage documents between operators and national authorities as from August 2024. In fact, this will represent a centralised virtual space where operators will be able to share documents, possibly without reporting the same type of information more than once, therefore reducing the administrative costs of this operation for SMEs.

b. Impact of green legislation

According to interviewees, the green transition poses the biggest challenges for SMEs in this sector, for a variety of reasons. First of all, legislative acts such as Regulation (EU) 2019/1242 setting CO₂ emission performance standards for new HDVs and the ETS Directive (EU) 2023/959 are demanding the move towards zero-emission vehicles in a context where the market and the infrastructure are not ready. According to stakeholders, at the moment only 1% of trucks on the market are zero-emission⁷¹, and they are 2-3 times more expensive than a combustion truck. In passenger transport, instead, hydrogen or electric coaches are not yet available on the market, there are only prototypes. In addition, interviewees expect that the legislation will set even more restrictive emission standards in the upcoming years. This entails that in the near future, vehicle manufacturers will only have to produce vehicles according to the stringent standards, and the availability of diesel trucks with an older

⁷¹ This mostly includes trucks powered by hydrogen fuel cells.

emission technology will diminish. Therefore, trade associations expect that their price – while remaining lower than low-emission vehicles - will rise, and companies will not be able to afford them.

In addition, the electric grid that supplies the charging stations and that that is supposed to support the transition towards zero-emission vehicles is not ready yet, despite ongoing efforts under the Alternative Fuel Infrastructure Regulation⁷². For example, as mentioned by an interviewee, charging a standard 40-ton truck requires an electricity equivalent of powering 120 households.

Transport operators, in particular SMEs, are faced with a challenge of planning an uncertain investment cycle for the upcoming years. In fact, they will have to take into consideration high upfront costs to comply with the obligation to acquire low-emission vehicles. At the same time, there is great uncertainty over the actual implementation of this obligation because low-emission vehicles and the infrastructure are not ready yet. This uncertainty also has the indirect effect of creating two separated markets: the public and the private, both having completely different investment capabilities. In the public sector, for instance, some hydrogen buses are already being used in different municipalities in the EU, despite costing 2.5 times more than fossil-fuelled buses.

Moreover, interviewees argue that these legislative initiatives implementing emission standards provide one-size-fits-all solutions, without taking into account the features and heterogeneity of companies within the sector. For example, when it comes to incentivising the use of carbon-neutral fuels, it is important to recall that trucks can have different mission profiles. For some, such as those carrying chemical products, it is not safe to use an electric engine because they carry highly inflammable materials.

Another challenge, similar to the one mentioned for the digital transition, is related to the need of re-skilling. According to an interviewee, teaching drivers better driving skills can reduce CO₂ emissions of their vehicles by 10%. However, this is also a costly investment that SMEs are not capable of pursuing.

Moreover, interviewees are concerned about what they consider inconsistency between legislative initiatives in the area of the green transition, which may cause SMEs to make empty investments or disincentivise them from complying with the legislation in the first place. For example, stakeholders expressed concerns on the Eurovignette Directive, as its current version⁷³ taxes fossil-fuelled vehicles and only promotes zero-emission ones. They claimed the unfairness of this rule, because it does not take into account that transport operators are now investing, as requested by EU legislation, in vehicles meeting Euro 6 and soon, Euro 7 standards. Despite their economic investment to acquire the cleanest and, above all, most available technology on the market, they have to pay the same taxes of operators who still use Euro 2 vehicles. In addition, interviewees highlighted an issue of double taxation. On top of the tax imposed by the Eurovignette Directive, a Member State is also allowed to request a tolling tax, differentiated based on the type of vehicles, for a CO₂ externality, as foreseen by the ETS Directive applicable from 2027. As a consequence, a truck may pay an emission-related externality both under the Eurovignette Directive (a tax) and under the ETS Directive (a charge). According to EU-level SMEs representatives, this has been object of several complaints from their members.

Finally, stakeholders mentioned the Euro 7 Regulation as cause of concerns among SMEs. In fact, while Euro 7 is considered a proportionate legislative act, it will be important to ensure that, by purchasing the new technology, companies are not making an empty investment. For example, several cities

⁷² In July 2023, this new Regulation was adopted as part of the Fit for 55 package. It will incentivise the installation of more recharging and refuelling stations for alternative fuels across the EU.

⁷³ Directive EU 2022/362 of the European Parliament and of the Council of 24 February 2022 amending Directives 1999/62/EC, 1999/37/EC and EU 2019/520, as regards the charging of vehicles for the use of certain infrastructures. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L0362>.

across the EU are currently adopting similar initiatives to close the traffic and allow only zero-emission vehicles to run within the city centres. If companies were not allowed entering the city despite investing in the latest technology, this could create a strong disincentive for SMEs to comply with this legislation.

4.1.4. Tools for cost mitigation and key expectations from stakeholders

The interviews revealed that knowledge and application of digital solutions such as the eID or the eSeal are not widespread within the sector. However, interviewees made several suggestions for better tailoring EU legislative initiatives to the needs of SMEs.

First of all, all interviewees have called for **a more consistent, predictable and stable legislative environment**, taking account of the complexity of the twin transition and its impact on day-to-day operations. In other words, the multitude of pieces of legislation should not overlap, should be easy to interpret, and should be based on solid assessments of the level of readiness of the market. Stakeholders mentioned the importance of monitoring the impact of new pieces of legislation also after they have been introduced, in order to identify potential deviations for the impact assessments and revise accordingly.

Second, a more holistic approach is needed, according to interviewees, in order to ensure that all stakeholders in the sector cooperatively work towards the same purpose. In fact, the currently available pieces of legislation seem to target only the transport operators, defined by an interviewee as “low hanging fruits”. Instead, interviewees have called for a greater involvement of Member States in this transition, and for an EU policy focused on developing the infrastructure of charging stations, so that it is ready to serve the growing numbers of electric vehicles. Additionally, SME representatives expected a more coordinated approach across the EU in the implementation of the Posted Drivers Directive, for example by developing a database or calculator of salary and holidays of posted workers in cabotage operations at European level (centralised and managed, for instance, by the European Labour Authority).

Finally, in a move towards more digitalised, automated and clean vehicles, interviewees also called for more financial and administrative support from public authorities in the efforts to acquire new technologies as well as invest in re-skilling and re-profiling of drivers. This would allow to counter the shortages in skilled labour force in haulage operations. With trainings and digitalisation, this profession would become more and more sophisticated and therefore more attractive for employees.

4.2. Accommodation

4.2.1. Context

The accommodation sector in the EU is a broad industry, including various types of businesses. One essential part of this sector includes traditional hotels. Furthermore, the sector comprises companies that offer services related to property rentals, ranging from apartments to cottages and vacation homes⁷⁴. A more recent addition to this sector is the emergence of online platforms that help individuals and groups find and book different accommodation options⁷⁵.

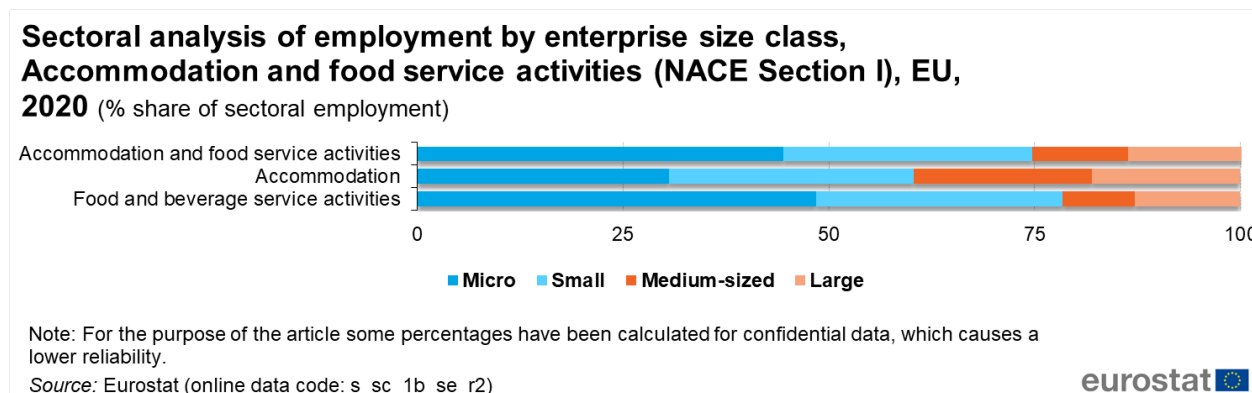
⁷⁴ Statista, 2023, *Accommodation*. Available at: <https://www.statista.com/markets/420/topic/1018/accommodation/#overview>.

⁷⁵ *Ibid.*

From an economic standpoint, the accommodation sector in the EU is substantial, having an overall turnover of EUR 128 billion in 2020. The accommodation sector in the EU is predominantly represented by SMEs. Out of the total of approximately 380 thousand companies, 86% are considered SMEs⁷⁶.

In terms of employment, accommodation sector employs more than 2.18 million jobs which was 9.4% of the total employment in the non-financial business economy in 2020. SMEs in this sector reportedly employ 80% of the sector’s total workforce as illustrated in Figure 3 below.

Figure 3. Sectoral analysis of employment by enterprise size class



Source: Eurostat, 2020.

In the recent years, the accommodation sector has witnessed an acceleration of digitalisation. For instance, in 2019, over half (54%) of the EU’s internet users purchased travel and holiday accommodations online⁷⁷. In addition, 77% of accommodation service businesses in the OECD countries have a website or homepage, and 70% use social media for their operations⁷⁸.

The push towards a digital economy has forced many SMEs to rethink their business models and strategies. This transition took multiple forms, from the growth of online booking platforms and contactless payments to the adoption of virtual tours and the increased use of data analytics for personalised services. In the case of online booking platforms, Major online collaborative economy platforms like Airbnb, Booking, Expedia Group, and TripAdvisor revealed that in 2019, approximately 1.5 million guests were staying in accommodations reserved through one of these platforms underscoring the acceleration of digitalisation in the accommodation sector and the growing importance of such platforms⁷⁹.

By embracing these digital innovations, businesses can streamline operations, provide personalised guest services, improve communication, and gain valuable insights through data analytics. Digital adoption in accommodation is becoming increasingly crucial in meeting the evolving expectations of tech-savvy guests and staying competitive in the modern hospitality landscape⁸⁰.

⁷⁶ European Commission, 2023, *Annual Report on European SMEs 2022/2023*. Available at: https://single-market-economy.ec.europa.eu/system/files/2023-08/Annual%20Report%20on%20European%20SMEs%202023_FINAL.pdf.

⁷⁷ OECD, 2021, *Tourism Trends and Policies 2020*. Available at: <https://www.oecd-ilibrary.org/sites/f528d444-en/index.html?itemId=/content/component/f528d444-en>.

⁷⁸ *Ibid.*

⁷⁹ European Commission, 2021, *Eurostat publishes first statistics on short-stay accommodation booked via collaborative economy platforms*. Available at: https://single-market-economy.ec.europa.eu/news/commission-eurostat-publishes-first-statistics-short-stay-accommodation-booked-collaborative-economy-2021-06-29_en.

⁸⁰ Skift, 2020, *The 2020 Digital Transformation Report*. Available at: <https://skift.com/wp-content/uploads/2020/08/The-2020-Digital-Transformation-Report.pdf>.

The green transition is equally significant for the sector. The sustainability agenda has placed a new focus on eco-friendly practices within the accommodation sector. Businesses are encouraged to adopt sustainable practices such as reducing energy consumption, minimising waste, promoting local biodiversity and offering locally sourced food. Many establishments have also started to promote “green tourism” or “eco-tourism” in a bid to attract a growing segment of environmentally conscious travellers. The growing interest in green tourism and eco-tourism is reflected in the significant increase in sustainable travel searches and choices among travellers. In 2021, a survey by Booking.com highlighted that 61% of travellers expressed a desire to travel more sustainably in the future⁸¹. This shift in consumer behaviour is further supported by Eurostat's 2021 findings, where 82% of EU citizens indicated readiness to alter their behaviour for more sustainable travel⁸².

4.2.2. EU digital and green legislation relevant to the sector

SMEs in the accommodation sector have obligations that vary based on the types of services they offer. Traditional hotels and other accommodation providers have to comply with administrative requirements relating to privacy and data protection reporting. On the other hand, online accommodation booking platforms face transparency requirements typically imposed on all digital platforms. Most relevant digital legislation therefore include:

- Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (**General Data Protection Regulation**);
- Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (**Digital Services Act**);
- Regulation (EU) 2022/1925 on contestable and fair markets in the digital sector (**Digital Markets Act**); and
- Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC.

Traditional hotels and other accommodation providers are the ones most impacted by the environmental (or 'green') legislation. This legislation often stipulates considerable financial investments from these companies in order to meet the compliance requirements. Most relevant green legislation include:

- Directive 2010/31/EU on the energy performance of buildings (recast); and
- Directive (EU) 2018/852 amending Directive 94/62/EC on packaging and packaging waste.

⁸¹ Booking, 2018, *Where Sustainable Travel is Headed in 2018*. Available at: <https://news.booking.com/where-sustainable-travel-is-headed-in-2018>.

⁸² Eurobarometer, 2021, *Flash Eurobarometer State of the European Union*. Available at: <https://www.europarl.europa.eu/at-your-service/files/be-heard/eurobarometer/2021/soteu-flash-survey/soteu-2021-report-en.pdf>.

4.2.3. Impact on SMEs

a. Impact of digital legislation

GDPR requires considerable effort from companies, with SMEs often relying on external service providers to comply. The cost of retaining advice, and implementing systems, is steep. GDPR compliance requires collaboration across vendors and employees in IT, cybersecurity, digital forensics, and systems design⁸³. Despite the initial adoption challenges, many SMEs have successfully integrated GDPR requirements into their workflows⁸⁴.

The Digital Services Act (DSA) imposes a new level of operational transparency and accountability on online platforms including online travel agencies (OTAs). Like any online platforms, OTAs have to reveal their algorithm workings (Article 24) and provide extensive complaint handling procedures (Article 17), necessitating additional resources, increased administrative responsibilities, and potential costs⁸⁵. Even more taxing are the DSA's strict norms on handling illegal content (Article 8), demanding consistent monitoring, immediate removal, and detailed reporting of such content from platforms and conducting risk assessments (Article 26)⁸⁶. This entails significant investments in technological capabilities, personnel for regular oversight, and robust reporting mechanisms. These increased demands lead to higher administrative costs that could place a substantial financial strain on smaller online travel agencies, turning the well-intentioned DSA into a challenge for them.

The Digital Markets Act (DMA) is designed to foster fair and open competition in the digital market, mainly aiming to restrict the dominance of large tech companies often regarded as 'gatekeepers'. Although online accommodation booking platforms are not explicitly categorised as 'gatekeepers', they are often compelled to modify their operations due to changes enacted on the large tech firms they depend on for various services like advertising or cloud services, as a kind of trickle-down effect⁸⁷. This chain reaction implies that smaller OTAs are indirectly affected by the DMA, facing the potential challenges of adapting to service changes or disruptions.

From the other side of the spectrum, while the DMA does not directly impact hotels, there are concerns within the hotel industry that the DSA does not adequately address the dominance of large online booking platforms, which aren't classified as 'gatekeepers' under current regulations. A study from HOTREC, the association for hotels, restaurants and cafes in the EU, on hotel distribution reveals a significant shift in the European hotel market: the presence of OTAs increased from 20% in 2013 to 29% by 2019, while direct bookings by customers fell from 58% to 47% over the same period⁸⁸. This shift is financially challenging for hotels, as they face fees from OTAs that can account for 10% to 20% of their revenue⁸⁹, according to insights from industry stakeholders.

⁸³ HotelTechReport, 2024, *GDPR for Hotels: Here's What You Should Know*. Available at: <https://hoteltechreport.com/news/data-protection-act>.

⁸⁴ Based on the interview with the stakeholder.

⁸⁵ Latham & Watkins, 2023, *The Digital Services Act: Practical Implications for Online Services and Platforms*. Available at: <https://www.lw.com/admin/upload/SiteAttachments/Digital-Services-Act-Practical-Implications-for-Online-Services-and-Platforms.pdf>.

⁸⁶ Tech Crunch, 2021, *EU considers single rules for regulating vacation rental platforms*. Available at: https://techcrunch.com/2021/09/29/eu-considers-single-rules-for-regulate-vacation-rental-platforms/?guccounter=1&guce_referrer=aHR0cHM6Ly9jaGF0Lm9wZW5haS55jb20v&guce_referrer_sig=AQAAAJURp6QQc_9g7mH28BJVDtn89Wb9JXZZ8cL7Z3FAJ4I4YO0lbMdrRIYul5mORfC5q2_5mF-F36mGojqmZ9AYFtdfbBgtFeZoUAUEmOfOaaeyONdX6of4PbrCGSIWtPC2iXGBMwrril40tE7zOL9VsnsgCaFs3labnEsfPWt39wa.

⁸⁷ Based on the interview with the stakeholder.

⁸⁸ HOTREC, 2022, *HOTREC Hotel Distribution Study*. Available at: https://www.hotrec.eu/en/media/hotrec_hotel_distribution_study_2022.html.

⁸⁹ Based on the interviewed stakeholder from the hotel industry.

The largest OTA Booking.com has publicly announced its position as a non-gatekeeper with regard to the DMA regulation. The EC has validated Booking.com's self-designation, so the platform is in an advantageous position: by avoiding being subject to the control of the new regulation, it increases its power over hoteliers⁹⁰. Findings from desk research and interviews indicate that this decision was not happily received by the hotel industry indicating that further actions are needed to limit platform's impact to the hotel industry.

The Directive on Administrative Cooperation (DAC) is a law drafted with a principal aim to improve transparency within the EU, particularly in relation to the income generated by sellers via digital platforms such as online accommodation providers. The targeted outcome here is to establish a fair digital economy and also to reduce tax evasion. However, for businesses in this industry, this directive poses considerable challenges. The mandate to regularly report seller data and transaction specifics to tax authorities can be both resource-intensive and complex, adding an extra layer of administrative tasks⁹¹. Further complicating matters, EU Member States have varying interpretations and implementations of the DAC. Understanding and complying with each jurisdiction's distinct DAC application results in a confluence of complex regulations that businesses must navigate. This significantly increases the workload and operating costs of businesses in the accommodation sector, adding to the challenges faced in an already demanding regulatory environment.

b. Impact of green legislation

The Energy Performance of Buildings Directive (EPBD) is an initiative to strengthen energy efficiency across the European Union's building sector. It focuses on establishing a common minimum standard for energy performance, requiring energy performance certification and encouraging the retrofitting of existing buildings for optimised energy use are amongst the objectives of the EPBD.

For SME hotels, compliance with this directive implies dealing with a set of regular procedures like energy audits, obtaining and prominently displaying energy performance certificates, ensuring the installation and inspection of building automation and control systems along with heating and air conditioning systems. Investments in sustainability and energy efficiency are necessary for hotels to comply with these regulations. Upgrading to more energy-efficient lighting and HVAC (heating, ventilation and air conditioning) systems, implementing smart room technologies, and using renewable energy sources like solar panels are costly for compliance⁹².

According to a report by the European Investment Bank (EIB), the total investment needed to achieve the EU's energy efficiency targets for the hotel industry could be up to EUR 6 billion per year until 2030. While there are European subsidies available to cover some of these costs, SMEs, in particular, often are not aware of such funding opportunities available and they consider the investments to be too costly⁹³. Investing in sustainability can result in long-term savings on heat and electricity, and it may appeal to the increasing number of tourists who prioritize sustainability. However, many hotels view these commitments as a short-term burden due to the high perceived cost of initial investment and delay in realising the payback⁹⁴.

⁹⁰ Hospitality Net, 2023, *Digital Markets Act DMA, what does this mean for your hotel?* Available at: <https://www.hospitalitynet.org/news/4119274.html>.

⁹¹ Deloitte, 2023, *DAC7: impact due diligence and reporting rules on hospitality platforms*. Available at: <https://www2.deloitte.com/nl/nl/pages/tax-news/articles/dac7-impact-due-diligence-and-reporting-rules-on-hospitality-platforms.html>.

⁹² SKAL International, 2023, *The impact of EU rules for energy efficiency in hotels*. Available at: <https://www.skaleurope.org/news/the-impact-of-eu-rules-for-energy-efficiency-on-tourism/>.

⁹³ Based on the interview with the stakeholder.

⁹⁴ *Ibid.*

Directive (EU) 2018/852, concerning packaging and packaging waste, seeks to mitigate the environmental repercussions of packaging waste across the EU membership. This is achieved by advocating preventative measures against the creation of packaging waste, encouraging the reuse and recycling of packaging material, and decreasing the total amount of packaging waste directed towards landfills.

For hotels, the PPWD implies more stringent oversight of waste management practices. Crucial aspects include careful documentation of their compliance and regular reporting to relevant authorities. This creates an additional administrative burden, as hotels have to invest time and possibly financial resources into meticulously tracking and managing their waste, documenting the process, and then regularly reporting it.

Burdensome provisions for hotels include those related to extended producer responsibility (Article 8a), reporting and documentation requirements (Article 12), and waste management and minimisation obligations (Articles 4 and 6)⁹⁵. These require hotels to adopt specific waste management practices, collaborate with suppliers for compliant packaging, and maintain detailed records for regulatory compliance, adding to the operational and administrative workload.

4.2.4. Tools for cost mitigation and key expectations from stakeholders

The interviews indicate that knowledge and application of EU level digital measures such as the eID or the eSeal are not common among businesses in the accommodation sector. Instead, businesses are more likely to use national digital measures available in different Member States.

Stakeholders believe, however, that initiatives such as EU Social Security Number and Single Form have positive potential for businesses in the accommodation sector in the future.

The Social Security could simplify the process of identifying and verifying employees across different EU Member States. This is a very important consideration within the accommodation sector given the high levels of cross-border employment, including seasonal workers during the peak tourism seasons⁹⁶.

On the other hand, the Single Form initiative would help businesses in the sector to reduce the administrative burden by integrating several EU funding forms into one streamlined application. In the accommodation industry, this can be instrumental in funding cross-border expansion, advancements, and innovation⁹⁷. Implementing such measures can support businesses in strengthening their services, improving their facilities and training staff.

The following recommendations were provided by the stakeholders:

- Establish a structure for regular consultations between the EU institutions and the sector representatives, which would ensure their concerns are effectively represented and considered in legislative changes, providing them with a chance to adapt their business strategies and fostering a regulatory environment that supports their growth and prosperity;
- Formulate more practical, business-friendly regulations, shifting away from an overly pre-emptive approach, and instead create legislation which balance the need for compliance with an understanding of real-life business operations;

⁹⁵ *Ibid.*

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*

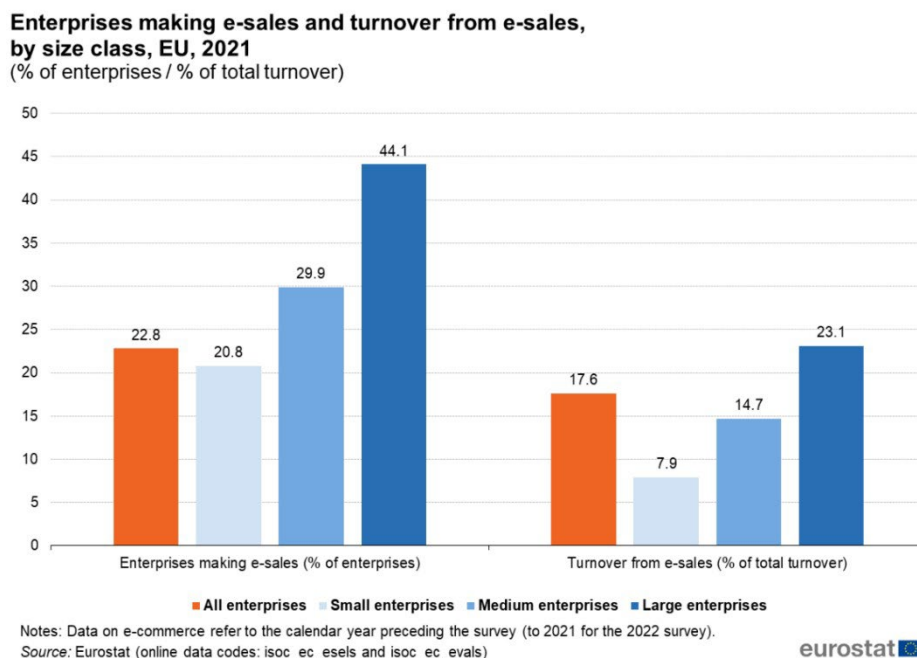
- Develop a predictable and stable legislative environment that takes into account all actors in the ecosystem in a holistic way (e.g., hotels and online travel agents);
- Monitor the readiness of the market to adapt to legislation ex ante and monitor constantly the impact of legislative acts ex post to avoid a market crash. Interviewed stakeholders argue that this is not sufficiently implemented at the moment; and
- Support smaller companies in their training of new profiles, in order to cope with the new digital and green solutions. For instance, in relation to the GDPR, this could include providing accessible training on data privacy. It is important that these training resources are well-promoted and distributed more effectively.

4.3. E-commerce

4.3.1. Context

E-commerce refers to the trading of goods or services over computer networks such as the internet. Online sales can take place via an online store (website, e-commerce marketplace), web forms on a website or extranet, or “apps” regardless of how the Internet is accessed (computer, laptop, mobile phone, etc.)⁹⁸. In 2021, 22.8% of enterprises in the EU made e-commerce sales. These e-sales accounted for 17.6 % of the total turnover generated during 2021⁹⁹. However, as can be seen in Figure 4 large enterprises make significantly greater use of (and obtain higher revenues from) e-commerce than SMEs.

Figure 4. Enterprises making e-sales and turnover from e-sales by size class



Source: Eurostat, 2021.

⁹⁸ OECD, n.d., *Understanding E-Commerce*. Available at: <https://www.oecd-ilibrary.org/sites/1885800a-en/index.html?itemId=/content/component/1885800a-en>.

⁹⁹ Eurostat, 2024, *Digital economy and society statistics – enterprises*. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Digital_economy_and_society_statistics_-_enterprises#Enterprises_engaged_in_e-commerce.

There are also significant differences in the engagement of SMEs in e-commerce in different Member States. For example, amongst small businesses with less than 10 employees engaging in e-commerce, revenues from e-commerce amounted to 13.7% of total sales in Germany and 12.9% of the total in Sweden, but only 6% in France¹⁰⁰. E-commerce can involve SMEs from different sectors, but largely comprise companies involved in sales of retail goods and services including food and drink. A separate, specific case study has been carried out regarding accommodation providers, which are also often involved in online sales.

The engagement of SMEs in e-commerce (and associated digital technologies such as big data processing AI and Virtual Reality, or VR) is a key objective for the Digital Decade programme¹⁰¹. SMEs engaged in e-commerce are also likely to be involved in using other digital technologies and seeking and potentially supporting digital training for their workforce. E-commerce can also be a contributor to environmental impacts through the use of data centres and communication technologies which consume energy, as well as through packaging and the transport used to deliver physical goods to consumers. However, the digital delivery of previously physical goods (such as media) and booking processes can also limit emissions from manufacturing and transport¹⁰².

4.3.2. EU digital and green legislation relevant to the sector

SMEs engaging in e-commerce are affected by the GDPR and provisions on cybersecurity (such as NIS 2 and Cyber Resilience Act) due to the collection, transmissions and processing of customer data which is inherent in their activities. Provisions regarding the value added tax (VAT) in the digital age are also highly relevant. SMEs engaging in e-commerce may also be affected by the Omnibus Directive¹⁰³ (which amends consumer protection law to include provisions on transparency regarding price personalisation), the Digital Services Act due diligence obligations regarding transparency and the forthcoming AI Act, when engaging in relevant practices.

As regards green legislation, relevant provisions include Directives on packaging, including Single Use Plastics¹⁰⁴, which introduces requirements on compulsory marking and extended producer responsibility for Single Use Plastics, the Ecodesign Directive and proposed Eco-design Regulation for sustainable products¹⁰⁵, which includes annual reporting on discarding of unsaleable goods. Meanwhile, the proposal for a Directive on Green Claims¹⁰⁶ would require environmental claims to undergo a verification process by an independent, certified accredited body, and to undergo a national verification process. SMEs are often explicitly excluded from the scope of green requirements, e.g., in

¹⁰⁰ Providers of intermediary services must make reports on content moderation. Other transparency obligations apply to providers of online platforms, although micro and small enterprises are excluded from the majority of such obligations. Source: Eurostat, 2023, *E-commerce sales of enterprises by size class of enterprise*. Available at: https://ec.europa.eu/eurostat/databrowser/view/ISOC_EC_ESELS_custom_9470575/default/table?lang=en.

¹⁰¹ The Digital Decade Policy Programme sets targets that more than 90% of SMEs should reach at least a basic level of digital intensity and at least 75% should take up services such as big data and artificial intelligence. Source: Decision EU 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030. Available at: <https://eur-lex.europa.eu/eli/dec/2022/2481/oj>.

¹⁰² OECD n.d., *Understanding E-Commerce*. Available at: <https://www.oecd-ilibrary.org/sites/1885800a-en/index.html?itemId=/content/component/1885800a-en>.

¹⁰³ Directive EU 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules. Available at: <https://eur-lex.europa.eu/eli/dir/2019/2161/oj>.

¹⁰⁴ Directive EU 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment. Available at: <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

¹⁰⁵ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for setting eco-design requirements for sustainable products and repealing Directive 2009/125/EC. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A0142%3AFIN>.

¹⁰⁶ European Commission, 2023, *Proposal for a Directive on Green Claims*. Available at: https://environment.ec.europa.eu/publications/proposal-directive-green-claims_en.

relation to provisions on discarding of goods under the proposed Ecodesign Regulation, but there can be exemptions and SMEs may nonetheless be affected by obligations on larger companies passing down requirements within the value chain.

4.3.3. Impact on SMEs

A key challenge echoed by all interview partners is that the draft of new legislation is not well understood by SMEs. One small e-retailer selling out of Luxembourg noted that, despite the fact that they had been actively involved in trade associations, they felt completely confused and lost with the regulation that is coming.

a. Impact of digital legislation

Trade associations representing SMEs engaging in e-commerce note that implementation of the **GDPR** involved significant effort and compliance costs during the period following its adoption. Although the required systems are now mostly in place amongst e-retailers and the set-up costs are sunk, companies continue to incur costs to maintain compliance. For example, a family-run German retail store which participates in online marketplaces notes that compliance with the GDPR involves maintenance of a complex customer master-file and arrangement with service providers with whom they share the data e.g., for mailings or e-commerce. Set-up involved investing in a merchandise management system and concluding contracts with each service provider. The German retail store interviewed noted that where they use marketplaces for e-retailing, the customer data is held by the marketplace, which reduces its burden to ensure data protection, but that it has also faced difficulties making use of this data. Conversely, another small cross-border e-retailer operating out of Luxembourg noted that the high implementation costs were likely to mean that SMEs would either not implement the GDPR or take steps to implement it but then not maintain it. In addition, requiring SMEs to maintain significant volumes of data could increase security risks, which SMEs were ill-equipped to manage. This small Luxembourg-based cross-border e-retailer thus noted that the main goal of the GDPR to protect consumers could be missed. This e-retailer also noted that lack of awareness can also result in limited compliance amongst SMEs. As an example, they noted that rules were introduced regarding pricing online in the omnibus regulation, but compliance was likely limited.

The small cross-border e-retailer also noted that SMEs may also fail to comply in some cases because it does not appear to them to be practicable to do so or it is difficult to interpret how the rules should be applied in the specific case. For example, while the Omnibus law seeks to address the practice of showing artificially inflated prices in order to claim to consumers that the store is offering large discounts, compliance can be complicated by the fact that many e-retailers may make use of automated price adjustments to take into account prices offered by competitors.

Lack of compliance or inadequate compliance is being handled by data and consumer protection authorities, but a European trade association claimed that long timeframes for national authorities to solve cases (in particular those under the GDPR) is undermining certainty and hampering cross-border trade.

As regards more recently adopted measures, an EU trade association noted that the **NIS 2 Directive**, which came into force in 2023, could impose relatively high burdens on medium size wholesalers as these companies typically operate on a profit margin of between 1-3%¹⁰⁷, leaving limited funds to cover

¹⁰⁷ The association cited the example of a wholesale company with €15 million turnover and roughly 300,000 € net profit annually. In this case the 100,000 € compliance cost for the first two years would be significant.

the compliance costs (for adaptations to digital infrastructure, changes to internal and supply-chain related processes and reporting), which the EC has estimated could amount to EUR 100,000 per company in the initial phase¹⁰⁸. The interviewee further expresses concern that the Cyber Resilience Act¹⁰⁹, which is expected to enter into force in early 2024, could introduce additional reporting requirements on retailers, requiring them to inform authorities and customers when manufacturers of digital products go bankrupt, a provision they suggest creates duplicate obligations as it is already applicable to manufacturers and importers.

Although it is generally supported by e-commerce merchants, issues have also been raised regarding interpretations of the concept of online platforms under the recently adopted **Digital Services Act**, which could create costs or challenges for SMEs. An EU trade association considered that it fails to acknowledge the specific nature of closed platforms developed by cooperatives to sell online. Independent Retail Europe notes that this results in additional unnecessary obligations, because goods sold via these closed platforms are the same as those available in shops but nonetheless must undergo additional processes relating to illegal products, as well as reporting requirements under the DSA. The interviewee argued that closed platforms such as this should be treated as normal websites (with full liability for content) rather than e-commerce platforms.

Diverging national interpretation of transparency provisions in the DSA and Price Indication Directive has also been highlighted as a challenge for SMEs by another trade association. The interviewee provided an example where the Romanian consumer authority introduced detailed requirements about the type of information that must be displayed when purchasing a product within an online marketplace under the DSA. However, these requirements were not clear to non-Romanian traders supplying cross-border. Similarly, change in rules by Swedish consumer authority on price indication (Article 6a) before “Black Friday”, when most companies already had designed their campaigns, caught non-Swedish SMEs trading into Sweden by surprise.

Stakeholders also reported that measures designed to increase digitisation and foster transparency in invoicing and VAT reporting could prove costly for SMEs in particular. An interviewee noted that the introduction of a **single European standard for e-invoices** will mean that legacy processes must be changed and will in particular impact the merchandise management of retailers which have used the EDI standard for information exchange with their suppliers. This will create significant one-off costs. In addition, while they note that the principle to digitise and align approaches to VAT reporting is positive, some of the associated provisions will create ongoing challenges and costs for SMEs. Specifically, while the **ban on summary invoicing** could help to address fraud, the requirement for individual rather than summary invoices and the obligation for mandatory invoicing within 48 hours will be challenging for SMEs to meet and have a significant impact on accounting costs, as external accountants’ bills are often based on the number of invoices.

Another concern for SMEs engaging in e-commerce is divergent application and enforcement of **consumer protection legislation** across Europe, which is currently undergoing a “fitness check”,¹¹⁰ including assessing the interpretation of and approaches to “dark patterns” and personalisation practices.

¹⁰⁸ European Commission, 2020, *Impact Assessment accompanying the proposal for a Directive on measures for high common level of cybersecurity across the Union*. Available at: <https://digital-strategy.ec.europa.eu/en/library/impact-assessment-proposal-directive-measures-high-common-level-cybersecurity-across-union>.

¹⁰⁹ European Commission, n.d., *EU Cyber Resilience Act*. Available at: <https://digital-strategy.ec.europa.eu/en/policies/cyber-resilience-act>.

¹¹⁰ European Commission, 2022, *Digital fairness – fitness check on EU consumer law*. Available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13413-Digital-fairness-fitness-check-on-EU-consumer-law_en.

Trade associations representing e-commerce merchants note that there may also be implications on SMEs arising from the AI Act. These are not yet clear, although the proposed regulatory sandbox approach is welcome.

b. Impact of green legislation

Stakeholders note that while small companies are excluded from the scope of many environmental measures, SMEs are often nonetheless affected either because the exclusion applies only to micro-organisations or because the obligations are applied to other larger companies in the value chain, which pass them onto SMEs via contractual arrangements as a condition for collaboration. The principle of “extended producer responsibility” (EPR) and packaging regulation are cited as key aspects driving administrative costs for SME e-commerce merchants.

Regarding **EPR**, an interviewee noted that different implementation in different Member States makes EPR obligations difficult to understand and highly resource-intensive to implement for smaller companies. As reported, fulfilling these administrative requirements means up to 300 reports submitted every year, which equates to almost 40 working days per year to comply with e-waste, batteries and packaging rules. The stakeholder added that, taking into account costs for registration, project management, reporting costs, a SME intending to sell 1 mobile phone unit in each of the current 27 EU markets could face administrative costs equivalent to EUR 140,000, while the actual recycling fees can be as low as 1 Eurocent.

Stakeholders highlighted particular concerns that the upcoming **packaging and packaging waste regulation** creates an obligation for companies to create registers in each Member State, following different procedures in different languages to provide different registration numbers and self-certifications to each platform that they use for trading. This generally requires a dedicated representative/lawyer in each Member State in which companies operate, which is prohibitive for SMEs. Divergence in packaging labelling rules across the EU creates further uncertainty and additional costs. Stakeholders are concerned that existing obligations and associated costs could be extended with the addition of further national sustainability and associated information requirements. An interviewee cited the example of Germany, where under the rules for the Deposit Return Scheme (DRS) a retailer typically has to pay a service provider a fee of around EUR 200 per month and write a 10–15-page report about the amount of bottles collected for reuse or recycling. A family-run department store in Germany with online sales notes that it needed to register and estimate packaging quantities, which created costs. These were considered bearable, but only because the proportion of sales online of the retailer were less than 10% of the total. This retailer also found the elimination of plastic bags difficult, noting that they were left with remaining stock that could no longer be used.

Waste regulation can also have implications in particular on SMEs engaged in e-commerce relating to food and drink. The costs include internal costs to estimate the shelf life, collect near to end products and donate or sell them at a lower price, while external costs include conducting audits, paying service providers to ensure that due diligence requirements are met, and paying legal experts to ensure that legal requirements are correctly implemented. A trade association noted that, as they need to meet certain targets, under the revision to the waste regulation as regards food waste, they expect that Member States are likely to require all retailers, including SMEs to report on food waste and food donation. The proposed Ecodesign Regulation also requires detailed annual reporting regarding the discarding of unsellable goods, which stakeholders consider could create administrative burdens, even though the provision nominally excludes application to SMEs.

Another concern cited by stakeholders is that there can be overlapping responsibilities as retailers (operators that make products available on the market) may be given the **same reporting obligations**

as importers or manufacturers (companies that place products on the market)¹¹¹. They note that this risks duplication of effort and legal uncertainty, as it is not clear which operator is finally responsible. In addition, they noted that retailers may have challenges to comply as they handle a large number of products which they have not been involved in producing. They cited the example of the deforestation regulation, where retailers have the same responsibilities as importers for products that have ingredients that can lead to deforestation (soybeans, oil, etc.).

Stakeholders also express concerns that the Green Claims proposal, which will make it mandatory for any environmental claim to undergo a verification process by an independent, certified accredited body, and to undergo a national verification process, may deter SMEs from producing green products or labelling products which are sustainable as such.

4.3.4. Tools for cost mitigation and key expectations from stakeholders

Stakeholders representing SMEs engaged in e-commerce universally highlight that the most positive initiative that has reduced administrative costs was the one-stop-shop and deemed supplier rule on VAT in e-commerce. The introduction of digital formats for reporting and registration has also been highlighted as positive e.g., through the introduction of electronic regulation on deforestation rules. Looking forwards, e-commerce representatives note that they have positive expectations regarding the DPP, a tool proposed by the EC that will share product information across the entire value chain, including data on raw material extraction, production, recycling, etc., with a view to increasing transparency and improving circularity.

Compliance with measures designed to reduce greenhouse gas emissions also has the effect of reducing cost, and thus some small businesses have anticipated regulations e.g., relating to the energy consumption of buildings. However, smaller retailers with a national footprint and more limited online sales note that they have not been able to achieve significant cost savings from digital measures and that some measures considered to be cost saving have in fact increased administrative costs. For example, a small German retailer with online sales notes that German laws requiring QR codes on every receipt and an electronic security module in each cash register required a very high investment. This retailer also considered that the benefits of initiatives such as digital receipts and electronic sick notes were not proportionate to the investments required.

A key take-away from the research and interviews is that a large amount of legislation has entered the statute books recently, and there are concerns that the fast pace of law-making may have come at the expense of detailed analysis and the potential for input from smaller firms¹¹². Trade associations and individual SMEs also note that the legislative landscape has become complex and hard to understand even for larger organisations. This could impede implementation and enforcement.

¹¹¹ An interviewee cited an example regarding Single Use Plastics in the Netherlands. If a food specialist or supermarket gives an order to print their name, logo or brand on packaging material e.g., a coffee to go cup that is considered a Single Use Plastic (SUP), this food specialist / supermarket is considered to be the importer/producer of this SUP packaging material and as such they become responsible for placing the packaging on the market. A retailer / SME importer/producer with own brand on the packaging SUP packaging material needs to fulfil reporting requirements set by the Dutch Government, including detail reports about the amounts of packaging material in SUP units put on the market. This reporting obligations is with the Dutch administrative organisation Afvalfondsverpakkingen. Based on the reports the Afvalfondsverpakkingen sends invoices monthly for the executions of the overall producers' responsibility in the Netherlands. Producers/importers have to register with the administrative organisations Afvalfondsverpakkingen and make annual and monthly statements for levies and registrations of the numbers/amounts kg of packaging materials being put on the market. SMEs have to report about the amount of packaging being put on the market with their name/logo/brand printed on it. SMEs consequently have to pay levies to 'Afvalfondsverpakkingen' in relation to the number of packaging materials being put on the market.

¹¹² Stakeholders representing SMEs in the e-commerce sector point to additional provisions made late in the process that lacked an Impact Assessment. Examples given include Article 6a of the Omnibus Directive and the introduction of the withdrawal function in Directive EU 2023/2673 which extended the scope of the Directive beyond financial services.

SME representatives in e-commerce call for better co-ordination within different Directorates of the EC and highlight the potential to reduce burdens by greater harmonisation and consolidation of green policy in particular, but also consumer and digital policy, with attention to common digital formats for reporting (which are designed to be accessible to SMEs) and an extension of the principle used for the one-stop-shop principle in VAT to other areas, such as a single European register for packaging and packaging waste. There are also calls to streamline reporting obligations for SMEs in particular and avoid the imposition of new reporting obligations. Independent retailers' representatives also suggest that where SMEs are part of a larger group (i.e., a cooperative/associative model), they should be able to pass reporting burdens to the central structure of the group. Regulatory sandboxes, as proposed in the AI Act, are also considered positive.

Another proposal is to ease access for SMEs to EU funding programmes which seek to support the green economy, as access is considered at present to be limited to larger firms which have the resources to understand and develop proposals to participate in these programmes.

Regarding procedures, SMEs in the e-commerce sector call for the application of the "Think Small First" principle, including for the development of amendments to legislation, longer periods to obtain feedback from SMEs and extended transition periods to enable implementation.

Stakeholders note that the next European Commission and Parliament should focus on supporting implementation and enforcement rather than new legislative measures. Enforcement could in turn be improved amongst SMEs by creating a platform for information and sharing best practices, providing information in an adapted format and across all languages and investing more time in the co-creation of guidelines in partnership with SMEs, which should be published at an early stage in the process.

4.4. Manufacturing

4.4.1. Context

The manufacturing sector in the European Union encompasses a wide range of activities and production techniques, from small-scale enterprises to large enterprises and from traditional production techniques to high-tech suppliers of components for complex products.

99.3% of all companies in the EU's manufacturing sector are SMEs, with a majority (84.4%) being micro-SMEs. The SMEs collectively contribute about one third (34.7%) of the sector's added value and offer around half (52.1%) of its employment. In 2022, 8.5% of all SMEs in the EU's non-financial business sector were part of the manufacturing industry. The relative importance of SMEs in the manufacturing sector varies across different EU Member States¹¹³.

The EU's twin transition poses challenges and opportunities for SMEs. Manufacturing SMEs, often integral to value chains, need to adapt to the digital and green transformations driven by larger lead companies. SMEs face challenges in adopting digital technologies: only 30% of EU firms with fewer than 10 employees have already adopted digital technologies, whereas this share increases to 79% for firms with more than 250 employees¹¹⁴.

¹¹³ European Commission, 2023, *Annual Report on European SMEs 2022/2023*; Eurostat, 2024, *Businesses in the manufacturing sector*. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Manufacturing_statistics_-_NACE_Rev._2&oldid=502915.

¹¹⁴ European Investment Bank, 2020, *Who is prepared for the new digital age? Evidence from the EIB Investment Survey*. Available at: <https://www.eib.org/en/publications/who-is-prepared-for-the-new-digital-age>.

The manufacturing sector stands as one of the predominant emitters, accounting for 23.5% of the EU's greenhouse gas emissions in the second quarter of 2023. Despite their smaller individual footprints, the cumulative impact of manufacturing SMEs is substantial, with an estimated production of over 400 million tons of CO₂ in 2018¹¹⁵.

To evaluate the impact of EU digital and green legislation interviews with two SMEs and four SME-associations have been conducted. These interviews encompassed a diverse range of subsectors, including high-tech industry, machine engineering, and artisanal crafts. The insights from these interviews are incorporated into our recommendations.

4.4.2. EU digital and green legislation relevant to the sector

The interviews show that for SME in the manufacturing sector green legislation is far more relevant to their business than digital legislation. Relevant digital legislation, as mentioned in the interviews, includes:

- Directive (EU) 2022/2555 on measures for a high common level of cybersecurity across the Union (NIS 2);
- Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation);
- Proposal for a regulation on harmonised rules on fair access to and use of data (Data Act); and
- Proposal for a regulation laying down harmonised rules on artificial intelligence (AI Act), although the impact is mostly considered to be indirect.

Relevant green legislation as mentioned in the interviews includes:

- Directive (EU) 2022/2464 on corporate sustainability reporting;
- Proposal for a Directive on Corporate Sustainability Due Diligence (CSDDD);
- Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment (EU taxonomy);
- Regulation (EU) 2023/956 establishing a carbon border adjustment mechanism (CBAM);
- Proposal for a new Ecodesign for Sustainable Products Regulation;
- Proposal for a Directive on common rules promoting the repair of goods;
- Regulation (EU) 2023/1542 concerning batteries and waste batteries;
- Proposal for a Directive on substantiation and communication of explicit environmental claims (Green Claims Directive);
- Proposal for a regulation on packaging and packaging waste (PPWR);
- Directive (EU) 2019/904 on the reduction of the impact of certain plastic products on the environment (Single-use Plastics Directive);

¹¹⁵ Eurostat, 2023, *Quarterly greenhouse gas emissions in the EU*. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quarterly_greenhouse_gas_emissions_in_the_EU&stable=1.
European Commission, 2022, *Annual Report on European SMEs 2021/22. SMEs and environmental sustainability*. Available at: <https://op.europa.eu/en/publication-detail/-/publication/0a009ca6-eac2-11ec-a534-01aa75ed71a1/language-en>.

- Proposal for a regulation amending Regulation (EU) 2019/1242 as regards strengthening the CO₂ emission performance standards for new heavy-duty vehicles and integrating reporting obligations;
- Energy legislation such as Directive 2023/1791 (energy efficiency), Directive 2023/2413 (promotion of energy from renewable sources) and Proposal for revision of Directive 2010/31/EU (Energy Performance of Buildings, EPBD); and
- Chemical use legislation such as Regulation (EC) 1907/2006 (concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, REACH); Directive 2011/65/EU (restriction of the use of certain hazardous substances in electrical and electronic equipment, RoHS) and further regulation regarding Per- and polyfluoroalkyl substances (PFAS) such as CLP-VO, Stockholm-Convention and Persistent Organic Pollutants Regulation.

4.4.3. Impact on SMEs

a. Impact of digital legislation

The introduction of NIS 2, with its broader scope encompassing more industries, presents significant challenges for manufacturing SMEs. The expanded requirements of NIS 2, exceeding current IT security measures implemented by many SMEs, necessitate additional personnel and resources. However, there remains a degree of uncertainty about the full extent of its impact, particularly regarding the balance between enhanced security needs and operational feasibility.

The General Data Protection Regulation requires considerable effort from companies, with SMEs often relying on external service providers to comply. Despite the initial adoption challenges, many SMEs have successfully integrated GDPR requirements into their workflows.

The Data Act introduces changes and restrictions in established business models by affecting conditions in contractual agreements regarding data ownership and usage, requiring changes to established practices. Some manufacturing SMEs are concerned that this intervention could initially create uncertainties that might slow down data exchange and increase the workload for legal and development teams. However, it also offers potential benefits by incentivising improvements in data structures within companies. One interviewee explained that concerning the mechanical-engineering sector, individual Business-to-Business (B2B) agreements already benefit both parties and there is no need for further regulation. However, a recent study for the European Parliament concludes that the manufacturing sector, particularly SMEs, could reap significant benefits from increased data sharing, driven by the Data Act¹¹⁶. Since most of the manufacturing SMEs are users rather than providers of AI solutions, the impact of the AI Act is perceived as indirect and mostly small. However, SMEs using high-risk AI systems would face obligations similar to those of providers, as outlined in Article 28 of the proposal. In addition, SMEs deploying and finetuning AI solutions would fall under the scope of the regulation. There are uncertainties around the concrete impact on SMEs.

A notable challenge arises for products with embedded software, such as production machines. Aligning these products with digital regulations is both complex and costly, when compared to updating standalone software.

¹¹⁶ Batura, O., et al., 2023, *The emergence of non-personal data markets*. Publication for the Committee on Industry, Research and Energy. Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU2023740098.

b. Impact of green legislation

Stakeholders interviewed generally considered that green legislation presents a significant challenge for SMEs in the manufacturing sector, surpassing the impact of digital legislation. In general, they highlighted that SMEs face numerous challenges due to the extensive scope of green legislation, the simultaneous introduction of multiple regulations and frequent changes to existing regulation. Even with exemptions in place for SMEs, the impact is substantial as large companies in the value chain pass down standards and obligations to their suppliers.

Most burdens stem from reporting obligations, foremost via the Corporate Sustainability Reporting Directive. The CSRD has been reported as very complex. It extends its influence beyond large companies, affecting the entire supply chain, including SMEs. The exemption for micro-companies is reported as ineffective, as larger companies in the supply chain will pass on data requests. The same applies to the Directive on Corporate Sustainability Due Diligence. SMEs are furthermore challenged by a lack of established data required by CSRD and uncertainty around key performance indicators for the directive.

Although it may have longer term benefits, the development of DPP, included in the proposal for a new Ecodesign Regulation, is anticipated to be burdensome and costly for manufacturing SMEs, although SMEs that have been subject to CSRD requirements might be able to repurpose data. The burden predominantly arises for SMEs that produce mainly customised and small-batched series of products.

SMEs often seek external support to fulfil reporting requirements regarding sustainability, either through service providers or specialised software. This leads to additional costs for services and software, as well as for managing internal interfaces. For example, implementing software solutions for carbon footprint management can create costs in the area of six-digit figures¹¹⁷. One interviewee noted that establishing an integrated management system for data relating to corporate social responsibility demands significant resources, in this particular case the equivalent effort of two full-time personnel for one year. The diversity of reporting systems used in different industries further complicates compliance for SMEs involved in multiple value chains. Managing different systems and standards significantly increases both the complexity and cost of compliance.

Certain stakeholders noted that products that are not aligned with the EU Taxonomy may be perceived unfavourably in financial markets, though the exact impact on manufacturing SMEs remains uncertain. Another concern was that listing products for SMEs that are producing taxonomy-relevant, small-batch series or non-standardised products will require more effort compared to firms that produce standardised products.

The Proposal for a Directive on common rules promoting the repair of goods may offer advantages for manufacturing SMEs by facilitating access to repair-related information for small independent repairers.

Additional legislation such as CBAM, EPBD, EUDR, PFAS regulations and waste management add to the cumulative burden for SMEs. Indirect effects are also noted in legislation like the Single-use Plastics Directive and the Regulation concerning batteries and waste batteries as well as for upcoming regulation like the revision of CO₂ emission performance standards for heavy-duty vehicles.

¹¹⁷ Information provided by an interviewed stakeholder.

An estimation suggests that SMEs might spend approximately two days per month on compliance-related tasks, including reporting, highlighting the significant resource allocation required for adherence to green measures.

4.4.4. Tools for cost mitigation and key expectations from stakeholders

The interviews indicate that knowledge and application of digital measures varies across different actors within the sector. Overall, interviewees which were aware of measures that aim to streamline processes and reduce cost tended to highlight implementation challenges.

The Fit for Future Platform and REFIT Program have been reported to provide valuable support. However, some interviewees pointed out the limited presence and visibility of the SME Envoy Network in certain regions, which hampers its effectiveness as a tool for knowledge sharing and cost mitigation.

Tools like the input platform for CBAM (Carbon Border Adjustment Mechanism) or the SCIP (Substances of Concern In articles as such or in complex objects (Products)) database have been criticised in interviews for lacking functionality. Another concern expressed was that EU-digital solutions are often not compatible or accepted in global markets like the US and China. This incompatibility presents a significant challenge for SMEs operating or aiming to expand in these markets, as they must navigate different regulatory environments and additional tools.

Overall, regulation has been depicted as extensive and increasingly burdensome for SMEs in the manufacturing sector. A major pain point for manufacturing SMEs is the simultaneous introduction of new regulation which creates administrative burdens. Distributing the rollout of regulations over time could significantly reduce the initial burden of compliance, enabling a smoother integration of new requirements into SME workflows. There is also a need for comprehensive support and information regarding regulatory changes and their specific impacts on SMEs. The interviews revealed that while SME associations provide valuable support in this matter, SMEs themselves consider that it still falls short of what is needed.

The interviews have highlighted that exemptions for SMEs in legislation are often not effective, as large companies in the value chain pass obligations to their suppliers. The interviewees agreed that many SMEs have strong internal motivation towards more sustainability. There is also growing demand for sustainable products and practices from their customers. However, stakeholders consider that SMEs lack the capacity to implement all the measures that stem from EU legislation. Hence, stakeholders call for a more effective implementation of the “Think Small First” principle, in-depth SME-tests that review more consistently the effect of legislation on SMEs (ex-ante and ex-post) as well as involving SME associations and specialised bodies early in the legislative process. Stakeholders also query whether the requirements of green reporting legislation meet the demand of customers for easily comprehensible information on sustainability impacts.

This case study underscores the diverse nature of SMEs in manufacturing. Micro enterprises and small series producers face unique challenges compared to larger SMEs. Stakeholders point out that the impact on micro-companies as well as small series producers should be taken into consideration more carefully to account for their distinct financial and operational capacities, with a view to safeguarding innovation and investment decisions.

Another lesson is that even where specific legislation may only have a small impact on SMEs, there is a cumulative impact when multiple pieces of legislation must be implemented. The cumulative impact might furthermore pose a competitive disadvantage especially for export-oriented SMEs in global markets. In some cases, although there are future trade benefits from standardisation, transitioning from current national obligations to comparable European ones can result in additional administrative

burden even when there are small differences in their parameters. Stakeholders therefore call for more comprehensive impact assessments of legislation that take these effects into account. In order to support export activities there is also a need for digital tools that are globally recognised and accepted.

Stakeholders call for considering the creation of a "Green List" of EU companies already complying with CSDDD obligations, which could reduce the reporting burden for SMEs. This approach should not affect the regulation's aims but rather streamline compliance for qualifying SMEs.

In order to reduce reporting burdens and streamline obligations, stakeholders call for a better alignment of information requirements as associated with different initiatives such as the digital product passport, CSRD and CSDDD. Investing in the development of databases, data quality, and standardised interfaces can simplify and further automate the calculation of product carbon footprints, aiding SMEs in compliance and sustainability efforts.

Promoting uniform implementation and monitoring of legislation across EU Member States is crucial. However, regulations are being implemented very differently across Member States and directives are being monitored differently. This can lead to additional effort for SMEs that have to deal with different national implementations. Stakeholders therefore call to favour Regulations over Directives to ensure consistent application and monitoring and also for harmonisation of market surveillance across Europe.

In general, SME representatives call for streamlining existing regulation, more market and price-based instruments along with the strengthening of voluntary agreements. This approach aligns with the "New Legislative Approach", aiming to relieve the burden on companies and authorities.

4.5. Construction

4.5.1. Context

The construction sector encompasses the construction and installation of residential and non-residential buildings as well as the development of building projects¹¹⁸. Within the EU-27 construction sector 99.9% of all companies are SMEs. They contribute about 79% of value added of this sector and offer 87.2% of employment in construction. The construction sector is particularly dominated by very small enterprises and craft businesses. 94% of all construction companies in EU-27 are micro-SMEs with less than 10 employees. Among all EU-27 SMEs of NFBS (Non-financial business sector) industries in 2022, 15.4% belong to the construction sector. Amongst SMEs, construction companies account for 14% of employment and 12.3% of value added¹¹⁹.

The twin transition towards digital and green presents opportunities but also challenges for the SMEs in this sector. Although one of the least digitised sectors, construction is experiencing growth in digital solutions. However, micro-SMEs in construction often lack the funding and skills to benefit from this transition. A major trend in digitalisation of construction sector is the introduction of Building information modelling (BIM). With BIM digital representations of buildings with all their functional characteristics are made and used along the lifetime of those buildings. At the moment, BIM is being mostly developed for the design and construction of new buildings, and less for the operations, maintenance and renovation phase of existing buildings. So, BIM implementation is still fragmented

¹¹⁸ According to NACE Rev. 2.

¹¹⁹ European Commission, 2023, *Annual Report on European SMEs 2022/2023*, p.12,13. Available at: https://single-market-economy.ec.europa.eu/system/files/2023-08/Annual%20Report%20on%20European%20SMEs%202023_FINAL.pdf.

along the value chain. As the majority of projects of SMEs relate to renovation, they have less interest in investing in BIM.

At the same time, the construction sector is an important player in achieving climate and other environmental protection targets, as construction has a major impact on the environment. Around 50% of all extracted material is being used for construction. Moreover, this sector is responsible for more than 35% of EU's total waste generation and 5-12% of total greenhouse gas emissions are caused by material extraction, manufacturing of construction products and construction and renovation of buildings¹²⁰. Thus, there is a need to adapt techniques and working practices to limit its footprint. In addition, the construction industry is an essential enabler in delivering the extensive need for insulation and installation of green solutions such as heat pumps. For example, the European Heating Industry estimates that an additional 0.75 million installers (about 50% more than today) will be needed in 2030 to contribute to the REPowerEU and 2050 zero emission building targets¹²¹. Overall, there is a great potential within the construction sector for achieving climate targets and reducing environmental impact. Digitalisation of the building process including software for CO₂-footprints based on digital building models is expected to be one of the drivers of the green transition as regards buildings and construction.

This case study is based on desk research and interviews with several interviews with associations on European and national level which represent (micro-)SMEs. These were supplemented by interviews with planning offices within the sector.

4.5.2. EU digital and green legislation relevant to the sector

The interviews confirmed that the construction sector is generally more affected by environmental regulation than by general digital regulation. The most relevant purely digital regulations for this sector are:

- Regulation (EU) 2016/679 General Data Protection Regulation; and
- Directive (EU) 2022/2555 Cybersecurity (NIS/NIS2).

However, sectoral environmental legislation contains significant digital requirements, such as those relating to data on carbon footprints and product passports. In addition, construction companies are subject to environmental obligations under new green legislation that come with EU policy schemes under the Green Deal, like the Renovation Wave, the New Bauhaus initiative, and the Circular Economy Action Plan. The most relevant green regulations for the construction sector are:

- Regulation (EU) 305/2011 on marketing of construction products;
- Directive 2009/125/EC on a framework for ecodesign requirements for energy-related products;
- Directive 2010/31/EU on energy performance of buildings;
- Directive 2022/2464 on corporate sustainability reporting;
- Euro 7 Regulation on emissions of light-duty and heavy-duty vehicles;

¹²⁰ European Commission, n.d., *Buildings and construction*. Available at: https://single-market-economy.ec.europa.eu/industry/sustainability/buildings-and-construction_en.

¹²¹ European Heating Industry, 2022, *Heating system installers. Expanding and upskilling the workforce to deliver the energy transition*. Available at: <https://ehi.eu/wp-content/uploads/2022/08/EHI-report-Heating-systems-installers-Expanding-and-upskilling-the-workforce-to-deliver-the-energy-transition.pdf>.

- Directive 2010/75/EU on industrial emissions;
- Directive 2023/1791 on energy efficiency and amending Regulation 2023/955;
- Directive 2023/2631 on European Green Bonds (Taxonomy);
- Regulation (EU) 2023/956 Carbon Border Adjustment Mechanism; and
- Directive 2003/87/EC Scheme for Greenhouse Gas Emission Allowance Trading.

4.5.3. Impact on SMEs

a. Impact of digital legislation

The consulted construction associations and SMEs agree that GDPR causes administrative costs for all SMEs within the sector. Most companies are aware of its existence, but don't understand its exact content. Compliance with the GDPR is not a one-off process but requires constant attention. Benefits of a European harmonised privacy regulation are not seen by small and micro-sized construction companies with a mostly local radius of activity. The interviewed associations estimate that a large proportion of the companies, especially the micro enterprises, are still not GDPR compliant. Those SMEs that are GDPR compliant are in most cases using an external service provider to achieve this.

A national trade gave some examples for the administrative burden associated with GDPR: the GDPR obliges companies to keep a register of data processing activities. Depending on the size of the company it can take several days to complete this register. In addition, SMEs must change all their business documents, websites, and other forms to provide GDPR compliant information (which costs time and money). There is also the need to strengthen the technical security systems, which means relying on an IT-security service provider. According to the interviewee, GDPR compliance can cost at least several thousand euros, an amount that especially micro companies or independent workers do not have. This assessment has been confirmed by a German SME with about 20 employees. This company is spending around EUR 10,000 per year for GDPR compliance. In order to support micro- and small construction companies, an Italian interviewed association stated that they offer free software to its members that supports construction companies with GDPR compliance.

The consulted associations agree that NIS/NIS 2 is relevant for SMEs in the construction sector that are involved in planning, building or maintaining infrastructure and buildings of critical infrastructure. In those cases, a higher level of IT-Security must be maintained.

There are different assessments regarding the data exchange of companies within the sector: on the one hand an Italian association sees the need to create an "European digital construction platform". On the other hand, a German planning office notes that there is mistrust of companies in the sector towards centralised data platforms due to fear of knowledge theft. This interviewee stresses the importance of intellectual property regulation and the need of shared data rooms in accordance with Gaia-X¹²². The same interviewee also sees strong intellectual property security as a prerequisite for substantial application of AI in the construction sector.

b. Impact of green legislation

Many legislative texts have been recently subject to negotiation or revision in connection with the EU Green Deal (Energy performance of buildings, Energy Efficiency Directive, Renewable Energy Directive, Construction Products Regulation (environmental aspects), Machinery Regulation, Carbon Border

¹²² The Gaia-X initiative develops a digital governance that can be applied to any existing cloud/edge technology stack to obtain transparency, controllability, portability and interoperability across data and services. Gaia-X homepage available at: <https://gaia-x.eu/>.

Adjustment Mechanism, EU Emissions Trading Scheme, etc.). Stakeholders note that in some cases different EU legislation may cover similar issues (e.g., CPR and eco-design or market surveillance). For SMEs it is very challenging to keep track of the array of new requirements. They also fear that they will not find enough skilled personnel or external support for their implementation. Moreover, there is little knowledge yet on the respective burdens, the cumulative burdens and the potential inconsistencies between different initiatives.

Although some of the reporting requirements were imposed on larger companies, in particular by the Corporate Sustainability Reporting Directive, the Taxonomy and the Corporate Sustainability Due Diligence Directive, they indirectly also burden their suppliers, which are mainly SMEs. The construction sector is characterised by long value chains that usually integrate many different micro companies. Indeed, to fulfil their reporting obligations, large companies may ask their subcontractors to provide technical information or indicators related to their construction works (“trickle down” effect). SMEs in the construction sector fear a heavy administrative burden from those two pieces of legislation in particular.

The Public Procurement Directive allows environmental and social criteria as a “condition to execute the contract” and to be used in the award of tenders. A European association pointed out that some Member States, like Belgium and Italy, establish green requirements as a condition to applying for their public tenders. For SMEs this means a threshold to apply for public tenders, as investments to fulfil those green requirements are risky as they only cause returns if the tender is successful. The stakeholder emphasised that they do not oppose these elements being used in the awarding criteria/ranking, but they call for not using it as a prerequisite to be a candidate for a tender, which may impede small construction companies from bidding.

There is currently a great deal of uncertainty in the sector about the interpretation of the EU taxonomy. The rules for the control of projects are complex and difficult to understand for SMEs and they leave a lot of scope for different interpretations. Micro and small companies need to engage external experts and specialised staff. The extent of administrative burden resulting from taxonomy and due diligence for SMEs is not yet known.

One interviewed planning office from Germany expects additional liability risks for construction companies and planners caused by the taxonomy. Taxonomy also means additional administrative work: a special report must be drawn up for which new data and historical data are required, some of which are not available in the companies or will need to be reconstructed at significant expense.

Banks find it difficult to use a single standard to assess how green a company is, which is why an interviewed Italian association is conducting a study in Italy to develop a unique ESG (Environmental, Social and Governance) rating system for companies. Without this, it can be difficult for SMEs to make informed decisions. Stakeholders also note that there are challenges for the financial system to make green bonds truly convenient and attractive. Even for projects that should naturally be eligible for green bond financing, the complexity and limited economic advantage of this instrument often lead to the continued use of traditional financing methods. Stakeholders representing construction SMEs call for incentive mechanisms to be put in place to justify the additional costs that SMEs must bear to access these instruments.

c. General effects

In addition to these specific aspects of digital and green legislation, construction companies are confronted with general effects which cause administrative burden. The construction sector has to manage a skill transition in the coming years, e.g., those with skills in gas networks and appliances need a pathway towards other skills, like installing heat pumps. There is a lack of money to support transition

e.g., for renovation in the context of the Energy Performance of Buildings Directive. A stakeholder pointed out that some Member States even grant subsidies for fossil-fuel heating technology.

Different interviewees provided examples of overlapping EU and national legislation, which can involve gold-plating, anticipation at national level of future EU legislation and/or national particularities:

- In France, the Environmental Decree 2020 “RE2020” has preceded the EPBD revision, which could subsequently lead to changes in French legislation and consequently an adaptation for construction companies;
- In Belgium, construction companies suffer from the different application of the Energy Performance of Buildings Directive in the three Belgian regions, in particular from the different methods of calculating energy performance. Overall, in Belgium more than 50% of SMEs fear an increase in administrative burden related to environmental obligations, while 33% of SMEs fear a significant increase in administrative burden¹²³. The fiscal and employment aspects of the administrative burden for SMEs mainly come from national legislation. However, the calculation methods for the energy performance of buildings come from the Energy Performance of Buildings Directive, although the difference between the three regions is due to Belgian specificities;
- Another example of unintended effects of implementation at national level is the digital building permit in Croatia. The aim was to ease permitting, but it was set up without consultation of construction SMEs. The implemented process is difficult to use for SMEs to an extent that there is now the bottleneck in construction projects to find companies which can handle the requirements; and
- A German association observed that SMEs in Germany expect heavy burdens from the Due Diligence Directive based on their experience with the German National Supply Chain Responsibility Act.

Many construction companies did not understand all aspects of the do not significantly harm principle (DNSH). The principle has also changed over time. SMEs often complain about the lack of information on the application of DNSH in contracts under the Recovery and Resilience Plan (NRRP).

4.5.4. Tools for cost mitigation and key expectations from stakeholders

The electronic identification (eID) has already shown its cost-reducing effect. A stakeholder estimated that 337,668 companies are already using the European Digital Identity Wallet in Belgium. It is also estimated that the e-government applications have led to a total saving of EUR 816,917,500 in 2022. New EU Digital Identity Wallet is expected to lower the usability threshold of eID.

E-invoicing is another effective tool for reducing costs. According to a survey carried out in 2021 in Belgium, the total savings resulting from the use of e-invoicing between 1993 and 2020 amount to EUR 1.38 billion¹²⁴. In 2021, most of these savings came from SMEs. As a result, Belgium has recently introduced measures to further promote the use of e-invoicing, including a progressive obligation to use structured e-invoices for public procurement. This obligation will culminate in March 2024 for all contracts above EUR 3,000. In addition, there are plans to extend the use of structured e-invoicing to

¹²³ Information provided by an interviewed stakeholder.

¹²⁴ BOSA, 2022, *Facturation électronique*, p.22. Available at: <https://bosa.belgium.be/fr/themes/administration-numerique/strategie-et-politique-du-numerique/facturation-electronique>.

B2B by 2026, demonstrating the country's ongoing commitment to encouraging the adoption of more efficient administrative practices.

A further digitalisation of documents and building related data is seen as a cost mitigation tool. A Belgian association is convinced that e.g., the digitalisation of all documents that need to be kept on site would considerably reduce the administrative burden for construction companies.

Moreover, it is expected that standardised, EU-wide calculation methods for CO₂-footprint and life cycle-assessment that are mandatory in light of the EU taxonomy will have a positive impact on cost mitigation. The interviewed planning office also hopes that data formats for digital building models (BIM) will be standardised which would have a positive impact on costs, too. International planning services are generally facilitated by Europe-wide regulations.

The forthcoming Construction Parts Regulation introduces an EU wide construction products database and a digital product passport. This will allow SMEs in future to get information on construction parts and their environmental impact and CO₂-footprint more easily. It is expected to access that information in future even with a smartphone on a construction site. The extent to which this will contribute to cost mitigation and encourage cross-border business activity will need to be evaluated from 2030 onwards. An interviewee pointed out that referring to the posting of workers directive, Member States are supposed to provide one single contact point. This should be positive, but they claim it has not been introduced in all Member States.

All interview partners from associations and SMEs complained about the sheer number of new regulations especially on environmental topics that are due to be implemented within a short time period. A common recommendation from interviewees is to pause consideration of new rules, in order to enable SMEs to first implement the numerous new regulations with their reporting obligations in their businesses. This would also increase the regulatory certainty which is currently lacking, according to the associations surveyed.

Stakeholders note that future new regulations should contain longer introduction periods and should be accompanied by better information materials suitable for SMEs, like guidelines e.g., in the application of taxonomy and due diligence. These simplified information materials on business obligations should also be made available in different languages - including in languages of non-EU countries as the workforce in the construction sector includes workers from outside the EU.

Several associations also asked for an inventory of all the legislation adopted during the last few years, including a check for overlapping rules and cumulating effects. On that basis a cumulative impact assessment of digital and green legislation on the construction sector with special focus on (micro-)SMEs and administrative burden should be made. One association called for a simplification of EU consumer law by streamlining and reducing the information obligations to a minimum.

In view of the structure of the construction industry, with its high proportion of very small companies, more effort should be made to support SMEs in the digitalisation process. The digital transformation of SMEs will require not only investments in digital tools but also the reorganisation of working processes, documentation, and archiving. The latter cannot be neglected in the view of the long service life of buildings. Depending on the digitalisation measure chosen and the necessary process adjustments, estimated costs can vary from EUR 120 to over EUR 100,000. Staff also need to be trained for the new digital processes. The interviewees from the construction sector propose more supportive measures, ranging from information and awareness activities, SME-specific guidelines training programmes, financing and funding initiatives, up to EU-wide availability of data through centralised EU platforms.

4.6. Sectoral impact: conclusions from the case studies

The case studies above demonstrate that the sector in which an SME is active can influence the costs of complying with specific pieces of legislation. First of all, the sector associated with the highest number of burdensome digital legislative acts is e-commerce (6 pieces of digital legislation), while construction seems to be the least affected from the digital transition (2 pieces of legislation).

Interestingly, several digital legislative acts are shared across multiple sectors. The General Data Protection Regulation has been mentioned as concerning across all sectors due to its widespread data protection implications, except road transport. Road operators representatives explained that, while the GDPR is indeed applied in their sector, it does not concern SMEs as much as sectoral pieces of legislation such as the Tachographs Regulation or the Electronic Freight Transport Information Regulation: this means that road operators, differently from stakeholders active in other sectors, are less involved in widespread digital platformisation and big data trends, and are instead touched by the digital transition in terms of adoption of new technologies to increase efficiency in the transport system.

Similarly, stakeholders from three sectors under analysis, namely the e-commerce, manufacturing and construction sectors, mentioned that they are also highly impacted by provisions on cybersecurity, including the NIS 2 Directive and the Cyber Resilience Act. Again, this is evidence of a stronger impact and greater focus on issues related to IT safety, cyber-theft, privacy, and big data management on these sectors, compared to road transport.

The AI Act was mentioned as concerning only for the e-commerce and manufacturing sector. Importantly, these sectors are also deeply interlinked and can both use AI technology in different applications for their internal operations, e.g., optimising production, supply chain, customer service and sales. On the other hand, AI applications in other sectors may not be as widespread yet. For example, while a stakeholder in the road transport sector did mention the possibility to have autonomous vehicles in the future, AI as a technology able to influence this progress was never mentioned.

In the green field, instead, the sector associated with the highest number of concerning and impactful green legislative acts is manufacturing (as many as 13 pieces of legislation), followed by the construction sector (10). On the other hand, accommodation appears to be the least negatively impacted (2 legislative acts).

In particular, the proliferation of legislative acts aimed at reducing plastics and other waste materials in the internal market, and the subsequent packaging requirements, especially impacts the accommodation, e-commerce, manufacturing, and construction sectors. In all these fields, daily operations involve products or packaging which need to be disposed of. Also in this case, the road transport sector emerges as a stand-alone sector, where the green transition has a different meaning, mainly focused on emissions reduction. The strong drive towards the objective of emissions reduction and energy savings is also evident in other sectors characterised by high emissions, including accommodation, manufacturing and construction.

Finally, green manufacturing and reporting requirements seem to be particularly impactful on sectors such as e-commerce, manufacturing, and construction, which are all characterised by the production and/or sale of goods. Notably, in all these cases stakeholders highlighted that SMEs are often explicitly excluded from the scope of green requirements but may nonetheless be affected by obligations on larger companies passing down requirements within the value chain. Once again, road transport but also accommodation emerge as fields where the kinds of efforts requested to improve sustainability

and environmentally friendly practices can be different, focusing more on reducing emissions and energy use, rather than materials and waste management.

The case studies also illustrate that the business models and typical scale and priorities of SMEs can differ widely from one sector to another. For example, construction SMEs tend to be micro-organisations with a very local focus but diverse workforce (including beyond the EU). The Single Market and cross-border trade are thus not a high priority for SMEs in this sector. EU rules which require changes to procedures, e.g., for reporting and standards which have been established at national level can thus create costs without generating clear benefits for many SMEs in this sector. Nonetheless, construction SMEs have benefited from the impetus for renovation stemming from the European Green deal.

Conversely, cross-border trade can be very significant for some manufacturing SMEs. This means that some SMEs in this sector are more positive towards harmonising measures. However, stakeholders raise concerns that excessive red tape in the EU may put them at a competitive disadvantage compared with their global rivals and that EU standards may not be compatible with those used in other major export destinations and trading partners such as China and the US.

SMEs specialised in e-commerce are very sensitive to differences in environmental rules and digital formats cross-border and place a high value on standardisation, and the one-stop-shop principle. However, small firms which engage in e-commerce as an adjunct to their bricks-and-mortar business may find that implementing new requirements regarding online sales can weaken the business case for engaging in e-commerce.

Notwithstanding the clear differences in priorities between the different sectors, some common themes cut across the case studies. These include:

- A sense that a large number of new rules have been introduced in the digital and green fields in a short period. Concerns are raised in this context about the cumulative impact of the changes and the perception that rules may not be fully consistent in all cases. There are also concerns that significant amendments adopted late in the legislative process may not have been subject to Impact Assessment;
- Consensus that SMEs are often affected by rules even when exclusions apply in the legislation due to their involvement in wider value chains, and the pass-down of requirements by larger firms;
- Challenges for SMEs to understand and comply with the new rules;
- Concerns around gold plating by Member States and different applications of EU rules (for SMEs engaged in cross-border activities); and
- Concerns around the often significant although short-term cost of adapting systems to ensure compliance with EU rules. Some SMEs also point to challenges in accessing support from EU funds to help cover these costs.

Several positive examples are also cited, including in particular the “one-stop-shop” principle for VAT registration and the introduction of digital reporting in certain areas. eID and e-invoicing are also reported to have saved costs for SMEs in cases where these have been effectively implemented. The DPP is also seen by some SMEs as having the potential to offer benefits for transparency and consistency, along with the standardised, EU-wide calculation methods for CO₂-footprint and life cycle-assessment that will be mandated under the EU taxonomy. However, SMEs have also highlighted concerns about a lack of consistency in the information required for compliance reporting under

different legislative instruments and challenges with or delays in implementation of measures designed to reduce administrative burdens in some countries¹²⁵.

As many of these concerns appear well founded¹²⁶ or least worth investigating, there may be scope for the next European Commission and Parliament to consider the following suggestions for actions with a view to further improving law-making procedures, streamlining the rules and contributing to better enforcement.

- Focusing on implementation and enforcement of existing rules, with a **pause on new legislation** during the period of the next Commission and Parliament, unless exceptionally justified;
- In line with the REFIT programme¹²⁷, conducting an inventory of new and recent legislation in the digital, green and consumer protection fields¹²⁸, with an analysis of potentially overlapping or conflicting provisions, and **recommendations for streamlining**. This could be accompanied by an assessment of the **cumulative impact** of the rules and potential ways to limit this impact, e.g., by aligning information requirements where possible¹²⁹;
- When it is appropriate to adopt new legislation, favouring the use of directly applicable Regulations with maximum harmonisation where justified and conducting Impact Assessments on significant amendments to legislation before their adoption;
- Increasing efforts to approve measures which could streamline administrative procedures in line with the “one-stop-shop” principle such as the proposed VAT in the Digital Age (ViDA) initiative¹³⁰, and the Once-Only Technical System¹³¹, while providing support (e.g., via Digital Innovation Hubs and funding) for systems and process transformation for SMEs in particular;
- Examining the proportion of SMEs from different sectors which have benefited from EU funding programmes to support the digital and green transition and reviewing the design and application process for any future EU funding initiatives to ensure that they are readily accessible to SMEs. Targeting training programmes and funds specifically at transformations

¹²⁵ As an example, the EBC suggests that while under the posting of workers directive, Member States are supposed to provide one single contact point, this has not been introduced in all Member States.

¹²⁶ For example, one scholar has observed that “Multiple legislative initiatives relevant to EU digital policy are working their way through the European Parliament and the Council just now. The interactions between and among these measures, and also with existing EU legislation, are difficult to foresee in full. The risk of a lack of overall coherence is substantial.” Source: Marcus, S., 2022, *Achieving joined-up digital policy in the EU*, working paper. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4074019.

¹²⁷ European Commission, n.d., *REFIT – making EU law simpler, less costly and future proof*. Available at: https://commission.europa.eu/law/law-making-process/evaluating-and-improving-existing-laws/refit-making-eu-law-simpler-less-costly-and-future-proof_en.

¹²⁸ Certain papers already contain such a comparison – see e.g., for digital the Zenner/Marcus/Sekut dataset could serve as a starting point. Source: Zenner, K.; Marcus, J.S.; and Sekut, K., 2023, *A dataset on EU legislation for the digital world*, Second edition, November 2023. Available at: <https://www.bruegel.org/dataset/dataset-eu-legislation-digital-world>. Overviews of consumer protection law also exist, e.g., Dahlberg, E., et al., 2020, *Legal obstacles in Member States to Single Market rules*. Publication for the Committee on Internal Market and Consumer Protection. Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658189/IPOL_STU\(2020\)658189_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658189/IPOL_STU(2020)658189_EN.pdf). However, we are not aware of a comprehensive overview covering digital, green and consumer protection law.

¹²⁹ For example, stakeholders claim that there could be better alignment of information requirements across the Digital Product Passport, CSRD and CSDDD.

¹³⁰ This initiative is comprised of amendments to three existing acts. The intent was to impose mandatory real-time DRR reporting and e-invoicing for businesses that operate cross-border within the EU; to reduce the need for multiple VAT registrations by broadening applicability of the One-Stop Shop (OSS) and of VAT reverse charging; and to simplify VAT reporting by broadening the use of the OSS and its international counterpart.

¹³¹ European Commission, n.d., *Once Only Technical System (OOTS)*. Available at: <https://ec.europa.eu/digital-building-blocks/sites/display/DIGITAL/Once+Only+Technical+System>.

needed for SMEs to meet requirements under newly adopted digital and green legislation could also be considered, if not already adequately covered by existing instruments¹³²; and

- Providing compliance material for recently adopted and new legislation which is specifically targeted towards SMEs, and potentially produced in partnership with SME organisations. Portal sites to exchange best practice could also be considered. All documentation should be available in plain English, with translations in as many EU languages as feasible.

As regards specific sectors, consideration could be given to the following suggestions made by stakeholders:

- In order to support SMEs in the manufacturing sector, policy-makers could take into account compatibility of EU standards with those adopted globally, and seek the recognition of EU standards in the context of trade agreements;
- In e-commerce, consideration could be given to limiting the duplication of reporting obligations by different actors in the value chain, e.g., when an obligation applies both to a manufacturer and a retailer/e-retailer and enabling co-operatives to report on behalf of their members;
- It may be relevant to consider translating Guidelines specific to the construction sector into key non-EU languages, given the high proportion of non-EU workers in this field. This may also be relevant for other sectors with a similar worker profile. In addition, a greater focus from EU funds on supporting smaller projects (and in particular renovations) as opposed to new build projects which are typically undertaken by larger firms is requested by construction SMEs; and
- In the road transport sector, it could be beneficial to consider the creation of a centralised, clear and accessible method for SMEs to calculate the salary and holiday counts of posted drivers. Additionally, economic and other kinds of support in the re-skilling and re-profiling efforts of drivers would allow counter the labour shortages in the sector.

In addition, in view of the often significant transition costs associated with complying with new legislation, formats and standards, Member States could be encouraged to avoid implementing new rules at national level when EU rules on the same subject have been announced, and instead contribute to the development of EU standards.

¹³² For example, RRF, COSME or the SME instrument in the Horizon Programme.

5. THE “THINK SMALL FIRST” PRINCIPLE AND ITS TOOLS

KEY FINDINGS

Several initiatives launched by European institutions support the implementation of the “Think Small First” principle, to ensure that the voices of SMEs are heard in the legislative process. However, there is still room for improvement in the application of several tools:

- The SME test: at the European level, the SME test is mandatory to assess the impact of new legislation on SMEs, but its effective use has been inconsistent. Though an exemplary tool in theory, in practice it would require a more structured and predictable process, as well as more data collection efforts to enhance its actual effectiveness. At national level, SME test practices remain more fragmented and varied;
- The REFIT programme: though its reception has been mixed – with some praising the focus on SMEs and others criticising its limited effectiveness – the programme has led to 270 legislative initiatives with simplification and burden reduction measures;
- The “one-in one-out” principle: since 2021, this tool was found to reduce administrative burdens by EUR 7.3 billion. However, interviews suggest that it maintains the status quo, rather than mitigating costs;
- The Fit for Future Platform: since 2021, the platform contributed 146 concrete recommendations, and is appreciated for its effectiveness in reducing legislative burdens for SMEs and its well-coordinated efforts; and
- The SME Envoys Network: national SME envoys appreciate this forum as a way to bridge national and European SME policy strategies, but also face several challenges, including the focus on too broad and diverse topics for each individual envoy. External stakeholders called for greater interactions between national SME envoys and local trade associations, and the appointment of the EU SME Envoy.

5.1. The “Think Small First” principle in brief

SMEs often suffer from disadvantages and an unfair playing field in the Single Market compared to large businesses. The 2008 “**Small Business Act for Europe**” (SBA)¹³³ is one of the EU’s flagship policy initiatives to support SMEs and it is based on a set of policy measures organised around 10 principles. One of them encourages legislators to “**Think Small First**” and brings forward the idea that “being SME-friendly should become mainstream policy, based on the conviction that rules must respect the majority of those who will use them”.

The Small Business Act provides that, in order to develop future legislation in accordance with the “Think Small First” principle, the EC and Member States should aim at reducing costs and burdens for undertakings, also by means of an SME test to assess the impact of upcoming policies on smaller companies, stakeholder consultations, and ad-hoc mitigation measures.

¹³³ COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, *Think Small First A Small Business Act for Europe*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52008DC0394>.

According to interviewees consulted within the study, this principle should be the cornerstone of any European legislative initiative. Interviewees commended the efforts of the EU to apply it, and the initiatives and tools proposed to mitigate administrative compliance costs for SMEs, such as the SME Relief Package¹³⁴. This set of measures was established in September 2023 to improve the competitiveness and resilience of SMEs, including the improvement of the regulatory environment by means of the “one-in one-out” principle, and administrative simplification. Nonetheless, the entirety of stakeholders agreed that the EU is still far from an effective application of the “Think Small First” in its law. As stated by an interviewee, the application of the principle remains marginal as legislative initiatives are still designed solely in relation to only 1% of European firms (the larger ones) and offers one-size-fits-all solutions in a separate regime (such as the abuse of exemptions) for micro and SMEs.

Notably, there is no exhaustive list of SME-friendly practices since the “Think Small First” principle is not a rigid concept¹³⁵. Several innovative solutions have been introduced in order to compensate for the lack of resources and other constraints that SMEs face when participating in the design of the business environment. The objective of this section is to provide an overview of the tools supporting the implementation of the “Think Small First” principle in the adoption of EU legislation and an assessment of the application of such tools. The final selection of instruments includes the SME test, the REFIT programme (and the related initiatives of the “one-in one-out” principle and Fit for Future platform), and the SME Envoys Network.

5.1.1. The SME test

The most well-known and widely adopted tool is the so-called “SME test”¹³⁶. It is a pre-legislative procedure that allows to identify, analyse and mitigate the possible effects of EU legislative proposals on SMEs. Since 2009, it is part of the Better Regulation Guidelines, in order to ensure its adoption, enforcement and control across EC services¹³⁷. It asks regulators to consider the following four steps:

1. Conduct a preliminary assessment of businesses likely to be affected by the new legislation;
2. Consult with SMEs and their representative organisations;
3. Measure the impact of the new legislation on SMEs; and
4. Identify measures to mitigate the negative impact, if appropriate.

After the Parliament¹³⁸, the Council¹³⁹ and the Economic and Social Committee¹⁴⁰ called for a better implementation of the SME test, the EC announced a more systematic and proportionate application of the test with an intention to improve the analysis and reporting of proposals’ impacts on SMEs¹⁴¹.

¹³⁴ European Commission, 2023, *SME Relief Package*. Available at: https://single-market-economy.ec.europa.eu/document/download/8b64cc33-b9d9-4a73-b470-8fae8a59dba5_en?filename=COM_2023_535_1_EN_ACT_part1_v12.pdf.

¹³⁵ European Commission, 2009, *Think Small First – Considering SME interests in policy-making including the application of an ‘SME Test’*, Report of the Expert Group. Available at: <https://ec.europa.eu/newsroom/growth/items/42961/>.

¹³⁶ European Commission n.d., *SME Test*. Available at: https://single-market-economy.ec.europa.eu/smes/sme-strategy/sme-test_en#:~:text=The%20SME%20Test%20analyses%20the,and%20improve%20the%20business%20environment.

¹³⁷ European Commission, 2021, *Better Regulation Guidelines*. Available at: https://commission.europa.eu/document/download/d0bbd77f-bee5-4ee5-b5c4-6110c7605476_en?filename=swd2021_305_en.pdf.

¹³⁸ Council of the European Union, 2020, *Conclusions on Better Regulation ‘Ensuring competitiveness and sustainable, inclusive growth’*. Available at: <https://www.consilium.europa.eu/media/42759/st06232-en20.pdf>.

¹³⁹ *Ibid.*

¹⁴⁰ European Economic and Social Committee, 2020, *SME strategy*. Available at: <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/sme-strategy>.

¹⁴¹ European Commission, 2021, *Better regulation: Joining forces to make better laws*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0219>.

The 2023 update to the Better Regulation Toolbox provides a **step-by-step guide** to help regulators systematically apply it in their law-making process by means of specific questions¹⁴².

a. Application of the SME Test to European legislation

As an integral part of the Commission's Better Regulation guidelines, **the SME test is mandatory** at European level and the EC is tasked to assess the costs and benefits of new legislation for SMEs. In particular, an EC service must always do the first two steps of the procedure (preliminary assessment of the likely impact and consultation with stakeholders), unless the legislative proposal is expected to have insignificant impacts on SMEs.

According to interviewees, the SME test is – in theory – an exemplary tool. However, it is often seen as an administrative, rather than substantial, procedure at the European level, and there is room for improvement in its application. The most frequent input provided by stakeholders is that there is no regular monitoring and data collection on how the SME test is applied during the legislative process. A more structured application of the principle would allow also greater predictability on, for example, the periods during which consultations will take place. Interviewees suggested to extend the scope of the SME test to apply it also after the legislation has been implemented, to verify any inconsistency between the estimated and the actual impact and ensure that any support measures envisaged for SMEs are provided in each Member State. Additionally, an interviewee highlighted that there is a lack of evidence on the actual effectiveness of the SME test in reducing compliance costs for SMEs overtime.

This feedback is in line with the findings of the literature review, which revealed that evaluations on the actual implementation and effectiveness of the SME test by the EC services are not numerous. A study conducted in 2011 by the Committee on Industry, Research and Energy of the European Parliament investigated the application of the test by the EC¹⁴³. The report revealed that, despite the broad adoption of the SME test by the Commission services, the quality and transparency of the analyses varied, and there was inconsistency in the way in which results were presented. The study also emphasised the differences in opinions on the effectiveness of the test between EC officials and business associations: the former generally viewed the SME test as effective, while the latter were mostly critical and called for more objectivity, transparency and collaboration with the private sector.

Over the years, the industry association Eurochambres provided a periodic evaluation on the application of the SME test at the EU level (also in collaboration with BusinessEurope and SMEUnited). The different editions of the "SME Test Benchmark" (2011¹⁴⁴, 2013¹⁴⁵, 2017¹⁴⁶ and 2022¹⁴⁷) aimed to verify whether the SME test is properly carried out in a limited sample of impact assessments. The overtime results, displayed in Table 3 below, reveal limited progress in considering SMEs in IAs. The issues that are raised over the years include the lack of proper cost quantification, the fact that the impact on different subcategories of SMEs is not differentiated enough, and there is not enough attention given to indirect impacts on SMEs when considering mitigating measures.

¹⁴² European Commission, 2023, *Better Regulation toolbox*. Available at: <https://commission.europa.eu/system/files/2023-09/BR%20toolbox%20-%20Jul%202023%20-%20FINAL.pdf>.

¹⁴³ Frelle-Petersen, C. and Winther C.D., 2011, *Barriers and Best Practices in SME Test implementation*. Publication for the Committee on Industry, Research and Energy. Policy Department Economic and Scientific Policy, European Parliament, Luxembourg. Available at: https://www.europarl.europa.eu/meetdocs/2009_2014/documents/itre/dv/221/221120/22112011_sme_test_implementation_en.pdf.

¹⁴⁴ Eurochambres, 2011, *SME test benchmark*. Available at:

https://www.europarl.europa.eu/meetdocs/2009_2014/documents/itre/dv/221/221120/22112011_sme_test_implementation_en.pdf.

¹⁴⁵ Eurochambres, 2013, *SME test benchmark*. Available at: https://www.sbagency.sk/sites/default/files/sme_test_benchmark_2013-2013-00787-01.pdf.

¹⁴⁶ Eurochambres, 2017, *SME test benchmark*. Available at: <https://euagenda.eu/upload/publications/sme-test-benchmark-2017-report.pdf>.

¹⁴⁷ SMEUnited, Eurochambres, Business Europe, 2022, *SME test benchmark*, p.2,3. Available at: <https://www.smeunited.eu/admin/storage/smeunited/20221129-smetest-final-report.pdf>.

Table 3 provides a comparison of the results of the five studies mentioned above, and an overview of the extent of application of the SME test over the years.

Table 3. Application of the SME test overtime

Year of study	Number of IA reports investigated	Step 1: consultations (with SMEs)	Step 2: preliminary assessment	Step 3: measurement of impacts	Step 4: assessment of mitigating measures
2011a	22	22 (6)	20	17	4
2011b	9	9 (6)	6	5	2
2013	14	14 (8)	10	12	2
2017	14	11 (9)	13	13	5
2022	26	24 (21)	25	26	8

Sources: European Parliament (2011a), "Barriers and Best Practices in SME Test", Eurochambres (2011b, 2013, 2017, 2022), "SME Test Benchmark".

b. Application of the SME Test to national legislation

At national level, **the application of the SME Test is voluntary**, and therefore remains fragmented. This situation has been emphasised in the interviews as particularly concerning. As explained by an interviewee, a mandatory and well-structured application of this principle could ensure, both at European and national level, a real reduction in the burdens on small businesses. These concerns are often exacerbated by the 'gold-plating' practices that many Member States apply (i.e., the practice of regulating beyond the requirements of EU legislation when transposing directives into national law). An interviewee suggested to stipulate from the European level that the transposition of European regulations into national law must always be guided by the 'minimum levels' laid down in European legislation and that the choice of more stringent regulations at national level must be demonstrated through a national SME test highlighting the benefits of additional requirements.

A study conducted by the SME Envoys Network in 2015¹⁴⁸ revealed that all EU Member States appeared to adhere to the SME test to a certain extent. 83% of countries reported to have "some sort of SME test in place, in addition to the regulatory impact assessment or as a part of it". The remaining countries reported to have a separate SME test. However, only 35% of countries reported to "always" carry out an SME test when businesses are likely to be affected. In some countries, it is applied as a standard procedure, while others "prefer to apply their SME test only in cases when they think it is apparent that the new regulation might very seriously affect SMEs".

Overall, the report concluded that 75% of the responding countries perceived the SME test to have a policy impact and a real added value for SMEs in their country. According to public authorities, the main added value of the SME test is given in the consultation phase. However, national Chambers of Commerce also mentioned that, even if the SME test had been conducted properly, the results were not always taken into consideration by the service drafting the final legislation.

¹⁴⁸ European Commission, 2016, *EU Member States reporting about their SME-test – summary and analyses*. Available at: <https://ec.europa.eu/docsroom/documents/19261>.

According to a study conducted by the OECD in 2022¹⁴⁹, the application of the SME test remains fragmented and diversified across the EU. Some countries have set thresholds to determine whether an in-depth SME test should be conducted. Additionally, the study found that countries use different forms of stakeholder engagement with SMEs. Finally, the study also uncovered differences in how countries calculate costs incurred by SMEs. The report mentions the best practice of Belgian authorities, who cover a broad range and nature of costs, paying attention to direct, indirect, targeted, and side effects, as well as effects that could arise during the various phases of a company's development.

5.1.2. The REFIT programme

The REFIT programme (Regulatory Fitness and Performance Programme) was launched in 2012 as part of the Commission's Better Regulation Agenda¹⁵⁰, and focuses on ensuring the effectiveness of EU laws for both individuals and businesses¹⁵¹. It can be considered a tool to implement the "Think Small First" principle because **it requires all evaluations and revisions of legislation to strive for simplification and reduction of bureaucracy** wherever feasible, in order to streamline EU laws and make them more precise and easier to follow for SMEs (and citizens).

Interviewees in the study expressed satisfaction for this programme. They explained that, in several occasions, they were able to transmit contributions and considerations on specific legislative aspects to ensure clearer and easier implementation of European measures for SMEs. Nonetheless, two stakeholders also stressed the need to go beyond the REFIT programme. Every amended piece of legislation should be subject to new impact assessments, in order to ensure that the revised requirements actually mitigate costs for SMEs.

Since 2015, progress within the REFIT programme has been tracked through the **REFIT Scoreboard**¹⁵², which keeps record of all REFIT initiatives throughout their lifecycle, from inception through to completion. According to the Scoreboard, the REFIT programme has allowed to adopt over 270 legislative initiatives with simplification and burden reduction measures and carried out 210 evaluations and fitness checks.

Building on the Scoreboard, the **Annual Burden Survey**, published every year by the EC since 2017, offers an overview of the most illustrative REFIT examples. According to the results of the Annual Burden Survey reports published between 2018 and 2022, summarised in Table 4, the REFIT programme adopted 162 legislative initiatives with simplification and burden reduction measures, and finalised 86 evaluations and fitness checks in the 5 years of focus.

¹⁴⁹ OECD, 2022, *The SME Test: Taking SMEs and entrepreneurs into account when regulating*. Available at: <https://one.oecd.org/document/GOV/DOC202121/FINAL/en/pdf>.

¹⁵⁰ European Commission, 2012, *EU Regulatory Fitness*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0746>.

¹⁵¹ European Commission, n.d., *REFIT – making EU law simpler, less costly and future proof*. Available at: https://commission.europa.eu/law/law-making-process/evaluating-and-improving-existing-laws/refit-making-eu-law-simpler-less-costly-and-future-proof_en.

¹⁵² European Commission, n.d., *REFIT Scoreboard*. Available at: <https://op.europa.eu/webpub/com/refit-scoreboard/en/index.html>.

Table 4. The results for the REFIT programme overtime

Annual Burden Survey	Adopted initiatives with a simplification and burden reduction objective	Finalised evaluations and fitness checks	Legislative initiatives pending adoption	Ongoing evaluations
2018	31	N/A	N/A	N/A
2019	31	14	79	49
2020	26	25	82	40
2021	35	29	62	28
2022	39	18	76	24

Source: European Commission (2018, 2019, 2020, 2021, 2022), "Annual Burden Survey".

In the broader stakeholder community, the REFIT programme faces criticism due to its ineffectiveness. For example, in 2014, a study conducted by the European Trade Union Institute¹⁵³ analysed the effectiveness of this programme two years after its adoption. The study found inconsistencies between the ambitious intentions of REFIT and the limited results achieved. The report characterised the programme as a primarily declamatory exercise, with the process of revising EU law merely identifying previously known legislative issues. The study also questioned the vague way of labelling legislation as "burdensome" without a clear definition and costs assessments, and the bias in favour of SMEs competitiveness, at the expense of social and environmental considerations. Finally, the generalisation of public consultation at all stages of the procedure raised doubts about the functioning of the decision-making mechanism within the institutional framework. In another report published the following year, the European Trade Union Institute further characterised the programme as a costly, too long and biased assessment procedure¹⁵⁴.

However, a recent study¹⁵⁵ provided a more positive outlook on the effectiveness of the REFIT programme, specifically in the social sector. The primary conclusion is that the programme contributed to fulfil the social agenda of the EC, it did not prompt any deregulation nor did it undermine the harmonisation objectives of the Directives under analysis. Instead, the evaluation programmes emphasised some gaps, incentivising the EC to initiate a process of legislative review.

5.1.3. The "one-in, one-out" principle and the Fit for Future Platform

Overtime, the REFIT programme has been complemented and strengthened by additional initiatives. First of all, the 2020 SME Strategy¹⁵⁶ reinforced the REFIT programme by introducing the **"one-in, one-out" (OI-OO) principle** for new legislation, i.e., an initiative to **ensure that EU laws in the same policy areas do not introduce unnecessary burdens** on businesses and citizens. The focus is mainly on offsetting administrative costs and ensuring a transparent calculation of adjustment costs in IAs. This

¹⁵³ Van den Abeele, E., 2014, *The EU's REFIT strategy: a new bureaucracy in the service of competitiveness?* Available at: <https://www.etui.org/sites/default/files/14%20WP%202014%2005%20REFIT%20Van%20den%20Abeele%20Web%20version%20EN.pdf>.

¹⁵⁴ Schomann, I., 2015, *EU REFIT machinery "cutting red tape" at the cost of the acquis Communautaire*, ETUI Policy Brief. Available at: <https://www.etui.org/sites/default/files/Policy%20Brief%202015.05%20Sch%C3%B6mann.pdf>.

¹⁵⁵ Laulom, S., 2018, *Better regulation and the social acquis: Is the REFIT fit for purpose?* Available at: <https://journals.sagepub.com/doi/abs/10.1177/2031952518756907>.

¹⁵⁶ European Commission, 2020, *An SME Strategy for a sustainable and digital Europe*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:103:FIN>.

initiative is considered to be “complementary to REFIT, to facilitate the identification of costs savings for all cost categories and beneficiaries and a consistent reporting in the annual burden survey”¹⁵⁷.

In addition, a 2020 Commission Decision introduced the **Fit for Future Platform (F4F)**¹⁵⁸, a high-level expert group that connects several stakeholders, including Member States, the Committee of the Regions, the European Economic and Social Committee, and the SME Envoys Network. The platform contributes to REFIT by **identifying initiatives to simplify and lighten the burdens imposed by EU laws**, including through the use of digital tools. For each topic of focus in the annual programme, the F4F provides recommendations on simplifying and minimising potential unnecessary costs tied to EU laws. These opinions feed into the evaluations, impact assessments, and other evidence-based activities conducted by the EC.

Notably, in the last two editions the Annual Burden Survey also provided an overview of the activities of the Fit for Future Platform, and the “one-in, one-out” approach. In 2021, the F4F successfully adopted and finalised all 15 opinions from its work programme. Throughout this process, members offered over 150 contributions that resulted in the creation of 90 precise recommendations¹⁵⁹. In 2022, the platform discussed 10 topics and proposed 56 concrete suggestions¹⁶⁰. These numbers are aligned with the feedback received from stakeholders: in fact, interviewees expressed satisfaction and positive expectations on the F4F, as able to provide SME representatives with opportunities to identify and reduce actual burdens for SMEs, convey messages and inputs specifically related to pieces of legislation, allowing them to act as real intermediaries for smaller enterprises. Another interviewee mentioned that the work of the Platform is very well coordinated (with agendas, reminders, and documents submissions). Stakeholders confirmed that the EC takes into account the topic-specific proposals developed by the F4F in its legislative work.

The “one-in, one-out” principle (OIOO principle) follows a specific methodology based on four steps, namely (1) assessing the scope of the legislation, (2) calculating the costs on businesses and citizens (also by means of an *ad hoc* calculator and a checklist), (3) offsetting the identified costs, and (4) accounting for any other relevant references and supporting materials. This is presented in Tool #59, Chapter 8 – ‘Methodologies for analysing impacts in impact assessments, evaluations and fitness checks’ of the Better Regulation Guidelines¹⁶¹.

The OIOO principle was enacted as a pilot project in 2021, covering 10 legislative proposals¹⁶². A European Parliament study reports that the pilot successfully tested the methodology, despite no offsetting actually followed, and identified areas of improvement for the EC, such as the necessity of building more capacity to implement the procedure, and the importance of equally focusing on costs and benefits of legislation¹⁶³. According to the same study, between January 2022 and June 2023 the

¹⁵⁷ European Commission, 2021, *2021 Annual Burden Survey*, p.13. Available at: https://commission.europa.eu/system/files/2022-07/annual-burden-survey_2021_en.pdf.

¹⁵⁸ Commission Decision of 11 May 2020 establishing the Fit for Future Platform. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020D0512%2801%29>.

¹⁵⁹ European Commission, 2021, *2021 Annual Burden Survey*. Available at: https://commission.europa.eu/system/files/2022-07/annual-burden-survey_2021_en.pdf.

¹⁶⁰ European Commission, 2023, *Simplifying EU rules for citizens and business*. Available at: https://commission.europa.eu/system/files/2023-09/ABS_Factsheet_12_9_2023_2.pdf.

¹⁶¹ European Commission, 2021, *Better Regulation Guidelines*.

¹⁶² European Commission, 2021, *2021 Annual Burden Survey*. Available at: https://commission.europa.eu/document/download/d0bbd77f-bee5-4ee5-b5c4-6110c7605476_en?filename=swd2021_305_en.pdf.

¹⁶³ Eager J., Nacer E., Douvillé L., 2024, *Application of the ‘One in, one out’ approach – and its impact on businesses*, Publication for the Committee on Industry, Research and Energy, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2024/754202/IPOL_STU\(2024\)754202_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2024/754202/IPOL_STU(2024)754202_EN.pdf).

EC prepared a total of 93 impact assessments, 57 of which implemented the OIOO principle to a certain degree, showing an increasing trend in the adoption of this practice. The 2022 Annual Burden Survey further disclosed that the application of this principle in 2022 is expected to reduce net burden by EUR 7.3 billion¹⁶⁴. However, in 2023 SMEunited expressed its criticism towards this initiative: it was described as insufficient, because “it does not lower the actual level of administrative burden and bureaucracy [and] practically leads to the status quo”¹⁶⁵. Similarly, the consultation activities revealed a general scepticism towards the application of this principle, also because its effectiveness is hampered by the persistent use of exemptions, initiatives without proper impact assessments, and an excessive focus on administrative burdens alone.

5.1.4. The SME Envoys Network

The SME Envoys Network was introduced in 2011 following the review of the Small Business Act¹⁶⁶. It is a **policy advisory group** composed of one representative for each Member State (the SME Envoy), and other SME representative organisations. The Network also includes an EU SME Envoy, who is appointed by the EC and has a coordination role which is considered by stakeholders “a crucial element in ensuring that the “Think Small First” principle is respected across the Commission departments”¹⁶⁷. The Network promotes SME-friendly legislation both at European and national level. National SME envoys are tasked with (a) facilitating communication between the EC, SMEs, and their representative organisations, and (b) **promoting SMEs’ interests to ensure that the “Think Small First” principle is correctly applied across EC services.**

The work of the SME Envoy Network can be divided into three main strands. Firstly, for the development of new initiatives, the Envoys need to signal to the EC those that merit close attention from an SME perspective, by means of the so-called “**SME-filter**”¹⁶⁸. In other words, in collaboration with SME stakeholders, the network filters EU initiatives and signals to the Commission the most relevant ones for small businesses.

Secondly, pertaining to new initiatives, the EU SME Envoy actively engages in regular dialogues with the Regulatory Scrutiny Board, promoting awareness about SME-related aspects. Thirdly, national SME envoys actively participate in the F4F, voicing the concerns of SMEs and highlighting specific legislation that places a significant burden on them.

To keep track of its activities, the SME Envoys Network meets four times per year and submits an Annual Report to the Council to communicate the state of the EU SMEs and the implementation of SME policy. According to the most recent Annual Report, “2022 has seen a much-intensified cooperation in the Network, in particular with the Sherpas and the observers from business organisations”¹⁶⁹.

To the best of the authors’ knowledge, no study was conducted to assess specifically the functioning and effectiveness of the SME Envoys Network. However, the consultation activities allowed to paint a

¹⁶⁴ European Commission, 2023, *2023 Annual Burden Survey*. Available at: https://commission.europa.eu/publications/2022-annual-burden-survey_en.

¹⁶⁵ SMEunited, 2023, *SMEs require rules that reach objectives, not add red tape*. Available at: <https://www.smeunited.eu/news/smes-require-rules-that-reach-objectives-not-add-red-tape>.

¹⁶⁶ European Commission, n.d., *SME envoys network*. Available at: https://single-market-economy.ec.europa.eu/smes/sme-strategy/sme-envoys-network_en.

¹⁶⁷ Eurochambres, 2021, *Chamber leaders criticise ongoing absence of EU SME Envoy*. Available at: <https://www.eurochambres.eu/publication/chamber-leaders-criticise-ongoing-absence-of-eu-sme-envoy/>.

¹⁶⁸ European Commission, 2023, *EU SME envoy – SME filter*. Available at: <https://ec.europa.eu/docsroom/documents/57243>.

¹⁶⁹ European Commission, n.d., *SME envoys network*. Available at: https://single-market-economy.ec.europa.eu/smes/sme-strategy/sme-envoys-network_en.

detailed picture of the effectiveness of the SME Envoys Network, as both members, observers and external stakeholders were interviewed.

Consulted national SME envoys expressed a positive opinion on the role of the network as able to facilitate the joint review of national and European SME policies. However, it was highlighted that this professional figure, often appointed in a specific national Ministry, can struggle with the very broad spectrum of issues that are relevant to SMEs. In fact, covering subjects that are not even curated by the Ministry from which the Envoy is appointed, generates a situation in which the Envoy simply lacks the competence to tackle the issue at hand. In other instances, they may not be in the time-wise position to cover so many of the issues that are relevant to SMEs.

Interviewees active outside of the Network or as observers provided another perspective on the topic. First of all, several stakeholders called for the timely appointment of the EU SME Envoy¹⁷⁰ and asked for a clearer understanding of his/her competences. This figure, compared to the past, should play an effective monitoring role in the defence of SMEs' interests, for example as part of the Regulatory Scrutiny Board that monitors the quality of impact assessments.

Secondly, interviewees reflected on the role of national SME envoys, as an extremely valuable communication channel between the European and national stakeholders, which should be further strengthened. In fact, several SME representatives stressed that, to date, there has been little to no contact with their national SME envoy. They reported that the same problem has been experienced by many European counterparts. Therefore, they suggested that national SME envoys should demonstrate that they have established a structured and constant dialogue with the most representative national trade associations, so that they can provide input at EU level based on practical and real experiences, as close as possible to the real needs of micro and SMEs.

5.2. Conclusions on the application of the “Think Small First” principle

To conclude, the application of the “Think Small First” principle to support SMEs has seen diverse levels of success and is in need of continuous improvement. Several studies and reports, as well as stakeholders' feedback, show that tools such as the SME test, the REFIT program, and the SME Envoys Network have considerably aided and promoted SME-friendly legislation and the application of the “Think Small First” principle. However, their impact and effectiveness have been inconsistently monitored and reported. In addition, stakeholders continue to call for improved communication and interaction between EU support mechanisms and the SMEs themselves, more attention to the heterogeneity of the SMEs group, and early involvement of SME representatives in the legislative process. The “Think Small First” principle does play a crucial part in the EU's policy landscape, but it requires constant monitoring and evaluation to meet the changing needs and challenges faced by SMEs.

¹⁷⁰ The EU SME Envoy was appointed on 31 January 2024. Stakeholders were interviewed before this date.

6. TOOLS TO REDUCE ADMINISTRATIVE BURDEN

KEY FINDINGS

The adoption of digital solutions such as the eID and eSeal varies by country, with greater likelihood of use in Northern European countries, and lower likelihood in Southern and Eastern European Member States. Overall, these tools are not widely used by SMEs across the EU. This is mostly due to a lack of awareness about the existence of these opportunities, and digital skill gaps.

Interviewees reported positive expectations for the opportunities offered by the Single Digital Gateway, and in particular the “once-only technical system” as a solution to simplify administrative procedures for smaller companies when they require public authorities to exchange information with each other.

However, stakeholders called for more awareness raising campaigns to promoting these tools within countries, and support to address skills gaps related to the digital transition.

Another objective of this study was to assess the effectiveness of innovative and digital tools applied outside of the legislative process in reducing the administrative burden of SMEs when complying with digital and green legislation. To streamline business operations and enhance the effectiveness of interactions within the industry but also between businesses and the public administration, it becomes crucial to leverage digitalisation. Providing businesses with online tools to facilitate exchanges and avoid redundant and overlapping reporting activities can considerably reduce both costs and time for micro and SMEs.

In the interviews stakeholders were asked to provide feedback on the uptake and effectiveness of the most prominent digital solutions currently available:

- **eID**, i.e., a set of services provided by the EC to enable the mutual recognition of national electronic identification schemes across borders; and
- **eSeal**, i.e., an encrypted key to ensure the authenticity of an issuer and to prevent tampering when sharing documents electronically.

Overall, according to most interviewees, these digital tools are not yet widely used or disseminated among small companies. This primarily stems from a lack of information about the existence of these opportunities, as well as potential shortages and gaps in digital skills, especially amongst the smallest companies. This is why interviewees recommended to carry out promotion campaigns at national level to raise awareness about these services, and support SMEs in understanding how to change their processes to incorporate digital tools effectively. Interviews revealed that SMEs are more aware of the eID solution, whilst none of the stakeholders interviewed were able to provide feedback on the eSeal. The fact that some experts and SME representatives stated that they did not know this measure is telling of its dissemination and relevance for SMEs.

However, the degree of adoption of these solutions also varies by country. For example, an SME envoy from an Eastern European country explained that only 15% of SMEs use e-gov services at national level. Instead, an SME envoy from Southern Europe stated that the use of digital instruments and solutions among SMEs is becoming increasingly prevalent and well-known, particularly for interactions with public administrations. Also, a counterpart from Northern Europe argued that companies especially in the e-commerce and retail sector are well-informed about the e-governance solutions developed by the EC and use them widely.

Where these solutions are adopted, the interviewees explained that they are effective in simplifying access to public services, reducing administrative burdens and costs and expanding access to incentives. However, while they are considered useful, there are still challenges to be addressed in the full implementation and correct use of the eID and eSeal, and more communication would be needed to enhance awareness and usage of these tools among SMEs.

Beyond the eID and the eSeal, interviewees recommended other innovative tools, either already existing at national or European level or under the form of a suggestion, that could further support SMEs in complying with EU digital and green legislation by mitigating administrative costs. First of all, several interviewees have positive expectations for the **Single Digital Gateway**: this solution has been established in 2018 and it should make it possible to access online information, administrative procedures and support services that citizens and businesses need to operate in another EU country. According to the EC, the Single Digital Gateway is expected to save companies more than €11 billion per year and boost cross-border activity¹⁷¹.

Secondly, the so-called “**once-only technical system**” (OOTS) was mentioned as a solution to simplify administrative procedures for smaller companies when they require public authorities to exchange information with each other. This solution, available since the end of 2023, allows public authorities across the EU to exchange official documents at (citizens’ and) businesses’ request. In particular, it is expected to reduce administrative burden because when companies need to execute a public procedure, the OOTS website can recover and reuse any supporting evidence that were already provided to another public administration. Companies no longer need to upload manually the same data repeatedly. This solution is cross-sectorial and operates within the Single Digital Gateway Regulation framework.

Stakeholders reported similar initiatives implemented at national level. For example, Confartigianato Imprese is working with the Italian government to implement the 'company dossier'. It is a completely digital dossier, in which there are the company's data and the results of the checks already carried out by the public administration. In their view, the “the dossier implements the 'once only' principle, whereby the enterprise reports the same fact only once - and not at different times depending on the rule that requires reporting. The extensive digitisation of the relationship between the public administration, companies and the interoperability of public administration databases remain two pre-conditions without which the 'once only' principle cannot be realised.

Another relevant initiative mentioned in interviews was a project called “Real-Time Economy”, implemented in Estonia. The objective is to create a digital ecosystem where transactions between different parties take place in real time. This means replacing paper-based economic transactions and administrative operations with automatic data exchange in a digital, structured, machine-processed and standardised form. The final goal is to implement a structural change in the business environment and communication with the state, so that the activities of the management and management of enterprises become activities operating in the background, significantly reducing the administrative burden on entrepreneurs.

In conclusion, while digital and e-government solutions have the potential to significantly reduce the administrative burden and costs for SMEs, more effort is needed to increase their adoption and utilisation. This requires efforts for awareness raising, promoting these tools within countries, and addressing skills gaps related to the digital transition.

¹⁷¹ European Commission, n.d., *The single digital gateway and Your Europe*. Available at: https://single-market-economy.ec.europa.eu/single-market/single-digital-gateway_en.

REFERENCES

- Batura, O., et al., 2023, *The emergence of non-personal data markets*. Publication for the Committee on Industry, Research and Energy. Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU2023740098.
- Booking.com, 2018, *Where Sustainable Travel is Headed in 2018*. Available at: <https://news.booking.com/where-sustainable-travel-is-headed-in-2018>.
- BOSA, 2022, *Facturation électronique..* Available at: <https://bosa.belgium.be/fr/themes/administration-numerique/strategie-et-politique-du-numerique/facturation-electronique>.
- Commission Decision of 11 May 2020 establishing the Fit for Future Platform 2020/C 163/03. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2020.163.01.0003.01.ENG.
- COMMISSION STAFF WORKING DOCUMENT EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT REPORT Accompanying the document Proposal for a Directive of the European Parliament and of the Council on common rules promoting the repair of goods and amending Regulation EU 2017/2394, Directives EU 2019/771 and EU 2020/1828. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023SC0060>.
- COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Think Small First A Small Business Act for Europe. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52008DC0394>.
- Confartigianato Imprese, 2023, *Elaborazione Flash 'Il peso della burocrazia: alcune evidenze'*. Available at: <https://ufficiostudi.confartigianato.it/pubblicazioni/elaborazione-flash-il-peso-della-burocrazia-alcune-evidenze/>.
- Council of the European Union, 2020, *Conclusions on Better Regulation 'Ensuring competitiveness and sustainable, inclusive growth'*. Available at: <https://www.consilium.europa.eu/media/42759/st06232-en20.pdf>.
- Council of the European Union, 2024, *Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence Artificial Intelligence Act and amending certain Union legislative acts- Analysis of the final compromise text with a view to agreement*. Available at: <https://data.consilium.europa.eu/doc/document/ST-5662-2024-INIT/en/pdf>.
- D'Andria, D., and Heinemann, M., 2023, *Overview on the tax compliance costs faced by European enterprises – with a focus on SMEs*. Publication for the Subcommittee on Tax Matters (FISC). Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2023/642353/IPOL_STU2023642353_EN.pdf.
- Dahlberg, E., et al., 2020, *Legal obstacles in Member States to Single Market rules*. Publication for the Committee on Internal Market and Consumer Protection. Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658189/IPOL_STU\(2020\)658189_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658189/IPOL_STU(2020)658189_EN.pdf).

- Danish Technological Institute DTI, European Commission, Planet S.A., 2010, *SMEs and the environment in the European Union*. Available at: <https://op.europa.eu/en/publication-detail/-/publication/aa507ab8-1a2a-4bf1-86de-5a60d14a3977>.
- Decision EU 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030. Available at: <https://eur-lex.europa.eu/eli/dec/2022/2481/oj>.
- Deloitte, 2023, *DAC7: impact due diligence and reporting rules on hospitality platforms*. Available at: <https://www2.deloitte.com/nl/nl/pages/tax-news/articles/dac7-impact-due-diligence-and-reporting-rules-on-hospitality-platforms.html>.
- Directive EU 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules. Available at: <https://eur-lex.europa.eu/eli/dir/2019/2161/oj>.
- Directive EU 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment. Available at: <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.
- Directive EU 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation EU No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L2464>.
- Directive EU 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation EU No 910/2014 and Directive EU 2018/1972, and repealing Directive EU 2016/1148 NIS 2 Directive. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L2555>.
- Directive EU 2022/362 of the European Parliament and of the Council of 24 February 2022 amending Directives 1999/62/EC, 1999/37/EC and EU 2019/520, as regards the charging of vehicles for the use of certain infrastructures. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L0362>.
- Eager J., Nacer E., Douvillé L., 2024, *Application of the 'One in, one out' approach – and its impact on businesses*, Publication for the Committee on Industry, Research and Energy, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2024/754202/IPOL_STU\(2024\)754202_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2024/754202/IPOL_STU(2024)754202_EN.pdf).
- Eurobarometer, 2021, *Flash Eurobarometer State of the European Union*. Available at: <https://www.europarl.europa.eu/at-your-service/files/be-heard/eurobarometer/2021/soteu-flash-survey/soteu-2021-report-en.pdf>.
- Eurochambres, 2011, *SME test benchmark*. Available at: https://www.europarl.europa.eu/meetdocs/2009_2014/documents/itre/dv/221/221120/22112011_sme_test_implementation_en.pdf.
- Eurochambres, 2013, *SME test benchmark*. Available at: https://www.sbagency.sk/sites/default/files/sme_test_benchmark_2013-2013-00787-01.pdf.

- Eurochambres, 2017, *SME test benchmark*. Available at: <https://euagenda.eu/upload/publications/sme-test-benchmark-2017-report.pdf>.
- Eurochambres, 2021, *Chamber leaders criticise ongoing absence of EU SME Envoy*. Available at: <https://www.eurochambres.eu/publication/chamber-leaders-criticise-ongoing-absence-of-eu-sme-envoy/>.
- European Commission, 2009, *Think Small First – Considering SME interests in policy-making including the application of an ‘SME Test’*, Report of the Expert Group. Available at: <https://ec.europa.eu/newsroom/growth/items/42961/>.
- European Commission, 2012, *EU Regulatory Fitness*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0746>.
- European Commission, 2015, *Cost of the Cumulative Effects of Compliance with EU Law for SME*, p. 18. Available at: <https://op.europa.eu/en/publication-detail/-/publication/2c74690f-9aa0-11e6-9bca-01aa75ed71a1/language-en>.
- European Commission, 2016, *EU Member States reporting about their SME-test – summary and analyses*. Available at: <https://ec.europa.eu/docsroom/documents/19261>.
- European Commission, 2017, *An Overview of the EU Road Transport Market in 2015*, p.5. Available at: <https://transport.ec.europa.eu/system/files/2017-06/mobility-package-overview-of-the-eu-road-transport-market-in-2015.pdf>.
- European Commission, 2018, *Annual Burden Survey*. Available at: https://commission.europa.eu/system/files/2018-11/2018-annual-burden-survey_en_0.pdf.
- European Commission, 2019, *Annual Burden Survey*. Available at: https://commission.europa.eu/system/files/2020-08/annual_burden_survey_2019_4_digital.pdf.
- European Commission, 2019, *From infrastructure costs to health and environmental impacts - European Commission shares first findings on the true costs of EU transport*. Available at: https://transport.ec.europa.eu/news-events/news/infrastructure-costs-health-and-environmental-impacts-european-commission-shares-first-findings-true-2019-01-10_en.
- European Commission, 2020, *An SME Strategy for a sustainable and digital Europe*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:103:FIN>.
- European Commission, 2020, *Annual Burden Survey*. Available at: https://commission.europa.eu/system/files/2021-06/annual-burden-survey_2020_en.pdf.
- European Commission, 2020, *Effectiveness of the essential requirements for packaging and packaging waste and proposals for reinforcement*. Available at: <https://op.europa.eu/en/publication-detail/-/publication/05a3dace-8378-11ea-bf12-01aa75ed71a1>.
- European Commission, 2020, *Impact Assessment accompanying the proposal for a Directive on measures for high common level of cybersecurity across the Union*. Available at: <https://digital-strategy.ec.europa.eu/en/library/impact-assessment-proposal-directive-measures-high-common-level-cybersecurity-across-union>.
- European Commission, 2021, *Annual Burden Survey*. Available at: https://commission.europa.eu/system/files/2022-07/annual-burden-survey_2021_en.pdf.

- European Commission, 2021, *Annual Report on European SMEs 2020/2021*. Available at: <https://op.europa.eu/en/publication-detail/-/publication/849659ce-dadf-11eb-895a-01aa75ed71a1>.
- European Commission, 2021, *Better Regulation Guidelines*. Available at: https://commission.europa.eu/document/download/d0bbd77f-bee5-4ee5-b5c4-6110c7605476_en?filename=swd2021_305_en.pdf.
- European Commission, 2021, *Better regulation: Joining forces to make better laws*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0219>.
- European Commission, 2021, *Eurostat publishes first statistics on short-stay accommodation booked via collaborative economy platforms*. Available at: https://single-market-economy.ec.europa.eu/news/commission-eurostat-publishes-first-statistics-short-stay-accommodation-booked-collaborative-economy-2021-06-29_en.
- European Commission, 2021, *Impact Assessment Accompanying the Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial intelligence act) and amending certain Union legislative acts*, p.65. Available at: <https://ec.europa.eu/transparency/documents-register/detail?ref=SWD202184&lang=en>.
- European Commission, 2022, *Annual Burden Survey*. Available at: https://commission.europa.eu/system/files/2023-09/ABS_Factsheet_12_9_2023_2.pdf.
- European Commission, 2022, *Annual Report on European SMEs 2021/2022 SMEs and environmental sustainability*. Background document. Available at: <https://op.europa.eu/en/publication-detail/-/publication/0a009ca6-eac2-11ec-a534-01aa75ed71a1/language-en>.
- European Commission, 2022, *Digital Economy and Society Index DESI 2022*. Available at: <https://digital-strategy.ec.europa.eu/en/policies/desi>.
- European Commission, 2022, *Digital fairness – fitness check on EU consumer law*. Available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13413-Digital-fairness-fitness-check-on-EU-consumer-law_en.
- European Commission, 2022, *Proposal for a Directive on empowering consumers for the green transition and annex*. Available at: https://commission.europa.eu/publications/proposal-directive-empowering-consumers-green-transition-and-annex_en.
- European Commission, 2022, *Proposal for Ecodesign for Sustainable Products Regulation*. Available at: https://environment.ec.europa.eu/publications/proposal-ecodesign-sustainable-products-regulation_en.
- European Commission, 2022, *In search of EU unicorns – What do we know about them?*, Publications Office of the European Union. Available at: <https://op.europa.eu/en/publication-detail/-/publication/7077ce9e-9a9f-11ec-83e1-01aa75ed71a1/language-en/format-PDF>.
- European Commission, 2023, *2024 Commission work programme*. Available at: https://finance.ec.europa.eu/publications/2024-commission-work-programme_en.
- European Commission, 2023, *2022 Annual Burden Survey*. Available at: https://commission.europa.eu/publications/2022-annual-burden-survey_en.

- European Commission, 2023, *Annual Report on European SMEs 2022/2023*. Available at: https://single-market-economy.ec.europa.eu/system/files/2023-08/Annual%20Report%20on%20European%20SMEs%202023_FINAL.pdf.
- European Commission, 2023, *Better Regulation toolbox*. Available at: <https://commission.europa.eu/system/files/2023-09/BR%20toolbox%20-%20Jul%202023%20-%20FINAL.pdf>.
- European Commission, 2023, *EU SME envoy – SME filter*. Available at: <https://ec.europa.eu/docsroom/documents/57243>.
- European Commission, 2023, *Proposal for a Directive on Green Claims*. Available at: https://environment.ec.europa.eu/publications/proposal-directive-green-claims_en.
- European Commission, 2023, *Report on the state of the Digital Decade 2023*. Available at: <https://digital-strategy.ec.europa.eu/en/library/2023-report-state-digital-decade>.
- European Commission, 2023, *Simplifying EU rules for citizens and business*. Available at: https://commission.europa.eu/system/files/2023-09/ABS_Factsheet_12_9_2023_2.pdf.
- European Commission, 2023, *SME Relief Package*. Available at: https://single-market-economy.ec.europa.eu/document/download/8b64cc33-b9d9-4a73-b470-8fae8a59dba5_en?filename=COM_2023_535_1_EN_ACT_part1_v12.pdf.
- European Commission, n.d., *Buildings and construction*. Available at: https://single-market-economy.ec.europa.eu/industry/sustainability/buildings-and-construction_en.
- European Commission, n.d., *Ecodesign for Sustainable Products Regulation*. Available at: https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products-regulation_en.
- European Commission, n.d., *EU Cyber Resilience Act*. Available at: <https://digital-strategy.ec.europa.eu/en/policies/cyber-resilience-act>.
- European Commission, n.d., *Green Transition*. Available at: https://reform-support.ec.europa.eu/what-we-do/green-transition_en#just-transition.
- European Commission, n.d., *Once Only Technical System (OOTS)*. Available at: <https://ec.europa.eu/digital-building-blocks/sites/display/DIGITAL/Once+Only+Technical+System>.
- European Commission, n.d., *REFIT – making EU law simpler, less costly and future proof*. Available at: https://commission.europa.eu/law/law-making-process/evaluating-and-improving-existing-laws/refit-making-eu-law-simpler-less-costly-and-future-proof_en.
- European Commission, n.d., *REFIT Scoreboard*. Available at: <https://op.europa.eu/webpub/com/refit-scoreboard/en/index.html>.
- European Commission, n.d., *Regulatory Scrutiny Board*. Available at: https://commission.europa.eu/law/law-making-process/regulatory-scrutiny-board_en.
- European Commission, n.d., *Road transport research*. Available at: https://research-and-innovation.ec.europa.eu/research-area/transport/road_en.
- European Commission, n.d., *Road*. Available at: https://transport.ec.europa.eu/transport-themes/intelligent-transport-systems/road_en.

- European Commission, n.d., *Rules promoting the repair of goods*. Available at: https://commission.europa.eu/law/law-topic/consumer-protection-law/consumer-contract-law/rules-promoting-repair-goods_en#documents.
- European Commission, n.d., *SME envoys network*. Available at: https://single-market-economy.ec.europa.eu/smes/sme-strategy/sme-envoys-network_en.
- European Commission, n.d., *SME Test*. Available at: https://single-market-economy.ec.europa.eu/smes/sme-strategy/sme-test_en#:~:text=The%20SME%20Test%20analyses%20the,and%20improve%20the%20business%20environment.
- European Commission, n.d., *The single digital gateway and Your Europe*. Available at: https://single-market-economy.ec.europa.eu/single-market/single-digital-gateway_en.
- European Digital SME Alliance, 2020, *General Data Protection Regulation (GDPR) Two-Year Review*. Available at: <https://www.digitalsme.eu/digital/uploads/Position-Paper-GDPR-Review-2020.pdf>.
- European Digital SME Alliance, 2021, *Digital SME Position Paper on the EU AI Act*. Available at: <https://www.digitalsme.eu/digital/uploads/DIGITAL-SME-Position-Paper-AI-Act-FINAL-DRAFT-1.pdf>.
- European Digital SME Alliance, 2023, *Response to the Right to Repair Directive*. Available at: <https://www.digitalsme.eu/digital/uploads/DIGITAL-SMEs-Response-to-the-Right-to-Repair-Directive.pdf>.
- European Economic and Social Committee, 2020, *SME strategy*. Available at: <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/sme-strategy>.
- European Environment Agency, 2014, *Transport and mobility*. Available at: <https://www.eea.europa.eu/en/topics/in-depth/transport-and-mobility>.
- European Heating Industry, 2022, *Heating system installers. Expanding and upskilling the workforce to deliver the energy transition*. Available at: <https://ehi.eu/wp-content/uploads/2022/08/EHI-report-Heating-systems-installers-Expanding-and-upskilling-the-workforce-to-deliver-the-energy-transition.pdf>.
- European Investment Bank, 2020, *Who is prepared for the new digital age? Evidence from the EIB Investment Survey*. Available at: <https://www.eib.org/en/publications/who-is-prepared-for-the-new-digital-age>.
- European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01994L0062-20180704>.
- Eurostat, 2021, *How digitalised are EU's enterprises?* Available at: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20211029-1#:~:text=The%20DII%20measures%20the%20use,very%20low%20to%20very%20high>.
- Eurostat, 2023, *E-commerce sales of enterprises by size class of enterprise*. Available at: https://ec.europa.eu/eurostat/databrowser/view/ISOC_EC_ESELS_custom_9470575/default/table?lang=en.
- Eurostat, 2023, *Quarterly greenhouse gas emissions in the EU*. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quarterly_greenhouse_gas_emissions_in_the_EU&stable=1.

- Eurostat, 2024, *Businesses in the manufacturing sector*. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Manufacturing_statistics_-_NACE_Rev._2&oldid=502915.
- Eurostat, 2024, *Digital economy and society statistics – enterprises*. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Digital_economy_and_society_statistics_-_enterprises#Enterprises_engaged_in_e-commerce.
- Frelle-Petersen, C. and Winther C.D., 2011, *Barriers and Best Practices in SME Test implementation*. Publication for the Committee on Industry, Research and Energy. Policy Department Economic and Scientific Policy, European Parliament, Luxembourg. Available at: https://www.europarl.europa.eu/meetdocs/2009_2014/documents/itre/dv/221/221120/2211201_1_sme_test_implementation_en.pdf.
- Hospitality Net, 2023, *Digital Markets Act DMA, what does this mean for your hotel?* Available at: <https://www.hospitalitynet.org/news/4119274.html>.
- HotelTechReport, 2024, *GDPR for Hotels: Here's What You Should Know*. Available at: <https://hoteltechreport.com/news/data-protection-act>.
- HOTREC, 2022, *HOTREC Hotel Distribution Study*. Available at: https://www.hotrec.eu/en/media/hotrec_hotel_distribution_study_2022.html.
- Latham & Watkins, 2023, *The Digital Services Act: Practical Implications for Online Services and Platforms*. Available at: <https://www.lw.com/admin/upload/SiteAttachments/Digital-Services-Act-Practical-Implications-for-Online-Services-and-Platforms.pdf>.
- Laulom, S., 2018, *Better regulation and the social acquis: Is the REFIT fit for purpose?* Available at: <https://journals.sagepub.com/doi/abs/10.1177/2031952518756907>.
- Marcus, S., 2022, *Achieving joined-up digital policy in the EU*, working paper. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4074019.
- National grid, n.d., *What are scope 1, 2 and 3 carbon emissions?* Available at: <https://www.nationalgrid.com/stories/energy-explained/what-are-scope-1-2-3-carbon-emissions#:~:text=Definitions%20of%20scope%201%2C%20owned%20or%20controlled%20by%20it>.
- OECD, 2013, *Working Party on SMEs and Entrepreneurship WPSMEE - GREEN ENTREPRENEURSHIP, ECO-INNOVATION AND SMEs*. Available at: <https://one.oecd.org/document/CFE/SME20119/FINAL/en/pdf>.
- OECD, 2021, *Tourism Trends and Policies 2020*. Available at: <https://www.oecd-ilibrary.org/sites/f528d444-en/index.html?itemId=/content/component/f528d444-en>.
- OECD, 2022, *The SME Test: Taking SMEs and entrepreneurs into account when regulating*. Available at: <https://one.oecd.org/document/GOV/RPC202121/FINAL/en/pdf>.
- OECD, n.d., *Understanding E-Commerce*. Available at: <https://www.oecd-ilibrary.org/sites/1885800a-en/index.html?itemId=/content/component/1885800a-en>.
- Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on packaging and packaging waste, amending Regulation EU 2019/1020 and Directive EU 2019/904, and repealing Directive 94/62/EC. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52022PC0677>.

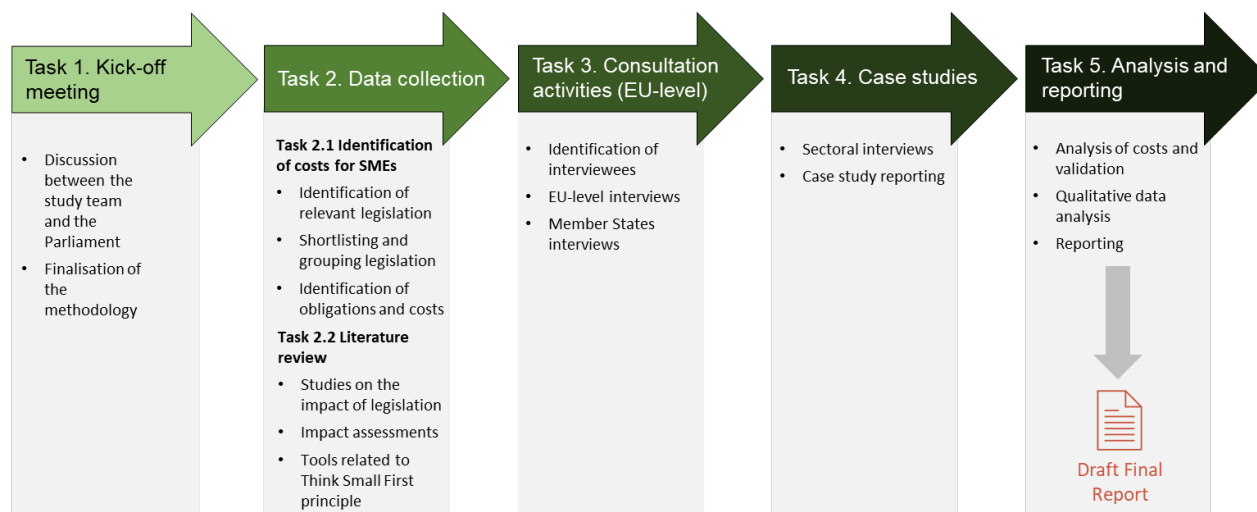
- Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A0142%3AFIN>.
- Ragonnaud, G., 2023, *Revision of the Packaging and Packaging Waste Directive*. European Parliamentary Research Service, European Parliament, Luxembourg. Available at: https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/745707/EPRS_BRI2023745707_EN.pdf.
- Regulation EU 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC General Data Protection Regulation. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R0679>.
- Regulatory Studies Centre, 2020, *Unintended Consequences of GDPR*. Available at: <https://regulatorystudies.columbian.gwu.edu/unintended-consequences-gdpr>.
- Schomann, I., 2015, *EU REFIT machinery “cutting red tape” at the cost of the acquis Communautaire*, ETUI Policy Brief. Available at: <https://www.etui.org/sites/default/files/Policy%20Brief%202015.05%20Sch%C3%B6mann.pdf>.
- SKAL International, 2023, *The impact of EU rules for energy efficiency in hotels*. Available at: <https://www.skaleurope.org/news/the-impact-of-eu-rules-for-energy-efficiency-on-tourism/>.
- Skift, 2020, *The 2020 Digital Transformation Report*. Available at: <https://skift.com/wp-content/uploads/2020/08/The-2020-Digital-Transformation-Report.pdf>
- Small Business Standards, 2021, *Position Paper – SBS reply to the Artificial Intelligence Act consultation*. Available at: https://sbs-sme.eu/sites/default/files/publications/SBS_position_paper_AI_Act_consultation_08.21_2.pdf.
- SMEunited, 2022, *SMEunited’s views on the ecodesign requirements for sustainable products*. Available at: <https://www.smeunited.eu/publications/smeuniteds-views-on-the-ecodesign-requirements-for-sustainable-products>.
- SMEunited, 2023, *SMEs require rules that reach objectives, not add red tape*. Available at: <https://www.smeunited.eu/news/smes-require-rules-that-reach-objectives-not-add-red-tape>.
- SMEunited, Eurochambres, Business Europe, 2022, *SME test benchmark*. Available at: <https://www.smeunited.eu/admin/storage/smeunited/20221129-smetest-final-report.pdf>.
- Statista, 2023, *Accommodation*. Available at: <https://www.statista.com/markets/420/topic/1018/accommodation/#overview>.
- Tech Crunch, 2021, *EU considers single rules for regulating vacation rental platforms*. Available at: https://techcrunch.com/2021/09/29/eu-considers-single-rules-for-regulate-vacation-rental-platforms/?guccounter=1&guce_referrer=aHR0cHM6Ly9jaGF0Lm9wZW5haS5jb20v&guce_referrer_sig=AQAAAJURp6QQc_9g7mH28BJVDTn89Wb9JXZZ8cL7Z3FAJ4I4YO0lbMdrRIYul5mQRfC5q2_5mF-F36mGojqmZ9AYFtdfbBgtFeZoUAUeMOfOaeyONdX6of4PbrCGSIWTyPC2iXGBMwriL40tE7zOL9VsnsgCaFs3labnEsfPWt39wa.
- The International Council on Clean Transportation, 2016, *A technical summary of Euro 6/VI vehicle emission standards*. Available at: https://theicct.org/sites/default/files/publications/ICCT_Euro6-VI_briefing_jun2016.pdf.

- Van den Abeele, E., 2014, *The EU's REFIT strategy: a new bureaucracy in the service of competitiveness?* Available at: <https://www.etui.org/sites/default/files/14%20WP%202014%2005%20REFIT%20Van%20den%20Abeele%20Web%20version%20EN.pdf>.
- Zenner, K.; Marcus, J.S.; and Sekut, K., 2023, *A dataset on EU legislation for the digital world*, Second edition, November 2023. Available at: <https://www.bruegel.org/dataset/dataset-eu-legislation-digital-world>.

ANNEX 1: METHODOLOGY

This study was carried out between November 2023 and March 2024. The findings presented in this report build on the information gathered in different study phases and activities structured around 5 tasks, as displayed in Figure 5. In particular, in order to identify the relevant pieces of legislation to consider under this study, and collect the related qualitative and quantitative data, the team adopted an iterative process consisting of desk research, consultation with SME representatives and experts' involvement. The following sections provide an overview of the study phases and activities.

Figure 5. Study phases and activities



Source: Authors' own elaboration from the interviews conducted.

Preliminary data collection

Identification of relevant legislation

As a first step before approaching stakeholders, the team conducted an extensive desk research to identify relevant pieces of EU legislation in the fields of digitalisation and the green transition that may have a direct or in-direct impact on SMEs. The primary tool used was the EUR-lex database that allows for the filtering of searches of EU law based on selected criteria such as the legal basis, key text and a certain time period. Additionally, the team relied on grey literature and relevant reports¹⁷².

This allowed developing a **longlist of potentially relevant legislation**, consisting of 54 pieces of green legislation and 67 pieces of digital legislation. In line with the terms of reference, the list included legislation affecting SMEs in different sectors including *inter alia* the financial sector, the manufacturing sector, and the telecommunications/media sector. The longlist of legislation did not include funding programs, even if some of them target SMEs specifically, because they have a different nature compared to other legal acts, and would require a different approach to analyse them, which is not feasible within the scope and timeline of this study.

In order to select a preliminary shortlist of this legislation, the team conducted an **internal validation process** and engaged with four senior experts (two experts in digital legislation and two experts in

¹⁷² For example, Zenner, K.; Marcus, J.S.; and Sekut, K., 2023, *A dataset on EU legislation for the digital world*, Second edition, November 2023. Available at: <https://www.bruegel.org/dataset/dataset-eu-legislation-digital-world>.

green legislation). The senior experts were provided with the longlist of digital and/or green legislation, according to their competences, and were asked to assess each legislative act on a Likert scale¹⁷³, according to the below options:

- Creates significant costs;
- Creates moderate costs;
- No or minimal impact;
- Reduces costs moderately; and
- Reduces costs significantly.

This validation process led to creating a preliminary **shortlist of a sample of EU legislation** in the areas of the green (29 legislative acts) and the digital transition (21 legislative acts). Subsequently, in order to facilitate the assessment of these pieces of legislation by interviewed stakeholders, they were grouped into packages, separately for the green transition and the digital transition. The preliminary shortlist of legislation and the separation into packages are available in Annex 9.1.

Identification of obligations and costs for SMEs

Before engaging in stakeholder consultations, the study team also conducted a legal analysis to identify obligations stemming from the selected legislation that create costs for companies, in particular SMEs. Additionally, the team identified for each piece of legislation the estimated costs on companies as a result of the respective impact assessments, opinions of the Regulatory Scrutiny Board on the impact assessments, ex-post evaluations and other relevant reports.

Whenever possible, researchers classified the estimated costs according to the categorisation of costs from the Better Regulation Toolbox (#Tool56. Typology of costs and benefits)¹⁷⁴. In particular, we focused on the direct costs¹⁷⁵, namely:

- **Direct compliance costs** (costs that need to be borne to comply with the provisions of the legislation):
 - Regulatory charges (fees, levies, taxes);
 - Adjustment costs (investments and expenses that SMEs have to bear to adjust their activity to the requirements); and
 - Administrative costs (costs borne by SMEs as a result of administrative activities performed to comply with administrative obligations included in legal rules);
- **Enforcement costs** (associated with activities linked to the implementation of an initiative such as monitoring, inspections and adjudication/litigation); and
- **Hassle costs** (often interpreted as 'regulatory annoyance' resulting from unnecessary waiting time, delays, redundant legal provisions, corruption).

¹⁷³ A Likert scale is a type of questionnaire that includes questions, followed by a series of three, five or seven possible answers a predefined scale. Respondents choose the option that best corresponds with how they feel about the statement or question.

¹⁷⁴ European Commission, 2023, *Better Regulation Toolbox, #Tool56. Typology of costs and benefits*, p. 505. Available at: <https://commission.europa.eu/system/files/2023-09/BR%20toolbox%20-%20Jul%202023%20-%20FINAL.pdf>.

¹⁷⁵ As mentioned in the technical proposal, measurement of the indirect costs is challenging. Indirect costs are those incurred in related markets or experienced by consumers, government agencies or other stakeholders that are not directly targeted by the initiative/regulation.

Literature review on the “Think Small First” principle

The team also engaged in a literature review with the specific objective to identify tools supporting the implementation of the “Think Small First” principle in the adoption of EU legislation. In particular, the team reviewed different sources including scientific publications in peer-reviewed journals and grey literature, i.e., reports and studies by different networks and initiatives related to the impact of EU legislation on SMEs. The reports from industry associations and SME representatives at the EU level were particularly relevant in this respect. In order to identify the tools and initiatives to consider for the purposes of this literature review and overall study, the research team operated a selection based on a set of conditions: the tools that are considered as supporting the application of the “Think Small First” principle should be used throughout the legislation cycle and should be able to increase the SME’s sphere of influence over the legal text. The findings of the literature review are available in Section 5, integrated with the results of the consultation activities on the same subject-matter.

General consultations

The objectives of the general consultation activities were to gather stakeholders’ feedback on a variety of elements of this study, including:

- Assessing the relevance of the shortlisted legislation and identifying any missing piece of legislation, in order to further fine-tune the selection;
- Confirming the validity of the impacts and costs identified during the desk research phase for each piece of legislation;
- Discussing the effectiveness of the “Think Small First” principle and its tools; and
- Assessing the uptake of digital solutions to mitigate the impact of legislation for SMEs, such as the eID and the eSeal.

To this purpose, the team conducted a total of 17 interviews with EU- and national-level stakeholders (the complete list of interviewees is provided in Annex 2. In particular, the list of stakeholders features the following profiles:

- 5 EU-level industry associations grouping SMEs or sectoral associations of companies;
- 5 national associations representing SMEs in different sectors (from Germany, Estonia, Austria, Italy and Portugal); and
- 7 national SME Envoys.

In an iterative process, the findings of the general consultation activities allowed to further refine the shortlist of legislation, in order to identify only the horizontal pieces of legislation on which stakeholders expressed the most concerns. We selected the final shortlist of legislation under analysis building on the most frequent answers provided by SME representatives. Additionally, in order to identify the pieces of legislation with the broadest potential impact, we excluded from this analysis the sectoral legislative acts, which will be analysed more in-depth in the case studies described below. The final list is presented and analysed in Section 3.

Table 5 below provides an overview of the pieces of legislation that were discussed during interviews, and how many stakeholders mentioned them as concerning for SMEs¹⁷⁶. For the final selection, we considered that the topics at hand require very technical expertise that not all interviewed stakeholders

¹⁷⁶ The Table only provides an overview of a limited number of pieces of legislation compared to the original shortlist, because the remaining legislative acts were never mentioned by interviewees.

might have had. Therefore, we selected the final pieces of legislation that were mentioned by slightly more than the absolute majority of stakeholders.

Table 5. Frequency of mentions during consultation activities¹⁷⁷

Field	Legislative act	Number of mentions
Digital	GDPR	69% (9 out of 13)
	NIS2 Directive	38% (5 out of 13)
	AI Act	54% (7 out of 13)
	Data Act ¹⁷⁸	8% (1 out of 13)
	DSA	8% (1 out of 13)
	Microchip Act	8% (1 out of 13)
	eIDAS Regulation	15% (2 out of 13)
	Cyber Resilience Act	15% (2 out of 13)
Green	CSRD	62% (8 out of 13)
	PPWD	31% (4 out of 13)
	Ecodesign Regulation	54% (7 out of 13)
	Repair of Goods Directive	62% (8 out of 13)
	Green Claims	15% (2 out of 13)
	Due Diligence Directive	15% (2 out of 13)
	End-of-life Vehicles Directive	15% (2 out of 13)

Source: Authors' own elaboration from the interviews conducted.

Sectoral case studies

The study team conducted five sectoral case studies (their findings are presented in Section 4) with the objective to complement the results of the general consultation activities and provide an overview of sectoral legislation for the twin transition.

In order to select the sectors of focus, we adopted the following criteria:

- The sectors are subject to digital regulation and legislation;
- The sectors are influenced by EU legislation related to the green transition;
- The sectors have a significant proportion of SMEs; and
- The sectors generate a relatively high proportion of GHG emissions.

The final selection of the sectors of focus was conducted in agreement with the European Parliament, and included:

- Road transport;

¹⁷⁷ While a total of 17 interviews was conducted, 4 stakeholders were not able to provide detailed information on specific pieces of legislation. Therefore, they are not considered in the proportion.

¹⁷⁸ The Data Act was mentioned by 6 stakeholders as relevant. However, only one of them expressed concerns related to it. The remaining 5 stakeholders were appreciative of it.

- Accommodation;
- E-commerce;
- Manufacturing; and
- Construction.

In order to gather relevant information on these sectors, in addition to insights from desk research, including a review of academic and grey literature, we conducted interviews with sector-specific trade associations at EU and/or national level. The complete list of interviewees is available in Annex 3. The objectives of the interviews were to:

- Assess the relevance of the shortlisted legislation and identify any missing piece of legislation for the sector of focus;
- Confirm the validity of the impacts and costs identified during the desk research phase for each piece of legislation;
- Discuss the effectiveness of the Think Small First principle and its tools; and
- Assess the uptake of digital solutions to mitigate the impact of legislation for SMEs, such as the eID and the eSeal.

Analysis of collected data

Quantitative analysis

Following the data collection phase described above, the objective of the quantitative analysis was to assess the cumulative costs of the shortlisted legislation for SMEs. As further detailed in Box 8 below, it was not possible to systematically gather monetary values and other quantitative data on the selected legislative acts from stakeholders' consultations. Therefore, to carry out the quantitative analysis, the team relied on the data collected in the desk research phase, mostly from the Regulatory Scrutiny Board opinions on impact assessments. Hence, the results should be interpreted as indicative, rather than definitive.

Concerning the estimation model, we first computed the cumulative costs of legislation on all firm sizes (C_{total}), by summing all available data on the costs (see Box 8 for a more detailed overview of data sources). In order to ensure that data on costs were as comparable as possible across pieces of legislation, the team aggregated them in administrative, regulatory and adjustment costs, following the classification of the EC's Better Regulation Toolbox. Since both one-off and recurrent costs were available for green pieces of legislation, costs on the first year of implementation were calculated including one-off costs. Instead, costs from the second year of implementation were calculated only on recurrent costs. When costs were estimated to cover more years of implementation, data was divided by the number of years specified in impact assessments in order to extrapolate only the annual compliance cost.

To estimate the cumulative costs of legislation that are expected to be borne specifically by SMEs (X), it was important to develop an assumption on the proportion of costs that SMEs are likely to bear compared to larger enterprises. This required understanding the distribution of costs across different sizes of companies and the characteristics of SMEs that might affect their share of the total costs. To this purpose, we relied on a study by VVA (now EY Belgium) and KPMG on the private tax compliance

costs by enterprise size¹⁷⁹. Therefore, to estimate the costs borne by SMEs as a share of the total estimated costs, we used the proportion of compliance costs relative to their turnover.

However, simply relying on these proportions could potentially distort the picture. As previously noted, even though large companies pay less proportionally than SMEs to comply with legislation, they still have a higher absolute expenditure. To enhance the accuracy of our calculations, we analysed the actual compliance costs: we extrapolated them from the average turnover for each firm size, and this allowed us to identify the exact proportion of compliance costs by firm size.

Importantly, according to VVA/KPMG study findings, “variation across sectors is found to affect compliance costs only to a very limited extent”. This, combined with the fact that the legislation under analysis is mostly horizontal, is the reason why we did not operate distinction in the number of affected companies across sectors.

Let’s define:

- C_{total} = total compliance costs for all firm sizes;
- X = compliance costs for SMEs;
- $T_{micro}, T_{small}, T_{medium}$ = total average turnover for micro, small and medium firms respectively;
- $P_{micro}, P_{small}, P_{medium}$ = proportions of compliance costs for micro, small, and medium firms respectively;
- $AT_{micro}, AT_{small}, AT_{medium}$ = the actual total compliance costs for micro, small and medium firms respectively;
- AT_{total} = the actual total compliance costs for micro, small and medium firms; and
- AP_{total} = actual compliance cost proportion for micro, small and medium firms.

The formula to find X would then be:

$$AT_{total} = (P_{micro} * T_{micro}) + (P_{small} * T_{small}) + (P_{medium} * T_{medium})$$

$$AP_{total} = \frac{AT_{micro}}{AT_{total}} + \frac{AT_{small}}{AT_{total}} + \frac{AT_{medium}}{AT_{total}}$$

$$X = C_{total} * AP_{total}$$

This formula sums up the compliance costs for each category of SMEs based on their turnover and the proportion of compliance costs they bear. The team conducted this analysis separately for the digital and the green pieces of legislation. The results on the cumulative costs are available by type of cost, by piece of legislation, and in total (both for an individual SME and for all SMEs in the EU).

¹⁷⁹ The study found that compliance costs vary significantly depending on firm’s size, from 0.1% of the turnover for large companies, 0.3% for medium-sized enterprises, 0.8% for small ones and 1.9% for micro companies.

Box 8. Sources and limitations of available data

In order to carry out the assessment of the cumulative costs borne by SMEs when complying with the selected legislation, we extrapolated relevant data from different sources. First of all, for firm-specific data (number of enterprises by size, average annual turnover) the study team relied on statistics from Eurostat. Data on the distribution of compliance costs by firm size are extrapolated from a study by VVA (now EY Belgium) and KPMG on the private tax compliance costs by enterprise size. Finally, data on the estimated costs for each selected piece of legislation was extracted from two sources, namely the Regulatory Scrutiny Board opinion on the impact assessments and, when not available, the impact assessments themselves.

The reason why the Regulatory Scrutiny Board opinion was used as the preferred source of data is that it consistently provides a snapshot of the costs estimated to impact different stakeholders, including companies, for each piece of legislation. Importantly, these are distinguished by administrative, regulatory and adjustment costs. However, cost estimates are provided without firm size distinction.

On the other hand, data extracted from impact assessments are more challenging to compare across pieces of legislation because impact assessments provide more fragmented information. In fact, they offer an overview of the potential impacts of different policy options on a variety of stakeholders, sometimes presenting costs for one single company and sometimes cumulative costs for all companies in the EU. Additionally, it is possible to find data on companies without distinguishing by size, but also information specifically on SMEs. Finally, data are often presented according to different measurement units, including but not limited to Euros and FTE (Full-Time Equivalent). This is also one of the reasons why, in order to ensure the use of comparable data for the quantitative analysis, the team focused on impact assessments only, even if ex-post evaluations are available for some pieces of legislation. Relevant ex-post evaluation findings are however mentioned within the text.

Data on adjustment, regulatory and hassle costs have not been computed in the impact assessments of the selected pieces of legislation. In fact, impact assessments recognise, but do not quantify, some impacts. Another element to take into consideration when analysing the results of the quantitative analysis is that many of the legislative acts envisage mitigation measures or exemptions for micro or SMEs. Nonetheless, as several interviewees have explained, exemptions do not prevent SMEs from facing these costs because of their massive presence in the supply chain of targeted larger companies. As a result, we have considered the costs as burdening SMEs also in pieces of legislation where they are formally exempted in order to account for the “trickle-down effect”. Finally, it is important to keep in mind that the analysis only considers the costs estimated in the relevant impact assessments, without focusing on the estimated benefits. Therefore, the estimates provided are on gross costs, rather than net costs requirements.

Source: Authors' own elaboration. Source of firm-level data: Eurostat, 2023, Enterprise statistics by size class and NACE Rev.2 activity (from 2021 onwards). Available at: https://ec.europa.eu/eurostat/databrowser/view/SBS_SC_OVW/default/table?lang=en

Qualitative analysis

In order to complement the findings of the quantitative analysis, the study team thoroughly analysed the qualitative data collected during the consultation activities, both general and sectoral. In particular, the transcripts of the interviews were analysed by means of **thematic analysis**, a method for iterative reading of qualitative data to detect, investigate and report repeating patterns of meaning (i.e.,

themes) in data. This allowed to identify the most frequent pieces of legislation mentioned by stakeholders as concerning and aggregate the feedback of their impact on SMEs. The findings of this analysis are presented in Section 3.

With the information collected at the consultation stage, an analysis was also conducted to assess and better understand the impact of different external factors on the costs of EU legislation on SMEs. The analysis, presented in Section 3.4, qualitatively assesses the impact of external factors to better distinguish the direct effects of EU legislation itself.

Limitations of the study

It is important to mention a number of limitations to this study, and how the team has addressed the related challenges. First of all, the final selection of legislation under analysis does not only focus on already enforced pieces of legislation, but also upcoming legislative acts. This is first and foremost due to the fact that many relevant pieces of digital and green legislation are very recent or currently ongoing. In addition, it builds on the findings of the consultation activities, during which stakeholders expressed particular concerns for legislative acts that are yet to be enforced. This is also one of the reasons why, in order to ensure the use of comparable data for the quantitative analysis, the team focused on impact assessments only, even if ex-post evaluations are available for some pieces of legislation. Relevant ex-post evaluation findings are however mentioned within the analysis.

Secondly, as already mentioned above, the consultation activities did not allow the study team to gather quantitative data on the impact of specific pieces of legislation on SMEs. According to stakeholders interviewed, this type of information is not readily available because small entrepreneurs are not able to disentangle the additional costs related to compliance with specific pieces of legislation. Hence, the information collected during interviews, despite being insightful for the qualitative analysis, did not allow a quantification. The study team has therefore relied on data collected in the desk research phase in order to carry out the quantitative analysis.

The section above provides a step-by-step explanation of the quantitative analysis, mentioning some assumptions. Building on this, it is possible to identify some limitations and other relevant points to take into account as follows:

- The quantitative analysis computes together the costs of already implemented and upcoming legislation. Estimates are provided as if all selected pieces of legislation were implemented together;
- Impact assessments and the Regulatory Scrutiny Board opinion on impact assessments are the sources of impacts of selected legislation. However, they do not compute all costs (for example, no hassle costs estimates are available). This could result in an underestimation of the final cumulative costs for companies of all sizes and, consequently, SMEs;
- The quantification exercise applies the same computation to all selected pieces of legislation, despite they may have specific exemptions for small companies. This is to account for the so-called “trickle-down effect”;
- For the first year of implementation, recurrent and one-off costs are summed together, when available (i.e., only for the green pieces of legislation). For the second year of implementation, only recurrent costs are considered;
- The quantification model assumes that the costs borne by SMEs as a share of the total estimated costs for all companies is the same as the proportion of compliance costs relative to their turnover; and

- The analysis only considers the estimated costs, without focusing on the estimated benefits. Therefore, the final estimates represent gross, rather than net, costs.

ANNEX 2: PRELIMINARY SHORTLIST OF LEGISLATION

Digital legislation

- **Data Privacy & Cybersecurity:** legislation dealing primarily with protection and privacy of personal data, along with cybersecurity measures.
 - Directive (EU) 2016/1148 (NIS Directive);
 - Directive (EU) 2022/2555 (NIS 2 Directive);
 - Directive 2002/58/EC (Directive on privacy and electronic communications);
 - Regulation (EU) 2016/679 (General Data Protection Regulation);
 - Regulation (EU) 2022/868 (Data Governance Act);
 - Proposal for a Regulation on harmonised rules on fair access to and use of data (Data Act); and
 - Regulation (EU) 2022/2554 (digital operational resilience for the financial sector).
- **Digital Infrastructure and Technology:** Legislation focusing on development, deployment, and management of infrastructure and technology for digital services.
 - Directive (EU) 2019/1151 (Use of digital tools and processes in company law);
 - Directive (EU) 2014/61 (Broadband Cost Reduction Directive);
 - Regulation (EU) 2023/1781 (Chips Act); and
 - Proposal for a Regulation laying down harmonised rules on Artificial Intelligence (AI Act).
- **Digital Services and Market Regulations:** Regulations that aim to create a fair and competitive digital market.
 - Regulation (EU) 2022/1925 (Digital Markets Act);
 - Regulation (EU) 2019/1150 (Promoting fairness and transparency for online intermediation services);
 - Regulation (EU) 2022/2065 (Digital Services Act); and
 - Regulation (EU) 2018/302 (Addressing unjustified geo-blocking).
- **Electronic Commerce and Transactions:** Legislation focusing on electronic transactions, online content, and e-commerce, enhancing trust and security in digital business processes.
 - Regulation (EU) No 910/2014 (eIDAS);
 - Directive 2014/55/EU (Electronic invoicing in public procurement);
 - Directive (EU) 2019/770 (Contracts for the supply of digital content and digital services);
 - Directive (EU) 2019/771 (Contracts for the sale of goods);
 - Regulation (EU) 2017/1128 (Cross-border portability of online content services in the internal market); and
 - Directive 96/9/EC (Legal protection of databases).

Green legislation

- **Circularity and Waste Management:** directives, and regulations around waste management and the transition to a circular economy.
 - Directive 2008/98/EC (waste);
 - Directive (EU) 2018/852 (packaging and packaging waste);
 - Directive (EU) 2015/720 (consumption of lightweight plastic carrier bags);
 - Directive 2006/66/EC (batteries and accumulators and waste batteries and accumulators);
 - Regulation (EU) 2023/1542 (batteries and waste batteries);
 - Directive (EU) 2019/904 (reduction of the impact of certain plastic products on the environment); and
 - Directive 2000/53/EC (end-of life vehicles).
- **Emissions and Pollution:** legislation aiming to control and limit the emissions of harmful pollutants into the air, water, and land.
 - Commission Regulation (EU) No 459/2012 (Euro 6);
 - Proposal for a Euro 7 Regulation;
 - Directive 2014/94/EU (deployment of alternative fuels infrastructure);
 - Directive 2010/75/EU (industrial emissions);
 - Regulation (EC) No 715/2007 (type-approval of light passenger and commercial vehicles with respect to emissions (Euro 5 and Euro 6) and access to vehicle repair and maintenance information);
 - Directive 2006/40/EC (emissions from air-conditioning systems in motor vehicles);
 - Regulation (EU) 2018/956 (monitoring and reporting CO₂ emissions from, and fuel consumption of, new heavy-duty vehicles); and
 - Regulation (EU) 2019/631 (setting CO₂ emission performance standards for new passenger cars and for new light commercial vehicles).
- **Energy Efficiency and Renewables:** rules and targets for increasing the use of renewable energy sources such as wind, solar, and hydroelectric power, as well as measures for improving energy efficiency in various sectors
 - Directive 2009/125/EC (a framework for the setting of ecodesign requirements for energy-related products);
 - Directive (EU) 2018/2001 (energy from renewable sources);
 - Directive 2012/27/EU (energy efficiency);
 - Directive 2010/31/EU (energy performance of buildings); and
 - Regulation (EU) 2017/1369 (energy labelling).

- **Environmental Standards and Requirements:** rules, and benchmarks set by the EU for environmental performance, and minimum requirements for environmental protection
 - Proposal for a Directive on common rules promoting the repair of goods;
 - Directive 2001/95/EC (general product safety);
 - Council Directive 85/374/EEC (product liability directive);
 - Directive 2009/48/EC (toys safety directive);
 - Regulation (EU) 2019/2020 (ecodesign requirements for light sources and separate control gears);
 - Regulation (EU) 2019/1781 (ecodesign requirements for electric motors and variable speed drives); and
 - Regulation (EU) 2018/858 (approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles).
- **Sustainability Reporting:** legislation requiring companies to disclose sustainability-related information in order to promote transparency and better monitoring
 - Directive (EU) 2022/2464 (corporate sustainability reporting); and
 - Regulation (EC) No 1907/2006 (the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)).

ANNEX 3: LIST OF GENERAL INTERVIEWS

Table 6. Interviews conducted for the consultation activities

No.	Organisation	Type of stakeholder
1	SMEunited	EU-level SME representative
2	SME Europe	EU-level SME representative
3	European Digital SME Alliance	EU-level SME representative
4	Small Business Standards	EU-level SME representative
5	Eurochambers	EU-level SME representative
6	SME envoy	National SME envoy
7	SME envoy	National SME envoy
8	SME envoy	National SME envoy
9	SME envoy	National SME envoy
10	Zentralverband des Deutschen Handwerks (German Confederation of Skilled Crafts and Small Businesses)	National association
11	Eesti Väike- ja Keskmiste Ettevõtjate Assotsiatsioon (Estonian Association of SMEs)	National association
12	Wirtschaftskammern Österreichs (Austrian Federal Economic Chamber)	National association
13	Confartigianato (Italian association of crafts and small enterprises)	National association
14	SME envoy	National SME envoy
15	SME envoy	National SME envoy
16	SME envoy	National SME envoy
17	COTEC Portugal (Association of Enterprises for Innovation)	National association

Source: Authors' own elaboration.

ANNEX 4: LIST OF CASE STUDIES INTERVIEWS

Table 7. Interviews conducted for the case studies

	Organisation	Type of stakeholder
Road transport	European Road Hauliers Association	EU-level trade association
	International Road Transport Union	EU-level trade association
	International Road Transport Union	EU-level trade association
Accommodation	Radisson Hotel Group	Company
	Group of Hotels & Restaurants of France	National-level trade association
E-commerce	Independent Retail Europe	EU-level trade association
	E-Commerce Europe	EU-level trade association
	Abitare kids (furniture, toys, design and distribute) Luxembourg	Company
	Kaufhaus Ernst Ganz GmbH	Retail SME in Germany (family run department store with online sales (<10% total turnover))
Manufacturing	Brainport Industries Cooperatie U.A. (Netherlands)	Network organisation of 125 high-tech companies
	VDMA (The Mechanical Engineering Industry Association), pester pac automation GmbH and AGTOS GmbH (Germany)	EU-level and national-level trade associations
	Confartigianato	National-level trade association
	MKB-Nederland (Netherlands)	National-level trade association
Construction	European Construction Industry Federation (FIEC) ¹⁸⁰	EU-level and national-level trade associations
	European Builders Confederation ¹⁸¹	EU-level and national-level trade associations
	N/A ¹⁸²	Consultancy and software dealer in construction sector, Germany
	N/A ¹⁸³	Planning office, consultancy in construction sector, Germany

Source: Authors' own elaboration.

¹⁸⁰ Group interview with participants from several national member associations: Associazione Nazionale Costruttori Edili ANCE, Italy; EMBUILD, Belgium; Fédération Française du Bâtiment FFB, France; Zentralverband des Deutschen Baugewerbes ZDB, Germany.

¹⁸¹ Group interview with participants from several national member associations: ANAEP, Italy; Bouwunie, Belgium; CNA, Italy.

¹⁸² Interviewee does not want to be mentioned.

¹⁸³ Interviewee does not want to be mentioned.

EU legislation calls SMEs to contribute to the twin transition. This study analyses the cumulative costs of selected pieces of EU digital and green legislation on SMEs and explores the effectiveness of costs mitigation tools at their disposal.

This document was prepared for the Policy Department for Economic, Scientific and Quality of Life Policies at the request of the Committee on Internal Market and Consumer Protection (IMCO).

PE 754.213
IP/A/IMCO/2023-06

Print ISBN 978-92-848-2219-5 | doi:10.2861/3009649 | QA-01-24-001-EN-C
PDF ISBN 978-92-848-2218-8 | doi:10.2861/5296842 | QA-01-24-001-EN-N