



European
Commission



ANNUAL SINGLE MARKET REPORT 2023

COMMISSION STAFF
WORKING DOCUMENT

*Internal market,
Industry,
Entrepreneurship
and SMEs*



Brussels, 31.1.2023
SWD(2023) 26 final

PART 1/5

COMMISSION STAFF WORKING DOCUMENT

2023 Annual Single Market Report: Single Market at 30

COMMISSION STAFF WORKING DOCUMENT

2023 Annual Single Market Report: Single Market at 30

Disclaimer: This document is a European Commission staff working document. It does not represent an official position of the Commission on this issue, nor does it anticipate such a position.

Table of Contents

<i>Introduction</i>	4
1. Delivering growth and jobs: Single Market integration in the past 30 years and future outlook	5
<i>1.1. Single Market integration in goods and services</i>	5
<i>Potential for further integration in services and goods</i>	9
<i>1.2. Benefits of the Single Market for SMEs</i>	11
<i>1.3. Benefits and opportunities of the Single Market for people</i>	13
<i>1.4. Single Market in capital: improving financing and investment opportunities for citizens and businesses</i>	15
<i>1.5. Enablers of a well-functioning Single Market</i>	18
<i>1.6. The EU Single Market integration in international comparison</i>	20
<i>1.7. Projection of EU rules and standards: the “Brussels effect”</i>	22
2. Improving the availability of goods and services, skills, technologies and investments in the Single Market vital for achieving EU strategic priorities	25
<i>2.1. Services for consumers and businesses</i>	27
<i>2.2. Supply chain resilience and strategic dependencies</i>	28
<i>2.2.1. Better understanding strategic dependencies, monitoring supply chain challenges, and improving the EU framework to better anticipate and react in crisis</i>	29
<i>2.2.2. State of play of measures to mitigate strategic dependencies and develop strategic capacities</i>	32
<i>2.2.3. Critical raw materials and supply chain disruptions</i>	38
<i>2.3. Supporting availability of right skills</i>	39
<i>2.3.1. Skills policy</i>	39
<i>2.3.2. Recognition of professional qualifications</i>	41
<i>2.3.3. Posting of workers</i>	41
<i>2.4. Increasing investments</i>	42
<i>2.5. Transformation of the economy</i>	45
3. Jointly managing the Single Market	48
<i>3.1. Member States’ role in improving trust and shared management of the Single Market</i>	49
<i>3.1.1. Progress on enforcement of Single Market rules</i>	49
<i>3.1.2. The Single Market Scoreboard as a tool to assess Single Market performance</i>	59
<i>3.1.3 Role of EU agencies</i>	60

3.1.4.	<i>Effective policy coordination and novel ways of collaboration at EU and Member State level</i>	61
3.2.	<i>Leveraging new collaborative tools</i>	62
3.2.1.	<i>Leveraging digital technologies at EU and MSs level to make the Single Market work better</i>	63
3.2.2.	<i>Leveraging the potential of data, data sharing and data spaces – future-oriented outlook</i>	66
3.2.3.	<i>Making Single Market work on the ground: example of market surveillance</i>	69

Introduction

The Single Market is without any doubt one of the EU's greatest achievements. The Single Market is vital for EU businesses and SMEs to grow, flourish, be competitive and expand internationally. The Single Market is vital for people in the EU to prosper.

This anniversary 2023 edition of the Annual Single Market Report marking the 30 years anniversary of the Single Market, has therefore a twofold objective.

Firstly, it takes stock of the integration of the Single Market of the last thirty years, highlights the Single Market benefits and key achievements for people and businesses, and its impact on growth and jobs in the EU. Chapter 1 assesses the functioning of the Single Market by looking at the progress in the integration in goods and services, people, and capital and financial integration. It highlights important enablers such as the competition policy, standards, public procurement policy, and intellectual property rights. These all help to complete the Single Market, create a competitive business environment, allowing European companies to grow and compete internationally.

Second, the 2023 edition discusses the Single Market from a longer-term perspective through the challenges that the EU is currently facing. A well-functioning Single Market plays a key role in the EU's competitiveness, strong economic base and open strategic autonomy. However, the environment in which the Single Market operates today is significantly different. Challenges such as increasing geopolitical tensions, global competition, climate change and risks related to strategic dependencies pose threats that were unknown or were much less pressing than thirty years ago. Work on tackling barriers continues. However, the challenges highlight the need to ensure that goods, services, skills, strategic inputs (i.e. critical raw materials and decarbonised energy), transformational technologies and investments that businesses and individuals require are available and accessible within the Single Market. Progress in these areas will boost EU's competitiveness and productivity, strengthen the EU's open strategic autonomy and allow companies to make the most of the green and digital transitions. Chapter 2 therefore presents considerations that are vital for the Single Market to function smoothly and deliver on the EU's objectives. These include ensuring availability of services, tackling supply chain challenges and boosting supply chain resilience, addressing strategic dependencies, delivering on green and digital transitions and ensuring availability of right skills and funding.

The Single Market and the approach to its governance have evolved over the last 30 years. For example, a large part of the Single Market in goods has already been harmonised. This has been a key factor in developing a well-functioning Single Market for goods with an unhindered flow of goods across national borders. For the Single Market to operate smoothly, the EU and national levels need to work together better. The report therefore discusses the potential of novel approaches and partnerships, as well as collaborative tools, in improving trust among authorities and better working together in addressing persisting Single Market barriers and obstacles. The report also discusses the potential of digital technologies and user friendly e-government solutions in helping reduce the administrative burden for businesses and administrations. The Single Market Scoreboard is published in parallel to this report and complements it by providing additional data on the outcomes that the Single Market is achieving by setting up sound business framework conditions for the EU economy and reinforcing its competitiveness.

1. Delivering growth and jobs: Single Market integration in the past 30 years and future outlook

The Single Market is one of the EU's greatest achievements. It has spurred economic growth and made the life of European businesses and consumers easier. The Single Market today consists of almost 450 million consumers and represents 18% of world gross domestic product (GDP)¹. Trade within the EU and with the rest of the world accounts for almost one third of total world trade². The Single Market provides a springboard for EU companies to flourish and grow their markets, and it gives access to trading across borders without additional administrative costs. Single Market integration has benefitted all Member States by acting not only as a driver of exports, but more generally as a source of growth and, job creation. Member States trade more within the EU (18% of world trade) than with the rest of the world (13% of world trade). Over the past decades the Single Market has advanced the most with respect to the movement of capital and goods. Trade in services and movement of people have also seen substantial progress but less pronounced, partially due to their nature and the persistent presence of barriers. The Single Market is also a powerful job engine, facilitating mobility. For example the EU system of mutual recognition of professional qualification which facilitates professional mobility for EU citizens, has enabled over 800 000 people to establish themselves in another Member State since 1997. Chapter 1 presents an analysis of the Single Market in the past 30 years and highlights the progress and achievements in integration in goods, services, capital, benefits for citizens and the international dimension.

1.1. Single Market integration in goods and services

The Single Market has become progressively more integrated since 1993, as businesses increasingly expanded their activities across national borders through exports or by establishing a permanent presence in other Member States³. Trade and cross-border establishment are two complementary means of achieving Single Market integration in both goods and services markets. Businesses often use one after the other as they expand across the Single Market: first they trade across borders (with lower investment risks), then they establish a permanent presence in the host Member State(s) involving more resources. In many cases, both means are also used together as businesses internationalise having a permanent presence in several Member States while at the same time also trading across borders with others. Therefore, integration in goods and services is therefore assessed for both trade and establishment.

Trade

The level of integration of trade in goods within the EU has doubled over the last three decades⁴. Trade in goods within the EU has increased over the last three decades not only in absolute terms but also in relation to the size of the EU economy, enabling increased integration. While in 1993 trade integration in goods for the 12 Member States composing the Single Market at the time stood at 11%, it has gradually increased to 23% in 2021 for today's EU-27. A number of visible shocks to trade (e.g. during the global

¹ GDP at current prices.

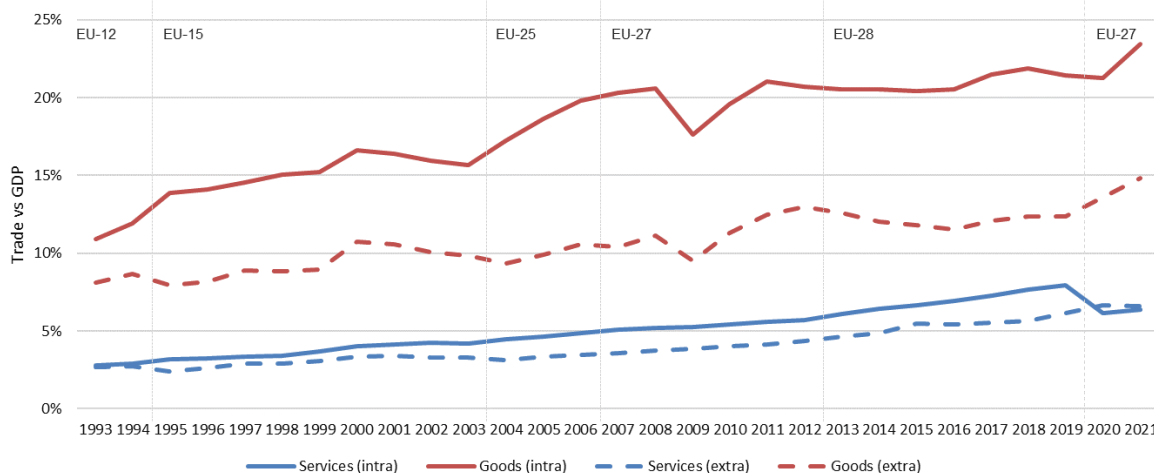
² These figures consider the average of imports and exports.

³ Later referred as cross-border trade establishment.

⁴ Measured as trade within the EU versus GDP.

financial crisis⁵) led only to temporary drops in integration levels. This increase in intra-EU trade integration went hand-in-hand with a steady decrease in intra-EU trade costs, which are today significantly lower than trade costs with third countries⁶. The Single Market remains the main source of trade in goods for the EU (being about 60% higher than EU trade in goods with the rest of the world), even after the withdrawal of the UK. Finally, the importance of intra-EU trade as a source of value added⁷ in EU production has increased consistently: today the Single Market flows account on average for about 25% of the value of a product manufactured in the EU.⁸

Figure 1: EU integration (trade vs GDP, 1993-2021) within the Single Market (intra) and with the rest of the world (extra)



Source: European Commission services, based on Eurostat. Note: the graph shows trade flows in goods and services within the EU and with the rest of the world as a share of EU GDP. The vertical dotted lines in the graph highlight breaks in the time series, due to changes in the composition of the Single Market. Trade is measured by the average of imports and exports.

Also in services, trade integration within the EU has doubled as well since 1993. While in 1993 trade integration in services stood at 3%, this had increased to 6% by 2021. Today, trade in services within the Single Market remains broadly at the same level as EU trade in services with the rest of the world. Overall, integration of trade in services within the EU continues to be below trade integration in the area of goods. This nevertheless hides a wide variety of integration levels across different services sectors. Services of a more digital nature and/or lower regulatory complexity are generally traded more within the Single Market. On the other hand, services of a less digital nature (often requiring a certain level of physical proximity between customer and supplier) and/or operate in an environment of higher regulatory complexity typically show lower levels of integration of trade within the EU.

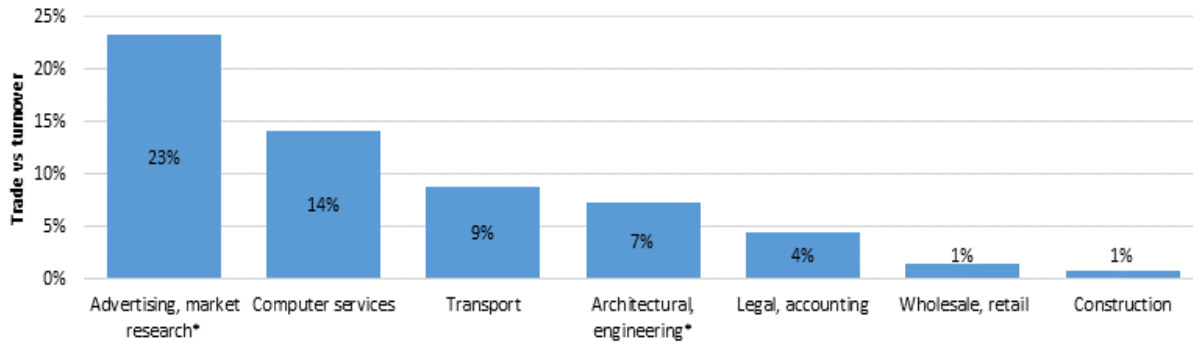
Figure 2: Integration of trade within the EU (trade versus turnover, 2020): divergence across services sectors – examples

⁵ Between 2007 and 2009.

⁶ Head, K., & Mayer, T. The United States of Europe: A gravity model evaluation of the four freedoms. *Journal of Economic Perspectives*, 35(2), 2021. pp. 23-48.

⁷ Trade in value added provides a complementary way to look at trade integration, measuring the value added by each country across the value chain (rather than total flows of goods crossing a border).

⁸ Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), Unit A1, based on OECD trade in value added data.

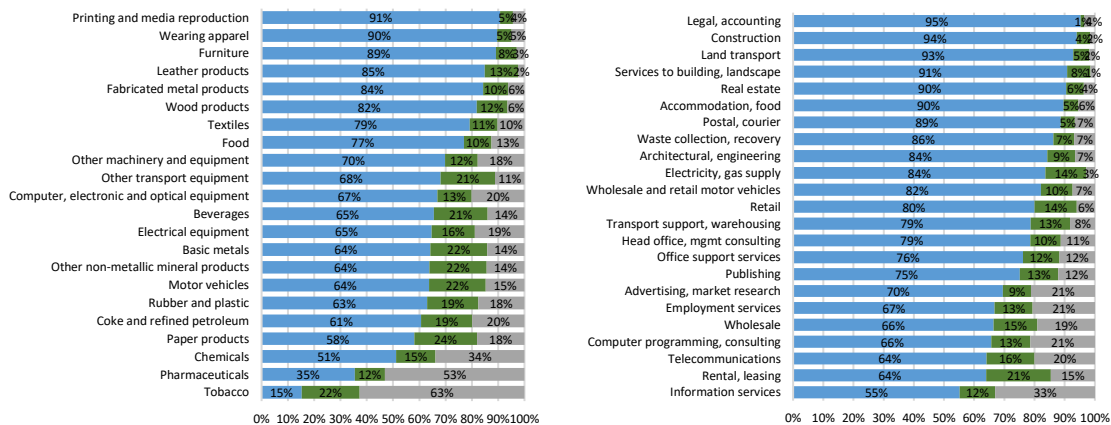


Source: European Commission based on Eurostat. Note: integration is calculated as trade (average imports and exports) versus turnover for 2020 (based also on the EBOPS-NACE [correspondence table](#)). For sectors noted with an asterisk show integration levels for 2019 are given.

Establishment

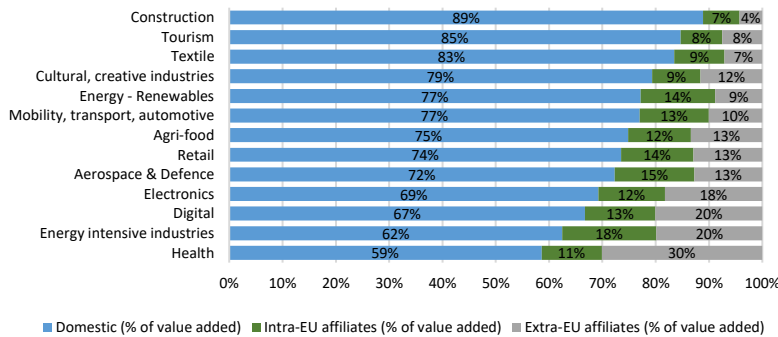
In addition to trade, cross-border establishment is an important channel of achieving Single Market integration. Today, intra-EU affiliates⁹ are estimated to account for about 12% of the total value added generated in the EU¹⁰. Intra-EU establishment is particularly important for manufacturing sectors such as basic metals (where intra-EU affiliates generate 22% of total value added), non-metallic mineral products (22%), motor vehicles (22%) and transport equipment (21%). In services, intra-EU establishment is important for sectors such as retail (14%) and electricity supply (14%). This is reflected also when looking at the perspective of industrial ecosystem, where intra-EU establishment is relatively more important for the mobility (driven e.g. by intra-EU establishment for transport and motor vehicles) and energy-renewables ecosystems.

Figure 3: Intra-EU and extra-EU establishment as source of total EU-27 value added (2019): manufacturing sectors (left), larger services sectors (right) and industrial ecosystems (bottom)



⁹ Intra-EU affiliates covers enterprises resident in a Member State over which an institutional unit resident in another Member State has control. Extra-EU affiliates covers enterprises resident in a Member State over which an institutional unit resident in a third country has control.

¹⁰ Based on Eurostat (2019 data) analysed by European Commission. This estimation excludes some sectors (e.g. health services, agriculture, financial and insurance services) for which no data is available.



Source: European Commission based on Eurostat. Note: graph shows proportion of EU value added generated by domestic businesses, intra-EU affiliates and extra-EU affiliates. Data per ecosystem (bottom) includes both goods and services (see *Annual Single Market Report 2021* (p. 208)). Insufficient data is available for the proximity, and social economy ecosystem. Data for the health ecosystem does not include health services (NACE_R2 Q86-88), so it mainly reflects the production of pharmaceuticals. Data for the agri-food ecosystem does not include agriculture, forestry and fishing (NACE_R2 A).

In terms of integration through trade and establishment, the services Single Market is a wide variety of sectors with very different degrees of integration. Broadly four types of services can be discerned: services mainly integrating through establishment (e.g. retail, wholesale); services mainly integrating through cross-border trade (e.g. R&D services); services integrating through both trade and establishment (e.g. telecommunications, advertising and market research, computer services); services with low Single Market integration (trade and establishment), still strongly dominated by domestic providers (e.g. construction, highly regulated professional services).

Developments in European company law since the 1960s have facilitated freedom of establishment of companies, including small to medium-sized enterprises (SMEs), while increasing transparency and legal certainty, and providing appropriate protection to shareholders, creditors and employees. The recent changes to EU company law¹¹, made in response to digital developments, enabled entrepreneurs to set up new businesses or branches and to submit company information to business registers fully online, and has resulted in more company data being available free of charge (e.g. on legal representatives). The updated EU company law also sets out clear procedural rules for cross-border operations¹² to enable companies to move and reorganise in the Single Market with necessary safeguards. The initiative on upgrading digital company law¹³ aims to increase transparency regarding companies in the Single Market by using digital tools, such as the Business Registers Interconnection System (BRIS). This will help reduce administrative barriers when companies and public authorities use company information in cross-border situations, for example by reducing formalities and using the ‘once-only’ principle. At the same time, it will help SMEs to expand across borders¹⁴.

¹¹ [Directive \(EU\) 2019/1151](#) amending Directive (EU) 2017/1132.

¹² [Directive \(EU\) 2019/2121](#) amending Directive (EU) 2017/1132 introduced [new rules for cross-border conversions and divisions, and streamlined rules for cross-border mergers](#).

¹³ Announced for Q1 2023 in the Commission work programme.

¹⁴ It [responds to the 2020 SME strategy, which mentioned that ‘the Commission will consult and assess the need for additional company law measures to facilitate cross-border expansion and scale-up by SMEs’](#).

Potential for further integration in services and goods

There is untapped potential for increased Single Market integration in services. The achievable level of integration likely varies, depending on the specific nature of the service concerned. For example, ICT services are more easily traded than personal or office support services. Still, there is unexploited potential. For instance, the Single Market Scoreboard¹⁵ shows that, as regards services between 2017 and 2021, there has been little if any progress in the reduction of regulatory barriers for entry and exercise of professions. In some sectors where physical proximity between service provider and customer is still important (e.g. in social and proximity services) more integration through establishment is likely possible. In other areas (e.g. professional services), the potential of innovation and increasingly available digital tools, available data and platforms may drive further cross-border services trade. In fact, a growing number of services can today be performed remotely thanks to the use of smart technologies.

Recent estimates highlight the potential benefits of further action in services. Most potential likely lies in those services that are both economically important and exhibiting lower levels of integration, such as construction (6% of EU GDP), wholesale and retail (11%), professional services (7%), and tourism services (3%). Based on proxies of a country's regulatory barriers affecting services¹⁶, the potential benefits of removing obstacles to free intra-EU services are estimated at between EUR 279 billion (when the gap with the Member States performers that are performing best in terms of obstacles is reduced by 50%) and EUR 457 billion (if the gap is reduced by 80%) of additional GDP per year in the long term¹⁷.

The Single Market in services and goods are today strongly intertwined. Achieving further progress in the area of services thus also offers important (positive) spill-over effects for EU industry. Services are a fundamental input for manufacturing. Overall, around 38% of the overall value added embedded in the demand of manufacturing industries in the EU is generated by services. Looking at specific manufacturing sectors, services value added ranges between 22% (mining and quarrying, non-energy producing products) and 43% (food products, beverages and tobacco). The services providing the highest share of value added in the overall manufacturing sector are wholesale and retail followed by professional, scientific and technical activities and administrative and support services. This also confirms that it is important to approach the analysis of EU industries from an ecosystem perspective¹⁸, encompassing all players operating in a value chain from the smallest start-ups to the largest companies and taking into account the role of service providers as well as industrial manufacturing companies. Such an integrated ecosystem approach is taken, for example, in the development of the transition pathways (see Chapter 2.5).

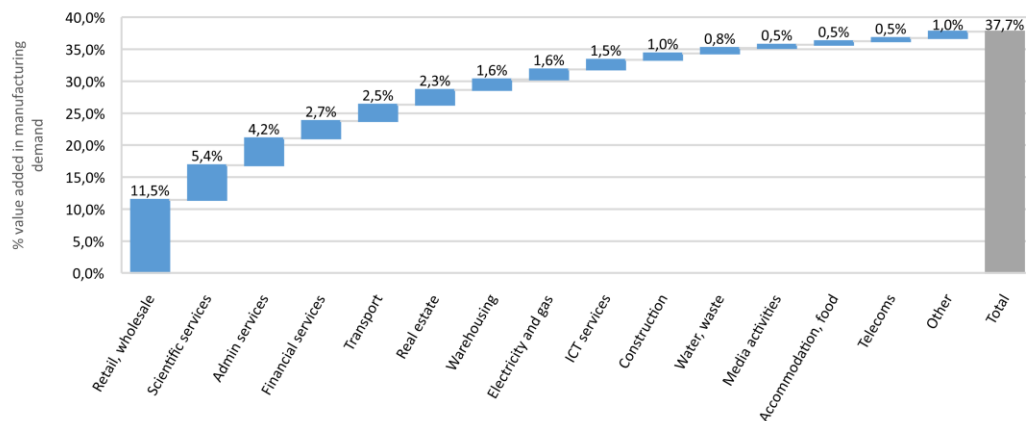
Figure 4: Share of services' value added in final demand of EU manufacturing sector (2018)

¹⁵ <https://single-market-scoreboard.ec.europa.eu/>.

¹⁶ Using the OECD Product Market Regulation indicators 'Barriers in services sectors' and 'Distortions induced by state involvement'.

¹⁷ European Parliamentary Research Service (2022). Completing the Single Market for services. On the potential of services reforms, see also Barbero, J., Bengyuzov, M., Christensen, M., Conte, A., Salotti, S., and Trofimov, A. (2022). A general equilibrium analysis of the economic impact of the post-2006 EU regulation in the services sector. JRC Working Papers on Territorial Modelling and Analysis No. 03/2022.

¹⁸ As done by the Commission services since the 2020 Industrial Strategy.



Source: European Commission, based on TiVA 2021 data (underlying data collected in 2018). Note: “scientific services” includes professional, scientific and technical activities, “admin services” includes administrative and support services, and “transport” includes land and pipelines.

The area of goods also holds potential for further integration. Services are often the focus of discussions around the remaining potential of the Single Market. However, obstacles in the Single Market in goods still exist¹⁹.

Stakeholders generally confirm the Commission assessment of the important remaining obstacles in the Single Market in goods and services. In 2020, the Commission presented a comprehensive inventory of barriers preventing the proper functioning of the Single Market and holding back the EU economy²⁰. This assessment highlighted 31 horizontal and 52 sector-specific barriers. The business community has broadly confirmed this analysis. Not all of these barriers fall within the scope of EU policy. Many relate to national regulation and administrative as well as business practices. Examples of important Single Market barriers identified in the 2020 Commission assessment and confirmed by stakeholder analyses include a lack of information and complex national procedures²¹, meeting national requirements in the area of services²², administrative requirements for posting workers²³, issues related to taxation²⁴, specific obstacles in the area of goods (e.g. labelling requirements²⁵, problems with mutual recognition²⁶) as well as broader issues such as transport bottlenecks²⁷ and a lack of skilled workers and mobility²⁸. Businesses have called for further action to address these obstacles²⁹. The Commission is addressing these issues with Member States in order to reduce regulatory complexity and to streamline administrative procedures (See Chapter 3).

It is also important to address those Single Market obstacles which may hinder the EU’s pursuit of the twin (green and digital) transitions. Services are key to achieving the green transition but barriers to the free movement of services risk slowing the transition³⁰. Lengthy and diverse national permitting

¹⁹ Discussed e.g. in COM(2020)93.

²⁰ SWD(2020)54.

²¹ Identified also by e.g. Eurochambres “The state of the Single Market: Barriers and Solutions”, 2019.

²² Identified also by e.g. Eurochambres, 2019.

²³ Identified also by e.g. BusinessEurope, “Examples of Single Market barriers for businesses”, 2022.

²⁴ Identified also by e.g. DigitalEurope, “Single Market barriers continue limiting the EU’s potential for the twin transition”, 2022.

²⁵ Identified also by e.g. ERT, “Renewing the dynamic of European integration: Single Market Stories by Business Leaders”, 2021.

²⁶ Identified also by e.g. Eurocommerce, “Single Market barriers – overview”, 2022.

²⁷ Identified also by e.g. BusinessEurope, 2022.

²⁸ Identified also by e.g. ERT (2021).

²⁹ Joint Industry Statement (by BusinessEurope, DigitalEurope, ERT, Eurochambres and Eurocommerce on the Single Market of June 2022.

³⁰ National Board of Trade of Sweden: Green Services in the Single Market; November 2022.

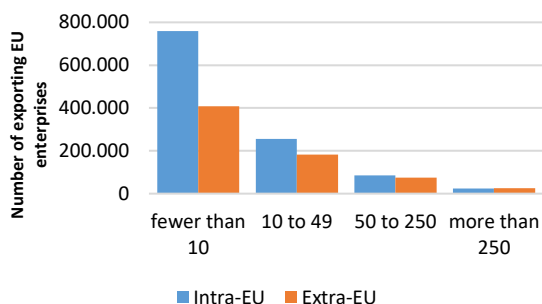
criteria and procedures for renewable energy projects is one important example. Measures taken to address these and other Single Market barriers are described in Chapter 3.

1.2. Benefits of the Single Market for SMEs

The Single Market has played a key role in boosting SMEs’ internationalisation and competitiveness. As shown in Figure 5a, the vast majority of exporting businesses are SMEs, and the Single Market is their key export destination. This is true across both goods and services. According to the 2020 Eurobarometer on SMEs, start-ups, scale-ups and entrepreneurship, 23% of all EU SMEs exported to countries within the Single Market, 9% exported to European countries outside the EU, and 4% exported to North America³¹.

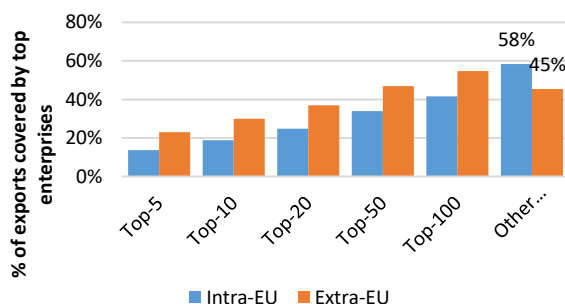
Exporting SMEs trading products across the EU are a key source of integration. The number of EU micro firms exporting goods within the Single Market is almost twice the number of those exporting goods outside of the EU. In contrast with extra-EU exports, intra-EU exports are less concentrated in a few (larger) businesses, highlighting the important role of the Single Market for EU SMEs.

Figure 5a: Number of EU enterprises exporting goods by size class (2020)



Source: European Commission based on Eurostat (ext_tec01, 2020). Note: columns show the number of enterprises exporting goods within the Single Market (blue) and to the rest of the world (red) by size class. Data does not cover Luxembourg.

Figure 5b: Concentration in goods exports by largest exporters (2020)



Source: European Commission based on Eurostat (ext_tec02, 2020). Note: columns show the proportion of total goods exports captured by the top (largest) exporters in each Member States for intra-EU (blue) and extra-EU trade (red).

Internationalisation of SMEs still lags behind that of large companies, but thanks to the Single Market, it has made steady progress. Since 2012, every year has seen a steady growth in the number of exporting SMEs³², with the exception of 2020, when pandemic-induced border restrictions and lockdowns led to a decline in the number of exporting SMEs. Even though overall shares of exporting enterprises show SMEs still lag behind large enterprises (26% of SMEs export, while 53% of large companies export³³), it is important to bear in mind that even non-exporting SMEs can participate indirectly in the global economy by being upstream suppliers of exporting firms. Such indirect contribution of SMEs to Member States' export performance is very significant: when indirect exports are taken into consideration, SMEs account for more than 50% of value added of exports³⁴.

³¹ Eurobarometer February 2020 (Flash 486: “SMEs, Start-ups, scale-ups and entrepreneurship”). [SMEs, start-ups, scale-ups and entrepreneurship - September 2020 - Eurobarometer survey \(europa.eu\)](#).

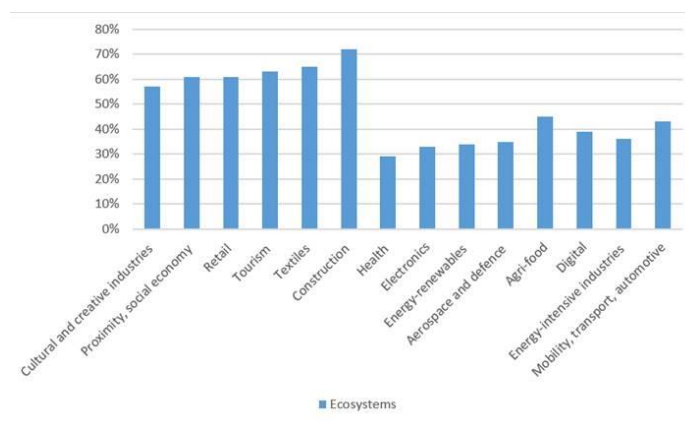
³² Source: Eurostat trade by NACE Rev. 2 activity and enterprise size class.

³³ 2020 Eurobarometer.

³⁴ 2018 Annual Report on European SMEs.

This important contribution of SMEs to international value chains is clearly visible when looking at industrial ecosystems. SMEs account for more than 50% of value added in six out of the fourteen industrial ecosystems (see Figure 6). As industrial ecosystems span across national borders and rely on cross-border supply chains, SMEs have a crucial role to play in the competitiveness of industrial ecosystems by supplying larger players within the ecosystem, even when they are not exporting themselves. This includes the smallest enterprises with less than 10 employees: the differences in the value added contribution of SMEs across the various ecosystems mainly reflect differences in the value added contribution of micro- enterprises³⁵.

Figure 6: SMEs contribution per ecosystems (in value added)



Source: European Commission, based on 2022 Annual Report on European SMEs

The current economic context is highly challenging for SMEs, and it is more important than ever for them to fully benefit from the Single Market. By 2022, the SMEs have been partly recovering from the COVID-19 pandemic but their recovery is threatened once again by supply shortages and rapidly increasing prices for energy and raw materials, further exacerbated by the unprovoked and unjustified Russian invasion of Ukraine. While 2022 still saw solid employment growth in SMEs of 2.9% due to momentum from 2021 and strong growth in the first half of the year, the future outlook is decidedly reserved. The latest EU Economic Forecast expects stagnation, with only 0.3% growth in 2023, while inflation is expected to remain high with 7.0% during 2023. This will have a significant impact on SMEs, with preliminary forecasts expecting employment in SMEs to fall again by 1.3% in 2023³⁶. Deterioration in the late payments by public administrations which has increased significantly compared to pre COVID – 19 period³⁷, is further complicating the fragile situation. Policymakers on European, national, regional and local levels are partnering to counter this sombre outlook in order to ensure SMEs can take full benefit of the Single Market, close the gaps between the share of exporting SMEs and exporting large enterprises and thus safeguard SMEs’ resilience during yet another crisis.

³⁵ Ibid/2022 Annual Report on European SMEs. Micro-enterprises are enterprises with less than 10 employees or self-employed.

³⁶ Preliminary calculations by JRC based on Eurostat Structural Business Statistics and Short-Term Business Statistics.

³⁷ Single Market Scoreboard

1.3. Benefits and opportunities of the Single Market for people

Since its introduction 30 years ago, the Single Market created substantial benefits and opportunities for EU citizens. Thanks to the Single Market people can move around the EU almost as freely as within a single country. EU citizens can study, live, shop, work and retire in any EU country, and enjoy products and services from all over Europe. The Single Market allows citizens across the European Union to access services from the other Member States under terms and conditions similar to those originating in their home countries. Hundreds of technical, legal and bureaucratic barriers to free trade and free movement between EU Member States have been reduced or removed altogether.

The increased competition between EU companies has fuelled innovation, leading to a greater choice of goods and services for EU consumers at lower prices and better quality. Affordable cross-border parcel delivery and more choice for energy, health and banking services are other tangible benefits for EU citizens and consumers. Common high standards within the Single Market lead to safer products and services for consumers, stronger consumer protection and higher environmental sustainability and circularity. They also preserve our shared cultural heritage and diversity by protecting cultural goods and treasures.

The Single Market is also a powerful job engine. EU citizens can also make increased use of cross border mobility and employment opportunities in other Member States. Thanks to the free movement between Member States, people can work where they want, visa-free and benefit from the recognition of their professional qualifications across the Single Market.

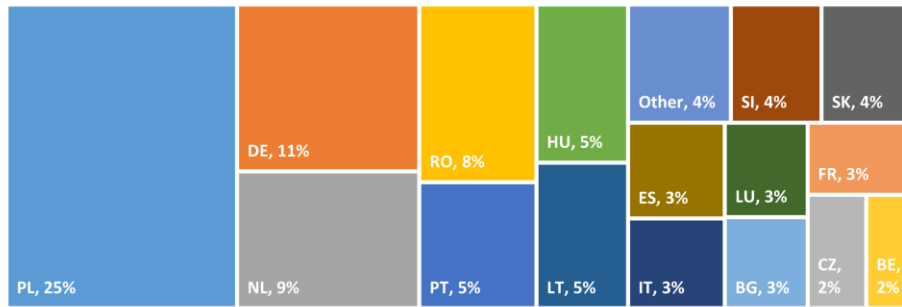
The mobility of EU citizens enhances the cohesion of the Single Market, contributes to dissemination of knowledge and innovation and provides opportunities for upward economic and social mobility. A recent Eurobarometer confirmed that Europeans are widely supportive of labour mobility: 58% see the positive contribution to European integration and only 9% think that free movement could be negative for European integration. However, so far mobility is relatively small: only around 17% of Europeans have worked (or still work) in a different country and mobility is far more attractive for high-skilled (tertiary educated) citizens³⁸. Digitalisation of the labour market and new forms of work in a digital environment, often have strong cross-border implications (platform work, cross-border telework). More than 10 million EU working-age citizens live in another EU and EFTA Member State than their country of citizenship. Additionally, there are 1.6 million workers residing in one Member State and working in another Member State.

Posting of workers is an important dimension of cross-border mobility within the Single Market. It allows businesses established in one Member State to post their own workers temporarily to provide services cross-border in another Member State, subject to certain host country provisions on working conditions and health and safety. The number of posted workers in the Single Market is continuously increasing, in particular between neighbouring countries and closely integrated economies. In 2019, there were around 2 million posted workers and 5.8 million postings in the EU³⁹ (see Figure 7).

Figure 7: Share of posting notifications registered in the national declaration tools: breakdown by sending Member State (EU-27, 2019)

³⁸ Special Eurobarometer 528 "Intra-EU mobility after the pandemic". Link: [Intra-EU labour mobility after the pandemic - December 2022 - Eurobarometer survey \(europa.eu\)](#).

³⁹ [Posting of Workers – Collection of data from the prior notification tools – Reference year 2019.](#)



Source: European Commission, based on De Wispelaere, Pacolet, De Smedt (2021). Note: data covers posting notifications received by 20 Member States (no data available for IE, EL, ES, HR, LV, NL, SI). A notification by a posting undertaking to the national declaration tool of the host Member State may include several postings.

EU social security coordination rules⁴⁰ are contributing to the enabling of free movement of persons.

The rules ensure that citizens preserve, or do not lose, their social security protection in cross-border situations. In 2021, almost 14 million Europeans lived in another Member State, of which about 10 million were of working age. More than 3.5 million portable documents attesting the applicable social security legislation⁴¹, were issued and almost 235 million European Health Insurance Cards were in circulation. Moreover, digitalisation of social security coordination⁴² makes it easier for mobile citizens to exercise their social security rights and facilitates information exchange between social security authorities/institutions.

EU programmes, such as the European Social Fund Plus (ESF+)⁴³ support the labour mobility within the Union, with a priority given to the youth employment. The ALMA (Aim, Learn, Master, Achieve) initiative⁴⁴ under the ESF+ targets disadvantaged young people aged between 18 and 29 and aims to help them find their way to the job market. Implementation of ALMA is starting, with 16 Member States having included ALMA in their national or regional programmes. Moreover, results of social innovation projects are very promising. In 2014-2020, they extended to 15 Member States and has allowed almost 7,000 individuals to acquire skills, knowledge and capacity through work-related experiences abroad.

The Single Market is also a vector of social progress and social inclusion for citizens enabling business models, rooted in social economy values, to respond with products and services to the needs of local communities and help the twin transition happen leaving no one behind⁴⁵. Strengthening the social dimension of the Single Market, in line with the European Pillar of Social Rights is particularly relevant in the current context, with our societies deeply affected by the COVID-19 pandemic, the rocketing energy prices and inflation, and the need for fair and inclusive green and digital transitions. With 2.8 million entities in the EU, the social economy offers concrete and innovative solutions to many of these key challenges.

⁴⁰ Following a proposal from the Commission in 2016, negotiations to revise and modernise the European rules on social security coordination are ongoing to ensure the rules remain fair, clear and easier to enforce.

⁴¹ So called Portable Documents A1.

⁴² A Commission Communication on the digitalisation of social security, in connection with the work on the European Social Security Pass pilot project, will be presented in the third quarter of 2023.

⁴³ <https://ec.europa.eu/european-social-fund-plus/en>.

⁴⁴ <https://ec.europa.eu/social/main.jsp?catId=1549&langId=en>.

⁴⁵ See the Transition Pathway on Proximity and Social Economy – November 2022.

EU Consumer rights constitute a pillar of the Single Market. The Single Market for consumer goods and services offers a large set of harmonised rules that concern more than half of the EU GDP (the share of private spending). Consumers and retail traders across the EU benefit from the same laws that define market rules on unfair commercial prices or contract terms, and on guarantees or consumer rights relevant for e-shopping. For instance, 80% of consumers in the EU trust that retailers and service providers respect their rights⁴⁶ and a high proportion (43%) are confident buying in another EU country through e-shopping.

Ensuring that products circulating in the Single Market are safe is also key for people`s health and safety. Some products and risk categories are regulated under EU sectorial legislation, whereas the EU general product safety framework⁴⁷ provides a safety net for consumers, preserving safety of products and risks not covered by other EU legislation. In this way, EU consumers are always protected against any kind of dangerous products sold offline or online.

Benefiting from the Single Euro Payments Area (SEPA), consumers can make cashless euro payments to anywhere in the European Union, as well as in 9 non-EU countries and territories. More than 529 million people living in the SEPA area make about 146 billion electronic payments every year. Consumers experience the same ease and convenience when making euro transactions with the same payment instruments, in particular credit transfer and direct debit, as when paying within their home country.

1.4. Single Market in capital: improving financing and investment opportunities for citizens and businesses

Thirty years ago, with the Maastricht Treaty, the free movement of capital became a fully-fledged fundamental freedom, a vehicle for financial integration and a safeguard for cross-border investments in the European Union. The free movement of capital was extended to non-EU countries, making the EU one of the world`s most open investment destinations. It comes with the necessary safeguards to protect EU`s strategic assets and important public interests.

An integrated financial system is a key building block for the wider integration of markets for goods and services in the European Union, ultimately increasing financial stability and economic growth. The Single Market expands financing options for firms, channels capital where needed most, and broadens investment opportunities for savers and helps firms and households diversify risk.

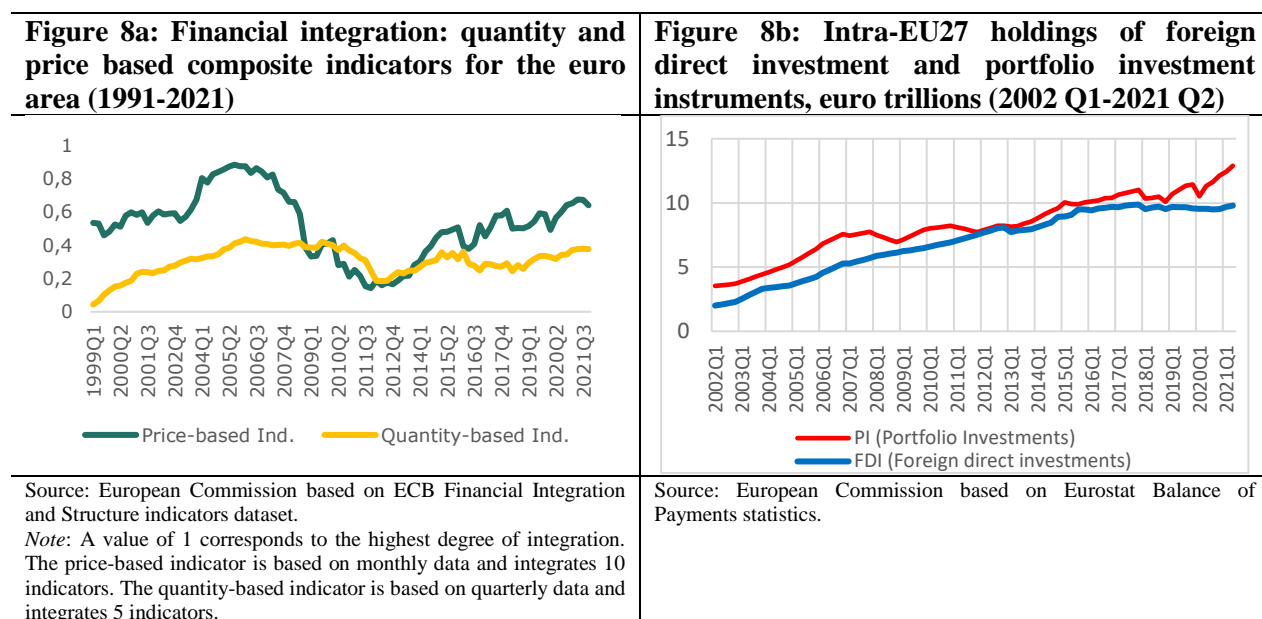
Policies in the areas of free movement of capital, EU Banking Union and Capital Markets Union aim to lift barriers to intra-EU cross-border investment and integrate the EU financial markets. In the last two decades, intra-EU27 holdings of foreign direct investments (FDI) and portfolio investments (PI) kept increasing and were almost 5 times higher and 4 times higher, respectively, in the second quarter of 2021 compared to the beginning of 2002 (see Figure 8b). Financial integration also advanced significantly and, measured by the quantity-based and the price-based composite indicators⁴⁸ for the euro

⁴⁶ New EU consumer survey is expected to be published mid-March 2023.

⁴⁷ To be enhanced by the entry into force of the new General Product Safety Regulation COM/2021/346 final.

⁴⁸ For a detailed description of the indicators for measuring euro area financial integration, see: ECB (2016), Financial integration and structure in the euro area, Statistical Annex; and Hoffmann, P., Kremer, M. and Zaharia, S., (2019) Financial integration in Europe through the lens of composite indicators, ECB Working Paper 2319, September 2019. For annual monitoring, see: DG FISMA European Financial Stability and Integration Review, annual issues.

area in 2021, it was 8 times higher compared to 1999 (quantity-based indicator) and 11 times higher compared to 1995 (price-based indicator), as Figure 8a shows.



Between 2008 and 2011, the financial crisis and sovereign debt crisis imposed vast costs on the private and public sectors of the European Union. It slowed the integration of capital markets. Costs of capital across countries began to diverge and increase. Regulatory framework for the EU Single Market in financial services took a quantum leap and regulatory reforms undertaken⁴⁹ at EU level. These together with an improved oversight have helped restore financial stability and the financial system. The revamped regulatory framework also positively contributed to a well-functioning and stable financial sector and ultimately to resilience of financial integration and the whole economy during the COVID-19 pandemic. After an initial decline during the COVID-19 pandemic, European financial integration resumed at a substantially faster pace than in previous crisis episodes and by the end of 2021 the price-based and quantity-based composite indicators of financial integration² had surpassed their levels at the immediate onset of the pandemic (Figure 8a).⁵⁰

The 2008-2009 financial crisis and the consecutive European sovereign debt crisis resulted in the (re)fragmentation of the EU banking sector and the (re)emergence of dangerous interlinkages between national banking sectors and their respective governments. Following the crisis, the EU set up a Single supervisory mechanism (SSM), comprising the ECB and the national supervisory authorities, and the Single Resolution Board (SRB), responsible for common resolution actions. Their work is crucial in ensuring an effective management of banking crises in a cross-border context and thus minimise cross-border frictions and spill-overs. Completing the Banking Union is a politically complex endeavour, but

⁴⁹ For an overview of financial services legislation, see: https://finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/overview-financial-services-legislation_en.

⁵⁰ For more details on euro area composite indicators for financial integration see European Central Bank (ECB), Financial Integration and Structure in the Euro Area, 2016 and DG FISMA European Financial Stability and Integration Review, annual issues.

progress in the coming years is essential if the EU is to be sufficiently resilient to address any future financial crises.

The Single Rulebook provides a single set of harmonised rules applicable for banks and other financial intermediaries in all EU Member States. European financial legislation was previously based on directives which left room for significant divergences between Member States' implementations. This led to different approaches and to legal uncertainty, enabling certain market players to exploit regulatory loopholes, distorting competition, and making it burdensome for many firms and investors to operate across the Single Market. Moreover, the financial crisis has shown that in integrated financial markets, these divergences can have disruptive effects for financial stability, market integrity and investor protection. The Single Rulebook aims to address these shortcomings and lays the foundations for a more resilient, more transparent, and more efficient European financial sector.

The digital dimension of financial services has been growing for some time and the effects of the COVID-19 pandemic have accelerated the shift towards digitalisation, including in the field of consumer financial services. The Single Market can offer benefits of scale in digital finance and allow the EU to close the gap with its main global competitors. Recent developments have, however, also shown that the innovation benefits linked to digital finance can bring significant risks to investor protection and even financial stability. The EU is currently a frontrunner in regulating digital finance, notably in the fields of payments, crypto-assets and cyber-resilience.

The EU financial system so far has proved to be resilient to the increasing geopolitical tensions and economic uncertainty and the European banking sector as a whole is well capitalised. Close coordination between relevant authorities and prudent risk management practices in the financial sector are key to addressing vulnerabilities effectively, while avoiding market fragmentation. The Commission, together with European Supervisory Authorities, European Central Bank and international regulatory bodies, continues to monitor risks, including those relating to non-bank financial intermediation and those that are prone to emerge with the increased use of decentralised finance structures. The ongoing reviews in banking, insurance and anti-money laundering will further strengthen financial sector resilience. The current economically challenging environment make these efforts even more urgent.

The Capital Markets Union aims to develop and integrate EU capital markets in order to improve financing and investment opportunities for individuals and companies. It supports the Commission's main political objectives such as sustainable economic growth, the green and digital transitions, macroeconomic resilience, global competitiveness of European firms and the EU's open strategic autonomy.

The need to address the effects of climate change and environmental degradation has emerged as one of the defining challenges of our era. The EU is confirming its leadership with the Green Deal responding to this challenge. EU **sustainable-finance policies**⁵¹, based on the EU's taxonomy, disclosure rules for non-financial and financial companies, investment tools, including benchmarks, and a proposal for a European green bond standards, support the green transition by helping to facilitate private funding to green projects and companies. Further progress is required in order to complete the implementation of the EU sustainable finance agenda, and foster usability, inclusiveness, transition finance and the resilience, as announced in the Renewed Sustainable Finance Strategy⁵².

⁵¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0390>.

⁵² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0390>.

1.5.Enablers of a well-functioning Single Market

We can assess the functioning of the Single Market by looking at its progress as regards goods and services, people and capital. However, we can also profitably analyse the Single Market from the perspective of its enablers. Competition policy, trade policy, standards, public procurement policy, intellectual property rights and transport policies all help to complete the Single Market. Barriers in these areas can help us identify potential for further progress because improving these enablers can help achieve welfare gains.

Competition policy

Competition policy, and its enforcement, is a key pillar of the Single Market. It ensures that markets remain open, competitive and dynamic. It sets predictable market conditions, enabling companies to send and receive the right price signals to make the necessary investments and offer a better choice of innovative products and services at affordable prices. It addresses behaviours that lead to fragmentation of the Single Market, helping to preserve a level playing field. It also enables strong and diversified supply chains, helping to increase the Single Market's resilience. Competition policy and enforcement enable the EU industry to lead the green and digital transitions and foster the resilience of the Single Market. The in-built adaptive capacity of competition rules is essential to address both the ongoing crises that affect the EU and the longer-term challenges of the twin transition.

In specific terms, it is estimated that interventions concerning mergers, cartels and antitrust generated direct customer savings in the range of EUR 12-21 billion per year in the period 2012-2021⁵³. Competition enforcement also generates indirect deterrence effects and positive non-price effects on innovation, quality, and productivity which are likely to be significantly larger, but also more difficult to calculate. These effects are particularly beneficial for citizens and businesses in periods of high inflation. Recent Eurobarometer surveys⁵⁴ also highlight the value of competition policy and well-functioning markets. Among citizens, a large majority agrees that competition allows for more choice for consumers (83%), that it encourages innovation and economic growth (82%) and allows for better prices for consumers (74%). On the business side, a large majority of SMEs find that competition policy encourages innovation (89%), allows for more choice (84%) and helps EU companies become more competitive on global markets (73%).

Cohesion policy

Cohesion policy is a major contributor to the integration of EU markets. It aims to foster sustainable growth, promoting the integration of regional economies, strengthening infrastructure, fostering innovation, uptake of digital technologies and foreign direct investment flows. By promoting a balanced and sustainable development of Europe's regions, it contributes to the wide geographical and societal dissemination of the benefits associated with the integration of EU markets. Since its inception, the financial resources for addressing economic and social imbalances at Community level have grown substantially. Originally below 4% of the Community budget, today they represents more than one third of the budget. Cohesion policy is also a major source of financing of growth and competitiveness of SMEs, and investments in human capital contribute to further integrating EU labour markets.

⁵³ https://competition-policy.ec.europa.eu/publications/competition-policy-briefs_en (Issue 1, 2022).

⁵⁴ [Citizens' perceptions about competition policy - October 2022 - - Eurobarometer survey \(europa.eu\)](#), [SMEs' expectations for an effective competition policy - October 2022 - - Eurobarometer survey \(europa.eu\)](#).

Standards

The EU's ambitions towards a climate neutral, circular, digital and resilient economy cannot be delivered without European standards. The fast pace of innovation, our green and digital ambitions and the implications of technological standards for our EU democratic values require an increasingly strategic approach to standardisation. The Standardisation Strategy of February 2022 outlined a new approach to standards within the Single Market, as well as globally, to ensure a stronger and globally competitive European standardisation system with the EU values at its core.

Having a strong global footprint in standardisation activities and leading the work in key international fora and institutions will be essential for the EU to remain a global standard-setter. Important actions have since been launched or implemented. The co-legislators adopted the legal amendment to Regulation 1025/2012 on European standardisation, which strengthens the integrity of the decision-making process in European standardisation organisations for harmonised standards, the Commission nominated a Chief Standardisation Officer and launched the High-Level Forum on Standardisation to bring more high-level alignment between EU policy and standardisation priorities. Important international dialogues are taking place - for example in the context of the EU-US Trade and Technology Council (TTC) - where alliances with like-minded partners on strategic standardisation matters are brokered. In the research and innovation field, a standardisation booster and code of practice for researchers on standardisation are rolled out, projects on the pre-normative needs of industrial ecosystems and education and skills aspects are being launched in 2023. During the past decade, building blocks of the Connecting Europe Facility, such as eID, eDelivery and eSignature, promoted the adoption of open standards and technical specifications, enabling interoperability across borders and sectors. An EU foresight on future standardisation needs for the green and digital transition, such as circular technologies⁵⁵, is developed on the basis of research and innovation insights, in line with the Standardisation Strategy.

Public procurement

Given the vast size of the public procurement market, estimated at some 14% of EU GDP, public procurement is an important enabler of a well-functioning Single Market. Public Procurement Directives make it easier for companies to bid cross-border, allow for joint-cross border procurement which involves buyers from two or more Member States. The current rules make it less complex for SMEs to access public procurement market, giving them more possibilities to participate in public contracts.

Intellectual Property

Intellectual property (IP) plays a key role in ensuring that the Single Market can deploy its full potential and lead its green and digital transformation. Intellectual property rights create the necessary incentives to support innovative companies and SMEs to scale up. It is essential to accelerate the uptake of innovative solutions and to develop new technologies, products, and services to address the societal challenges⁵⁶. They do not only enable them to exploit the benefits of the Single Market but also to compete globally on a level playing field, for example with the new EU scheme protecting geographical indications for craft and industrial products. The IP rights also play an essential role in supporting European companies in their efforts to reduce dependencies on critical innovations and technologies, for

⁵⁵ ERA Industrial Technology Roadmap for circular technologies and business models.

⁵⁶ Implementing the 2020 IP Action Plan the Commission is developing a Code of practice on intellectual assets management for knowledge valorisation, which will be published early 2023.

example by promoting transparency and EU high standards, facilitating licensing to share IP, encouraging the development and increasing the technological uptake of standard essential patents, promoting data sharing and improving tools to cope with crisis situations like compulsory licenses.

The Commission has been working to ensure that EU innovators have access to fast, effective and affordable protection tools through the future Unitary patent planned for 2023, modernising EU legislation on industrial designs, and revamping legislation on patents. Taking into account that companies that own intellectual property rights have 55% higher revenue per employee than firms which do not, as well as a higher chances to succeed and better access to finance, the Commission is rolling out, jointly with the EUIPO, a SME Fund to boost the uptake of intellectual property rights by European innovating SMEs with “IP vouchers”. The goal is to ensure that EU SMEs protect their products, services and innovations in the Single Market and beyond, with registered trademarks, designs, patents and, soon, plant varieties rights.

Single Market Programme

With EUR 4.2 billion over the period of 2021-2027, the Single Market Programme provides an integrated package to support actions that strengthen the Single Market. The Programme provides funding to improve market surveillance, problem-solving support to citizens and business, enhanced competition policy, support SMEs competitiveness and sustainability, ensure food safety, consumer protection, support consumer and end-users in financial services, specific activities in the field of financial reporting and auditing standards, and European statistics.

1.6. The EU Single Market integration in international comparison

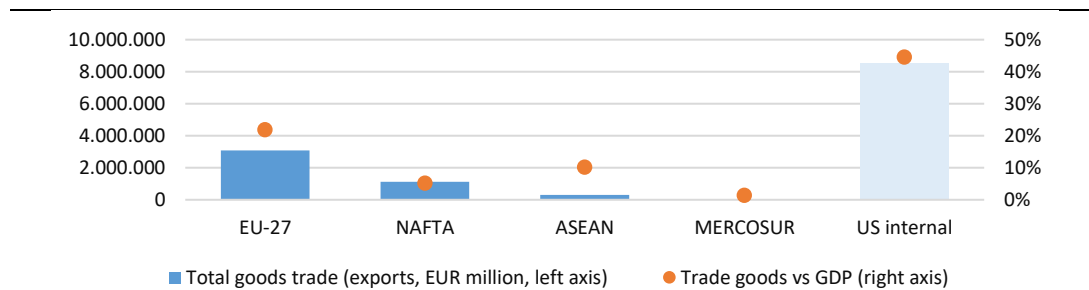
The EU Single Market has not only integrated previously distinct national markets by removing barriers to trade but also by setting common regulations to establish a level-playing field based on common competition policy. Figure 9 highlights that the EU can be considered highly integrated overall in the area of goods, both in terms of total trade as well as trade compared to the size of the specific economic bloc concerned⁵⁷. Interestingly, this is confirmed by recent research showing that over the past decades the EU has become more integrated than the US from a regulatory standpoint with stricter requirements in the EU for Member States to accept internal flows of goods and services than exist in the US internal market⁵⁸. In addition, intra-EU trade costs in goods are estimated to be lower than trade costs faced when trading products across US federal states⁵⁹.

Figure 9: Trade integration (goods) of the EU versus other economic blocs (2019)

⁵⁷ Intra-US goods trade is at significantly higher levels than intra-EU goods trade. Still, it should be taken into consideration that US integration has taken place over a much longer time span and on the basis of a common language. In addition, when accounting for the differences in number of states (51 versus 27) intra-EU and intra-US integration appear to be at similar levels: the ratio (*average bilateral trade flows between states*) / (*average economic size of a state*) is similar for both EU and US in the area of goods.

⁵⁸ Parsons, Matthijs, Springer (2021). Why Did Europe’s Single Market Surpass America’s?

⁵⁹ Head, K., & Mayer, T. (2021). The United States of Europe: A gravity model evaluation of the four freedoms. *Journal of Economic Perspectives*, 35(2), 23-48. Overall, the costs associated with cross-border trade within the EU has been reduced by about 42% since 1997.



Source: European Commission analysis based on Eurostat, UN Comtrade, WorldBank and US Freight Analysis Framework

The Single Market has progressed beyond the original lifting of trade barriers and competition dimensions, having achieved a notable degree of monetary and fiscal integration with the establishment of a single monetary authority (the European Central Bank) and currency (the euro) among some member states. This has in turn supported the principal objectives of the Single Market by facilitating trade, easing labour and capital mobility, reducing transaction costs, facilitating price stability and increasing resilience to economic shocks.

The EU is a *sui generis* political and institutional system, with an unparalleled level of integration, particularly with regards to its social and cultural aspects. Compared to other regional integration blocs, which predominantly focus on free movement of goods, the EU Single Market also promotes the equally important dimension of free movement of people. This is reflected in initiatives such as ERASMUS+ programme for mobility of students, and the Erasmus programme for entrepreneurs⁶⁰, the Bologna Process bringing more coherence to higher education systems across Europe⁶¹, and abolishing roaming surcharges within the EU.

Compared with the EU, a number of a regional groups focus largely on economic integration and do not seek comparable levels of integration on political, fiscal or monetary policies. For example, the Agreement between the United States of America, the United Mexican States, and Canada (USMCA)⁶² is a Free Trade Zone in North American primarily seeking economic cooperation by reducing tariffs on goods and services in order to facilitate trade. In USMCA, while trade of goods and services is relatively free, movement/mobility of people is not facilitated (with all three members having separate strict immigration policies), and more extensive policy measures such as those used to facilitate intra-EU trade (common currency and competition policy) are not sought under the Free Trade Agreement.

Other ‘supranational’ political and economic projects fall short of the EU’s ambitions. This is for instance the case of ASEAN⁶³, which to some extent similarly to the EU, is an ‘intergovernmental’ association (although without similar supranational institutional structures), between states in East and South-East Asia. Currently, ASEAN provides only an economic framework to facilitate bilateral cooperation between Asian countries, but it does not have an aspiration to become a fully integrated ‘Asian Union’.

⁶⁰ In 2021, almost 640 000 EU citizens studied, trained or volunteered abroad in around 126 900 organisations to work in more than 20 400 projects.

⁶¹ While the Bologna Accord is not an EU initiative, all EU member states and the EU itself are signatories, and it is reflective of higher ambitions for integration within the Single Market.

⁶² Effective from 2020, formerly known as the North America Free Trade Agreement, or NAFTA from 1994 to 2020.

⁶³ Association of Southeast Asian Nations including Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

An example of a more ambitious intergovernmental organisation focused on economic cooperation is the Southern Common Market, also known as MERCOSUR. MERCOSUR has 4 full members (Argentina, Uruguay, Paraguay and Brazil) and several associate countries⁶⁴. Participating countries of MERCOSUR have the ambition to eliminate non-tariff barriers and have a common competition policy to complete its internal market, in a similar way to the EU. On the other hand, MERCOSUR members do not wish to institutionalise MERCOSUR into a supranational political body promoting further economic and political integration. Despite having a MERCOSUR Parliament, all country members prefer little political integration with minimal regional bureaucracy and limited common policies.

The Single Market has also inspired other regional groupings through its global outreach regional partnerships and governance systems. For example **the African Union** bases the framework of its economic partnership agreement to a large extent on the Single Market. Equally, its governance structure appears to be mirroring the institutional makeup of the EU.

1.7.Projection of EU rules and standards: the “Brussels effect”

The scale of the Single Market together with the EU regulatory leadership, the ability to shape international standards and project EU standards and values, provide a vital tool for Europe to project its interests, in a time of big geopolitical challenges. The European Union and its stakeholders promote work in international standards-setting bodies to develop global standards in line with EU values, interests and legislation. When this is not possible, the European Commission promotes elaboration of world-class European standards with international relevance. Because of the economic importance of the Single Market, the impact and relevance of the EU’s rules and values, such as its high standards on safety, environmental and data protection are enhanced and create an important economic leverage and clout internationally, a phenomenon referred to in academia as the ‘*Brussels effect*’⁶⁵.

According to Bradford (2012), the Brussels Effect is “the EU’s unilateral power to regulate global markets”⁶⁶, which is contingent on the EU’s market power. The “Brussels effect” is measured through the use of **five key factors**⁶⁷:

1. **Market size:** The extent of any state’s market power depends on the attractiveness of its consumer market compared to alternative markets available⁶⁸. Because of the attractiveness of the Single Market producers throughout the world adjust their production standards to meet EU regulatory requirements to ensure continued access to the European market and its large and affluent customer base.
2. **Regulatory capacity:** The EU’s ability to design rules and enforce them, including under the supervision of European regulatory authorities affords it significant leverage in imposing regulatory requirements and sanctions to companies in case of non-compliance, via its competition, market surveillance, or trade defence instruments frameworks, among others.
3. **Stringent standards:** Due to the force of its Single Market, the EU has the ability to impose stringent and convincing standards (notably social standards), hence fostering a ‘race to the top’.

⁶⁴ Venezuela is a full member which has been suspended since December 2016. Associate countries are Bolivia, Chile, Colombia, Ecuador, Suriname, Guyana and Peru.

⁶⁵ E.g. Bradford, Anu (2012), « The Brussels Effect », Northwestern University School of Law, Vol.107, No.1, p3.

⁶⁶ Bradford, Anu (2012), « The Brussels Effect », Northwestern University School of Law, Vol.107, No.1, p3.

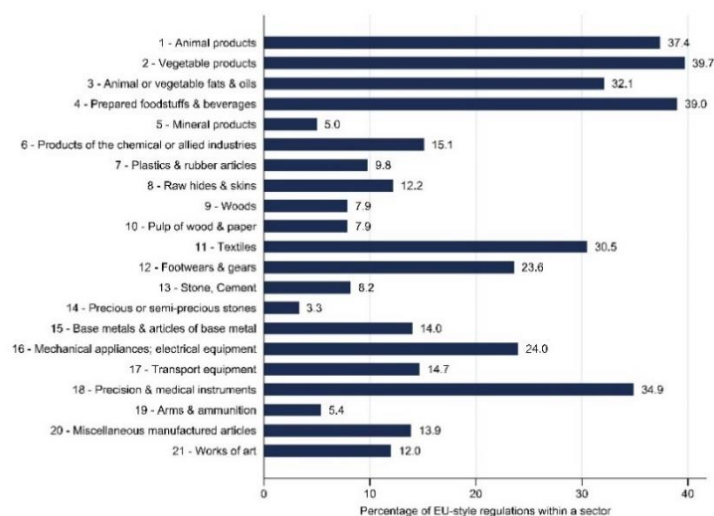
⁶⁷ Ibid.

⁶⁸ Attractiveness is measured by the number and affluence of potential consumers, which is why the EU is arguably a more attractive destination than the US (due to a higher number of potential customers) and China (thanks to a more affluent population).

4. **Inelastic targets:** With nearly 450 million customers in the Single Market⁶⁹ which do not need to travel to other countries to buy their products, firms need to comply with EU standards to guarantee that their goods are sold in the EU. Therefore, EU regulatory standards can be imposed on global companies seeking to access the lucrative EU market.
5. **Non-divisibility of production/supply:** by imposing its regulatory requirements within its own borders the EU can encourage the adoption of EU norms globally. Instead of producing and exporting different products with different national/regional regulatory standards to different countries, firms may align themselves to the Single Market and EU regulations, in order not to split their production lines.

Certain sectors see a particularly important uptake of EU-style regulations by third countries⁷⁰. Figure 10 shows the share of EU-style regulations in the total number of regulations adopted by 83 third countries in a given sector over the 2009-2019 period. A regulation is defined as the combination between a detailed measure (either sanitary and phytosanitary measures or technical product requirements) and the product it applies to. It is considered to be “EU-style” if the EU has a similar measure in place on the same product adopted at most five years before. Considering the period 2009-2019, the sectors with the highest uptake of EU-style regulations are *Vegetable products*, *Prepared foodstuffs & Beverages*, *Animal products*, *Precision & medical instruments* and *Textiles*, where more than one third of all regulations adopted in the sector in question are similar to the EU. In the sectors corresponding to *Mechanical appliances; electrical equipment* and *Footwears & gears* between 20% and 30% of all regulations are similar to the EU. Finally, sectors such as *Products of the chemical or allied industries*, *Transport equipment*, *Base metals & articles of base metal*, and *Miscellaneous (including toys)* have an uptake of EU-style regulations of more than 10%.

Figure 10: Share of EU-style regulations in the total number of regulations adopted by third countries within a sector over 2009-2019



Source: European Commission calculations (paper forthcoming) based on the Non-Tariff Measures data from TRAINS-UNCTAD, including detailed information on Sanitary and Phytosanitary (SPS) Measures and Technical Barriers to Trade (TBTs) for 83 countries. In this context, a

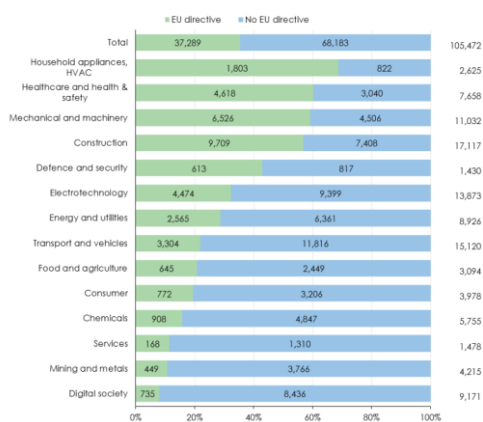
⁶⁹ 446.8 million in 2022. Source: <https://ec.europa.eu/eurostat/databrowser/view/TPS00001/bookmark/table?lang=en&bookmarkId=6ef61f16-dadc-42b1-a6ce-3ddfda4727e8>.

⁷⁰ Based on detailed data on Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBTs) from UNCTAD – TRAINS.

regulation refers to a combination of a specific non-tariff measure (either SPS or TBT) and the product to which it is associated. For instance, storage transport conditions for oranges and storage and transport conditions for orange juice are considered as two different regulations.

Besides mandatory regulations, third countries also voluntarily adopt EU standards, mainly in sectors such as *Construction activities, Transport and vehicle standards and Electrotechnology standards*. According to Christen et al. (2022)⁷¹ and as shown in the figure below, the highest number of adopted standards by third countries in 2021 refer to construction activities (16% of all active standards adopted by third countries), transport and vehicle standards (14%), and electrotechnology standards (13%). Many of these standards are also equivalent to International Standard Organization (ISO) or the International Electrotechnical Commission (IEC) standards. This reflects not only the EU’s good track record in translating international standards to European standards, but also its capacity (the Brussels effect) to speed up the adoption process of these standards in third countries. The sector corresponding to household appliances and Heating, ventilation, and air conditioning (HVAC) is characterized by the highest adoption by third countries of EU standards with an underlying EU directive in 2021 (69%). Other sectors with an important rate of adoption by third countries of EU standards following an EU directive are healthcare and health & safety standards sector (60%), and the mechanical and machinery sector (59%).

Figure 11: Sectoral distribution of standards adopted by third countries in 2021



Source: CEN and CENELEC (2021). Extracted from the report “The Brussels Effect 2.0. How the EU Sets Global Standards with its Trade Policy” by Christen et al. (2022).

When focusing on a particular example, that of the EU Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Figure 12 below shows the number of REACH related standards developed by CEN (the European Committee for Standardization) and adopted by other countries. According to Christen et al. (2022), the REACH related CEN standards the EU have been adopted as national standards by the standard setting bodies of Albania, Bosnia and Herzegovina and Morocco. The most adopted CEN standard is relevant for the determination of certain restricted substances used for the coloration of textiles. The Chinese standard setting organization (SAC) also adapted a REACH-associated CEN standard relevant for demonstrating the conformity of articles with the restriction on nickel (a substance which may cause allergic reactions).

⁷¹ E. Christen, B. Meyer, H. Oberhofer, J. Hinz, K. Kamin and J. Wanner (2022), "The Brussels Effect 2.0 How the EU Sets Global Standards with its Trade Policy", FIW – Research Reports, N°07.

Figure 12: Number of adopted standards driven by the EU REACH Regulation over time



Source: CEN and CENELEC (2021). Extracted from the report “The Brussels Effect 2.0. How the EU Sets Global Standards with its Trade Policy” by Christen et al. (2022).

eInvoicing is another example of an area, where the EU benefits from the “first-mover advantage”. Interest in the European model based on the EU standard for eInvoicing⁷² is growing internationally. The EU champions digital partnerships with likeminded third countries and promotes a free flow of data with trust while maintaining the European values and leadership in protection and an appropriate level of personal data protection for cross-border data flows. Countries, such as Australia, New Zealand, Japan and, in certain fora, US, which are adopting models similar to the EU model, are favouring eInvoicing as a quasi-mandatory element in all formal and informal trade discussions under the digital trade chapter, bilateral(including those with the EU) and multilateral. eInvoicing is a key element of the “Digital Trade Principles”, an output of the non-binding Digital partnerships⁷³.

2. Improving the availability of goods and services, skills, technologies and investments in the Single Market vital for achieving EU strategic priorities

A lot has been achieved in integrating the Single Market over the last 30 years. Important barriers have been removed, and essential rules for free circulation of people, goods, services and capital have been harmonised. (See Chapter 1 presenting the benefits and main achievements of the Single Market over the past 30 years).

⁷² The EU developed its system quite early with Directive 2014/55/EU on electronic invoicing in public procurement and the EU Standard designed by CEN and published by the Commission in 2017. To facilitate access of companies to cross-border public procurement, suppliers in public procurement benefit from the possibility of sending electronic invoices to the Public authorities in different Member States using the same EU standard for electronic invoicing. The public authorities have created IT systems to be able to accept these invoices as the Directive obliges them to accept and process any electronic invoice compliant with the EU standard.

⁷³ Digital Partnerships with Japan, Japan, Singapore and South Korea are expected to be agreed/signed in 2023. The Commission will pursue in 2023 discussions with other countries interested in the European model, including possibly Egypt, Malaysia, Morocco, United Arab Emirates.

However, the environment in which the Single Market operates today is significantly different: Challenges such as increasing geopolitical tensions, global competition, climate related challenges, and risks related to strategic dependencies pose threats that were unknown or were much less pressing than thirty years ago. Many of those challenges already impact or have the potential to negatively impact the smooth functioning of the Single Market and could spill over and weaken the EU economic base. Supply chain challenges, from energy products (e.g. natural gas) and basic raw materials (e.g. magnesium) to high-tech products (e.g. semiconductors) require attention. Otherwise there is a risk of delaying the EU's economic recovery and slowing down our pursuit of the twin transitions. The current Russian aggression against Ukraine and high energy prices raise critical competitiveness challenges for the EU's Single Market and the twin transition. The State aid Temporary Crisis Framework⁷⁴, adopted by the Commission in March 2022 to tackle the economic challenges stemming from Russia's war against Ukraine, has enabled Member States to use the flexibility foreseen under State aid rules in order to support the economy, mobilising EUR 672 billion of national funding by 23 January 2023⁷⁵. In parallel, the Commission is also pursuing an unprecedented review of more than 20 of its competition rules and guidelines, making sure all competition instruments – mergers, antitrust and State aid control – remain fit for Europe's path towards the green and digital transitions and for a resilient Single Market.

A well-functioning Single Market plays a key role in the EU's competitiveness, strong economic base and open strategic autonomy. For example, the COVID- 19 pandemic showed the fragility of the Single Market (e.g. unilateral export restrictions imposed by Member States). At the same time, it also highlighted the power of the Single Market in enhancing resilience (e.g. addressing the supply crisis of personal protective equipment or scaling up COVID-19 vaccine production, and introducing solidarity lanes, etc.). Our defensive and offensive strategies have the Single Market at its core and they help the EU to remain open to trade and investment, competitive and connected to the world. Being assertive against unfair and coercive practices and ready to enforce rights, is in our DNA, and EU favours international cooperation to address global problems. This leads to a greener and fairer world, strengthens existing alliances and engages with many partners.

Well-functioning Single Market is indispensable for achieving the EU's strategic priorities. The Single Market provides the platform and scale for successful policy measures that have more impact. Measures at EU level are more effective in helping the EU reach its strategic objectives and respond to longer-term challenges, such as those caused by geopolitical changes, address strategic dependencies and accelerate the green and digital transitions.

The challenges that the EU is facing highlight the importance to give equal focus and priority to ensure goods, services, skills, strategic inputs (i.e. critical raw materials and decarbonised energy), transformational technologies and investments that businesses and individuals require are available and accessible within the Single Market. This will enable the EU to boost its competitiveness and productivity, make the most of the green and digital transitions and strengthen the EU's strategic autonomy.

⁷⁴ Amended on 28 October 2022.

⁷⁵ The TCF ensures that sufficient liquidity remains available to businesses, and compensates companies for the additional costs incurred due to exceptionally high gas and electricity prices. It will be in place until end 2023 helping target support to the economy, while limiting negative consequences to the level playing field in the Single Market. Prior to this, the State aid Temporary Framework enabled Member States to provide necessary support to businesses throughout the COVID-19 pandemic: since March 2020 and until end 2021, in close cooperation with Member States, the Commission adopted around 700 decisions and approved over EUR 3.13 trillion of State aid across the EU (out of this approved aid, Member States granted EUR 940 billion to undertakings).

The Single Market plays vital role for successful green and digital transitions in number of ways, such as facilitating fast and accelerated diffusion and uptake of clean and digital technologies, fostering transition towards circularity, steering investments in breakthrough technologies, in particular clean technologies and enabling businesses to access the required goods, services, skills, technologies, and decarbonised energy and investment.

Chapter 2 presents different aspects of availability that are needed for the Single Market to function smoothly and deliver on the EU’s objectives. These include ensuring availability of services, tackling supply chain challenges and boost supply chain resilience and strategic dependencies which are possible risks to availability in the Single Market, and in particular to delivering on green and digital transition. A particular focus is given to critical raw materials. This chapter also discusses the importance of ensuring availability of right skills and funding.

2.1. Services for consumers and businesses

Consumers and businesses benefit from the availability of goods and services across the EU. Consumers enjoy higher quality and cheaper products and services, businesses can not only offer their goods and services across Europe but also source goods and services from the European market. However, if services, which are in principle offered in the Single Market, are not available or accessible for citizens and businesses, the Single Market in services is not functioning as it should.

Tackling barriers in the area of services is particularly important, given the large potential for increasing cross-border trade and investment. Some types of barriers have proven to be persistent: 60% of the barriers that businesses report facing today are of the same type as were reported 20 years ago⁷⁶. Reasons behind lack of availability and accessibility of services include amongst other low trade and investment, a lack of skilled workers, regulatory and administrative burden, supply shortage of product inputs and low labour mobility. These are described in detail in other chapters of this report. Not all of these barriers fall within the scope of EU policy as many relate to national regulation and administrative as well as business practices. To encourage and support Member States reforms, the Commission has repeatedly issued recommendations to Member States on the regulation of services, as part of the European Semester and specifically in relation to professional services, to encourage and support Member States reforms.⁷⁷

The impact of a lack of availability of services concerns all industrial ecosystems of the EU economy and has a significant negative impact on the green and digital transition and on EU economic competitiveness. Examples of such disruptions can be seen in the construction ecosystem, for example, through delayed installation of clean energy technologies such as solar panels and heat pumps, in the tourism ecosystem (hotels, restaurants and travel providers offering reduced services) and in business services (lack of availability and choice, and high prices for industry sourcing those).

As shown in Chapter 1, comparisons between extra-EU trade in services and the Single Market for goods reveal that the Single Market in services has still a lot of untapped potential. The fact that the EU trades more services with non-EU partners than within the Single Market, confirming that services are tradable and many more are becoming tradable as a result of digitalisation.

⁷⁶ See “30 years of single market – taking stock and looking ahead”, European Commission 2022.

⁷⁷ COM(2021)385.

The green and digital transitions are creating additional demand for new types of services in ecosystems such as construction (e.g. energy audits, building insulation), renewable energies (e.g. installation of heat pumps, solar technologies), mobility (e.g. vehicle sharing), retail (e-commerce) and tourism (e.g. digital guides). Moreover, many services are changing in their nature as a result of digitalisation that allows, for example, professional services to be delivered increasingly from distance and across-borders. The intermediation of services via platforms has also created significant business opportunities and demand for new services, not least in tourism and proximity services. Ensuring the availability of such services in full respect of legitimate public interest objectives may imply services policy adjustments, such as the recent Commission proposal for a Regulation on short-term rentals⁷⁸.

Instead of a one-size-fits-all policy response, a combination of policy measures can make a difference and bring substantial benefits, by ensuring that that regulation is justified and proportionate, reducing administrative burden and enhancing cooperation between authorities, facilitating mobility of professionals and addressing the skills gap. Such measures will also need to be tailored to each industrial ecosystem, in particular for those having a high services content and potential for cross-border trade, as listed in Chapter 1.

In order to respond to the increasing demand for products and services accessible for persons with disabilities the European Accessibility Act⁷⁹ aims at increasing the availability of accessible products and services in the internal market by removing barriers created by divergent rules in Member States. Both companies and customers will benefit from the Act's common accessibility requirements. On the one hand, companies (in particular SMEs) will find it easier to trade with other EU countries and gain certainty that they can sell their products and services throughout the EU. On the other hand, as the Act will drive innovation, customers will benefit from a wider and more socially inclusive offer at more competitive prices.

2.2. Supply chain resilience and strategic dependencies

Supply challenges experienced over the last years, from energy products (e.g. gas) and basic raw materials (e.g. magnesium) to high-tech products (e.g. semiconductors), highlighted the need for better understanding and anticipating of strategic dependencies and vulnerabilities. The EU gains resilience from open world markets integrated in global value chains (i.e. through cost reduction, economies of scale, risk reduction, access to foreign inputs). However, supply chain disruptions can affect specific products and inputs that are particularly critical for society and the EU economy. Since 2020, a number of supply challenges occurred, originating from a number of sources (logistic disruptions due to lockdowns in China, price increases associated to higher input costs due to higher energy prices, and disruptions due to the war). Shortages, price increases or both have been documented for many products across different sectors, such as pharma, electronics, commodities or energy-related sectors.

Supply chain crunches and challenges risk delaying the EU's economic recovery and slowing down our pursuit of the twin transitions. The changing global geo-political setting is putting at risk the

⁷⁸ Setting down common conditions for data sharing between accommodation hosts, online platforms and public authorities. Proposal for a Regulation of the European Parliament and of the Council on data collection and sharing relating to short-term accommodation rental services and amending Regulation (EU) 2018/1724, COM(2022)571 final.

⁷⁹ DIRECTIVE (EU) 2019/882 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 April 2019 on the accessibility requirements for products and services.

security of supply of energy and of essential raw materials that are needed for successful green and digital transitions. Furthermore, the EU's commitment to the green and digital transitions will also increase the future needs for specific goods (e.g. raw materials) and technologies (e.g. batteries), creating additional supply and price pressures as well as new business opportunities.

Recent experience shows that an open and functioning Single Market has a key role in boosting the EU resilience against supply chain challenges. The size of the Single Market and the potential it offers for diversification and collaborative production to build up capacity, in particular in EU strategic areas, substantially reduce vulnerabilities and reinforce EU resilience. This has been clearly demonstrated by the handling of the supply crisis of personal protective equipment and the scaling up of vaccine production during the COVID-19 pandemic. The two examples show that the Single Market acts as the EU's raincoat in crisis, reduces the risk and adverse effects of major economic shocks, which ultimately affect our industries and businesses. Ongoing efforts to build-up EU capacities at all stages of the raw materials value chain and across the EU provide another telling example of the strength of the Single Market as a driver of resilience.

Since the start of the COVID-19 pandemic, the Commission, Member States and stakeholders have stepped up efforts to map out the EU's strategic dependencies, assess related risks and take action to address them. This section discusses in greater detail the ongoing work to better understand strategic dependencies, monitor of supply chain challenges and improve the EU framework to better anticipate and react in a crisis. Effective competition enforcement prevents anticompetitive agreements that would limit product availability or hike prices. At the same time, substantive measures are being rolled out to alleviate identified strategic dependencies, in particular those critical for the green and digital transitions, through trade and diversification and by enhancing build-up of domestic capacity in strategically important sectors and supporting circularity. The latest state of play of the measures rolled out is outlined in the second part of section 2.2.

2.2.1. Better understanding strategic dependencies, monitoring supply chain challenges, and improving the EU framework to better anticipate and react in crisis

Commission services work towards better understanding the key strategic dependencies: In the context of gathering a better understanding of the EU's strategic dependencies and monitoring supply chain risks, the Commission completed two analyses (May 2021 and February 2022) on the EU's strategic dependencies and capacities. These included 11 in-depth reviews of strategic areas, such as raw materials, active pharmaceutical ingredients, li-ion batteries, clean hydrogen, semiconductors and cloud and edge computing, rare earth magnets and magnesium, solar PV, chemicals, cybersecurity and IT software. In addition, several other relevant exercises to map dependencies and risks have been completed often in collaboration with industry stakeholders. As an example, Box 1 discusses the impact of supply chain disruptions in construction ecosystem.

Further efforts are being taken to ensure a better monitoring on supply chain risks. Events such as the COVID-19 pandemic and the Russian aggression against Ukraine have highlighted the fragility of certain global supply chains. Hence, the importance of monitoring them and developing early warning systems that assess the risk of bottlenecks. This is particularly relevant when disruptions affect critical

products and inputs for our society and our economy, such as the raw materials used upstream by technologies needed for the green transition.

However, existing monitoring tools are rather scarce and in the most cases do not allow the tracking of the real-time evolution of economic variables showing distress. This is understandable given the complexity and multi-dimensionality of supply chains. To partly bridge that gap, an indicator-based system has been built using very high-frequency information from customs data, which allows for a dynamic monitoring and captures early signals of distress in EU's supply chains.

The so-called "SCAN" (Supply Chain Alert Notification)⁸⁰ uses quasi-real time movements in quantities and prices - signalling possible mismatches between supply and demand to identify pressures and possible signs of bottlenecks. The two basic economic indicators are then complemented with additional ones in an attempt to identify the existence of underlying structural factors driving the stress. These additional indicators refer for example to the degree of EU dependency from foreign sources or to the existence of global single points of failure. SCAN has been so far applied to strategic upstream inputs into green technologies, given that monitoring the universe of traded products is neither desirable nor practical.

The COVID-19 pandemic demonstrated that the EU's dependencies on external supplies of key medical countermeasures including vials, syringes, personal protective equipment and other products essential for the production of therapeutics, vaccines, and diagnostics can adversely impact security of supply in the Single Market. The work of the Commission's Health Emergency Preparedness and Response Authority (HERA) also covers the industrial dimension of pandemic preparedness and the supply chain for crisis-relevant medical countermeasures. In the preparedness mode, HERA aims to identify bottlenecks within and outside the EU and market failures that could limit production capacity of medical countermeasures and raw materials during a health crisis, including through collecting feedback from industry via the Joint Industrial Cooperation Forum. HERA is also establishing a state-of-art IT system for intelligence gathering, threat assessment, mapping medical countermeasures, supply chain risk management and management systems for stockpiling. The transparency of the supply chain will serve as an early warning system and will also allow the Commission services to identify structural deficits with regard to the industrial capacity of certain critical goods necessary for health emergencies. In addition, in April 2022, the Commission announced the creation of EU FAB, a network of manufacturing facilities which aims to ensure that sufficient and agile manufacturing capacities for different vaccine types are available and can be activated quickly in the event of a public health emergency.

For pharmaceuticals, the Commission clearly highlighted in the 2020 Pharmaceutical Strategy for Europe the need to strengthen the security of medicines supply across the EU and avoid shortages. As part of these efforts, a Staff Working Document⁸¹ was published in October 2022 underlining ongoing and new actions to identify critical medicines, strategic dependencies, optimise regulatory pathways, promote manufacturing, and improve procurement, intelligence and global cooperation to strengthen supply chains for medicines. A particular attention was put on active pharmaceutical ingredients produced outside the EU and potential source of vulnerabilities for medicines supply chains.

⁸⁰ Amaral, Afonso, Connell, William, Di-Comite, Francesco, Herghelegiu, Cristina, "SCAN" (Supply Chain Alert Notification) monitoring system', Publications Office of the EU; <https://op.europa.eu/en/publication-detail/-/publication/2d1917be-3aee-11ed-9c68-01aa75ed71a1/language-en>.

⁸¹ Staff Working Document on Vulnerabilities of the global supply chains of medicines – Structured Dialogue on the security of medicines supply (europa.eu).

As supply chain disruptions impacted many businesses, a Supply Chain Resilience platform was set up by the Enterprise Europe Network (EEN) to assist impacted European businesses and mobilise business support organisations all over Europe to find alternative solutions. The platform was originally used to identify supply chain disruptions for the EU. Initially established as a long-term matching platform for medical supplies at the beginning of the COVID-19 pandemic, it proved very efficient in addressing supply chain bottlenecks⁸². Since March 2022, it has been further developed as a cross-sectoral global platform, offering European and Ukrainian SMEs a partner search tool to assist with an increasingly urgent need for assistance to companies that have lost their import/export markets *inter alia* in Ukraine, Russia, Belarus, and due to the blockade of the Suez canal and closing of major Chinese and Asian harbours due to lockdowns. It offers the opportunity to make targeted and time-efficient contacts with all actors in industry, academia and government⁸³.

The goal of the platform is to help interested European companies gain access to the raw materials and/or (semi)-finished goods they need to keep production going. Furthermore, in order to face the crisis in Ukraine and keep Ukrainian goods moving, the European Commission launched the EU-Ukraine Solidarity Lanes Business Matchmaking Platform. This platform, under the coordination of EEN Ukraine, contributes to the implementation of one of the actions foreseen under the EU-Ukraine Solidarity Lanes Action Plan and brings EU and Ukrainian businesses together to find practical solutions to the export of agricultural products from Ukraine. The two platforms demonstrated significant capacity. The Supply Chain Resilience Platform reached the impressive number of 862 registered European and International companies and almost 400 marketplace opportunities. The platform offers a very good potential to support European companies, with minimal effort on their behalf. First partnerships came out of it, 300+ meetings between companies were matched so far. The total number of co-organisers is 160, which are EEN organisations, clusters and international trade organisations linked to the platform, making it a huge success.

Most recently, the Commission proposal for a Single Market Emergency Instrument⁸⁴ aims to leverage the power of the Single Market to anticipate and react to the next crisis, establishing a crisis management framework to pre-empt and limit the impact of a potential crisis on the EU's industry and economy. It will support a strong and open Single Market in times of crisis by putting in place a new governance structure as well as frameworks for contingency planning, vigilance and emergency, with the objective to safeguard the free movement of persons, goods and services and maximise the availability of products needed in the crisis response.

Box 1: Case study: Impact of supply chain disruptions in the construction ecosystem

The construction industry is highly dependent on a number of supply chains, in particular those of steel, aluminium, ceramics (bricks and tiles), glass, wood, bitumen and cement and concrete. Price spikes and capacity cuts in these supply chains have immediate and strong impact on the construction industry, affecting price competitiveness, negatively affecting Member States budgets for public works, and beyond. Several product groups in the construction ecosystem show an important degree of import concentration⁸⁵. The main strategic dependencies for construction products are at the beginning of the value chains and at the

⁸² Annual Single Market Report 2022.

⁸³ Interested parties, and especially European SMEs can insert their profiles in the resilience platform and identify alternative suppliers of raw materials and components. By promoting the platform, Network advisers can help European companies to retain, re-structure or replace existing supply chains from markets now cut off from international trade.

⁸⁴ https://ec.europa.eu/commission/presscorner/detail/en/ip_22_5443.

⁸⁵ Such as cooling and heating products, with large import shares from China, Turkey and the United Kingdom; copper wire, with large import shares from Turkey, and plastics for sanitary use, with large shares from the United Kingdom and China. There are very few construction products with a high net import concentration, one of them being air conditioning systems, with more than half of EU demand being met by net imports.

level of raw materials⁸⁶. Moreover, the general move towards digitally powered smart buildings creates a dependence on electronic components. For example, a shortage of chips has recently caused problems in the production of solar panels (inverters), home automation and automatic window screens.

The Russian invasion of Ukraine has disrupted a number of the ecosystem's vital supply chains for construction: the sectors that depended on imports from Russia, Belarus or Ukraine, such as wood and steel, were most impacted. Geographically, the strongest impact occurred in the eastern countries of the EU (Finland, Baltic States⁸⁷, Poland, Slovakia and Hungary). Importantly, SMEs are more strongly impacted by such disruptions, due to their smaller physical stock, lower financial buffers and smaller bargaining power. On Figure 13, we see a strong increase of the percentage of companies reporting a shortage of material and/or equipment as a factor limiting their output, right after the beginning of the Russian invasion. By the end of 2022, the impact of this factor has fallen back to a pre-invasion level.

Figure 13

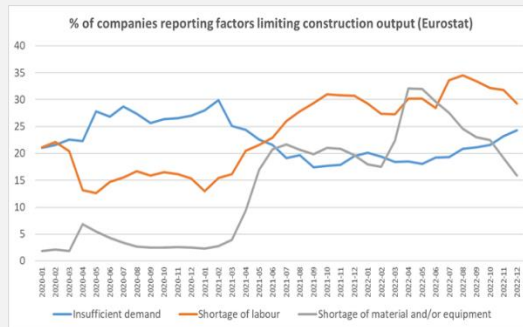
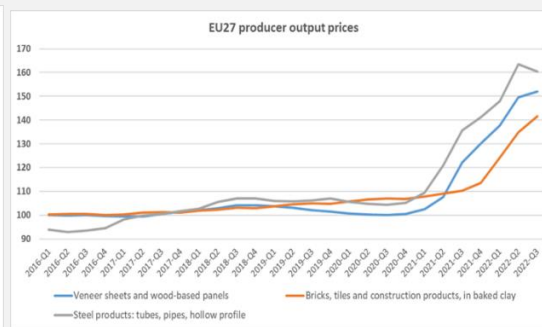


Figure 14: EU27 producer output prices for a section of construction products



After strong price increases during the period February-May 2022 for construction materials from wood and steel (see Figure 14), prices are now stabilizing after adjusting internal trade and transport routes, and also due to some slowing down of the demand. The initial strong differences in impact between the Member States were smoothed out as a result of these adjustments. Since July 2022, the main concern for the supply chains are due to the impact of high energy prices, such as cement products, bitumen, bricks, roof tiles, glass and aluminium profiles. Prices for these products are expected to rise further. Capacity cuts by producers, especially in the supply chains of ceramics, steel and aluminium, are invoking further price rises. Public authorities, acting as buyers of public construction or infrastructure have been strongly affected by the price and supply uncertainties in the construction sector. Public buyers receive a low number of tenders or even no tenders at all, due to economic operators avoiding the price risk of public contracts. To avoid this, public authorities can work with stronger price indexation mechanisms, but this in turn leaves the overall budget uncertain. In the case of running contracts, construction companies are faced with price spikes and supply chain problems, leading to requests for renegotiations of contracts in terms of price and delivery times and in some situations even leading the impossibility to execute contracts.

2.2.2. State of play of measures to mitigate strategic dependencies and develop strategic capacities

As shown during the COVID-19 pandemic, the Single Market can facilitate access and availability of the needed inputs, goods and services for European industry to withstand the headwinds in the short run. Also in the long run, the Single Market is essential to ensure resilience and competitiveness of the EU economy. Moreover, it can act as the catalyst of green and digital transformation of the EU's industrial ecosystems. The Updated Industrial Strategy of 2021 proposed a balanced mix of policy measures to address the EU's strategic dependencies and strengthen supply chain security along supply and value chains through trade and diversification and by developing EU capacities in strategic areas.

⁸⁶ Examples of main constituents are iron ore for steel making and bauxite for aluminium production. Strong dependencies exist for some, though non-constituent materials, but essential for production (e.g. magnesia for clay products, molybdenum and nickel for steel, fluorspar for aluminium and feldspar for glass).

⁸⁷ Specifically, the furniture industry in the Baltic States has suffered greatly.

Trade and diversification through international partnerships

Whenever possible, the EU is working with international partners to strengthen supply chains and underpin businesses efforts to diversify imports. For example, cooperation in the framework of the EU-US Trade and Technology Council aims to strengthen resilience across several of the areas for which the EU faces important strategic dependencies (e.g. raw materials, active pharmaceutical ingredients and semiconductors). To further enhance security on supply chains and raw materials, the EU is actively developing collaborations and coordination of policy actions with third countries, including through strategic partnerships on raw materials and full use of the broader range of trade policy. This is key to ensure access for the European industry to the needed raw materials for a broad spectrum of applications in the context of digital and green technologies, such as wind turbines, solar PV panels, electric vehicle drives, power tools, and electric bikes, etc., as well as defence and health. The EU-US Joint Taskforce on COVID-19 Manufacturing and Supply Chains has resulted in a common list of critical materials for the production of medicinal products, in particular COVID-19 vaccines and therapeutics for global supply chain monitoring.

EU continues pursuing international partnerships to increase supply chain security and diversify sources. New international partnerships have been concluded to increase supply chain security and availability of diversified sourcing options. As part of the Action Plan on Critical Raw Materials, the Commission is building partnerships with like-minded resource-rich countries, making use of all external policy instruments and respecting its international obligations (e.g. strategic partnerships on raw materials with Canada (from June 2021), Ukraine (July 2021), Kazakhstan and Namibia (both concluded in November 2022)). To diversify its supply chains further, the Commission is working towards establishing additional mutually beneficial raw material value chain partnerships with countries in Africa, Latin America, Western Balkans and with Australia, via trade and investment agreements or Memoranda of Understanding establishing cooperation on specific matters such as energy and raw materials. In addition, the EU's Digital Partnership with Japan (May 2022) focuses on building resilient supply chains for digital products and hardware (including semiconductors), with Singapore and South Korea having also expressed interest in developing Digital Partnerships.

Developing EU strategic capacities in key areas

The assessments of the EU's strategic dependencies from 2021 and 2022 found that many of the identified strategic dependencies fall within areas and technologies that are critical for green and digital transition. In the future, in many of these areas, the Single Market can play a strategic role, including in developing new capacities or strengthening the existing ones, for example through innovation and scale or by securing access to relevant raw materials.

Different policy measures are being rolled out to secure availability in critical areas by building European capacities. They range from industrial alliances accelerating activities that would not develop otherwise in the EU, facilitating stronger cooperation and joint action in specific industry sectors or value chains, targeted support for R&I, enhanced circularity and substitution, regulatory framework that stimulates innovation and investment in the EU, to mobilising funding - EU (e.g. RRF) and national. Key examples of enabling regulatory framework are the proposal for European Chips Act and the proposal for Critical Raw Material Act that the Commission is preparing, as announced in the State of the Union address (*See 2.2.3 on Critical Raw Materials*).

Horizon Europe and its predecessor, Horizon 2020 mobilise research and innovation in strategic value chains. Cross-border cooperation on technology development in European Partnerships with industry like Clean Hydrogen, Clean Steel, Processes4Planet, Innovative Health Initiative and Key Digital Technologies creates a common understanding of opportunities and challenges in innovative technologies for climate-neutrality, independence from fossil fuels, circularity and electronic components and systems in key EU industrial ecosystems. For example, the Battery Partnership (BATTEU) was established with industry to support research all along the battery value chain underpinned by a budget of EUR 925 million. Since the launch in 2021, EUR 270 million have been awarded to 40 projects in the batteries area. These partnerships enable systematic engagement with a variety of stakeholders and end-users, including standardisation bodies and international partners and they strengthen linkages within their respective ecosystems and along the value chains. This paves the way for faster and wider development of relevant standards for the Single Market, early identification of regulatory obstacles hindering the entry and roll-out in the Single Market and removing or reducing such obstacles for the Single Market through joint action including open innovation testbeds and regulatory sandboxes, where adequate.

As shown by the Battery, Hydrogen and Raw Materials Alliances, industrial alliances are valuable tools in strategic areas to accelerate activities that would not develop otherwise, to enhance resilience of strategic supply chains, identify investment needs, build project pipelines, identify regulatory bottlenecks and build new strategic capacities. Alliances can help to attract private investors to discuss new business partnerships and models in a manner that is open, transparent and fully compliant with competition rules. The work on the European Battery Alliance, launched in 2017, is ongoing and keeps producing value added for the battery industry by supporting development of an innovative, circular and sustainable battery eco-system in the EU, ensuring that Europe's emerging battery industry can compete on a level playing field. Since the launch of the alliance in 2017, a battery value chain in the EU emerged fast, driven by rapidly growing demand for batteries. The alliance helps to create a strong momentum and vast business opportunities in the battery value chain, and mobilised to date EUR 127 billion of mostly private funds in investment and estimated 111 industrial projects underway.

The Commission continues supporting industrial alliances; in 2022 new industrial alliances have been launched in areas of photovoltaics⁸⁸, renewable and low-carbon fuels value chains and zero emissions aviation. An alliance on space launchers is currently under review. (See Figure 15 – State of play of industrial alliances).

Figure 15: Overview of industrial alliances

⁸⁸ European Solar Photovoltaic Industry Alliance, https://single-market-economy.ec.europa.eu/industry/strategy/industrial-alliances/european-solar-photovoltaic-industry-alliance_en.



Source: European Commission

The European Solar Photovoltaic Industry Alliance was launched on the 9th of December 2022 to accelerate solar photovoltaic (solar PV) deployment in the EU. The objective is to develop an EU solar PV industrial ecosystem, to help secure and diversify supplies of solar PVs value chain components and supply raw materials, and scaling up EU manufacturing of competitive, innovative, and sustainable solar PV products. With the alliance's support⁸⁹, the EU could reach 30 Gigawatt of annual solar energy manufacturing capacity by 2025 across the full PV value chain.

Beyond Industrial Alliances, the Commission is also supporting High Level Discussion Platforms in strategic areas. European Hydrogen Week⁹⁰, European Sustainable Energy Week⁹¹, Raw Materials Week⁹² and EU Industry Days⁹³ became leading industry events, and provide platforms for dialogue, engagement and mobilisation. They bring together key stakeholders, can inform policymaking and drive innovation. The Raw Materials Week generates knowledge sharing between key stakeholders to address critical raw materials and helps to mobilise efforts towards a more resilient industry. The 2022 Industry Days stimulated discussions between industrial ecosystems on their green and digital pathways, which are essential to strengthen the resilience of companies and SMEs in Europe. Industrial Forum⁹⁴ Task Force 3 discussed in a number of workshops organised throughout 2022 specific topics in the area of strategic dependencies (i.e. energy, raw materials and chemicals), as well as horizontal themes such as the general understanding of strategic dependencies, skills and the circular economy. In the area of hydrogen, clean hydrogen partnerships are being built since 2017, and so far, 38 European Hydrogen Valleys have been created as a part of the Mission Innovation Hydrogen Valleys Platform.

For instance, the 2022 Raw Materials Week highlighted the importance to decrease dependencies while supporting EU industry competitiveness and green transition. The annual High-level

⁸⁹ The alliance will elaborate and implement a strategic action plan based by: identifying manufacturing scale-up bottlenecks and providing recommendations; facilitating access to finance, including by establishing commercialisation pathways for solar PV manufacturing; providing a framework for cooperation on the development and uptake; maintaining international partnerships and resilient global supply chains; supporting solar PV research and innovation; facilitating and increasing communication on circularity and sustainability; exploring and developing a skilled workforce for the PV manufacturing sector.

⁹⁰ https://www.clean-hydrogen.europa.eu/european-hydrogen-week-2022_en.

⁹¹ https://sustainable-energy-week.ec.europa.eu/index_en#:~:text=Homepage-,European%20Sustainable,20%2D22%20June%202023

⁹² From 14 to 18 November 2022. See <https://www.eurawmaterialsweek.eu/2022>.

⁹³ https://commission.europa.eu/strategy-and-policy/policies/business-and-industry/eu-industry-days_en.

⁹⁴ https://single-market-economy.ec.europa.eu/industry/strategy/industrial-policy-dialogue-and-expert-advice_en.

Conference focused on raw materials partnership and opportunities for Ukraine recovery, synergies on raw materials supply chain in Europe, and highlighted the need for an integrated energy system for a sustainable and resilient Single Market. The Raw Materials Week was centred on the 9th annual high-level conference of the European Innovation Partnership (EIP) on raw materials, a stakeholder platform bringing together representatives from industry, public services, academia, and NGOs, and focused on managing renewable energy transition, securing supply of raw materials, partnerships with Ukraine, and sustainable sourcing.

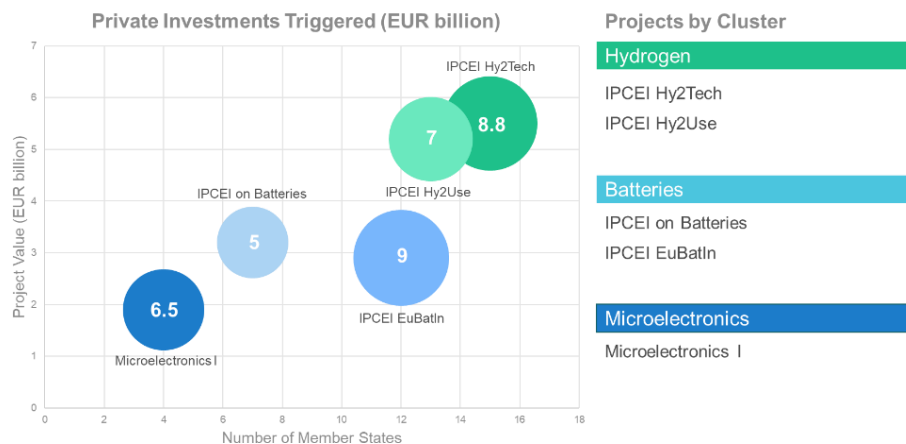
There has been significant private and public investments in the strategic areas of hydrogen, batteries, and semiconductors/microelectronics. In many of these areas, it was facilitated in part by Important Projects of Common European Interest (IPCEI)⁹⁵ designed to support breakthrough innovation and infrastructure in areas critical for EU open strategic autonomy and resilience, through close collaboration across industry, Commission and Member States authorities. In July 2022, the Commission approved the first IPCEI in the hydrogen technology value chain (“IPCEI Hy2Tech”) covering 15 Member States and 35 companies participating in 41 projects. The Member States will provide up to EUR 5.4 billion in public funding, which is expected to unlock additional EUR 8.8 billion in private investments. In September 2022, the Commission approved the second IPCEI focused on hydrogen infrastructure and industrial processes (“IPCEI Hy2Use”) covering 13 Member States and 29 companies participating in 35 projects. The Member States will provide up to EUR 5.2 billion in public funding, which is expected to unlock additional EUR 7 billion in private investments⁹⁶.

To date, 5 IPCEI projects have been approved by the Commission in the strategic areas of batteries, microelectronics and hydrogen representing a total of EUR 18.7 billion of national funding/State aid, triggering twice the amount in additional private investments (See Figure 16). Since the launch of the first IPCEI in the area of microelectronics, an increased number of Member States have participated in IPCEIs in these strategic areas. Furthermore, the Commission is currently assessing first information received for further IPCEIs on hydrogen, on cloud, health and a second IPCEI on microelectronics. The Commission will support efforts from Member States on potential IPCEIs focused on breakthrough technologies and innovation along the solar and wind energy and heat pumps value chains. The process is rather technical and requires close collaboration across industry, Commission and Member States authorities.

Figure 16: Overview of the existing IPCEIs in the area of batteries, microelectronics and hydrogen

⁹⁵ Important Projects of Common European Interest (IPCEIs) represent an important contribution to the achievement of Union’s strategic objectives, including the green transition and open strategic autonomy, notably in view of their positive spill-over effects. They bring together Member States and stakeholders throughout the EU to jointly undertake integrated and large-scale projects that provide significant benefits to the EU and its citizens, overcoming important market or systemic failures and societal challenges, which could not otherwise be addressed.

⁹⁶ The IPCEI Hy2Tech focuses on the development of key enabling hydrogen technologies and the IPCEI Hy2Use on hydrogen infrastructure projects and innovative projects for industrial applications of hydrogen.



Source: European Commission

REPowerEU⁹⁷ calls for accelerating the clean energy transition and expanding the EU’s manufacturing capacity for clean energy technology. In the area of renewable energy such as hydrogen, REPowerEU doubled the 2030 ambition to produce ten million tons of renewable hydrogen in the EU each year, and importing a similar quantity (including ammonia). To bridge the investment gap and connect future supply and demand, there is a need to create a mechanism that will link future producers and buyers of hydrogen. In this way, future buyers could provide security to producers by financing their activities up front, thereby speeding up the development of the European hydrogen market. In this context, and in order to mobilise the commensurate funding, a new European Hydrogen Bank will help guarantee both the purchase of hydrogen and hydrogen derivatives from outside the EU, as well as domestic production and market formation. The domestic part of the Hydrogen Bank will be implemented through hydrogen production auctions run and funded by the Innovation Fund. The Hydrogen Bank will be able to invest EUR 3 billion to help building the future market for hydrogen, including through a mechanism of matching supply with demand. Additionally, the Commission is facilitating high level discussions between European players (from both the private and the public sector) to identify short term bottlenecks and long-term challenges for industrial scale up and capacity building of new technologies to achieve European targets set for the future years. For example, the new **Clean Tech Europe platform** held its first meeting on 30th of November 2022. The Clean Tech Europe platform aims to find solutions for technologies made in Europe.

The European Chips Act⁹⁸, as a comprehensive set of measures, aims to ensure the EU’s resilience and technological sovereignty in semiconductor technologies and applications. The Chips Act initiative rests on three pillars: (1) Chips for Europe Initiative, (2) Security of supply and (3) Monitoring and crisis response. The first pillar aims to support large-scale technological capacity-building and innovation in the Union and the initiative will support the development of pilot lines to prototype and scale up innovation and serve as a bridge from the lab to the fab. The pilot lines will be open to users on a non-discriminatory basis and will provide benefits to all actors across the Union, including researchers, designers and SMEs. The initiative will also support design capacities and a network of competence centres across the Union. The second pillar focused on security of supply of semiconductors in the Union

⁹⁷ COM/2022/230 REPowerEU Plan.

⁹⁸ The package, proposed in February 2022, includes a Communication, a Proposal for a Regulation, and a Recommendation together with a Proposal for amending the Regulation establishing the Joint Undertaking under Horizon Europe (Chips Joint Undertaking).

aims to attract investments and enhance production capacities in semiconductor manufacturing, as well as advanced packaging, test and assembly. The third pillar will enable the Union to anticipate future chips crises, addressing them through close coordination with Member States (i.e. the European Semiconductor Board) and will provide the instruments and measures needed to mitigate supply chain disruptions⁹⁹.

Established by the Action Plan on Synergies between civil, defence and space industries of February 2021 the EU Observatory of Critical Technologies has the mission to provide regular monitoring and analysis of existing and emerging critical technologies with a view to identify dependencies and vulnerabilities and to suggest mitigation measures. In the first year of activity, the Observatory has carried out a pilot investigation in two critical technology areas, i.e. a subset of Electronic Components and Autonomous Systems. The future works of the Observatory should contribute to increasing EU's technological sovereignty and strategic autonomy in the nexus of civil, defence and space industries by monitoring and analysing value chains, needed research and testing infrastructure, desired level of EU control over them, along with existing gaps and dependencies.

Through the Digital Europe programme, deployment of digital capacities and infrastructures in the area of high-performance computing, AI testing and experimentation facilities, cloud and data spaces, cybersecurity is ensured by EU-based entities. For some of these actions, specific security-requirements are required from EU entities with controlled by third countries. In quantum technologies, high technology readiness level research and innovation activities funded by Horizon Europe are restricted to entities based in and owned from Member States and a limited number of associated countries (EEA countries and Israel), in order to develop EU's own capacities in these critical technologies.

2.2.3. Critical raw materials and supply chain disruptions

Critical raw materials need specific attention among the identified EU's strategic dependencies. This is because access to resources is a strategic security issue for Europe and for its ambition to deliver on the digital and green transitions and to develop a more resilient European economy. Challenges in this respect, both today and looking forward, are increasingly important and difficult, considering the rapidly changing geopolitical environment, with new geopolitical shifts and uncertainty, extending beyond the impact of the COVID-19 pandemic and Russia's military aggression against Ukraine.

Meeting our climate and digital ambitions means that EU demand for critical raw materials will increase substantially. It is estimated¹⁰⁰ that the EU will need by 2050 (compared to 2020): +3535% lithium; +330% cobalt; between +590% and +2666% more rare earths elements¹⁰¹. Europe needs to ensure security of supply of raw materials that are essential for the green transition and the digital transitions. With this objective, the Commission announced the creation of the European Raw Materials Alliance (ERMA) as part of its Action Plan on Critical Raw Materials. The aim of the alliance, which brings together industry, research and technology organisations, civil society, investors and public authorities, is to increase the resilience of critical raw materials value chains, further develop industrial capacities and

⁹⁹ The Recommendation in the Chips Act package has enabled the European Commission to kick-start cooperation with Member States immediately, through the European Semiconductor Expert Group, until the Regulation is in force. The group has begun mapping the supply chain in Europe and is engaged with companies via an open consultation to get to a better understanding of the supply chain dynamics.

¹⁰⁰ Taking into consideration the ambitious targets set for CO2 emission, it is possible to estimate by reverse engineering the needed clean energy deployment in Europe. Accordingly, it is possible to estimate the raw materials needed by European industry for the production of the needed components for the deployment of renewables.

¹⁰¹ Report on Clean Energy Minerals; KU Leuven/Eurometaux (2022): Clean Energy Metals.

diversify sources of supply. In 2021, ERMA published its action plan that presents a list of specific actions and industrial projects in the area of rare earths and permanent magnets¹⁰².

Following the commitments in the March Versailles European Council and in the REPowerEU Communication, President von der Leyen announced in the September 2022 State of the Union the Commission will put forward a Critical Raw Materials Act. This act will ensure the legal definition of critical raw materials based on pre-set criteria. The final aim of the initiative is to support strategic projects on the whole value chain of Raw Materials including recycling. European industry needs to be able to operate with predictability of prices and quantity of raw materials needed for production. For this reason, the proposal will help develop a European value chain of raw materials, with a focus on its sustainability, circularity and resilience. In the set of tools foreseen by the President von der Leyen to achieve raw material supply security, it was also announced to pursue supply diversification from outside the EU through trade agreements, partnerships and bilateral agreements.

2.3. Supporting availability of right skills

2.3.1. Skills policy

A workforce with the right skills that are in demand contributes to faster industrial reconversion, leads to more innovation and improves companies' competitiveness. Across many ecosystems, EU industrial competitiveness and the digital and green transitions are held back by a lack of skilled workers. No less than 77% of companies declare that they struggle to find employees with the required skills¹⁰³. Businesses, including SMEs, declare that skills are the most frequently mentioned long-term barriers to investment in the European Union (85%)¹⁰⁴. The availability of skilled staff and experienced managers is the most important problem for a quarter of EU's small and medium-sized enterprises, representing 99% of all EU businesses¹⁰⁵. This also applies to digital skills. More than half of EU enterprises that recruited or tried to recruit ICT specialists had difficulties in filling their ICT vacancies.¹⁰⁶

In a number of ecosystems, skills availability is one of the most frequently cited obstacles to investments across the EU negatively impacting the availability of goods and services for example in the advanced manufacturing sector and the construction, energy and tourism ecosystems. Skills shortages are higher than ever before in the EU notably in services, construction and industry. With unemployment reaching a record low of 6% in 2022, the competition for talent is more present than ever. In 2021, 28 occupations ranging from construction and healthcare to engineering and IT had shortages, showing a growing demand for both high and low-skilled workers. The advanced manufacturing industry continues to experience a wide skills gap, which slows down market growth, innovation and international competitiveness. This is particularly acute for smaller companies, and in regions undergoing the green digital transformation of manufacturing base. While the demand for tourism services in 2021 is reaching the pre-pandemic levels in many sectors, staff shortages have become prevalent and caused many services providers to turn down bookings. The hospitality industry alone is estimated to lack 800 000-1 000 000

¹⁰² Rare Earth Magnets and Motors: A European Call for Action. A report by the Rare Earth Magnets and Motors Cluster of the European Raw Materials Alliance. Berlin 2021.

¹⁰³ Eurofound, European Company Survey 2019.

¹⁰⁴ EIB Investment Survey 2022.

¹⁰⁵ Eurostat, [Key Figures on European Businesses](#), 2022 Edition, p. 10.

¹⁰⁶ Eurostat – European Union Survey on ICT Usage and eCommerce in Enterprises 2020.

workers. Jobs in the renewable energy sector are expected to double to 2.7 million in Europe by 2050 and 800 000 workers will need to be trained, upskilled, or reskilled by 2025 in the batteries sector alone, with at least an additional 400 000 workers needed in the EU solar photovoltaic sector by 2030. Decarbonising the European building stock by 2050 will require the training of an estimated 3-4 million workers in this area.

Access to skills has become one of key challenge for SMEs as well. Labour shortages and input costs were reported as the most pressing problems that had intensified over time. In 2022, 67% of euro area firms considered access to labour as a highly pressing issue, and 66% reported an increase in labour costs. Access to talent is a particular issue for SMEs as they do not have same resources as big companies to compete for talent. Lack of skills has a direct impact on SMEs' ability to master the twin transitions, one fifth of SMEs cite lack of skills among the barriers to engage in more sustainable practices, digitalise, and innovate.

In 2020, the European Commission launched the European skills agenda to strengthen Europe's sustainable competitiveness, social fairness and industrial resilience. As part of the agenda, it launched the Pact for Skills that to date has been joined by 1000 public and private organisations with the purpose to identify skills gaps and to reskill/upskill people. In the two years since the Pact was set up, 14 large-scale skills partnerships in 13 of the 14 industrial ecosystems have been launched¹⁰⁷. They include pledges to upskill up to 6 million people. Currently, three more partnerships are under preparation. The partnerships are closely linked to the transition pathways that are being developed by the Commission jointly with stakeholders to support the green and digital transition of industrial ecosystems and address skills gaps. The partnerships are a key instrument to implement skills actions that are being identified in the transition pathway for each ecosystem.

In the Digital Decade Policy Programme¹⁰⁸, the Commission set targets to equip 80% of the population with basic digital skills and reach target of 20 million ICT specialists in Europe by 2030, including greater convergence between men and women. In this context, the Commission is carrying out a Structured Dialogue with Member States on digital education and skills to map the ongoing efforts in the Member States, identify potential gaps and to join forces at EU level. One of the outcomes will be the publication of two Recommendations in 2023, one on the enabling factors for digital education and one on improving digital skills. The Commission also proposes to give a fresh impetus to reach the target of 60% participation in lifelong learning by promoting increased, and more effective and inclusive investment in training and upskilling, to support people in changing from one job to another¹⁰⁹.

The Commission proposed to make 2023 the European Year of Skills. This will promote reskilling and upskilling to address labour and skills shortages that hamper competitiveness of EU companies, including notably SMEs, and attain full potential of fair and just digital and green transitions¹¹⁰.

Skills academies, foreseen as actions under the European Year of Skills, can also contribute to closing skills gaps. The Commission is supporting and co-funding the successful European Battery

¹⁰⁷ For example, the large-scale skills partnership for the Proximity & Social Economy ecosystem, launched in May 2022 aims to establish a skills alliance for the ecosystem, share intelligence and map information (e.g. data, qualitative case-studies, best practices) on the training activities currently carried out in the proximity and social economy ecosystem. The large-scale skills partnership on Cultural and Creative Industries (CCIs), launched on 28 April 2022, brings together over 100 diverse stakeholders of the CCIs ecosystem, with the objective to attract new talent develop digital, entrepreneurial and management skills, transversal or technical and hands-on skills.

¹⁰⁸ COM(2021) 118 final and COM(2021) 574 final.

¹⁰⁹ EU headline targets set by the European Pillar of Social Rights Action Plan also endorsed by the Porto Declaration of 8 May 2021 <https://www.consilium.europa.eu/en/press/press-releases/2021/05/08/the-porto-declaration/>

¹¹⁰ As per Commission proposal for a decision of the European Parliament and of the Council on a European Year of Skills 2023.

Academy that identified skills needs in the European battery value chain and developed and rolled out programmes and learning content to address those skill gaps. A similar model will be implemented in other sectors. Addressing gender gaps in the labour market can also help addressing labour shortages and skills gaps. The European Pillar of Social Rights Action Plan among its headline targets for the EU, proposes lowering the gender employment gap by 50% by 2030, including by improving the availability of high quality and affordable early childhood education and care. Other policy initiatives aim to attract more women to professions and sectors where they are currently underrepresented, such as STEM, in order to satisfy the demand in strategically important economic sectors¹¹¹.

Ensuring that the EU can better attract skilled workers from outside Europe can also help address skills shortages. With this objective, the Commission is working to implement the Skills and Talent package¹¹², and is preparing an initiative on recognition of qualifications of third country nationals.

2.3.2. Recognition of professional qualifications

Increasing the mobility of professionals helps address skills shortages. The EU system of mutual recognition of professional qualification has grown into one of the cornerstones of the Single Market, facilitating professional mobility for EU citizens. It has enabled over 800 000 citizens to establish themselves in another Member State since 1997¹¹³. Where for justified public interest objectives the exercise of an economic activity is reserved to qualified professionals (e.g. doctors, lawyers, certain crafts), the mutual recognition of such qualifications between Member States is key to ensure labour mobility and to fill skills gaps.

The recognition of qualifications plays an important role in leveraging professional mobility to combat skills shortages¹¹⁴. The 2013 modernisation of the EU Professional Qualifications Directive¹¹⁵ included several new instruments to enhance the system of mutual recognition of professional qualifications. The introduction of the European Professional Card and of a Common Training Test have facilitated the more efficient recognition of professional qualifications in recent years. The use of these instruments is currently focussed on a number of professions and a wider application could offer faster and more easily accessible systems of recognition to more citizens and promote labour mobility.

2.3.3. Posting of workers

The posting of workers is key to meet demands for skilled workers across the Single Market. The possibility to post workers is critical for many businesses to offer their goods and services across the EU. This includes industry that often sells products in combination with services contracts (e.g. machinery industry).

¹¹¹ For more details see 2022 report on gender equality in the EU, p. 26ss.

¹¹² COM(2022) 657 final.

¹¹³ Source: RegProf Database. Quite a few MS underreport their statistics on recognition decision, so the actual number might be significantly higher.

¹¹⁴ Commission President von der Leyen, 2022 State of the Union address.

¹¹⁵ Directive 2013/55/EU.

A successful Single Market is built on fairness. For this reason, Union legislation aims at protecting posting workers against unfair labour conditions which led to a revision of the Posting of Workers Directive. The amended Directive strengthened protection of workers and aims at guaranteeing fair competition. The European Labour Authority (ELA) was created to help Member States and the Commission to enforce labour mobility rules and as regards posted workers. ELA has already started to work and as one of its first tasks it supported Member States in the information provision as regards posting, but also mobility rules in general¹¹⁶.

Businesses, in particular SMEs, consistently highlight the administrative burden stemming from rules on the posting of workers as one of the main Single Market obstacles. A majority of businesses state that existing requirements pose a significant or a very significant obstacle¹¹⁷. Member States have put in place a range of administrative requirements, such as prior declarations when companies post workers, document requirements, designation of contact persons and representatives of the posting company. Member States and the Commission work on reducing complexity of these systems in SMET and the Commission in its 2021 Industrial Strategy Update announced that it would work with Member States to introduce a common e-declaration for the notification of posted workers.

2.4. Increasing investments

The investment needs for delivering both the green transition and digital transition are substantial. For digital transformation, investment needs are estimated to amount to EUR 125 billion per year¹¹⁸. For the green transition, the Commission analysis, backing the RePower EU policy actions, indicates that the investment needs to reduce the dependence to zero would amount to EUR 300 billion from now until 2030 (or EUR 210 billion by the end of 2027), on top of the total Fit-for-55 investments¹¹⁹. Commission analysis underpinning the Fit-for-55 package¹²⁰ estimates amounts to EUR 415 billion per annum of public and private energy-related investments to achieve the climate goals. The 2022 edition of the Flash Eurobarometer¹²¹ on small and medium enterprises, resource efficiency and green markets, shows that 36% of the small and medium enterprises rely on public funding, e.g. guarantees, loans, etc. in order to become greener in their business activities.

Investments are being mobilised especially by the NextGenerationEU Recovery and Resilience Facility and the REPowerEU, as well as by the cohesion policy funds to boost demand for and uptake of clean solutions, such as wind, solar, clean hydrogen, batteries, heat pumps, etc. The objective is to accelerate the speed and scale of green and digital transformation and build green and digital capacities, as there are substantial investment gaps that need to be addressed. To create synergies, EU countries are joining forces under the Recovery and Resilience Facility in multicountry joint projects. In the area of research and innovation, Horizon Europe partnerships are bringing together private and public funding to

¹¹⁶ ELA has also initiated a Mutual Learning exercise to facilitate administrative cooperation between Member States. To support Member States to enforce the rights of the mobile workers, ELA has helped Member States to carry out concerted and joint inspections.

¹¹⁷ [Business Survey - The state of the Single Market \(eurochambres.eu\)](https://www.eurochambres.eu/en/business-survey-the-state-of-the-single-market).

¹¹⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0083&qid=1655798743597>.

¹¹⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022SC0230&from=EN>.

¹²⁰ For digital transformation, investment needs are estimated to amount to EUR 125 billion per year¹²⁰. For the green transition, the Commission analysis, backing the RePowerEU policy actions, indicates that the investment needs to reduce the dependence to zero would amount to EUR 300 billion from now until 2030 (or EUR 210 billion by the end of 2027), on top of the total Fit-for-55 investments¹²⁰. Commission analysis underpinning the Fit-for-55 package¹²⁰ estimates amounts to EUR 415 billion per annum of public and private energy-related investments to achieve the climate goals.

¹²¹ Flash Eurobarometer on small and medium enterprises (SMEs), resource efficiency and green markets, 2022: <https://europa.eu/eurobarometer/surveys/detail/2287>.

finance research and innovation on low-carbon technology and processes. Work is ongoing on renewable energy and grids, by accelerating investments and addressing with EU countries barriers.

Public procurement, worth over EUR 2 trillion every year across the EU is an important lever in transformation of the EU economy. EU legislative framework can mobilise and steer public funding towards green and digital goals, shape the markets by creating demand for future-proof, environmentally sustainable and socially responsible solutions and products and accelerate the green transition. In order to boost the uptake of green public procurement, relevant Commission initiatives, such as the Ecodesign Regulation, the Batteries Regulation and the Construction Products Regulation lay the basis for the adoption of mandatory sector-specific minimum green public procurement criteria to be used in public procurements in the EU.

Against this backdrop and according to the 2022 EIB Investment Survey firms' outlook on the investment climate has deteriorated sharply¹²², driven by the invasion of Ukraine, the energy crisis, uncertainty and negative economic outlook. The share of financially constrained firms in the EU has increased to 6.2%, standing at the highest levels for five years; SMEs and service sector firms are the most finance constrained companies in Europe.

Figure 17: The share of financially constrained firms in the EU (2016-2022)

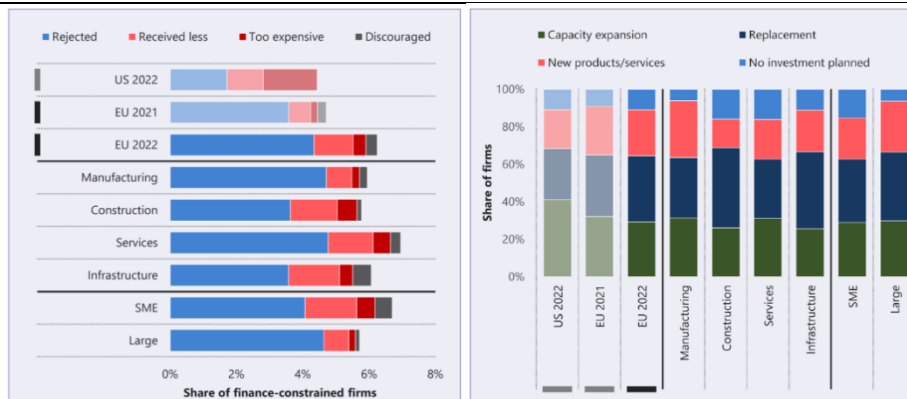


Source: EIB

The results of the survey also point to availability of skilled staff (85%), energy costs (82%) and uncertainty about the future (78%) being the most important barriers to investment in Europe. Replacement investment remains the most common priority for the next three years, cited by 35% of EU firms (in particular in construction and infrastructure), followed by investment in new products/services and capacity expansion (services and manufacturing) (Figure 17). Credit standards for loans to firms tightened further due to the economic slowdown and inflation, as well as banks' cost of funding and their declining risk tolerance. At the same time, demand from firms for loans or drawing of credit lines increased in the third quarter of 2022. It is driven by firms' financing needs for working capital and inventories, in the context of inflated production costs, growing inventories due to the slowdown in demand and precautionary behaviour against the background of supply bottlenecks.

Figure 18: Share of financially constrained firms in the EU: breakdown per sector and priority investments

¹²² EIB (2022): "EIB Investment Survey for 2022": <https://www.eib.org/en/publications/online/investment-survey-european-union>.



Source: EIB (2022), EIB Investment Survey for 2022

Moreover, a recent paper on the scale-up finance gap in the EU¹²³ observed that one of the consequences of the scale-up gap is the threat of relocations. Foreign investors have become influential in large later-stage Venture Capital rounds in European start-ups and scale-ups. According to Pitchbook data, the total value of European deals with US investor participation grew 19.4% year-on-year in the period 2011–2020, reaching EUR 23 billion in 2020, and out of the 24 Venture Capital investors that participated in investments in EU headquartered unicorns in this period, only eight are located in the EU. Such evidence shows that there are good scale-up investment opportunities in Europe that European Venture Capital investors do not pursue.

To accommodate the needs of enterprises and beyond, the InvestEU programme with its SME window has been set up to facilitate access to debt and equity funding for small and medium-sized enterprises¹²⁴. It targets primarily SMEs, but also small midcaps, and aims to enhance their global competitiveness, at any stage of their development, and in particular those that are perceived as high risk and lack sufficient collateral. The InvestEU programme supports sustainable investment, innovation and job creation in Europe; it is a great example of how public support can help mobilise private finance in the transition to sustainability. Furthermore, cross-border investments, which are prioritised under InvestEU give more leeway to equity fund managers to find valuable deals and implement their investment strategies, which represents an advantage of InvestEU as an EU-level financial instrument, compared to, for example, national- or cohesion policy-financed instruments which are often limited to a particular Member State.

With loans and equity-type funding, the InvestEU programme aims to mobilise EUR 372 billion in the EU economy during the current Multiannual Financial Framework for 2021-2027. As of mid-January 2023, the EIF has signed InvestEU guarantee agreements with 48 financial intermediaries from 19 Member States for EUR 2.3 billion lending to European SMEs and small mid-caps (incl. for investments in digitalisation, sustainability, innovation, and improving their solvency), and 54 agreements with funds from 13 Member States for equity investments worth EUR 1.9 billion. Moreover, by the end of December 2022, the EIB signed agreements for 29 operations in 9 Member States for EUR 2.3 billion under the InvestEU.

¹²³ The scale-up finance gap in the EU: Causes, consequences, and policy solutions. ScienceDirect. <https://www.sciencedirect.com/science/article/pii/S0263237322000950>.

¹²⁴ InvestEU Programme is composed of three building blocks: (i) The InvestEU Fund with its four windows, incl. the SME window, (ii) The InvestEU Advisory Hub, (iii) The InvestEU Portal: https://investeu.europa.eu/index_en.

The financial instruments of the InvestEU programme and of the European Innovation Council (EIC) under Horizon Europe represent two of the key tools for achieving EU policy objectives, such as the European Green Deal.

Horizon Europe Programme reduces the innovation divide by creating a level-playing field in the Single Market, by promoting cross-border collaboration between the best innovators that are concentrated in north and west of the EU and moderate/emerging innovators in south and east of the EU. In many Member States, Horizon Europe is an important source of funding of research and development. The EIC Fund is carrying out equity investments in hundreds of deep tech start-ups and SMEs throughout the EU, contributing in this manner to enhancing EU's technological sovereignty.

A growing recognition of the important role played by SMEs in economic dynamism and growth, as well as the substantial financing needs led to a rethinking financing support for SMEs at the EU level. To increase the impact and multiply the effect of limited EU budgetary resources, it was decided to shift progressively to the use of financial instruments: loan guarantees (covering part of the expected losses on portfolios of loans to SMEs) and equity, via investment in venture capital funds that back SMEs with the highest potential¹²⁵. Over the last 25 years, this approach has expanded massively in scale and has allowed many more promising SMEs to access the funding they need, while maximising the impact of the allocated EU resources. It has gone hand-in-hand with an expanding role for the European Investment Fund, established in 1994, which has been and remains the key implementing partner for EU financial instruments since the very first programme, the Growth & Employment Initiative (1998-2000).

Box 2: Case study: How EU financial instruments benefit SMEs in Europe

With the support of the Competitiveness of Enterprises and Small and Medium-sized Enterprises Programme' (COSME) Loan Guarantee Facility (LGF), a family pharmacy business in Greece managed to improve their cash flow, rent larger storage space and invest in automating various business processes. This financial support laid a solid foundation for this business not only to grow, but also expand its online sales across the border, and in this manner overcome challenging times and market dynamics. Even more, the loan from the COSME LGF also helped to keep staff numbers stable and even supported the creation of new jobs¹²⁶.

In the context of building a more integrated EU Capital Markets Union (Section 1.4.), such financial instruments also aim to reduce SMEs' dependence on traditional bank finance by supporting the development of alternative/complementary sources of finance, such as venture capital, private debt funding, etc. For instance, the EIC Fund is striving to crowd in private co-investors in its equity investments. Moreover, EIC Business Acceleration Services (BAS) provide support for start-ups to access cross border investments, partnerships and market opportunities (e.g., between corporates and start-ups).

2.5. Transformation of the economy

In the long-term, the Single Market can play a pivotal role, as the platform and business case for the green transition and digital transformation of the EU economy and industrial ecosystems. The 2020 industrial strategy, the Circular Economy Action Plan and its 2021 update called for the acceleration

¹²⁵ Previously, the emphasis had been on grants but these had limited impact.

¹²⁶ : https://www.eif.org/what_we_do/guarantees/case-studies/efsi_cosme_smile_pharmacy_greece.htm.

of green and digital transitions and set out the business case for this. The COVID-19 pandemic further accelerated speed and scale of these transformations. In response, the Commission has stepped up its work to support the business case for the green and digital transitions, boost competitiveness and resilience of the EU economy. Measures have been taken to adapt regulatory framework in support of an attractive business environment, address regulatory bottlenecks, support innovation, engage with and mobilise stakeholders, secure access to raw materials and decarbonised energy, boost resilience and strategic supply chains, improve availability of skills, strengthen inclusion, ensure level playing field, and project EU's environmental, social standards and values globally.

The regulatory framework is being adapted to keep it fit for purpose. The objective is to provide the necessary predictable market conditions and legal certainty needed for companies to invest in new clean technologies and scale up. Work is ongoing on closing regulatory gaps and addressing barriers, such as accelerating permitting process, which is critical for swift deployment at scale of renewable energy technologies (see 3.1 SMET work), as well as designing assertive and modern standards to support our green and digital objectives.

Research and innovation and the adoption of innovative technological solutions boost productivity, environmental sustainability and circularity, territorial cohesion as well as the digitalisation of the economy and resilience. Over the last years, research and innovation and its contribution to achieving the objectives of the Industrial Strategy and for Single Market, such as the twin transition and increased resilience of European industry, grew on importance. In the New ERA¹²⁷ for research and innovation, the Commission proposed a deepening of its traditional 'Single Market' elements (such as building of critical mass, mobility, open science, etc.) and a new approach to accelerate EU's green and digital transformation, strengthen Europe's resilience and preparedness to face future crises, and support Europe's competitive edge in the global race for knowledge.

Analysis points to the importance of not only accelerating innovation, but also accelerating transfer of research and innovation results in the economy and uptake in the Single Market. For instance, in 2050, almost 50% of CO₂ emissions reductions in the net zero emissions scenario of the International Energy Agency come from technologies currently at demonstration or prototype stage. This figure is even higher in energy-intensive sectors. The New ERA reinforces the focus on innovation through an accelerated transfer of research and innovation results in the economy and by facilitating its uptake across the Single Market, and a stronger valorisation of research in standards for the Single Market and in intellectual property rights like patents. It also paved the way for industrial technology roadmaps to boost the transfer of research and innovation results from Horizon Europe partnerships with industry into key EU industrial ecosystems. In important sectors for the green transition, such as energy-intensive industries, textile and construction, analysis shows that R&I investments bear fruit, confirming leading positions for EU industry, and underpinning the need for further investments to deploy a range of innovative low-carbon and circular technologies. The New European Innovation Agenda in 2022 complements the approach with targeted actions to develop and interconnect regional innovation systems avoid Europe's innovation fragmentation, support industrial and talent base and enable policy experimentation and innovative financial instruments to drive deep tech and scale-up innovation in the EU.

The transformation towards a greener, more digital and more resilient economy depends on the availability of transformational technologies, both hardware such as components as well as software.

¹²⁷ European Research Area

Initiatives are being taken to ensure that such technologies are developed, produced and made available in the EU. Within the context of the Industry Forum, a dedicated task force is formulating recommendations to further bolster advanced manufacturing in the EU. The Commission is also organising dedicated match-making events between SMEs that provide digital hard-and software, and SMEs in various other industrial ecosystems, to promote the uptake of digital business models made in the EU.

Digital technologies and solutions can help deepen the Single Market and its day-to-day functioning. The World Economic Forum estimates that by 2030 70% of the new value created in the whole economy will be digitally enabled, a momentum further accelerated by the COVID-19 pandemic. Innovative technologies (e.g. AI), data analytics and data spaces could unlock further benefits and boost transparency. Large-scale uptake of innovative digital solutions, such as data analytics and data spaces, can result in more competitive businesses, better value for customers and a more resilient industry in overall. The Single Market Scoreboard data¹²⁸ shows that Single Market progressed towards the digital transition. According to the 2022 DESI index, the largest growth took place in the connectivity dimension. Nevertheless, SMEs continue to lag behind large enterprises in all the analysed areas (i.e. online trading across the borders, employment of ICT specialists and use of big data analytics). The COVID-19 pandemic, restrictions of movement and travel, have accelerated the digital transformation of our economy and society and digitalisation of public administration. Technology and digital services have been key to keep the EU open for business, facilitating travel with the EU digital COVID-19 certificate and preparing the EU's recovery with NextGenerationEU. It is therefore important that the EU maintains access to the state-of-the-art digital technologies also through cooperation with like-minded partner countries.

The Digital Services Act and the Digital Markets Act form a single set of new rules creating a safer and more open digital space¹²⁹. Online platforms have created significant benefits for consumers, fostered innovation, and helped the European Union's internal market become more efficient. They have also facilitated cross-border trading within and outside the Union. This has opened new opportunities to a variety of European businesses and traders by facilitating expansion and access to new markets. The new Regulations set out, for the first time and across the world, a comprehensive, modern legal framework that ensures the safety of users online, establishes governance structures with the protection of fundamental rights at its forefront, and maintains a fair and open online platform environment. The Digital Services Act package has two main goals, to create a safer digital space in which the fundamental rights of all users of digital services are protected, and to establish a level playing field to foster innovation, growth, and competitiveness, both in the European Single Market and globally.

The Digital Decade policy programme 2030 is a significant step forward to harness the potential of EU's digital transformation. For the first time, Member States and the Commission jointly commit to achieve concrete objectives, such as sovereignty, resilience, sustainability, and quantitative targets (digital skills, infrastructures, digitalisation of business and public services). It also provides a set of new tools to facilitate multi-country projects in key digital industry areas (e.g. data spaces, block chain) to accelerate achievement of the objectives and targets, and new common investments in critical digital infrastructures to enhance the EU resilience, sovereignty and leadership. Multi-country-projects will be prepared and managed collectively, with the participation of a minimum of three Member States, drawing on various public and private financing. An indicative initial list of areas for investment for multi-country projects has been identified by Commission¹³⁰. It includes common data infrastructure, deployment of 5G corridors, connected public administration, high-performance computing, European Blockchain Services

¹²⁸ <https://single-market-scoreboard.ec.europa.eu/>.

¹²⁹ Proposed by the Commission in 2020, both Acts entered into force in November 2022.

¹³⁰ And agreed by co-legislators.

Infrastructure and low-power processors¹³¹. The Technical Support Instrument also supports Member States in reforms aiming at digital transition of businesses and public administration. To ensure that no new barriers to the Single Market emerge in future, the recently proposed Interoperable Europe Act¹³² will require public sector bodies and institutions to consider cross-border interoperability in case of setting up a new or modified digital public service. (Chapter 3 discusses in further detail the ongoing projects to leverage digital technologies and harness data for smoothly functioning Single Market).

Transition Pathways are an example of how dialogue with stakeholders can be effective in creating momentum and steering change. Transition pathways are actionable plans specific to each industrial ecosystem setting out how that ecosystem can make both the green and digital transitions and become more resilient. The actions proposed are jointly identified and need to be implemented by different players: industry, including SMEs, public authorities, and civil society. This means looking across a number of areas and dimensions: 1) ensuring competitiveness, 2) the role of regulation, 3) how to ensure social balance, 4) the needs for research and innovation (R&I), 5) the use of infrastructure, 6) the needs for skills and 7) investment/funding needs. For instance, in tourism, this means actions including reducing food waste in the hospitality sector and improving online availability of validated information on sustainable tourism offers. A platform is under development, which will facilitate the co-implementation of all the transition pathways¹³³. Simultaneously, a monitoring tool is being developed to gauge the progression of the twin transitions and resilience specific to each industrial ecosystem and across them¹³⁴.

Table 1 below sets out the current progress. For some ecosystems, key strategies have already been adopted such as the Digital Markets Act or Health Preparedness Communication, meaning that a specific pathway is not needed.

Table 1: Transition pathways – current progress

Already published	To be released in 2023	Pathway covered by existing document
Tourism Proximity and Social Economy	Chemicals (Q1) Mobility (Q1) Construction (Q1) Textiles (Q1) Retail (Q3) Agri-food (Q3) Aerospace & Defence (Q3)	Energy-intensive industries Renewables Health Creative and cultural industries Digital Electronics

3. Jointly managing the Single Market

¹³¹ The report on the State of the Digital Decade, published annually, presents the progress made on the EU’s digital transformation, identifies remaining deficiencies and proposes recommended actions to Member States on how to address them, including via Multi-Country projects or other joint commitments.

¹³² COM(2022) 720 final.

¹³³ This platform will be a coordination tool for all the stakeholders involved in carrying out the actions proposed in the pathways as well as a place to gather commitments from stakeholders of each industrial ecosystem.

¹³⁴ Comprising aggregated indicators of change in areas of R&I and technologies, performance, skills and investments.

The Single Market and the approach to its governance over the last 30 years has evolved. For example, a large part of the Single Market in goods has already been harmonised. This has been a key factor in developing a proper Single Market for goods with an unhindered flow of goods across national borders. The degree of harmonisation is much lower in the area of services due the heterogeneity and variance not only in the way services are provided and services businesses operate but also as regards national regulation. EU policies covering services are often principles-based regulation and have introduced limited harmonisation accompanied by mutual recognition.

As discussed in Chapter 1¹³⁵, a significant number of barriers continue being reported by businesses. In many cases, barriers are due to Member States legislation which does not fully implement the applicable legal rules and principles and in some cases infringes such Single Market rules. Businesses also report lengthy and diverse national administrative procedures that hamper cross-border trade and investments in the Single Market. One example is the permitting criteria and procedures for renewable energy projects, which hinder the EU's pursuit of the twin transitions. Misapplication of rules limits the potential of economies of scale offered by the single market, which is detrimental to the interests of consumers and businesses alike. SMEs and start-ups are particularly affected since they are the first impacted by administrative burdens and complexity, especially when crossing borders to conduct business within the Single Market.

For the Single Market to operate smoothly, European and national levels need to work together better. Novel approaches and partnerships, as well as collaborative tools, can help in building a shared understanding and greater trust among authorities, and a common enforcement culture¹³⁶. For example, in the Single Market Enforcement Task Force, the Commission services and the Member State authorities work together on addressing concrete Single Market barriers and obstacles, including those that are hindering the roll out of green and digital solutions. Agencies contribute to the trust-building with their highly specialised technical and scientific expertise which underpins decision-making (e.g. on authorisation of chemicals or registration of trade marks).

Digital technologies and user friendly e-government solutions can help to reduce the administrative burden for businesses and administrations. Chapter 3 provides an overview of existing systems and collaborative tools (Internal Market Information tool (IMI), SOLVIT), digital interfaces (Your Europe) and how they contribute. It also informs about work launched on new collaborative tools and digital solutions, in particular in areas of data sharing and common dataspace.

3.1. Member States' role in improving trust and shared management of the Single Market

3.1.1. Progress on enforcement of Single Market rules

Targeted approach to enforcement

¹³⁵ Reference to chapter 1.1. Integration of goods and services.

¹³⁶ The EU Member States have joined forces in the European Startup Nations Alliance (ESNA) to address the key issues startups have identified as hampering their cross-border growth. ESNA will support the Member States in demonstrating best practices and offer technical assistance, e.g. on the use of stock options to attract and retain talent and on how to tackle the late-stage financing gap for growing start-ups.

The Commission has continued its strategic and targeted approach to enforcement. Targeted infringements packages focus on ensuring that the Single Market rules are properly implemented and applied at national level to achieve maximum impact. After the large 2018 batches concerning the Professional Qualifications Directive, the Commission proceeded with an in-depth and ambitious conformity check of the national measures transposing the Proportionality Test Directive. The most recent addition to the set of directives aiming at improving the functioning of the Single Market is the Proportionality Test Directive. The Commission aims to ensure the proper transposition of this directive by checking and working together with Member States in order to put in place a truly effective mechanism for assessing the proportionality of new professional regulation before it is introduced. This is a key component of the Commission’s strategy to strengthen the preventative arm of its enforcement toolbox.

Remedial action to address non-transposition or deficient transposition of EU law has continued to be the focus of enforcement action in the Single Market domain in recent years (e.g. Services Directive, Professional Qualifications Directive, Proportionality Test Directive, Public Procurement Directives, Posting of Workers Directive and Posting of Workers Enforcement Directive). Around 69% of formal infringement cases that were newly launched or continued by DG GROW, being the DG with horizontal responsibility for the Single Market, in 2021-2022 concerned non-communication of national measures transposing directives and non-conformity of national provisions with the requirements of major Single Market directives. This concerned the transposition of the Professional Qualifications Directive, the Proportionality Test Directive, as well as cases concerning compliance with the Services Directive¹³⁷ and the Public Procurement and Concessions Directives¹³⁸.

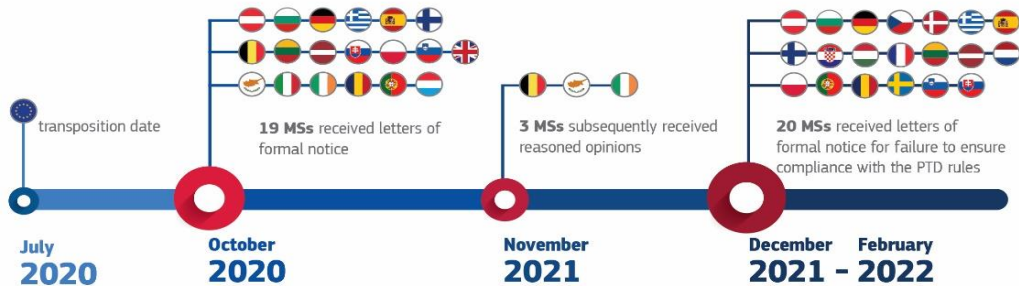
The problems for Member States to timely and correctly integrate in their national legal frameworks the Single Market rules that were agreed, prevent these rules from achieving their desired effect. It prevents businesses and citizens in the Member States from benefiting from a more integrated Single Market, it creates an uneven playing field, ultimately hurting the economy in each Member State. Much could be gained if Member States increased efforts at this initial stage of transposition. For example, Member States failed to properly implement the Professional Qualifications Directive’s provisions on the European Professional Card, harmonised minimum training requirements, language checks, cross-border service provision, partial access to professions, document and translation requirements, etc. Another example of failure to timely and correctly transpose Single Market rules concerns the Proportionality Test Directive, illustrated in the chart below.

Figure 19: Transposition of the Proportionality Test Directive (PTD)

¹³⁷ Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market (OJ L 376, 27.12.2006, pp. 36–68).

¹³⁸ 2014/23/EU, 2014/24/EU, 2014/25/EU.

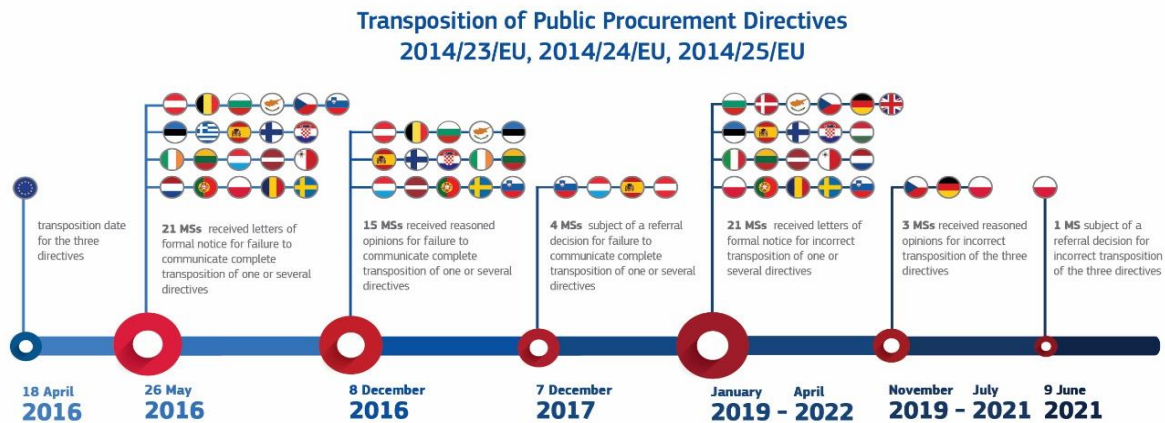
Transposition of the Proportionality Test Directive (PTD)



Source: European Commission

Similarly, a series of non-communication procedures was launched for the **Public Procurement and Concessions Directives**, followed by non-conformity procedures in 2019-2021. In 2020 and 2021, Commission launched 14 infringement cases for non-communication of the Amending Posting of Workers Directive and 24 cases for non-conformity of national provisions with the Posting of Workers Enforcement Directive. In the latter case, the issues addressed by the Commission included administrative requirements and control measures that were not proportionate and/or justified in accordance with Union law.

Figure 20: Transposition of Public Procurement Directives



Source: European Commission

In the digital area, enforcement actions focused on the transposition of the Audiovisual Media Services Directive, the European Electronic Communications Code, copyright in the Digital Single Market, the Satellite-Cable transmission Directive and the re-use of public sector information.

Figure 21: Transposition of the European Electronic Communications Directive

TRANSPOSITION OF THE EUROPEAN ELECTRONIC COMMUNICATIONS CODE DIRECTIVE



Source: European Commission

In addition to this targeted enforcement action, the Commission continues to receive a significant number of complaints regarding malfunctioning of the Single Market. In 2022, DG GROW alone accepted almost 200 complaints for assessment. These numbers show that the Single Market is far from a reality for many of our citizens or for businesses. Many of these complaints relate to individual cases of bad application and are thus normally not subject to enforcement by the Commission. Nevertheless, they indicate issues which merit greater attention to ensure that also the “second leg” of the EU enforcement framework, i.e. the role of national authorities and national courts in ensuring the correct application and enforcement of EU rules, plays its part. Too often people and businesses encounter prohibitive barriers and high costs when seeking to enforce their individual rights stemming from EU-law in national courts.

Improving the situation requires joint efforts. To this end, in 2022 the Commission has published formal guidance documents to assist Member States with the application of EU law, i.e. the Handbook for the Services Directive and the Guidance on the assessment of proportionality under the Proportionality Test Directive.

The objective of the updated Handbook for the Services Directive is to provide up to date information and guidance on the day-to-day application of that Directive on the ground. The preceding Commission Handbook from 2008 had proved to be an efficient tool for supporting Member States in implementing the Services Directive. However, the evolution of case law, adoption of new policies and legislation, as well as market developments, have made an update necessary. Although the Services Directive itself was not amended, several of its provisions, its scope and its relationship with other EU law have been interpreted in Court of Justice rulings. Moreover, the emergence of new business models has prompted additional questions.

Strong ex ante proportionality assessment procedures are an efficient tool for preventing unnecessary or overly restrictive regulation. The Proportionality Test Directive makes it mandatory for Member States to carry out a thorough proportionality assessment before adopting any new or amended national professional regulation. To reap the full beneficial effect in terms of preventing unnecessary or overly restrictive regulation, it is important that the directive is translated into strong ex-ante proportionality assessment procedures at national level and that the proportionality criteria are correctly understood and applied. The guidance therefore aims at supporting authorities in carrying out proportionality assessments and thereby prevent creation of new barriers for professional services. In

addition, informal advice was provided through the tools put at Member States' disposal (i.e., advice in the dedicated Wiki on shortening of time limits in public procurement procedures related to projects financed by EU funds and "*A practical reminder about some requirements set by Directive 2014/24/EU as regards negotiated procedures without prior publication*") and dialogue has continued bilaterally and in the relevant expert groups.

Better use of preventative toolbox

Since prevention is far more efficient than remediation, the Commission has continued to work on improving its prevention toolbox, including different Single Market notification tools. Notification tools under the Single Market Transparency Directive (SMTD) and Services Directive play an important role in ensuring that new national rules are non-discriminatory, justified and proportionate. In 2021, the Commission examined 969 notifications under the Single Market Transparency Directive and 84 notifications under the Services Directive. In 2022¹³⁹, the Commission received 844 notifications under the Single Market Transparency Directive and 68 notifications under the Services Directive. A 2022 Commission Report on the operation of the Single Market Transparency Directive in 2016-2020¹⁴⁰, provides a detailed overview of the situation in this area. Still, as requested by Member States, the Commission continues working on improving the functioning of and the uptake of these notification tools. The Commission has stepped up its efforts to increase transparency on notified requirements under the Services Directive. As under the SMTD, increased transparency for notifications under the Services Directive, again in parallel to the level of the Proportionality Test Directive, will improve impact and accountability. Since the proportionality assessments provided by Member States as part of these notifications are key, the Commission continues to assist Member States in strengthening their analyses and has recently published the guidance mentioned above. In addition, the Commission is also working, in close collaboration with the Member States, on continuous analysis, identification, and addressing of possible structural issues in the practical implementation of the Single Market Transparency Directive.

Enforcement of EU consumer law

Swift and effective enforcement of EU consumer rights contributes to the smooth functioning of the Single Market, ensures a high level of consumer protection and a level playing field among businesses active in retail sectors across the EU. In 2007, the EU has in place the Consumer Protection Cooperation Regulation - a framework to encourage cooperation among national consumer authorities. The Regulation provides authorities with a set of enforcement and investigation powers so that they can work together to address illegal market practices. The Consumer Protection Cooperation network has been conducting coordinated screening of digital markets every year, in total more than 5500 websites have been controlled.

The Network also carries out coordinated enforcement actions. These aim to ensure that large businesses operating across the Single Market comply with consumer law and that consumers are equally protected wherever they live and shop in the EU. The Network has held dialogues with all major platforms, market places, but also with car rental and accommodation booking businesses. In 2020, during

¹³⁹ Number of notifications received until 16 November 2022.

¹⁴⁰ Report from the Commission to the European Parliament, the Council and the European Economic and Social Committee on the operation of the Single Market Transparency Directive from 2016 to 2020, COM/2022/481 final.

the early stages of the COVID-19 pandemic, the Network has asked major platforms to act against scams and unfair practices proposing overpriced or ineffective protective equipment or treatment. It also ensured that major airlines reimburse consumers forced to accept vouchers for cancelled flights. Most recently the Network has been addressing issues such as green washing and dark patterns, which manipulate consumers, or influencer marketing which is not transparent.

Removing barriers in the Single Market. Single Market Enforcement Taskforce (SMET) contribution

The Commission and Member States are working together to remove concrete barriers in the Single Market. SMET was set up to tackle concrete barriers on the Single Market by enhancing the cooperation among the Commission and Member States. In SMET Member States and the Commission work together as a partnership to ensure better and smarter implementation of the Single Market rules as announced in the Communication on “Long term action plan for better implementation and enforcement of Single Market rules”¹⁴¹. To achieve this, SMET members together prioritise some of the most pressing barriers on the Single Market¹⁴², assess national practices in implementing Single Market rules, and develop concrete solutions to address the identified priority barriers – often on the basis of national best practices. The prioritisation of barriers is done on wide variety of stakeholder interactions (reports, consultations, workshops, etc.), and barriers are subsequently approached from the user perspective. This ensures new SMET projects are approached from the user perspective and helps SMET to develop concrete solutions that verifiably improve the functioning of the Single Market. The SMET also works towards improving the functioning of various Single Market instruments.¹⁴³ Special attention is paid to barriers in services and barriers that could hamper the twin transition. Currently, SMET is working on the following barriers:

- (i) **Streamlining permitting procedures for wind and solar energy** projects by removing administrative barriers. Identified barriers range from length of administrative procedures, internal coordination issues, such as lack of guidance for local authorities and lack of digitalisation; predictability and transparency of permitting procedures; spatial planning processes; staffing and skilling of permit-granting authorities to barriers for small-scale installations. Figure 22 depicts pledges made by Member States to remove identified barriers.

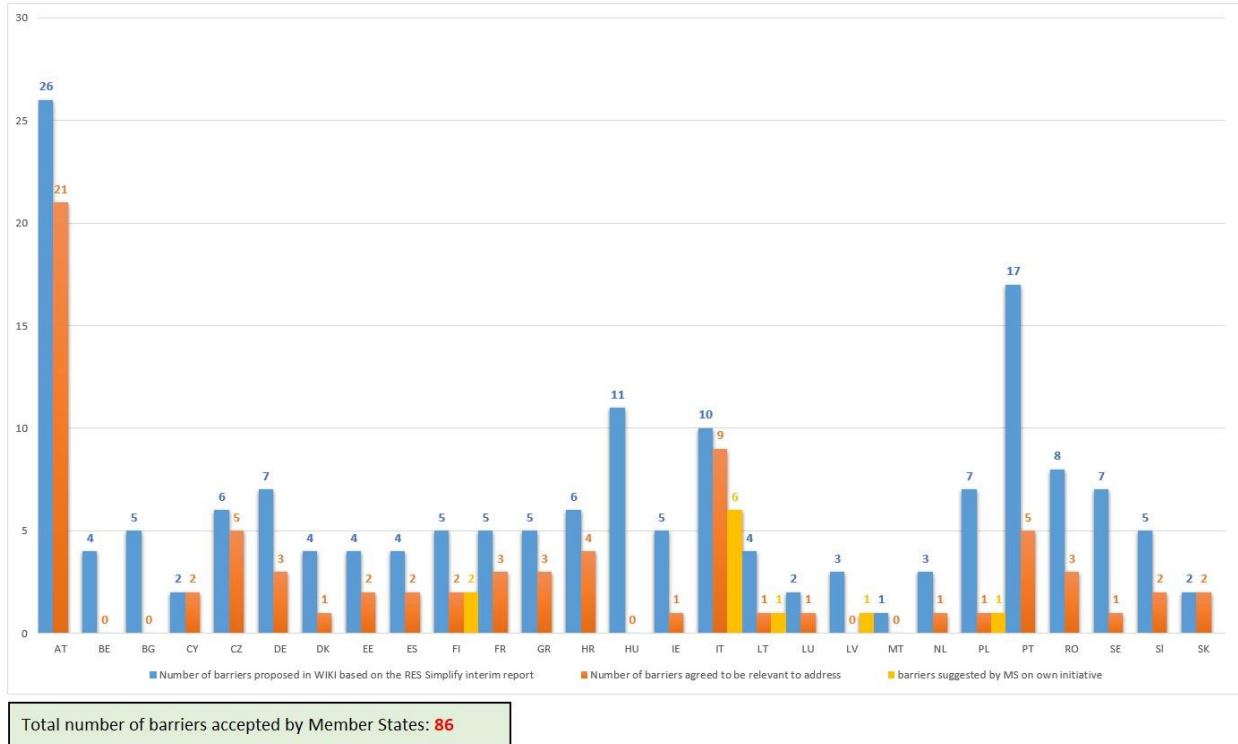
Figure 22: Streamlining permitting procedures for wind and solar energy projects – Overview of number of administrative barriers per Member State¹⁴⁴

¹⁴¹ https://ec.europa.eu/info/sites/info/files/communication-enforcement-implementation-single-market-rules_en_0.pdf.

¹⁴² SMET report <https://ec.europa.eu/docsroom/documents/52234>.

¹⁴³ SMET projects are chosen by consensus after a discussion on priorities. The topics put forward for discussion are identified using reports, workshops and other exchanges of experiences on Single Market barriers provided by stakeholders. SMET selects projects in areas where it can work, within its mandate, on concrete solutions for real problems on the Single Market.

¹⁴⁴ Based on reporting of Member States in the SMET.

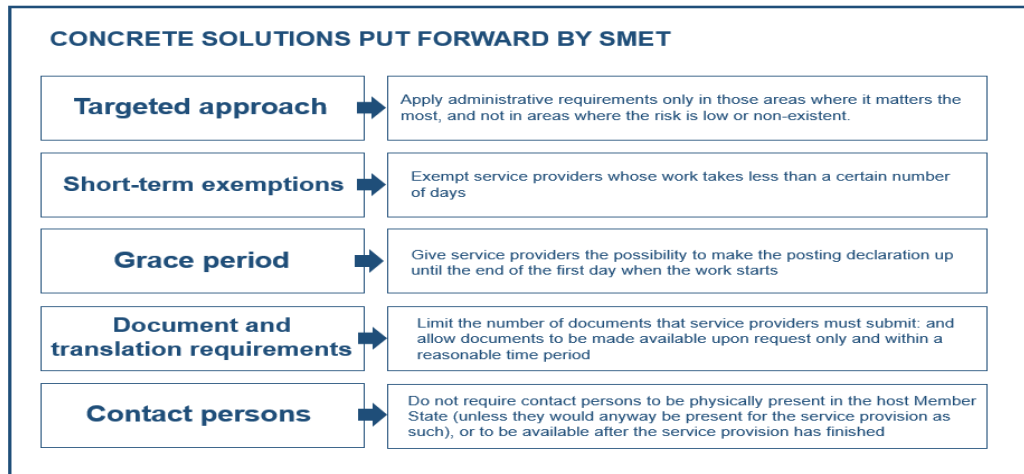


Source: European Commission, SMET

- (ii) **Reducing the burden of administrative requirements imposed on cross-border service providers when posting workers:** reports on Single Market barriers¹⁴⁵ and information from Member States as well as business stakeholders have consistently highlighted complex, time-consuming and costly formalities linked to administrative requirements for cross-border service providers when posting workers. These requirements are considered as one of the main obstacles to the development of an effective Single market in services. In SMET, Member States together with Commission, have been working towards reducing the burden imposed on service providers when posting workers by removing or streamlining the administrative requirements. After collecting and screening the different administrative requirements in the Member States, SMET selected five areas of focus, and put forward concrete solutions based on Member States' best practices to reduce the administrative burden (see Box 3). SMET members have been discussing in their respective Member States, which of the solutions could be implemented.

Box 3: Concrete solutions put forward by SMET

¹⁴⁵ SWD(2020) 54 final, at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020SC0054>.

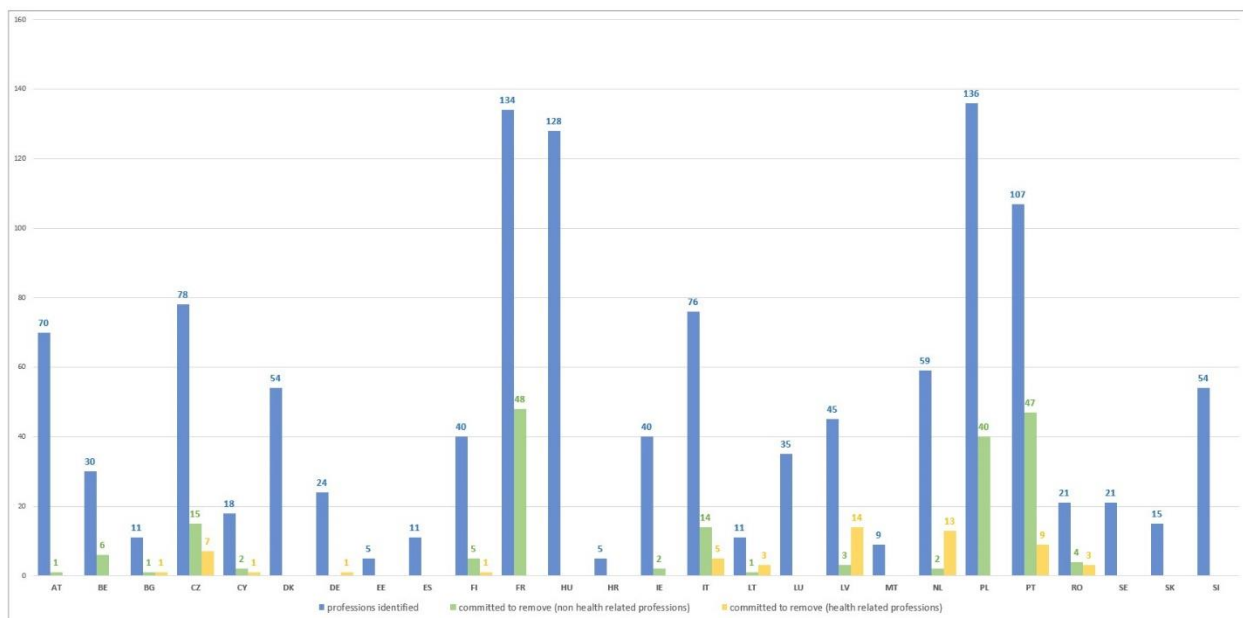


- (iii) **Reduction of the number of prior checks on qualifications that lead to restrictions for professionals who want to provide cross-border services on a temporary and occasional basis.**

So far 250 prior checks have been removed. Professions for which the most prior checks were removed were: nurse (with several specialisations), nursing assistant, biologist, chemist, dental assistant, massage therapist, dietician, orthoptist, engine operator class I, II, III (ship operator), surveyor, security guard (see Figure 23 for the number of prior checks removed per Member State).

Figure 23: Requirements committed to remove prior check of qualifications by Member State (State of play 10 October 2022)¹⁴⁶

¹⁴⁶ Idem.



Source: European Commission, SMET

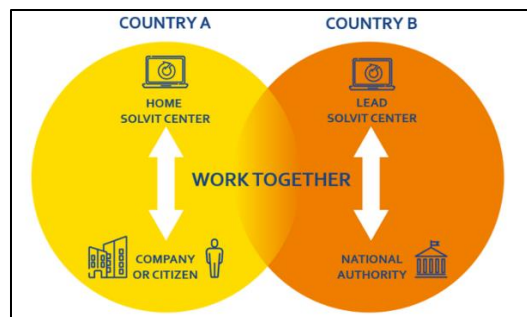
(iv) Removal of the requirement to provide certified translations and/or official copies of documents in relation to the recognition of professional qualifications.

SMET has also been working on improving the functioning of Single Market instruments, so called ‘horizontal enforcement projects’. The functioning of the Single Market is improved by unlocking the untapped potential of relevant Single Market instruments. Horizontal enforcement projects typically feature longer-term involvement by SMET and a collective effort to improve the functioning of the Single Market instrument in question. SOLVIT is an example of an instrument developed to help businesses and citizens to deal with the misapplication of EU rules by public authorities (local, regional or national). SMET looked at how SOLVIT could be made more effective and efficient in helping people deal with barriers to the Single Market. SMET is planning to continue its work on addressing single market barriers by improving the functioning of Single Market instruments, and possibly become the “go to forum” for addressing single market issues related to such instruments.

Helping citizens and businesses resolve conflicts via SOLVIT

In the past 20 years, SOLVIT has helped more than 28 600 people and businesses, resolving problems in more than 85% of the cases received. It deals with problems in all areas related to the four freedoms of the Single Market, such as free movement of goods, services, recognition of professional qualifications, posting of workers, and VAT reimbursements, to name a few.

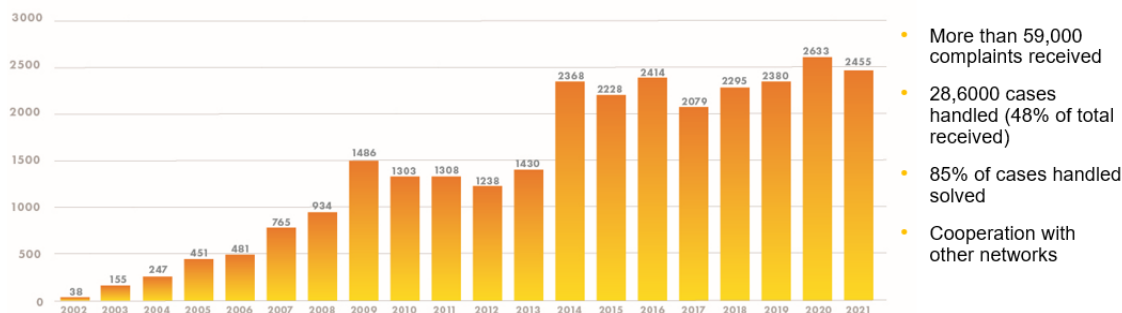
Figure 24: SOLVIT framework



Source: European Commission, SOLVIT

It is based on a unique approach that combines peer pressure, collaboration between Member States and the Commission and the sharing of knowledge on how EU law should be applied. To ensure the checks and balance in the system there are always two SOLVIT centres involved in the case handling (one in the country of nationality or residence of the complainant, the other in the country where the problem occurred), but crucially, SOLVIT provides businesses and citizens with a direct hook in the administration of the country where they are having a problem. This way in its 20 years of existence¹⁴⁷ SOLVIT has helped build mutual trust and understanding in the Single Market between Member States and will continue to do so in the future.

Figure 25: Overview of complaints received over the past 20 years



Source: European Commission, SOLVIT

SOLVIT relies on the Internal Market Information System (IMI) which ensures transparent and effective IT-supported work processes and communication methods. Data accumulated from past experiences and cases is shared with policy makers to ensure better compliance with existing EU law and prevent new barriers from arising. By solving problems for citizens and businesses making use of the opportunities of the Single Market, SOLVIT is enabling the correct functioning of the Single Market.

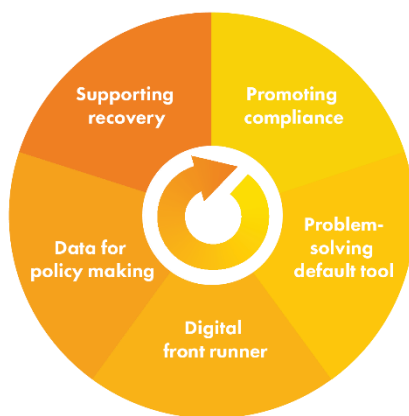
Thanks to SOLVIT, companies have been able to take advantage of the mobility of workers, the ability of posting workers and providing services in other EU countries or employing qualified

¹⁴⁷ The European Commission published 26 September 2022 the report “SOLVIT’s Helping Hand in the Single Market: celebrating 20 years.” https://ec.europa.eu/solvit/_docs/2022/anniversary_report_web_en.pdf.

workers who could get their professional qualifications more easily recognised. Citizens were also benefitting from the services provided by SOLVIT in multiple aspects of their lives, for example, when moving to another country, exchanging their driving licence, getting public documents recognised or obtaining work-related benefits.

The collaborative SOLVIT approach extends to co-operation with different bodies and structures equally committed to the good functioning of the Single Market, such as above mentioned Single Market Enforcement Task Force, Enterprise Europe Network, the European Labour Authority and other tools such as Your Europe Advice. The 2019 Regulation for the mutual recognition of goods¹⁴⁸ has also incorporated SOLVIT for its problem solving procedure to ensure the correct application of the principle.

Figure 26: The Collaborative SOLVIT approach



Source: European Commission, SOLVIT

3.1.2 The Single Market Scoreboard as a tool to assess Single Market performance

Greater transparency, the publication of compliance information and regular monitoring mechanisms have proved effective in encouraging Member States towards faster compliance or at least, in identifying areas that require further attention. One of such tools is the Single Market Scoreboard.

The Single Market Scoreboard¹⁴⁹ was initially set up to assess the performance of the Member States in the areas of the transposition of Single Market acquis. Over time it has extended to cover the implementation of related enforcement tools (EU Pilot, SOLVIT, IMI, etc.) and a number of policy areas such as SMEs, market surveillance, professional qualifications, public procurement and the greening of industry. In order to clarify the narrative underlying these new developments and to build on other analytical tools that have become available since the Industrial Strategy Update in 2021 (i.e. the Key

¹⁴⁸ <https://eur-lex.europa.eu/eli/reg/2019/515/oj>.

¹⁴⁹ <https://single-market-scoreboard.ec.europa.eu/>.

Performance Indicators annexed to the two previous releases of the Annual Single Market Report), the latest edition of the Scoreboard has been revamped.

This edition of the Scoreboard gives an overview of the main achievements and trends of the Single Market in relation to three pillars: enforcement tools, business framework conditions and competitiveness. The first pillar measures Member States' performance in the areas of the transposition and enforcement of Single Market acquis and related enforcement tools. The specific areas covered are: SOLVIT, TRIS (Technical Regulations Information System), IMI, transposition, infringements, and EU pilot. The second pillar sheds light on some of the key areas where the implementation of Single Market policies by Member States can impact business framework conditions. These are: responsiveness of administration and the burden of regulation; market surveillance; access to public procurement; access to services and services markets; labour mobility and matching across borders; and access to finance. The third pillar looks at the final outcomes and competitiveness of the Single Market in terms of economic growth, employment and social indicators; integration of goods and services; economic resilience; and green and digital transitions.

3.1.3 Role of EU agencies

EU agencies have become an established part of the way EU operates and perform a wide range of tasks. They contribute to the implementation of Union policies, including in the area of Single Market, reducing thus risk of market fragmentation and preserving a level playing field. They also have a role in supporting decision making process by pooling the technical and specialist expertise available at European and national level in important policy areas.

For instance, the European Supervisory Authorities in the area of financial services, i.e. the European Banking Authority, the European Insurance and Occupational Pensions Authority and the European Securities and Markets Authority are key actors in shaping the Single Market for capital and financial services. Set up to help tackle the shortcomings in supervision revealed by the financial crisis and to restore full trust in EU financial markets, they contribute to implementing EU legislation in this area, building a single rulebook and fostering supervisory convergence across the EU. The role of some agencies evolved over time. For example, the EU Intellectual Property Office (EUIPO), was initially established only to manage the registration of EU trade marks and Community designs. Today, the agency plays an important role in protecting the intellectual property throughout the Single Market.

This approach brings considerable benefits. For instance, risk management through the regulatory agency and by means of EU wide applicable decisions substantially reduces the risk of market fragmentation within the Single Market and increases legal certainty for the economic operators. For example, the European Chemicals Agency (ECHA) implements tasks under a European regulatory framework to protect human health and the environment and facilitate the EU's Single Market, competitiveness and innovation. Safety and use information are collected and checked, to manage risks of chemicals, based on independent scientific advice from ECHA while ensuring a level playing field for companies¹⁵⁰. With ECHA's support, scientific and regulatory information about more than 100 000

¹⁵⁰ ECHA's Forum for Exchange of Information on Enforcement, coordinates and harmonises enforcement actions in the Single Market. This network of national authorities responsible for enforcement organises joint enforcement projects, common training sessions, and sets strategies to promote a level playing field for companies.

chemicals, including their classification and labelling, is made publicly available by ECHA for research and transparency.

3.1.4. Effective policy coordination and novel ways of collaboration at EU and Member State level

Services

The cooperation between the Commission and national authorities plays a key role in the effective governance of the services Single Market. Services policy and regulation covers many sectors of the economy and consequently are therefore the responsibility of a large number of authorities in Member States, including at regional and local level. The complexity and multitude of different services and the implementation of these rules by different levels of national administrations results in significant challenges for an efficient and uniform implementation and application of the rules in the Member States as well as the development of coordinated and coherent services policies.

Member States have put internal administrative structures in place to ensure the correct implementation of EU services rules, including mobility of professional services across Member States. They aim to coordinate services policies and the implementation of EU services rules across sectors and levels of their administration. The role and capacities of these structures vary, reflecting *inter alia* differences in Member States' administrative structures and legislation. There clearly is no one size fits all. To facilitate a coordinated implementation of EU services regulation, including recognition of qualifications the Commission set up expert groups bringing together relevant Member States authorities to exchange practices and discuss interpretation of EU rules.

In other Single Market areas, the EU has established mechanisms for more structured coordination and knowledge sharing, and a policy approach than in services. Examples include the Body of European Regulators for Electronic Communications (BEREC) that aims to improve consistency of EU telecoms rules; or the European System of Financial Supervision, consisting of the three European Supervisory Authorities and the European Stability and Risk Board, a network of European and national supervisors that ensures consistent and appropriate market supervision. In the area of goods, the EU Product Compliance Network provides for a structured coordination and cooperation between Member States and the Commission, streamlining the implementation of EU rules across the Single Market. Each of these structures is *sui generis* but their common objective is to improve the policy cooperation and implementation of Single Market rules across Member States.

Effective and structured mechanisms at national and EU-levels can also support services policy coordination and implementation across the Single Market and ecosystems. While none of the models put into place in other policy areas could be applied directly to promote the EU services Single Market more broadly, the absence of a more systematic and structured mechanism for the cooperation, development and implementation of services Single Market policy can be seen as contributing to the large heterogeneity in services policies and regulation across the Single Market.

Ecosystem approach: Electric vehicle charging stations

Demonstrating how the Single Market can be improved using an ecosystem approach, France and the Netherlands initiated a project at the beginning of 2021 to identify the different barriers encountered by cross-border providers of electric vehicle charging stations. This ecosystem was chosen as it is dynamic, critical for the green transition, cross-border in its nature, and it shows how intertwined industry and services are.

The approach taken in the project consisted of three steps: the identification of services that are particularly strategic for the electric vehicles ecosystem, the identification of barriers that hinder delivery of these services, and the development of concrete and pragmatic actions to address these barriers. Fifteen concrete barriers relevant for cross border providers of electric vehicle charging stations have been identified. Some are related to the cross-border provision of services, administrative requirements and accreditation/certification, as well as lacking regulatory provisions. Information about the identified barriers has been shared at the EU and national level. This project also shows how innovative methods can be used to identify and address Single Market barriers that are particularly relevant for a specific ecosystem. Such approach would be complementary to the general Single Market one.

3.2. Leveraging new collaborative tools

Boosting the digital transformation of public administrations remains a top priority for the EU. The Commission together with Member States has been developing the necessary regulatory framework to establish clear harmonised and enforceable rules and incentives for digital products and services across the Single Market. The Single Market Scoreboard¹⁵¹ points to significant progress in the area of government digital services to businesses, this area received a score of 80% or more in two thirds of Member States. In addition, the European Interoperability Framework has played an important role in improving the quality of cross-border and cross-sectoral digital public services.

Member States are increasingly using digital technologies to interact with citizens and businesses. According to the 2022 edition of the eGovernment Benchmark 2022 Insight Report, 8 of 10 government services can be completed online. Digitalisation is most mature at central government level, with regional and local governments trailing behind¹⁵².

In pursuit of the EU Digital Decade ambition, Europe aims to provide all key public services online by 2030. Europe also aims to give EU citizens access to a secure electronic identification means recognised throughout the Union, enabling users to access public and private services while ensuring that users' retain full control over identity transactions and shared personal data. Investments and cornerstone policies were put in place to make the digital transformation happen, such as at least 20% of the Recovery and Resilience Facility and the investments supported by cohesion policy funds. A large part of this digital share, amounting to around 37%, will contribute to the digitalisation of public services. Among key initiatives establishing the enabling regulatory framework at EU level are the Single Digital Gateway¹⁵³ and the proposal for a European Digital Identity Framework, revising the current eIDAS

¹⁵¹ <https://single-market-scoreboard.ec.europa.eu/>.

¹⁵² eGovernment Benchmark 2022 Insight Report: Synchronising Digital Governments, July 2022.

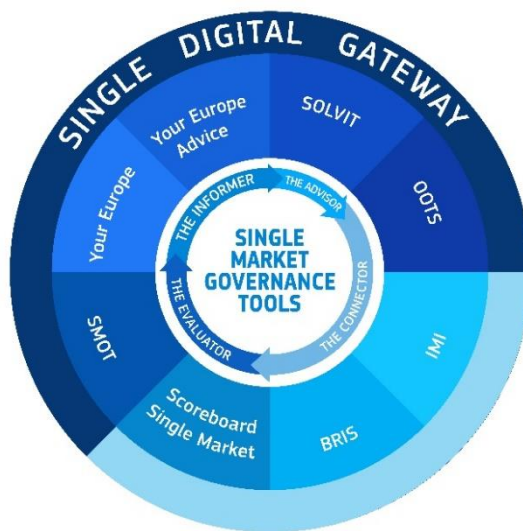
¹⁵³ Regulation (EU) 2018/1724 establishing a single digital gateway to provide information, procedures, assistance and problem solving services.

Regulation. The recently proposed Interoperable Europe Act¹⁵⁴ will promote interoperability by design, contributing to seamless European digital public services and improved business environments.

3.2.1. Leveraging digital technologies at EU and MSs level to make the Single Market work better

Digital solutions are a valuable means to disseminate information, connect people and systems, and create efficiencies. This section discusses how digital technologies and solutions are deployed at the EU and at Member States' level to upgrade and complement the existing framework of Single Market governance tools. It showcases the benefits of the different tools and their potential to further simplify administrative procedures, cut red tape and significantly reduce administrative burden and create cost savings for citizens and businesses.

Figure 27: Single Market Governance Tools



Source: European Commission

Single Digital Gateway: one stop shop access for businesses and citizens to information, advice, assistance and e-government procedures in the Single Market

¹⁵⁴ COM(2022) 720 final.

The Single Digital Gateway facilitates online access to information, administrative procedures, and assistance services that EU citizens and businesses may need in another EU country¹⁵⁵. The Commission and national administrations are developing stronger links between the **Your Europe portal** and a network of national portals to provide information for citizens and businesses on how EU rules are applied to cross-border users in each EU country, as well as on what assistance services are available. Since December 2020, some of these services have been available from the single entry point on the Your Europe portal. By the end of 2023, Your Europe will offer access to 21 online procedures in all EU countries, with procedures such as registering a car or claiming a pension being fully digitalised and eliminating the need for paperwork. The most important administrative procedures for cross-border users will be fully available online in all EU countries. A system for transferring documents needed for these procedures between national authorities in different EU countries will also be included (see below, the Once Only Technical System (OOTS)). For example, a diploma obtained in one country can be shared with the national authorities of another, where it is needed to start a business.

Your Europe Advice service

The Your Europe Advice (YEA) service offers tailor-made advice on citizens' and businesses' individual EU right, i.e. personal rights deriving from EU law, especially from Single Market law. Citizens and businesses can ask questions about their individual EU rights in any of the official EU languages and will receive an answer in the preferred language within at most 5 working days. The service is free of charge for the enquirers. YEA replies to about 25.000 enquiries every year and has replied to nearly 400 000 questions since its start in 1996. The YEA database allows a detailed analysis of Single Market barriers, legal issues citizens and businesses face as well as legal areas lacking information to the general public.

Single Market Obstacles Tool

Single Market Obstacles Tool (SMOT) enables users of the Your Europe portal to report obstacles they encounter in the Single Market. Building on the concept of the Single Digital Gateway¹⁵⁶, this collaborative digital tool that pools information from various sources to assess Single Market performance and aims to identify areas for improvement to the benefit of citizens, consumers and businesses. Individual cases are currently collected from visitors on YourEurope portal. The feedback as well bi-annual synthetic reporting of the quality of service and obstacle reporting will help inform and further improve policymaking.

Although designed to handle individual cases, SMOT can do more than that. Additional value can be unlocked by opening up the tool and connecting data intake from existing assistance services such as YEA, SOLVIT, Enterprise Europe Network (EEN), and through the intake of data from business organisations, such as EuroChambres, BusinessEurope and SME United. To open up the tool and to get most out of it, a data model based on an inventory of existing data sources within the Commission has been developed, in consultation with business organisations. This approach can streamline practices and can be reused for similar activities in the future. For example, a SMOT combining data reported by individual business on the Your Europe portal with data collected by the EEN and individual businesses

¹⁵⁵ Access is provided via a search function in the Your Europe portal.

¹⁵⁶ Regulation (EU) 2018/1724 establishing a single digital gateway to provide access to information, to procedures and to assistance and problem-solving services.

can generate positive spill-over effects. Not only would the combined data increase observations and insights to the benefit of policy making and enforcement. The data can also be collected more efficiently by merging similar data collection systems, significantly reducing the burden of data surveys on businesses. Feedback on the Single Market barriers in combination with information on support tools offered at EU and Member State level, can act as a leverage for external participation and improve the services offered by the Commission and business organisations to their members.

Once Only Technical System

In the public sector, boosting information sharing among public administrations and digital technologies will help tackle a number of persisting barriers and ease the administrative burden for companies and citizens. For example, the administrative burden related to supplying the same data to public authorities repeatedly to complete administrative steps can be substantially simplified by applying the *once only principle* and digital technologies. Once Only Technical System (OOTS) will bring the once-only principle in practice and bring significant simplifications by enabling an automated and secure exchange of evidence between public administrations of different Member States. Hence, instead of uploading or again supplying documentation required for a range of administrative procedures, the user will be able to request that a public authority in one Member State sends an evidence of the documentation to a public authority in another Member State through the OOTS. To further promote reuse and cost savings, the Once Only Technical System will reuse the building blocks of the Digital Europe Programme such as eID and eDelivery. The OOTS will therefore significantly improve access to information by public authorities and exchange thereof, streamline procedures, thereby reduce administrative burden for companies and citizens, compliance cost and create better value for money. The system is expected to become operational by the end of 2023, in the context of the Single Digital Gateway in all EU countries¹⁵⁷.

Internal Market Information System

The Internal Market Information system (IMI) facilitates and enables quick and efficient exchanges between public authorities working in various areas of the Single Market. Already supporting 74 procedures in 19 Single Market policy areas, the system substantially facilitates digital transition of public administrations. IMI makes existing administrative processes digital, provides a harmonised approach for submission and provision of information for new administrative cooperation procedures, reduces administrative burden and also contributes to fraud prevention. For instance, since the launch of the mobility package requiring road transporters to post declarations, around 15.5 million posting declarations have been submitted through the system in one place and in a simple and harmonised manner, bringing thus substantial benefits to businesses. Also, thanks to the European Professional Card supported by IMI, professionals in a number of professions can benefit and make use of the seamless and completely online procedure for administrative cooperation which greatly facilitates the process to have their profession recognised in another EU country to be allowed to work there. Such facilitated cooperation brings further benefits to businesses and professionals as it reduces administrative burden and cost.

¹⁵⁷ 21 procedures will be fully online, all online procedures will be fully cross-border accessible.

By expanding the IMI system into other areas of the Single Market, its potential can be further harnessed. Work is ongoing to improve the functionality of extraction of data, processing of statistics and reporting functions. For instance, IMI can become an important source of data for policy making in various areas. SOLVIT contains a wealth of data on cases about how the Single Market is functioning on the ground and has potential to be used more extensively in various areas for policy making. For these reasons, SOLVIT became the first policy area in IMI for which these improvements of the functionality of extraction of data, processing of statistics and reporting functions are being developed.

Business Register Interconnection System

The upgrading digital company law initiative aims to further develop the Business Register Interconnection System's (BRIS)' functionalities, also to enhance cross-border cooperation in particular between business registers (more connected public authorities) in the Single Market. BRIS interconnects all Member States' business registers. It gives access to key information about EU limited liability companies (e.g. name and legal form, registered office, legal representatives) through a single access point at the European e-Justice Portal. It also provides secure means for exchange of information between business registers on cross-border issues regulated by EU company law and a technical means for implementing the once-only principle between business registers.

3.2.2. *Leveraging the potential of data, data sharing and data spaces – future-oriented outlook*

Data sharing and data spaces

A common enabler of the digital transition is data, more specifically the sharing of interoperable data. The 2020 European strategy for data has initiated the development and European co-funding of interoperable data. Enhanced models for access to data, as well as trustworthy and efficient data sharing, in line with the applicable data protection rules, are important for companies to unlock new business opportunities, as well as beneficial for public sector to enable development of digital public services for citizens, better policy making and compliance control. They can help industry improve their internal processes (e.g. greening, resource optimisation, reducing environmental footprint¹⁵⁸), leading to new products/services or by improving customer's experience (e.g. better pricing, predictive maintenance, etc.).

Common European Data Spaces will facilitate data collection and data sharing with the goal of a data-driven Single Market. The Commission is supporting the creation of common European data spaces¹⁵⁹ in strategic economic sectors and domains of public interest, among others **health, agriculture, energy, mobility and finance**. First data spaces are also being developed in **construction, tourism, and**

¹⁵⁸ Digital twins allow the public sector, businesses and industry to optimise their energy consumption of a product, or building or city, improve environmental footprint, test different alternative solutions or interact with other sectors digitally. Although still nascent, the market is expected to grow exponentially from EUR 3.2 billion in 2021 to EUR 184.5 billion by 2030.

¹⁵⁹ Under the Digital Europe Programme, the Commission is funding grants for the definition of the technical architecture and governance infrastructure of the data spaces. In addition, the Data Spaces Support Centre has been created to coordinate the development of the data spaces.

manufacturing, as laid out in the Commission staff working document on the Common European Data Spaces.¹⁶⁰ (See Box 4).

Box 4: Tourism ecosystem

An EU data space for tourism would create a large pool and diversity of data to flow with an open access to data. It will improve visibility of different types of tourism offers on broader scale and connect niche services to their specific market, allowing high value-added profiling of destinations. For instance, effective data sharing on environmental data, tourism services characteristics, local information and social media can spur new innovative services and benefit SMEs. Two Coordination and Support Actions under the Digital Europe Programme have kicked off in November 2022. Two consortia have been awarded the grant (of total budget of EUR 1.7 million). The duration of the contract is 12 months: expected deliverables by the end of 2023 include mapping of relevant public and private initiatives, analysis of the key enablers of a data space for tourism, and a roadmap for its deployment.

Data interoperability, within and across data spaces, is essential for the creation of a single EU data economy. It can be achieved through the development at European level of appropriate standards that will simplify and homogenise the interpretation of data and thereby addressing a major information exchange barrier. In this respect, the coordination and cooperation between stakeholders and the European Standardisation Organisations will be key for developing the needed standards and increasing their visibility, within and across industrial ecosystems and European data spaces.

Data sharing to fight counterfeit

To step up fight against counterfeit in the framework of the upcoming EU Toolbox Against Counterfeiting, the Commission is leveraging the potential of digitalisation, data and data sharing between intellectual property right owners, intermediaries, and national law enforcement authorities and other EU bodies, including OLAF. The economic loss businesses, consumers and the economy at large incur from counterfeit is considerable: global trade in counterfeits in 2019 reached EUR 412 billion corresponding to 2.5% of world trade. In the EU, imports of counterfeits in 2019 reached EUR 119 billion, corresponding to 5.8% of total EU imports from the rest of the world¹⁶¹. Managed by the European Observatory on Infringements of Intellectual Property Rights, the Intellectual Property Enforcement Portal is an EU platform for online customs applications for action (e-AFA). The Portal provides a safe space for mutual exchanges between right owners and law enforcement authorities. By October 2022, 1 294 companies, representing portfolios with 43 034 intellectual property rights, and 75 enforcement authorities have signed up.

Public procurement data

Public procurement tenders represent a substantial volume of data whose analytical potential remains largely untapped. Every year public authorities in the EU spend around 14% of EU GDP¹⁶² (corresponding to almost EUR 2 trillion) on works, goods and services works and supplies to support public policies and goals, from health, education, infrastructure, social protection, energy, waste, and other. To date, only a small fraction of data, from only 20% of all tenders, is available and searchable for analysis through the EU Tenders Electronic Daily (TED). The large majority remains scattered in different formats and multiple systems across the Member States.

¹⁶⁰ SWD (2022) 45 final.

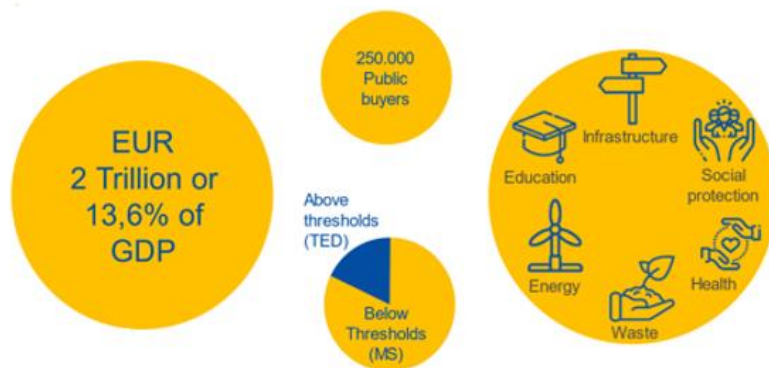
¹⁶¹ 2021_EUIPO_OECD_Trade_Fakes_Study_FullR_en.pdf (europa.eu).

¹⁶² This can be interpreted as purchases which could have been publicly procured, a rough estimate for all public procurement in the EU. This latest estimate (2020) does not include utilities, but includes defence. Previous estimates (until 2011) also included utility procurement and were around 19% of EU GDP.

Greater data availability and search ability, combined with data analytics, would considerably benefit businesses, public buyers, policymakers and interested citizens. With more and better quality and more accessible data, for example by means of an EU **public procurement data space**¹⁶³, public buyers, companies and especially SMEs could greatly improve their investment or bidding strategies. Companies would have access to a much greater number of open tenders with better data quality across Europe, which is especially important to create a level playing field for SMEs. Public buyers in Member States would get better value for money and more tools to target public funds towards policy priorities. It would cut red tape for public buyers and Member States when complying with various reporting obligations. Policy makers at EU, national and regional level would gain a wealth of insights that would enable them to predict future trends. Citizens, civil society, taxpayers and other interested stakeholders would have access to much more public procurement data than before, thereby improving transparency and accountability of public spending.

Harnessing untapped potential in this area is all the more important given the current context, the economic heft of public procurement, and the role of public investment in Europe to support the recovering economy, accelerate the twin transitions, and boost social cohesion. As announced in the Digital European Work Programme, the Commission is working on solution to create a data space at the EU level to access public procurement data scattered so far at different levels in the EU and in different formats, creating a simplified **one-stop-shop for users**. It will further improve data quality, availability and completeness, through close cooperation with Member States and the introduction of the new e-forms, enabling public buyers to provide information in a more structured way. It will cover the whole procurement cycle for a comprehensive understanding by bidders. Users will benefit from advanced data analytics tools such as artificial intelligence, machine learning, and natural language processing.

Figure 28: EU Public Procurement Data



Source: European Commission

¹⁶³ Digital Europe Work programme. https://ec.europa.eu/newsroom/repository/document/202146/C_2021_7914_1_EN_annexe_acte_autonome_cp_part1_v3_x3qnsqH6g4B4JabSGBY9UatCRc8_81099.pdf.

3.2.3. *Making Single Market work on the ground: example of market surveillance*

EU market surveillance policy plays a strategic role due to its direct influence on two major policy areas: the well-being of EU citizens/consumers and the competitiveness of EU companies. For consumers and society at large to benefit fully from free movement in the Single Market, products must meet certain safety and performance requirements. These are set by EU sectoral legislation. As a framework, complementing all sectoral legislation, the role of EU market surveillance¹⁶⁴ is to establish clear, common rules as well as robust enforcement throughout the EU. The Commission also provides technical support for the design, implementation and evaluation of reforms that enhance market surveillance policies and systems in the Member States. In particular, under the Technical Support Instrument 2023 round, the Commission proposed a technical support flagship on industrial ecosystems including on the strengthening of national market surveillance systems. Market surveillance, whose effectiveness very much depends on having sufficient resources provided by Member States, also ensures fair trading conditions and a level playing field for companies.

Lack of co-operation among EU market surveillance authorities was identified as a serious obstacle to efficient EU market surveillance prior to Regulation 2019/1020. As part of the implementation of Regulation 2019/1020 on market surveillance and policy shifts towards greater co-operation, the Commission, together with Member States has established a framework for co-operation, information exchange and networking across EU market surveillance authorities.

In addition, the buying patterns of EU consumers have been changing over several years, with ever more being bought online. The demand for parcel and e-commerce-related mail services has increased substantially, and at an accelerating rate, between 2017 and 2021. In 2021, total European e-commerce increased to EUR 718 billion with a growth rate of 13% compared to 2021¹⁶⁵. Such shifts have consequences for market surveillance. Regulation (EU) 2019/1020 reflects this with special provisions on companies' interaction and co-operation with market surveillance authorities, as well as in the new General Product Safety Regulation¹⁶⁶, which establishes additional obligations for providers of online marketplaces related to product safety. Efforts are also relevant to detect and stop counterfeited products at borders, given the increased use of online sales and small parcels, as way of shipping counterfeits into the European market by market surveillance authorities and customs and other law enforcement authorities, as well as brand owners of the technological portal developed by the EUIPO Observatory (Intellectual Property Enforcement portal - IPEP). Strengthening cooperation among market surveillance authorities, national law enforcement authorities and relevant EU bodies, including OLAF is highly encouraged for the protection of the EU internal market, EU financial interests and citizens.

For market surveillance to function as efficiently as possible, a clear structure is needed for information exchange between market surveillance authorities and customs authorities. More effective cooperation between customs and market surveillance authorities, leading to appropriate controls on products entering the EU, is therefore a core objective of Regulation (EU) 2019/1020. This is done through several work streams, notably information management.

The electronic interface between national customs systems and the EU market surveillance system that is being set up will substantially facilitate information exchange, enhance data availability, robustness and accuracy to the mutual benefit of market surveillance authorities and customs authorities. Information transfer for market surveillance takes place using the Information and Communication System for European Market Surveillance (ICSMS). The electronic interface is being set up between ICSMS and national customs systems. Commission Implementing Regulation (EU) 2021/2248 was

¹⁶⁴ Regulation 2019/1020.

¹⁶⁵ European e-commerce report 2022, Ecommerce Europe, CMI2022_FullVersion_LIGHT_v2.pdf (ecommerce-europe.eu).

¹⁶⁶ Political agreement reached, proposal expected to be adopted in the first half of 2023.

adopted on 16 December 2021 for this purpose, detailing the practical arrangements of the interface and defining the core data elements to be transmitted.

The EU Customs Single Window Certificate Exchange (EU CSW-CERTEX) system will be used for the interface. It makes it possible for different authorities involved in goods clearance to exchange electronic information, as established under the Regulation on the EU Single Window Environment for Customs (Regulation 2022/2399 has entered into force on 12 December 2022¹⁶⁷)¹⁶⁸. This electronic interface is being prepared in consultation with market surveillance and customs authorities. While the Implementing Regulation establishes the data building blocks, the data elements need to be defined in more detail during business analysis and IT implementation. The concrete development will have to take some time, given the wide variety of practices among customs and market surveillance authorities in terms of controls and cooperation, which means that the required IT developments are very different on the market surveillance and customs sides. When the system is fully established in Member States, customs authorities will notify and consult market surveillance authorities electronically when they suspend the release for free circulation of products for which there are suspicions of non-compliance or serious risks. The interface must be operational by December 2025 (4 years after the Implementing Regulation). Progress is on track to achieve this target.

Statistics on controls at the borders. According to Regulation (EU) 2019/1020, Member States shall submit detailed statistical data to the Commission, covering controls performed by the customs authorities. Commission Implementing Regulation (EU) 2021/1121 was adopted on 8 July 2021 for this purpose, setting out rules and tools for this data transfer. Using the interface mentioned above may facilitate the automatic collection of statistics on compliance controls required under Regulation (EU) 2019/1020.

Data on imports. To create enforcement overview and as part of the work to minimise risks, information on products entering the EU (released for free circulation) shall be communicated by customs authorities, using ICSMS, to market surveillance authorities. The Commission is preparing an Implementing Regulation for this. It should be adopted in early 2023.

Outlook. The Commission is preparing an ambitious reform of the Customs Union, which will further strengthen the cooperation between customs and market surveillance authorities, including through a more comprehensive and structured exchange of data. A key objective of the reform is to enable EU customs to more effectively protect the EU's external border for goods by enforcing EU standards, including prohibitions and restrictions related to product compliance. The impact assessment for this reform is ongoing, and the legislative proposal will be tabled in the first quarter of 2023.

¹⁶⁷ EUR-Lex : REGULATION (EU) 2022/2399.

¹⁶⁸ https://taxation-customs.ec.europa.eu/eu-single-window-environment-customs_en.

Annexes:

Annex 1: Stocktaking of the implementation of the 2020 Single Market Enforcement Action Plan

Annex 2: Stocktaking of the implementation of the March 2020 Industrial Strategy and its May 2021 Update

Annex 3: Stocktaking of the implementation of the 2020 SME Strategy

Annex 4: Overview of Resilience Measures of Key International Partners



Brussels, 31.1.2023
SWD(2023) 26 final

PART 2/5

COMMISSION STAFF WORKING DOCUMENT

2023 Annual Single Market Report: Single Market at 30

Annex 1: Stocktaking of the implementation of the 2020 Single Market Enforcement Action Plan

Colour-coding

	Implemented / launched before December 2022
	Under preparation

Action	State of implementation
Establishment of the Single Market Programme.	<ul style="list-style-type: none"> Adopted by co-legislators in 2020.
Single Market Barriers Report.	
Single Market Enforcement Action Plan.	
Action 1. Provide more specific guidance tools for national authorities.	<p>The following guidance documents have been adopted so far:</p> <ul style="list-style-type: none"> Guidelines on the practical application of the essential functionality criterion of the definition of a ‘video-sharing platform service’ under the Audiovisual Media Services Directive 2020/C 223/02. Guidelines pursuant to Article 13(7) of the Audiovisual Media Services Directive on the calculation of the share of European works in on-demand catalogues and on the definition of low audience and low turnover 2020/C 223/03. Guidance document on Article 4 of the Market Surveillance Regulation. Guidance on the Regulation on the principle of Mutual Recognition. Guidance on the application of Articles 34-36 TFEU. Guidance document on Article 9 of the Market Surveillance Regulation. The new Guidance on Innovation Procurement was adopted on 18 June 2021. A series of webinars has been organised to illustrate the key parts of the document starting from 30 September 2021. Five webinars have been organised under the series on Innovation Procurement:

	<ul style="list-style-type: none"> – Innovation Partnership – Preliminary Market Consultations – Ecosystems of Innovation – Intellectual Property Rights and Innovation Procurement – Risk management <ul style="list-style-type: none"> • The notice on tools to fight collusion in public procurement and on guidance on how to apply the related exclusion ground was published on 18 March 2021. • The new guide “Buying social – a guide to taking account of social considerations in public procurement” was adopted on 26 May 2021. A series of short lunchtime talks has been organised throughout 2021 and the first half of 2022 to further promote the guide and good practices in the field of socially responsible procurement. • Works on the Recommendation on Review systems ongoing: a questionnaire submitted to Member States representatives at the meeting of the Network of First Instance Review Bodies on 29 June 2021. • Guidance on Article 17 of the Directive on copyright and related rights in the Digital Single Market was issued in June 2021. • The Communication on taking stock of and updating the reform recommendations for regulation in professional services of 2017 adopted in July 2021. • Updated Handbook on the implementation of the Services Directive has been finalized and published in December 2022. • Blue Guide on the implementation of EU for harmonised product rules published in the Official Journal on 29 June 2022. • Practical application of the new media literacy obligations of the AVMSD: media literacy toolbox was published in the form of the Media literacy report of ERGA – the European Regulators Group for Audiovisual Media Services: https://erga-online.eu/wp-content/uploads/2021/12/ERGA-AG3-2021-Report-on-Media-Literacy.pdf
	<ul style="list-style-type: none"> • Practical application of the new media literacy obligations of the AVMSD: guidelines to Member States, the adoption and publication planned in Q1 2023.
	<ul style="list-style-type: none"> • Continue to support to the transposition of the European Accessibility Act (ongoing action) and the process for its application. • Setting up a digital platform for exchange between procurement practitioners on various subjects of public

	<p>procurement</p> <ul style="list-style-type: none"> • Setting up a central information point on practical questions that civil servants in Member States have in their daily work applying Single Market law.
<p>Action 2. Improving access to information on rules and requirements for users.</p>	<ul style="list-style-type: none"> • Your Europe Portal became the interface of the Single Digital Gateway on 12 December 2020 and now provides not only information on EU rules and requirements, but also on national ones, both in English and the relevant national language. • Your Europe Portal continues to add links to national websites notified by Member States. An annually updated guidance document helps Member States meet their information obligations under the SDG Regulation. • New module of Information and Communication System on Market Surveillance (ICSMS) deployed since April 2020. • Continuous improvement of Safety Gate: on one hand, the public webpages for the general public; on the other hand, the IT infrastructure for enforcement authorities. • In the framework of the SMET project on restrictive measures concerning non-harmonised construction products, information was gathered on how the procedures for mutual recognition were implemented by Member States, it was ensured that every Member States is properly connected to the mutual recognition module (ICSMS), policy officers responsible for mutual recognition participated in trainings, a number of questions have been clarified that Member States authorities had concerning the application of the mutual recognition principle and notifications in ICSMS, and Member States checked if there weren't any decisions made that were not registered in ICSMS. • Member States registered their authorities responsible for construction products in ICSMS and confirmed that they do have access to the mutual recognition module of ICSMS. Most of the authorities have already been trained for mutual recognition. Further training sessions on mutual recognition are planned. • The EU Product Contact Points are empowered by the 'Goods Package' to provide better and faster information to businesses about the rules that apply to their products.
<p>Action 3. Online platforms facilitating compliance of products.</p>	<ul style="list-style-type: none"> • Horizontal asymmetric due diligence obligations for online platforms allowing consumers to conclude distance contracts with traders have been included in the Commission's proposal for the Digital Services Act. The Act has been adopted by the co-legislators and entered into force on 16 November 2022. The Act includes obligations related to the traceability of traders, the design of online platforms' interfaces in a way that enables traders to comply with their obligations and a right to information for consumers in case of purchases of illegal products.

	<ul style="list-style-type: none"> • The revision of the General Product Safety Directive aims to improve product safety, including in online sales. On 30 June 2021, the European Commission adopted a proposal for a new general product safety regulation. The co-legislators reached a political agreement in November 2022 and the formal adoption is planned for the first half of 2023. The Commission also facilitates a voluntary cooperation mechanism under the Product Safety Pledge which encourages and recognises the commitments of currently 11 online marketplaces that committed to go beyond the legal requirements in the interest of product safety. It is now discussed how to extend further this successful Pledge cooperation mechanism.
	<ul style="list-style-type: none"> • New EU database on medical devices (EUDAMED) currently under development. Ongoing work: collection, processing and analysis of data related to medical devices in the EU, development of the IT platform with interconnected modules. EUDAMED will contain, inter alia, specific modules on devices and certificates registration, market surveillance, vigilance and clinical investigation. Three modules already released in 2020 and 2021: Actors registration, UDI/Devices registration, Notified Bodies and Certificates.
<p>Action 4. Training and exchange of practices for national judges and practitioners.</p>	<ul style="list-style-type: none"> • European judicial training strategy for 2021-2024 adopted and European Training Platform¹ launched in December 2020. • Training provided to Member State authorities on the application of the Mutual Recognition Principle for non-harmonised products. • Other actions ongoing.
<p>Action 5. Capacity building for national public administrations.</p>	<ul style="list-style-type: none"> • Ongoing numerous actions under implementation by various Commissions services. • The EU Product Compliance Network adopted its Work Programme for 2021-2022 and decided on the prioritisation of joint actions and first sectors (toys, radioequipment) for the establishment of Union testing facilities, eligible for funding under Article 36 of the Market Surveillance Regulation 2019/1020. The first testing facilities will be designated according to Commission implementing regulation (EU) 2022/1267 of 20 July 2022 in the first half of 2023. • The joint actions implemented by the Coordinated Activities on the Safety of Products enable market surveillance

¹ https://e-justice.europa.eu/content_european_training_platform-37158-en.do

	<p>authorities to participate in joint testing campaigns. Additionally, horizontal discussions on topics of common interest, such as online market surveillance or risk assessment and management further contribute to develop a common European approach.</p> <ul style="list-style-type: none"> • The Commission also finances a capacity building activity, “the e-enforcement academy”, targeting market surveillance and consumer enforcement authorities. This project supports authorities in implementing and using their new digital investigation and enforcement powers by sharing best practices, discussing practical implementation issues and providing topical trainings and manuals. Moreover, this project also supports strongly a community building amongst online enforcers and keep them informed about the latest market and technological developments.
<p>Action 6. Building capacity of public procurement professionals and strengthening the cooperation between national bodies.</p>	<ul style="list-style-type: none"> • Regular meetings of the Network of First Instance Review Bodies on Public Procurement - ongoing (on line meeting in June 2021), hybrid meeting organised together with the Belgian Conseil d’Etat in Brussels in June 2022 and together with the Czech Office for the Protection of Competition in Prague in September 2022). • High-level training programmes covering the period 2021-2023 to improve administrative capacity of Central Purchasing Bodies
<p>Action 7. Structured dialogue for better transposition of Single Market Directives.</p>	<ul style="list-style-type: none"> • Ongoing monitoring of transposition of the European Electronic Communication Code (EECC) through the Communications Committee and through regular meetings with competent authorities in the Member States. • Regular meetings of the Contact Committee on the Audio-Visual Media Services Directive. • Ongoing cooperation of media regulators within the European Regulators Group for Audiovisual Media Services (ERGA) with voluntary cooperation mechanism put in place at the end of 2020. • Regular meetings of the Copyright Contact Committee. • In 2020, the Commission revamped its IT monitoring system on transposition. • Regular workshops with national authorities in the Company Law Expert Group (CLEG) to support the transposition of the Directive on Digital Tools in Company Law (2019/1151) and of the Directive on Cross-border Conversions, Mergers and Divisions (2019/2121), Capital Requirements Directive (CRD V) (2019/878/EU), Bank Recovery and Resolution Directive (BRRD II) (2019/879/EU), Investment Firms Directive (2019/2034/EU) and Covered Bonds Directive (2019/2162/EU) and Motor Insurance Directive (2021/2118/EU). • Under preparation – transposition workshop with national authorities planned in 2023 to support Member States in their transposition work for Directives 2021/2167/EU (Non-performing loans).

Action 8. Implementation partnership for Single Market Regulations.	<ul style="list-style-type: none"> • Setting up of a dedicated IT tool (KOEL - Knowledge Online on European Legislation) to monitor implementation of Regulations in the financial services area.
	<ul style="list-style-type: none"> • Ongoing, numerous actions under implementation by various Commissions services.
Action 9. Improving ex-ante assessment of restrictive regulation under the Proportionality Test Directive.	<ul style="list-style-type: none"> • Guidance document on the Proportionality Test Directive has been finalised and published in December 2022.
Action 10. Streamlining the operation of the Single Market Transparency Directive (SMTD).	<ul style="list-style-type: none"> • Development of the strategic implementation of the SMTD, including reinforced participation of and cooperation with Member States <ul style="list-style-type: none"> ○ Dialogue with MS focused on identification and joint addressing of problematic trends in the SMTD implementation initiated in the Technical Regulations Committee ○ Implementation of an action reinforcing transparency of the notification process under the SMTD launched in 2022
	<ul style="list-style-type: none"> • Development of a new TRIS IT system (ongoing).
Action 11. Preventing new barriers to providing services in the Single Market	<ul style="list-style-type: none"> • Ongoing actions including the upgrade of the IMI module used for services notifications, guidance and training provided to Member States, a detailed annual report on the implementation of the procedure and awareness raising. • Other ongoing actions: <ul style="list-style-type: none"> – Workshops/trainings organised on the notification procedure under the Services Directive to increase awareness of Member States. – Implementation of an action reinforcing transparency of the notification process under the SMTD initiated in 2022, to be launched in 2023.

<p>Action 12. Unlocking the full potential of the notification mechanism under the e-commerce Directive.</p>	<ul style="list-style-type: none"> • In 2021, the Commission issued a report on the outcome of the Internal Market Information System (IMI) pilot project in the area of e-commerce. While IMI has been supporting the direct, quick and easy communication of competent authorities from different Member States since 2013 by providing a secure and multilingual online platform, there are certain technical improvements to be further analysed and investigated based on generic features of the system when continuing the pilot project.
<p>Action 13. Rationalising Single Market IT systems and setting-up a platform for online enforcement (e-enforcement lab).</p>	<ul style="list-style-type: none"> • The e-enforcement lab for the consumer protection authorities (EU eLab) was approved by the Commission's Information Technology and Cybersecurity Board in December 2021. After additional development, it is available and in use as of Q3 2022 as a voluntary tool. It is currently used by the authorities in 23 EU/EEA countries. • New interface in IMI for submission of posting declarations in Road Transport sector & information exchange to enforce posting rules in road transport sector in 2022. • Establish a single European information entry point for authorities for controls on non-food products, where the existing systems such as ICSMS and RAPEX will be reachable. • Integration of the Regulated Professions Database in IMI is being finalised and will be launched in 2023 in Q1.
	<ul style="list-style-type: none"> • Implementation of the new platform 'Annual Report Official Controls' (AROC) in IMSOC to allow Member States to upload their annual reports using the new electronic version of the standard model form. In 2021, for the first time, all Member States used this platform to upload their annual reports for 2020. • Commission Notice on a guidance document on how to fill in the standard model form in the Annex to Commission Implementing Regulation (EU) 2019/723 published on 1 March 2021 (2021/C 71/01).
<p>Action 14. Strengthening the fight against counterfeit and illegal products.</p>	<ul style="list-style-type: none"> • Contribution to the EU Toolbox against counterfeiting. • Cases against imports of illicit or non-compliant medical devices and protective equipment. • Pilot cases against food fraud – Ongoing cooperation between SANTE, OLAF and national authorities. • Development of OLAF's operational activities targeting imports of substandard products, particularly those linked to the Covid-19 pandemic, and continuing active support for activities addressing fight against IPR infringement.

	<ul style="list-style-type: none"> • Project to verify the implementation of arrangements put in place by Member States to fight fraud in the agri-food chain in accordance with the provisions of Regulation (EU) 2017/625. Two pilot missions were carried out in 2020, followed by 6 fact finding studies in 2021-2022. • Pilot project in the framework of the Coordinated Activities on the Safety of Products (CASP) in 2021, focused on challenges associated with suspected dangerous counterfeit products.
<p>Action 15. Strengthening enforcement in the agri-food chain.</p>	<ul style="list-style-type: none"> • Systematic follow-up of audit recommendations to ensure that Member States implement the actions necessary to correct identified shortcomings by the competent services (continuous) General Follow-up Audits (GFAs) on 8 Member States carried out in 2021 and further 11 GFAs are planned for 2021. • Continuation of ‘Better Training for Safer Food’ training programme. • Ongoing work on monitoring implementation of Multi-Annual National Control Plan (MANCP) and the review of obligations on Member States and new requirements for MS annual reports.
	<ul style="list-style-type: none"> • Commission Notice on a guidance document on the implementation of the requirements for the multi-annual national control plans as set out in Articles 109 to 111 of Regulation (EU) 2017/625 published on 8 March 2021 (2021/C 78/01). • Regular meetings of the National Audit Systems (NAS) network. • Commission Notice on a guidance document on the implementation of the provisions for the conduct of audits under Article 6 of Regulation (EU) 2017/625 of the European Parliament and of the Council published on 26 February 2021 (2021/C 66/02). • Inception Impact Assessment on the review of the Geographical Indications (GIs) published on 28 October 2020. GIview database launched on 25 November 2020 • Ensuring that national schemes in favour of local products in some Member States are compatible with the principle of non-discrimination. • Development of OLAF’s operational activities targeting imports of substandard products and continuing active support for activities addressing fight against food fraud.
<p>Action 16. Development of labelling and traceability systems.</p>	<ul style="list-style-type: none"> • Evaluation of the need to update the digital labelling and traceability requirements started in 2020. • New customs equipment capable of reading and checking the encoded information will be developed as part of the

	<p>Integrated Border Management Fund 2021-2027.</p> <ul style="list-style-type: none"> • The Commission will seek the digital submission of compliance information for industrial and consumer products. • External study on cybersecurity of connected products in the Single Market launched in August 2020.
	<ul style="list-style-type: none"> • Dedicated module in the EU database on medical devices (EUDAMED) for the identification and traceability of medical devices via Unique Device Identification system (UDI) released for voluntary use in 2021. The use of the module will become compulsory according to the transitional provisions set out in Regulations (EU) 2017/745 and 2017/746.
Action 17. EU Product Compliance Network.	<ul style="list-style-type: none"> • The EU Product Compliance Network adopted and carried out its Work Programme for 2021-2022. • The EU Product Compliance Network and the Consumer Safety Network established a structured and effective cooperation, in particular with the organisation of joint meetings, with the aim of preserving the coherence of market surveillance in Europe.
Action 18. Making SOLVIT the default tool for Single Market dispute resolution.	<ul style="list-style-type: none"> • SOLVIT training to European Labour Authority (ELA) staff (including National Liaison Officers). • The Mutual Recognition problem solving procedure became operational on 19 April 2020. • First Commission Opinion adopted on the application of the Mutual Recognition Principle on 30 September 2021. • ELA Mediation Working Group (Member States, Social Partners and Commission (including EC SOLVIT) drew up European Labour Authority - SOLVIT Cooperation Agreement (covering cooperation generally and cooperation on mediation) in the course of 2021. It was finalised and agreed on both sides in January 2022. The agreement will allow SOLVIT to refer unresolved cases concerning the EU labour mobility rules to ELA for mediation. The ELA mediation procedure is expected to be up and running as from mid-2022.
	<ul style="list-style-type: none"> • SOLVIT is considered as part of a problem solving initiative in the area of VAT double taxation. In this area, as part of the Action Plan for fair and simple taxation supporting the recovery, adopted on 15 July 2020, the Commission is examining all possible options to prevent and solve disputes concerning the implementation of the VAT Directive, including a mechanism to prevent and solve VAT double taxation disputes. It is presently also

	<p>considered as a model to be used for the eventual setting up of a dispute resolution mechanism in the field of cross border EU investment problems. No other initiatives presently that require our attention.</p>
<p>Action 19. Better prioritisation of enforcement action.</p>	<ul style="list-style-type: none"> • Action 19 is addressed by the Annual Single Market Report. • Continued quarterly reports about structural and recurrent issues detected through the SOLVIT application. • Ongoing work to improve the use of SOLVIT evidence by European Commission services for policy and enforcement actions. • Ensuring consistent and comprehensive approach in different ecosystems/cross-cutting areas (e.g. public procurement, health products, late payments, construction, authorisation of economic activities, automotives, restrictions to export and access to energy and fuel etc).
	<ul style="list-style-type: none"> • The SOLVIT database is reworked. One of the aspects under scrutiny is how to ensure an easier access and overview about systemic issues (being the structural and recurrent cases detected through SOLVIT) to allow for more efficient reporting to policy makers. SOLVIT is also a pilot project in DG GROW for the use of the power BI system to have an easier way to visualise the data there are in the SOLVIT.
<p>Action 20. Clarity and consistency in case handling.</p>	<ul style="list-style-type: none"> • The Commission's complaint handling system was adjusted to reflect the new requirements on preliminary assessment of complaints, and internal guidance was issued in January 2021.
<p>Action 21. Better use of the EU Pilot system.</p>	<ul style="list-style-type: none"> • In order to better target and structure the EU Pilot system as a rapid and effective tool, the Commission issued new EU Pilot guidelines on 30 July 2020 resulting in an increase of the use of EU Pilot.
<p>Action 22. Systematic periodic package meetings.</p>	<ul style="list-style-type: none"> • Package meetings have been organised with all Member States in the areas of responsibility of DG GROW/CNECT/DEFIS (2020-2021). • Package meetings with selected Member States will continue to be organized in areas of responsibility of CNECT.
<p>Setting up a Single Market Enforcement Task-Force (SMET), composed of Member States and the</p>	<ul style="list-style-type: none"> • Ongoing: Inaugural meeting took place on 7 April 2020. • Based on a strong partnership with the Member States, SMET made real progress quickly and efficiently in addressing some of our major Single Market concerns. • The first SMET Report was published and presented to EU Ministers during the Competitiveness Council on 29

<p>Commission (GROW/SMP).</p>	<p>September 2021.</p> <ul style="list-style-type: none"> • The second SMET report was published on 28 November 2022 and discussed by EU Ministers during the Competitiveness Council of 1 December 2022.
<p>Cooperation network between national enforcement coordinators.</p>	<ul style="list-style-type: none"> • First meeting took place on 24 November 2020. • Online trainings provided in the Single Market area for national judges and national administration in Denmark, Lithuania and Croatia.
<p>Single Market Scoreboard.</p>	<ul style="list-style-type: none"> • Being updated to better reflect the needs of end users in the Single Market and to support the European Semester. Single Market Scoreboard 2022 edition covering 2021 published in January 2023.



Brussels, 31.1.2023
SWD(2023) 26 final

PART 3/5

COMMISSION STAFF WORKING DOCUMENT

2023 Annual Single Market Report: Single Market at 30

Annex 2: Stocktaking of the implementation of the March 2020 Industrial Strategy and its May 2021 Update

Colour-coding

	Implemented / launched before December 2022
	Under preparation

A New Industrial Strategy for Europe (10 March 2020)

Key action	State of implementation
1. Creating certainty for industry: A deeper and more digital single market	
Single Market Enforcement Action Plan and Single Market Barriers Report.	<ul style="list-style-type: none"> Adopted in March 2020.
Setting up a Single Market Enforcement Task-Force, composed of Member States and the Commission.	<ul style="list-style-type: none"> Ongoing: Inaugural meeting took place on 7 April 2020. The first SMET Report was published and presented to EU Ministers during the Competitiveness Council on 29 September 2021. The second SMET report was published on 28 November 2022 and discussed by EU Ministers during the Competitiveness Council of 1 December 2022.
SME Strategy for a sustainable and digital Europe.	<ul style="list-style-type: none"> Adopted in March 2020.
Ongoing review of competition rules, including the evaluation of merger control and the fitness check of State aid guidelines.	<ul style="list-style-type: none"> State aid fitness check completed. Evaluation of jurisdictional and procedural aspects of EU merger control published. Review of competition rules ongoing. The Commission adopted in November 2021 the Communication “A competition policy fit for new challenges”. The Regional aid Guidelines were adopted in April 2021.

	<ul style="list-style-type: none"> • The revised Communication on important projects of common European interest (IPCEI) was adopted in November 2021. • The revised Guidelines on State Aid to promote risk finance investments were adopted in December 2021. • The revised Climate, Environmental protection and Energy Aid Guidelines (CEEAG) were adopted in January 2022. • The revised Communication of State aid rules for research and development and innovation was adopted in October 2022. • The revised Communication on State aid for broadband networks ('Broadband Guidelines') was adopted in December 2022.
<p>Intellectual Property Action Plan to assess the need to upgrade the legal framework, ensure a smart use of IP, better fight IP theft.</p>	<ul style="list-style-type: none"> • Adopted in November 2020.
<p>Follow-up to the European Data Strategy to develop an EU data economy, including the launch of common European data spaces in specific sectors and value chains.</p>	<ul style="list-style-type: none"> • Proposal for a Regulation on European data governance (Data Governance Act) presented in November 2020. The Regulation will help users to stay in control of their data, and encourage the creation of common European data spaces in crucial sectors. These sectors include health, the environment, energy, agriculture, mobility, finance, manufacturing, public administration, and skills. • Common European data spaces in specific sectors under preparation. Specific data spaces have different timelines. • Conceptual work is ongoing in several sectors (e.g. finance). In addition the Commission launched in November 2021 a call for proposals under the Digital Europe programme for coordination and support actions aiming at defining the technical architecture and the governance model of several data spaces, among which the green deal, industrial manufacturing, agriculture, mobility, smart communities, tourism and skills data spaces. European Health Data Space proposal adopted by the Commission in May 2022. • The coordination and support actions are expected to start in 2022 and deliver their

	<p>first results by 2023. At the same time, the Commission is investing in the development of the basic building blocks for the creation of sectoral data spaces through its actions supporting the creation of a European Cloud & Edge data infrastructure. Overall, the Commission is going to invest about EUR 400 million for the creation of data spaces.</p>
<p>Digital Services Package: to reinforce the safety and fairness of digital services and markets in the Single Market.</p>	<ul style="list-style-type: none"> • The European Commission proposed in December 2020 two legislative initiatives to upgrade rules governing digital services in the EU: the Digital Services Act (DSA) and the Digital Markets Act (DMA). They form a single set of new rules applicable across the whole EU to create a safer and more open, fair and contestable digital space. The Digital Services Act entered into force on 16 November 2022 and the Digital Markets Act entered into force on 1 November 2022.
<p>Initiative on improving the working conditions for platform workers.</p>	<ul style="list-style-type: none"> • The Commission adopted in December 2021 proposals to improve the working conditions of people working through digital labour platforms, including: a Communication on Better Working Conditions for a Stronger Social Europe, a proposal for a Directive on improving the working conditions in platform work. The guidelines on the application of EU competition law to collective agreements of solo self-employed people were adopted in September 2022.
<p>VAT in the Digital Age Initiative</p>	<ul style="list-style-type: none"> • The Commission adopted on 8 December 2022 a proposal that aimed at adapting the VAT system to the opportunities offered by the digital environment. It will strengthen the use of digital reporting and e-invoicing. In addition it will modernise the treatment of the platform economy when providing certain services to consumers and it will create a single VAT identification for the Union, building on the existing One-Stop-Shop.
<p>2. Upholding a global level playing field</p>	

<p>White paper on an instrument on foreign subsidies by mid-2020, also looking at foreign access to public procurement and EU funding.</p>	<ul style="list-style-type: none"> • Following the adoption of the White Paper in June 2020 and an extensive consultation process with stakeholders, the Commission proposed in May 2021 a Regulation on foreign subsidies distorting the internal market. • The draft text of the Regulation was agreed by the co-legislators on 30 June 2022. It entered into force on 12 January 2023 and will start to apply on 12 July 2023.
<p>Action plan on the Customs Union in 2020 to reinforce customs controls, including a legislative proposal for an EU Single Window Environment for Customs to allow for fully digital clearance processes at the border.</p>	<ul style="list-style-type: none"> • Customs Union Action Plan published in September 2020. The Action Plan consists of 17 separate actions, which are currently being implemented. • Proposal for a Regulation establishing the EU Single Window Environment for Customs Presented in October 2020. The final act was published in the Official Journal on 19.12.2022. • Signature of the EU Single Window Environment for Customs (SWE-C) Regulation on 24/11, published in the Official Journal on 9 December 2022.
<p>Commission Action Plan for fair and simple taxation supporting the recovery under preparation.</p>	<ul style="list-style-type: none"> • The Commission envisages to propose measures to strengthen administrative cooperation in the field of value added tax, as announced by the Commission Action Plan for fair and simple taxation supporting the recovery, in order to facilitate the verification of cross-border transactions, exploring how to use new technologies to make cross-border transactions easier for honest businesses and how to focus controls more on non-compliant taxpayers.
<p>Swift adoption of the International Procurement Instrument.</p>	<ul style="list-style-type: none"> • Final act published in Official Journal.
<p>Strengthening the global rules on industrial subsidies in the World Trade Organization.</p>	<ul style="list-style-type: none"> • Annex to the Trade Policy Review Communication on reforming the WTO presented in February 2021. • The EU will continue discussions and outreach with other WTO Members on industrial subsidies/level playing field.
<p>3. Supporting industry towards climate neutrality</p>	

Strategy for smart sector integration.	<ul style="list-style-type: none"> • Adopted in July 2020.
A Common European Energy data space will exploit the potential of data to enhance the innovative capacity of the energy sector.	<ul style="list-style-type: none"> • Ongoing. • The Commission presented a European strategy for data in February 2020 and proposed a Regulation on European data governance as part of its data strategy in November 2020. The Regulation will encourage the creation of common European data spaces in crucial sectors to ensure that more data become available for use in the economy and society, while keeping the companies and individuals who generate the data in control. These sectors include health, the environment, energy, agriculture, mobility, finance, manufacturing, public administration, and skills.
Launch the Just Transition Platform to offer technical and advisory support for carbon-intensive regions and industries.	<ul style="list-style-type: none"> • Launched in June 2020.
Chemicals Strategy for Sustainability.	<ul style="list-style-type: none"> • Adopted in October 2020.
Review of the Trans-European Network Energy regulation.	<ul style="list-style-type: none"> • The Commission adopted a proposal to revise the EU rules on the TEN-E Regulation in December 2020. • Final act published in Official Journal.
EU Strategy on Offshore Renewable Energy.	<ul style="list-style-type: none"> • Adopted in November 2020.
EU Strategy on Clean Steel.	<ul style="list-style-type: none"> • Funding proposal for Clean Steel Partnership presented in the context of Horizon Europe in September 2020. • Commission Staff Working Document ‘Towards competitive and clean European steel’ published in May 2021 in the context of the Update of the industrial strategy. • End of June 2021 Commissioners Gabriel and Breton signed a Memorandum of understanding for six partnerships, including the Clean Steel Partnership.

Comprehensive Strategy for Sustainable and Smart Mobility.	<ul style="list-style-type: none"> • Adopted in December 2020.
‘Renovation Wave’ Initiative and Strategy on the built environment.	<ul style="list-style-type: none"> • ‘Renovation Wave’ adopted in October 2020. • Revision of the energy performance of buildings Directive presented in December 2021. • Final act published in the Official Journal.
Carbon Border Adjustment Mechanism to reduce carbon leakage, in full compatibility with WTO rules.	<ul style="list-style-type: none"> • Commission proposal adopted in July 2021 as part of the ‘Fit-for-55’ package. • A provisional agreement was reached by Parliament and Council during 12 December 2022. The agreement needs to be confirmed by ambassadors of the EU Member States and the EP, and adopted by both institutions before it is final.
Revision of the EU Emission Trading Scheme	<ul style="list-style-type: none"> • Commission proposal adopted in July 2021 as part of the ‘Fit-for-55’ package and agreed by co-legislators in December 2022.
4. Building a more circular economy	
Circular Economy Action Plan adopted in parallel with this strategy, including a new sustainable product policy framework.	<ul style="list-style-type: none"> • Circular Economy Action Plan adopted in March 2020. • A Circular Economy package adopted in March 2022 including: <ul style="list-style-type: none"> - The Sustainable Products Initiative, including the proposal for a new Ecodesign for Sustainable products regulation, establishing a wider framework to set eco-design requirements beyond energy-related products; - The Ecodesign and Energy Labelling Working Plan 2022-2024; - The first EU Strategy for Sustainable and Circular Textiles, looking at the entire lifecycle of textile products to create a greener, more competitive and resilient sector; - The update of the EU consumer rules to empower consumers for the green transition, to ensure that consumers can make better-informed purchase choices;

	<ul style="list-style-type: none"> - The proposal for the revision of the Construction Products Regulation to create a harmonised framework to assess and communicate the environmental and climate performance of construction products. <ul style="list-style-type: none"> • A Circular Economy package adopted in November 2022 which includes: <ul style="list-style-type: none"> - A Proposal for a Regulation on packaging and packaging waste - A policy framework for bio-based, biodegradable and compostable plastics. • A Carbon Removal Certification Framework. <ul style="list-style-type: none"> • The Commission will also propose in 2023: <ul style="list-style-type: none"> - an Initiative on Sustainable consumption of goods – promoting repair and reuse (the right to repair); - a legislative initiative to tackle false Green Claims, covering voluntary green claims made on products, services and organisations in the EU in 2023; - an initiative to address the presence of microplastics in the environment; - a revision of the monitoring framework for circular economy.
New Regulatory Framework for Sustainable Batteries.	<ul style="list-style-type: none"> • Commission adopted a proposal for a Regulation on batteries and waste batteries adopted in December 2020. Agreement between co-legislators reached in January 2023.
EU Strategy for Textiles	<ul style="list-style-type: none"> • The Commission adopted in March 2022 the first EU Strategy for Sustainable and Circular Textiles.
5. Embedding a spirit of industrial innovation	
Communication on the Future of Research and Innovation and the European Research Area to map out a new approach to innovation and ensure the EU budget is	<ul style="list-style-type: none"> • Adopted in September 2020.

used with maximum impact.	
Launch Public Private Partnerships in the Horizon Europe programme.	<ul style="list-style-type: none"> • The Commission proposal for the Single Basic Act for proposed institutionalised partnerships (joint undertakings) and Art. 185 (public-private partnerships) was adopted by the Commission in February 2021. The resulting regulation was adopted as Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe, which entered into force on 30 November 2021. • The Commission adopted a Decision on the approval and signature of the Memoranda of Understanding for 11 co-programmed partnerships in June 2021.
6. Skilling and reskilling	
The Commission will update the Skills Agenda for Europe, including a Pact for Skills, and will propose a Council Recommendation aimed at modernising vocational education and training.	<ul style="list-style-type: none"> • Skills agenda adopted in July 2020. • The Council Recommendation on vocational education and training for sustainable competitiveness, social fairness and resilience was adopted in November 2020.
Launch of a European Pact for Skills.	<ul style="list-style-type: none"> • Launched in November 2020.
Communication on achieving a European Education Area by 2025.	<ul style="list-style-type: none"> • Adopted in September 2020.
New Digital Education Action Plan (2021-2027).	<ul style="list-style-type: none"> • Adopted in September 2020.
Implementation of the EU Gender Equality Strategy 2020-2025, adopted in March 2020.	<ul style="list-style-type: none"> • Ongoing.
7. Investing and financing the transition	

<p>Work with Parliament and Council to ensure rapid adoption and implementation of the next long-term budget.</p>	<ul style="list-style-type: none"> • Agreement reached in November 2020.
<p>Consider scope for coordinated investment by Member States and industry in the form of new IPCEIs and on the possible follow-up to the first IPCEIs on batteries and microelectronics.</p>	<ul style="list-style-type: none"> • Second IPCEI for batteries launched in January 2021. • Two hydrogen IPCEIs – “IPCEI Hy2Tech” and “IPCEI Hy2Use” –approved in July and September 2022, respectively. • Second IPCEI on Microelectronics and Communication Technologies pre-notified in December 2021. • First health IPCEI pre-notified in November 2022. • Some Member States and companies have jointly expressed interest to engage in additional hydrogen and health IPCEIs, as well as next-generation Cloud and Edge Infrastructure and Services. The Commission monitors several of these projects plans and will assess if and when notified to the Commission under applicable State Aid rules.
<p>Review State aid rules for IPCEIs.</p>	<ul style="list-style-type: none"> • The revised Communication on important projects of common European interest (IPCEI) was adopted in November 2021.
<p>Action Plan on the Capital Markets Union (CMU) in 2020, including measures in support of integrated capital markets and more funding and investment opportunities for citizens and businesses.</p>	<p>Action Plan on the CMU adopted in September 2020. Implementation ongoing, with key items including the following:</p> <ul style="list-style-type: none"> • Capital Markets Union package adopted in November 2021, including: <ul style="list-style-type: none"> – A proposal for a European Single Access Point (ESAP) Regulation; – Review of the European Long-Term Investment Funds (ELTIFs) Regulation; – Review of the Alternative Investment Fund Managers Directive (AIFMD); – Review of the Markets in Financial Instruments Regulation (MiFIR). • In January 2022, publication of the joint EU/OECD-INFE financial competence framework for adults. • Package adopted in December 2022:

	<ul style="list-style-type: none"> - Listing act; - Legislative proposal on corporate insolvency; - Legislative package on EU clearing services.
A renewed sustainable finance strategy.	<ul style="list-style-type: none"> • Adopted in July 2021.
A new Digital Finance Strategy.	<ul style="list-style-type: none"> • Adopted in September 2020, including legislative proposals on: <ul style="list-style-type: none"> – markets in crypto-assets (MICA) – the DLT (Distributed Ledger Technology) pilot – Digital operational resilience act (DORA)
Innovation Fund	<ul style="list-style-type: none"> • First and second call for large-scale and first call for small-scale projects completed by 2021. • Second call for small-scale closed for application. • Third call for large-scale project ongoing.
8. Reinforcing Europe’s industrial and strategic autonomy	
A new EU pharmaceutical strategy in 2020, including actions to secure supplies and ensure innovation for patients.	<ul style="list-style-type: none"> • Adopted in November 2020.
An Action Plan on Critical Raw Materials, including efforts to broaden international partnerships on access to raw materials.	<ul style="list-style-type: none"> • Adopted in September 2020.
Follow-up to the 5G Communication and the Recommendation on cybersecurity of 5G networks.	<ul style="list-style-type: none"> • Ongoing. • Cybersecurity Strategy for the Digital Decade published in December 2020, including an appendix with a list of actions and objectives for the next steps in the EU coordinated approach on 5G cybersecurity. • Cybersecurity Strategy implementation report published in June 2021 including an

	<p>update on the coordinated work on 5G cybersecurity.</p> <ul style="list-style-type: none"> • The NIS Cooperation Group published an analysis of the cybersecurity of Open RAN in May 2022. • The Commission, together with Member States in the NIS Cooperation Group and ENISA, is monitoring the implementation of the EU 5G Toolbox at national and EU level and is working on the implementation of the Court of Auditors' recommendations on 5G security. A second Progress report on the Toolbox implementation is planned to be published in Q1 of 2023. • ENISA is working on a candidate EU cybersecurity certification scheme for 5G networks.
Action Plan on synergies between civil, defence and space industries, including at the level of programmes, technologies, innovation and start-ups.	<ul style="list-style-type: none"> • Adopted in February 2021.
9. A partnership approach to governance	
European Clean Hydrogen Alliance (ECH2A)	<ul style="list-style-type: none"> • European Clean Hydrogen Alliance launched in July 2020.
Alliance on low-carbon industries.	<ul style="list-style-type: none"> • Renewable and Low-Carbon Fuels Value Chain Industrial Alliance launched in April 2022.
Alliance on raw materials (ERMA)	<ul style="list-style-type: none"> • European Raw Materials Alliance launched in September 2020.
Industrial European Alliance on Industrial Data, Edge and Cloud.	<ul style="list-style-type: none"> • European Alliance on Industrial Data, Edge and Cloud launched in July 2021.
The Commission will undertake a thorough screening and analysis of industrial needs and identify ecosystems needing a tailor-made approach.	<ul style="list-style-type: none"> • Ongoing.

An inclusive and open Industrial Forum will be set up by September 2020 to support this work.	<ul style="list-style-type: none"> The Industrial Forum was established in December 2020. The Forum met in February, June and December 2021 and in June 2022. A preparatory meeting took place in November 2022.
The Commission's annual Industry Days will continue to be an important event to bring all players together.	<ul style="list-style-type: none"> The 5th edition of the EU Industry Days took place on 8-11 February 2022.

Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery (5 May 2021)

1. Strengthening Single Market resilience	
Single Market Emergency Instrument.	<ul style="list-style-type: none"> Commission Legislative proposal published in September 2022.
Annual Single Market Report.	<ul style="list-style-type: none"> First Annual Single Market Report published in May 2021. Second Report presented in February 2022.
Possible common form/template for the declaration of the posting of workers.	<ul style="list-style-type: none"> Consultations with Member States and social partners concluded in 2022. Work with Member States on the common form started in the beginning of 2023.
Strengthen Single Market surveillance of EU and imported products.	<ul style="list-style-type: none"> Ongoing.
Under InvestEU, work on capital support and equity financing to support SMEs.	<ul style="list-style-type: none"> InvestEU implementation has started, calls for expression of interest for financial intermediaries have been published by the European Investment Fund (EIF).
2. Dealing with dependencies: open strategic autonomy in practice	

<p>Adopt proposal to address the potentially distortive effects of foreign subsidies in the Single Market.</p>	<ul style="list-style-type: none"> • Adopted in May 2021. • The draft text of the regulation was agreed by the co-legislators on 30 June 2022. It entered into force on 12 January 2023 and will start to apply on 12 July 2023.
<p>Periodic review of strategic dependencies and monitoring of risks associated with strategic dependencies.</p>	<ul style="list-style-type: none"> • Ongoing. • Report on EU strategic dependencies and capacities: second stage of in-depth reviews published in February 2022.
<p>Explore international partnerships and cooperation to address strategic dependencies.</p>	<ul style="list-style-type: none"> • Ongoing. • EU-US TTC Working Group on Secure Supply Chains launched in September 2021 with focus on critical raw materials, pharmaceuticals and solar energy value chains as well as a dedicated track on semiconductors. • EU-Ukraine Strategic Partnership on Raw Materials and EU-Canada Strategic Partnership on Raw Materials established in July 2021. EU-Namibia Strategic Partnership on Sustainable Raw Materials Value Chains and Renewable Hydrogen launched in November 2022. • New initiatives towards establishing additional mutually beneficial raw material value chain partnerships in Africa, Latin America, Western Balkans and Australia, via trade agreements or Memoranda of Understanding. • Green Alliance with Japan launched in May 2021 and Green Partnership with Morocco launched in October 2022. • Joint statement of the EU-ASEAN commemorative summit (14 December 2022): aim to promote resilient, efficient, and environmentally, economically and socially sustainable global supply chains.
<p>Launch of the Industrial Alliance for Processors and Semiconductor technologies.</p>	<ul style="list-style-type: none"> • European Alliance on Processors and Semiconductor technologies launched in July 2021.
<p>Launch of the European Alliance for Industrial Data, Edge and Cloud.</p>	<ul style="list-style-type: none"> • European Alliance for Industrial Data, Edge and Cloud launched in July 2021.

Further European industrial Alliances.	<ul style="list-style-type: none"> • European Alliances are launched in the following areas: Zero Emission Aviation, Renewable and Low-Carbon Fuels. • Zero Emission Aviation Alliance launched in June 2022 – first wave of alliance members launched in September 2022. • Renewable and Low-Carbon Fuels Value Chain Industrial Alliance launched in April 2022. • European Solar Photovoltaic Industry Alliance started in December 2022.
Reinforced action on SME supply chain disruptions and vulnerabilities.	<ul style="list-style-type: none"> • Ongoing. • EEN Expert Group report on SME resilience. • Supply chain resilience platform launched in September 2022.
Adopt a standardisation strategy.	<ul style="list-style-type: none"> • Commission proposal for an Amendment to Regulation 1025/2012 on standardisation adopted in February 2022 and political agreement between Council and Parliament reached in October 2022. • Dialogues on the EU-US TTC where alliances on strategic standardisation matters are brokered. • Standardisation booster and code of practice for researchers on standardisation launched.
3. Accelerating the twin transitions	
Co-creation of green and digital transition pathways for relevant ecosystems, starting with tourism, proximity and social economy, energy intensive industries, construction and mobility.	<ul style="list-style-type: none"> • Ongoing. • The Commission prepared in 2021-2022 staff working documents outlining possible scenarios for transition pathways for the tourism, energy intensive industries, construction, proximity and social economy and mobility ecosystems and invited stakeholders to reflect and contribute to the scenarios and list key enablers for the transition. • Transition pathway for tourism presented in February 2022 and for the proximity and social economy in November 2022. Transition pathways for other industrial

	ecosystems will follow.
Actions to promote renewable Power Purchase Agreements in the proposal for a revised Renewable Energy Directive.	<ul style="list-style-type: none"> • Proposal to revise the Renewable Energy Directive presented in July 2021 as part of the ‘Fit-for-55’ package and updated in May 2022 in the framework of the “REPowerEU” plan. The proposal includes measures to facilitate Power Purchase Agreements (PPAs).
Consider European approach for carbon contracts for difference in the proposal for a revised ETS Directive.	<ul style="list-style-type: none"> • The ‘Fit-for-55’ package presented in July 2021 includes a legislative proposal to revise the EU ETS Directive and a new Carbon Border Adjustment Mechanism.
Energy and Industry Geography Lab (EIGL).	<ul style="list-style-type: none"> • Launched in December 2021.



Brussels, 31.1.2023
SWD(2023) 26 final

PART 4/5

COMMISSION STAFF WORKING DOCUMENT

2023 Annual Single Market Report: Single Market at 30

Annex 3: Stocktaking of the implementation of the 2020 SME Strategy

Colour-coding

	Implemented / launched before December 2022
	Under preparation

Action	State of implementation
Capacity building and support for the twin transition	
The Commission will enhance and upgrade the Enterprise Europe Network including with dedicated Sustainability Advisors and other sustainability services to provide SMEs with the necessary support in the twin transition.	Ongoing. The new Enterprise Europe Network has started in January 2022, incorporating the Sustainability Advisors. A new sector group on proximity and social economy was established in 2022 and will contribute to broaden the provision of services by EEN partners to social economy entities.
The Commission will launch a “ digital volunteers ” programme to allow young skilled people and experienced seniors to share their digital competence with traditional businesses.	Concluded. A pilot programme concluded in July 2022. A total of almost 50 large European companies participated and digitally skilled staff of large companies supported SMEs in their digital transformation. More information can be found here: https://digital-skills-jobs.europa.eu/en/about/digital-volunteers
The Commission will develop Digital Crash Courses for SME employees to become proficient in areas like AI, cybersecurity or blockchain.	Ongoing. A call for applications from the DIGITAL Europe Programme for short term training courses was launched, a consortia will deliver these trainings.
The Commission will update the Skills Agenda for Europe , including a Pact for Skills with a dedicated component for SMEs,	The Commission launched a Pact for Skills in 2020. Dedicated services have been deployed through the Pact, such as a networking and knowledge hub and

<p>and will propose a Council Recommendation aimed at modernising vocational education and training.</p>	<p>training centers of excellence providing vocational education and training (VET) to offer support for SMEs.</p> <p>The Council adopted in November 2020 the Commission’s Proposal for a Council Recommendation on VET for sustainable competitiveness, social fairness and resilience.</p> <p>Action 6 of the Skills Agenda is supporting skills to accompany the green and digital transitions.</p>
<p>The Commission will expand Digital Innovation Hubs in connection with Startup Europe and the EEN to provide a seamless service within local and regional ecosystems.</p>	<p>Ongoing.</p> <p>Many European Digital Innovation Hubs (EDIH) are based on existing clusters or include organisations that are part of an Enterprise Europe Networ (EEN) consortia. Strong cooperation between EEN, clusters and DIHs is ensured.</p>
<p>The Commission will allocate at least EUR 300 million to encourage breakthrough innovations delivering Green Deal objectives under the EIC.</p>	<p>Ongoing.</p>
<p>For the SMEs which focus their activities on short-term accommodation rental services, the Commission will continue to explore a possible collaborative economy initiative.</p>	<p>Commission proposal for a regulation was adopted on 7.11.2022 (Proposal for a regulation of the European Parliament and of the Council on data collection and data sharing on short-term accommodation rentals)</p>
<p>Reducing regulatory burden and improving market access</p>	
<p>The EU SME Envoy and the network of national SME Envoys will contribute to the work of the Commission’s Single Market Enforcement Task Force, to be set up as a result of the Enforcement Action Plan, to address among others gold-plating in the transposition process with a view to keep the regulatory burden on SMEs to a minimum.</p>	<p>The Single Market Enforcement Task Force (SMET) is fully operational and the SME Envoy network is involved.</p>
<p>The Commission will encourage Member States to implement the Single Digital Gateway in a business friendly way. Member States</p>	<p>Ongoing.</p>

link their services in a one-stop-shop .	
The EU SME Envoy will filter EU initiatives to signal to the Commission those that merit close attention from an SME perspective and have a specific role in the new Fit for Future Platform.	Ongoing.
The Commission will mobilise Member States behind an EU Start-up Nations Standard to share and adopt best practices to accelerate growth of high tech SMEs and start-ups.	The European Start-up Nations Standard was launched through a joint Member States declaration in March 2021. The result of this initiative is the formation of the Europe Startup Nations Alliance (ESNA), which support its member countries in implementing best practices for startups and monitoring their progress via a digital platform. ESNA became operational in July 2022 and is headquartered in Lisbon.
The Commission calls on Member States and their contracting authorities to use the flexibility offered by the new EU's procurement framework to enhance opportunities for SMEs including through the use of digital tools and platforms to step up cross border procurement. The Commission will issue guidance and support to contracting authorities .	With new publication notices (eForms), it is possible to indicate in a competition that a particular procurement is also suitable for SMEs. The field is called 'Suitable for SMEs'.
The Commission will encourage Member States to develop proposals for regulatory sandboxes by launching a pilot.	<p>The European Commission launched a regulatory sandbox for blockchain and decentralized data solutions in November 2022, which provides a pan-European experimentation framework for innovative technology solutions involving blockchain and DLT. This will help increase legal certainty for Economy web 3.0, which relies on convergence of innovative technologies.</p> <p>The goal of the European Blockchain Regulatory Sandbox is to foster a dialogue and cooperation between national and EU-level regulators with companies and thus remove legal and regulatory uncertainties for use cases based on decentralized solutions on blockchain, in combination with other technologies, such as Artificial Intelligence or Internet of Things. It will serve as an interface to SMEs and companies of all scales enhancing their understanding of the relevant rules and standards and offering them the opportunity to consult with competent regulators.</p> <p>The European Blockchain Sandbox will run for 3 years with 3 cohorts of about 20</p>

	<p>companies each. The first call for expression of interest to participate in the sandbox is expected in Q1 2023.</p> <p>Cooperation with other regulatory sandboxing efforts will be secured to facilitate the exchange of best practices and complementarity with other relevant efforts at the EU and Member State level.</p>
The Commission will launch a call for pioneer partnerships among border regions to enhance regional cooperation in enforcing the Single Market and removal of administrative barriers.	Completed.
<p>The Commission will support the Member States in enforcing the Late Payment Directive by setting up monitoring and better enforcement tools and exploring the feasibility of alternative resolution/mediation mechanisms for SMEs.</p> <p>Furthermore, ongoing reflection to identify a roadmap of additional actions, (not originally included in the Strategy) to ensure a more targeted response in view of the crisis (e.g. a possible Communication).</p>	<p>Ongoing.</p> <p>The Commission will revise the Late Payment Directive to establish a culture of fairness in business-to-business and business-to-government transactions.</p> <p>The EU Observatory on late payments will monitor payment performance and unfair payment practices by public authorities to businesses and in B2B transactions, across supply chains. Pilot work on the Observatory is ongoing in the construction sector. The Alternative Dispute Settlement Resolution Mechanism will make it easier for SMEs to settle unresolved payment claims while preserving the commercial relationship with their clients.</p>
The Commission will facilitate cross border cooperation with and among SMEs under the European Defence Fund and map strengths in its research and innovation eco-system.	European Defence Fund-related actions are being deployed over 2021-2027. Following the EDF 2021 calls for proposals, 62 collaborative defence research and development projects with a total EU support of almost EUR 1.2 billion have been selected for funding. Almost 700 entities will be participating in these projects, of which SMEs represent 43%.
The Commission's will launch a Space Entrepreneurship Initiative 'CASSINI' .	The initiative was kicked off in 2021 and it is now fully operational with all its components across Europe including hackathons, Matchmaking, Prizes, Accelerator and Seed & Growth Fund of funds. Execution will continue until 2027, in close coordination with EIB/EIF, EUSPA, EIC and the European Space Agency.

<p>The Commission will support Member States in transposing the recently adopted Directive on preventive restructuring frameworks and second chance, by helping them set up early warning mechanisms for companies in financial difficulties to avoid bankruptcy.</p>	<p>Ongoing.</p> <p>In November 2021 the Commission launched a 3-year follow-up project: The Early Warning Europe Mentor Academy aims at expanding the network of mentors and services for companies in distress. The project will create a modular training programme for business mentors working with companies in financial crisis and it will provide them with tools to identify the most effective ways to enhance company resilience.</p>
<p>The Commission will explore with Member States possible measures to create a supportive environment for transfer of SMEs.</p>	<p>Commission project on improving the evidence base and data collection methods on business transfers across the EU completed in December 2020. A common methodological approach to predictive data collection was developed to allow Member States collecting more reliable and more comparable data on business transfers.</p>
<p>The Commission will continue to enhance SME access to third country markets including through dedicated SME chapters, use of dialogues to exchange good practices with trade partners and a new information portal. The Commission will facilitate SME access to trade defence instruments.</p>	<p>Free Trade Agreement (FTA) negotiations including SME chapters were either concluded or are still ongoing with several third countries.</p> <p>‘Access2Markets’ (A2M) information portal launched in 2020: https://trade.ec.europa.eu/access-to-markets/en/content.</p> <p>The Trade Defence SME Helpdesk and the online course on Trade Defence Instruments for SMEs were put in place to help SMEs use the Trade Defence Instruments.</p>
<p>EU Delegations will provide support by addressing queries of SMEs linked to the FTAs.</p>	<p>Ongoing.</p>
<p>The Commission will extend the Erasmus for Young Entrepreneurs Global scheme.</p>	<p>Ongoing.</p> <p>The Erasmus for Young Entrepreneurs Global scheme was extended in March 2021 to six non-European destinations: USA, Canada, Israel, Singapore, Taiwan, South Korea. The implementation is currently ongoing with more than 90 business exchanges already completed.</p>
<p>Improving access to financing</p>	

<p>The Commission will support Initial Public Offerings (IPOs) of SMEs with investments channelled through a new private-public fund, to be developed under the InvestEU programme under the Capital Markets Union.</p>	<p>InvestEU implementation has started, and calls for expression of interest for financial intermediaries have been published by the European Investment Fund (EIF).</p>
<p>The Commission will introduce a first of a kind risk/reward mechanism to boost the size of venture capital funds and crowd in private investments for scaling up through the ESCALAR initiative.</p>	<p>InvestEU implementation has started, and calls for expression of interest for financial intermediaries have been published by the European Investment Fund (EIF).</p>
<p>The Commission will launch a gender-smart finance initiative to stimulate funding for women-led companies and funds and to empower female entrepreneurship.</p>	<p>InvestEU implementation has already started, and calls for expression of interest for financial intermediaries have been published by the European Investment Fund (EIF).</p>
<p>The Commission will launch a green tech investment initiative to pool funding from the EU, Member States and the private sector to increase the access to equity finance for innovative SMEs and start-ups that develop and adopt green tech solutions.</p>	<p>InvestEU implementation has already started, and calls for expression of interest for financial intermediaries have been published by the European Investment Fund (EIF).</p>
<p>The Commission will launch a blockchain-based initiative enabling issuance and trading of SME bonds across Europe, using the European Blockchain Services Infrastructure.</p>	<p>Investigation of existing examples of issuance and trading of SME bonds and scope of the use case is ongoing.</p> <p>The Commission has launched a call for proposals under the Digital Europe Programme in 2022, for consortia to put forward projects that make use of European Blockchain Services Infrastructure (EBSI) for use cases that give SMEs access to financial services.</p>
<p>The Commission will co-fund tech due diligence services under an EU pilot project to enable more precise valuations high tech start-ups and prepare their investment readiness.</p>	<p>An EU funded project for tech due diligence and venture building services to innovative startups and SMEs started in 2022. The project is utilising the Innovation Radar to detect high potential innovations and its innovators from the Horizon programme, targeting them with its services.</p>
<p>The Commission will further simplify the existing state aid rules on combinations of national funds with InvestEU and Horizon funds. This will make it easier for SMEs to benefit from pooled</p>	<p>The simplification to achieve synergies with InvestEU and Horizon Europe was introduced in 2021 in the MFF General Block Exemption Regulation.</p>

<p>resources to help them with the twin transitions. Furthermore, as part of its ongoing review of state aid rules, the Commission will revise state aid rules for risk finance and the IPCEI communication, to further support SME involvement, ensure crowding-in of private investment while avoiding distortions of the level playing field.</p>	<p>The revised Communication on important projects of common European interest (IPCEI) was adopted in November 2021. The revised Guidelines on State aid to promote risk finance investments were adopted in December 2021. Both apply from 1 January 2022. The revised Guidelines on State aid for climate, environmental protection and energy were adopted and apply as from January 2022.</p> <p>The revised communication on state aid rules for research and development and innovation was adopted in October 2022.</p>
<p>Governance</p>	
<p>The Commission will appoint a high level EU SME Envoy.</p>	<p>The nomination process of the EU SME Envoy is ongoing.</p>
<p>The Commission will reinforce the SME Envoys Network to strengthen the link between the EU and national level on SME policy.</p>	<p>Ongoing.</p>
<p>The Commission will launch a group of Strategic Entrepreneurship Ambassadors.</p>	<p>Reflections within Commission ongoing.</p>
<p>The EU SME Envoy will raise awareness on SME-related aspects in a regular dialogue with the Regulatory Scrutiny Board.</p>	<p>Pending nomination of EU SME Envoy. In the meantime, EU SME Envoy network raises awareness on SME-related aspects.</p>



Brussels, 31.1.2023
SWD(2023) 26 final

PART 5/5

COMMISSION STAFF WORKING DOCUMENT

2023 Annual Single Market Report: Single Market at 30

ANNEX: Overview of Resilience Measures of Key International Partners ¹

¹**NB:** This is an update of the Annex 8 of the Impact Assessment of the Single Market Emergency Instrument (SWD(2022) 289 final/2).

Type of Resilience Measures Examined

1. Early Warning System: Market and Supply Chain Monitoring, In-depth Analysis
2. Collection of Key Supply Chain Information from Member States and Industry
3. Funding/Subsidies, Tax Incentives, Support to Investments, R&D etc., in Specific Sectors/Values Chains
4. Public Procurement Measures Used in Support of Domestic Production Capacities, Resilience, and Security of Supply, etc.
5. Stockpiling of Critical Inputs
6. Prioritisation of Supplies of Goods and Services
7. Trade Policy Measures such as Tariffs, Export Restriction, Anti-coercion Measures
8. Specific Measures for Semiconductors
9. Specific Measures for Critical Raw Materials

Included Countries

EU, US, UK, Canada, Japan, China, Singapore, Korea, India, Australia, and Taiwan

List of Acronyms

DPA: Defence Production Act, **US**

EBA: European Battery Alliance, **EU**

ERMA: European Raw Materials Alliance, **EU**

ESPA: Economic Security Promotion Act, **Japan**

FABS: Facilitating American-Built Semiconductors Act, **US**

FEPO: Future Economy Planning Office, **Singapore**

FIRB: Foreign Investment Review Board, **Australia**

GPA: Government Procurement Agreement – **Multilateral Agreement**

IIJA: Infrastructure Investment and Jobs Act, **US**

IPCEI: Important Project of Common European Interest, **EU**

IPI: International Procurement Instrument, **EU**

JOGMEC: State owned Japan Oil, Gas and Metals National Corporation, **Japan**

NDICI – Global Europe: Neighbourhood, Development, and International Cooperation Instrument - Global Europe, **EU**

NDS: National Defence Stockpile, **US**

NSIA: National Security Investment Act, **UK**

Tables of Resilience Measures

Early warning system: market and supply chain monitoring, in-depth analysis (strategic dependencies, industrial capacities, etc.)

- **US: Executive Order 14017 ‘America’s Supply Chains’:** 100-days in-depth reviews of industrial bases in 4 sectors: semiconductors, high-capacity batteries, including for electric vehicles; critical and strategic minerals, including rare earths; and (4) pharmaceuticals and their active ingredients. Results and recommendations to ensure resilient supply chains were published June 2021 and February 2022.
- **US:** Supply Chain Disruption Task Force coordinating inter-agency process on supply chain issues.
- **The US and Korea** have established the economic security dialogue between the two countries National Security Councils to reinforce cooperation on supply chains and critical technologies’ information gathering.
- **Korea: Korea** has an **early warning system** in place to monitor 20 key raw materials to ensure stable supplies.
- **Korea:** The Economic Security Centre managed by the Ministry of Foreign Affairs, the Global Supply Chain Analysis Centre managed by the Ministry of Trade, Industry and Energy and the Office of Economic Security managed by the Office of the President will provide advance warning on supply chains and economic security issues.
- The **Quad** (US, Australia, India, and Japan) has set up a **Critical and Emerging Technology Working Group** to monitor and improve the security of supply chains for critical technologies.
- **Japan: Economic Security Promotion Act (ESPA)** an umbrella instrument adopted in May foreseen full implementation within the next two years, ESPA will select “*designated critical commodities*” and will publish policy papers on ensuring their steady supply chains that will analyse potential bottlenecks, required measures and actions by public and private sectors with deadlines, funding, etc. TBS on key definitions. On 13 October the GOJ discussed the draft list of 'Designated Critical Products' to be secured under pillar (1) on supply chains under the Economic Security Promotion Act. Measures to ensure a stable supply of these products will be included in the comprehensive economic stimulus package to be drawn up at the end of October. The list covers 11 sectors and 4 ministries:
 - **METI (8): semiconductors, cloud computing, storage batteries, permanent magnets, critical minerals, machine tools and industrial robots, aircraft part materials and LNG.** METI's main support measures for semiconductors include strengthening manufacturing capacity for power semiconductors and silicon wafers, etc. As it is **difficult to stockpile LNG, a 'Strategic Surplus LNG' system will be set up** to ensure that LNG is secured on a sustainable basis by utilising the procurement

capabilities of companies. The surplus LNG secured will be sold on overseas markets in normal times and to domestic operators in times of emergency. The government will provide subsidies in the event of losses from trading.

- **MLIT (1): maritime transport / shipping** equipment (engines, propellers, navigational equipment (sonar) etc.); to support maritime transport. China, South Korea, and other countries have already provided public support, and Japan has also judged that it would be difficult to ensure a stable supply with private-sector efforts alone.
- **MAFF (1): fertiliser raw materials** where the establishment of a stockpiling system and state support on storage fees for fertilisers held by private companies (e.g., fertiliser manufacturers) will be considered.
- **MHLW (1): antimicrobials.**
- **Singapore:** Singapore has **established a Future Economy Planning Office (FEPO)** within its Ministry of Trade and Industry (MTI). FEPO's key roles include develop industry transformation maps (ITMs), to secure Singapore's economy resilience.
- **Singapore:** Within Singapore's Prime Minister Office resides the Centre for Strategic Futures (CSF). CSF is a foresight department whose mission is to position the Singapore government to navigate emerging strategic challenges and harness potential opportunities. Latest publication: the [Driving Forces Card](#).
- **UK:** The Department of International Trade established a Global Supply Chains Directorate in April 2020 to strengthen resilience across critical global supply chains. The directorate will prioritise by criticality the UK's supply chains, assess vulnerability, and agree on the maturity of the UK's response.
- **Australia:** In 2021, The Australian government created the Office of Supply Chain Resilience under the Prime Minister dedicated to monitor Australian supply chains' resilience.
- **Australia and the UK** set up a joint Australia-UK supply chain resilience capability building initiative with the goal of increasing shared understanding and insight about common dependencies and critical supply chain risks.

Collection of key supply chain information from industry

- **US: The Defence Production Act (DPA)** allows the US government to obtain information from defence industry businesses, including information needed for defence industry studies.
- **US: Subpoena power of the Federal Trade Commission** enables the consumer protection agency to have authority to order companies to turn over information for research purposes, a power it has used to study the privacy practices of broadband providers and start-up acquisitions by the five U.S. tech giants, among other areas.
- **Japan: Under ESPA** Business operators (including foreign) engaged in the production, import or sale of “designated critical commodities” may be required to report data on the production, import, sale, procurement or storage of such commodities or related raw materials, and may be subject to on-site inspections. Approach of “stick and carrot initiatives”, private sector operators will be affected by new legal obligations, penalties, and costs for implementation on one hand and potential public support measures and contracts on the other hand. Additionally, the government will screen “critical equipment” owned by “designated core infrastructure operators” in 14 “core infrastructure sectors” 1) electricity, 2) gas, 3) oil, 4) water, 5) telecoms, 6) broadcasting, 7) post, 8) finance, 9) credit cards, 10) railways, 11) land freight, 12) sea freight, 13) aviation, 14) airports.
- **Australia:** The Security of Critical Infrastructure Act 2018 creates a register for Critical Infrastructure Assets to build a clearer picture of critical assets ownership. The Act also empowers the Department of Home Affairs to obtain detailed information on critical assets, notably in the case of cyberattacks.
- **Korea: Korea’s Framework Act on the Supply Chain Management for Economic Security** will institutionalise the entire supply chain process, including information collection, risk-detection, risk prevention and risk management.

Funding/subsidies, tax incentives, support to investments, R&D etc., in specific sectors/values chains

- **US: Energy Storage and Tax Incentive and Deployment Act** creates investment tax credit for energy storage. US Innovation and Competition Act: \$250 billion supply chain resiliency and crisis response program (to be adapted and passed in first half of 2022).
- **US: Investment and Infrastructure Jobs Act** makes available \$1.2 trillion investment in transport, power, and broadband infrastructure with domestic preference requirements (Buy America) attached.
- **US: The Export-Import Bank** offers medium- and long-term loans and loan guarantees available for "export-oriented domestic manufacturing projects," with a particular focus on sectors such as semiconductors, biotech and biomedical products, renewable energy, and energy storage.
- **US: The Inflation Reduction Act (IRA)** makes major federal investments designed to reduce US greenhouse gas emissions and combat climate change (\$370 billion estimated at US Congress level, but potentially higher as the US budget is uncapped); catalyse US domestic clean energy, development, deployment, and expansion; and enhance US energy security (over \$60 billion). To finance these new expenditures and \$300 billion in deficit reduction, the new law imposes a new minimum tax on the income of larger corporations, creates a new excise tax on public corporation stock buybacks, and provides substantial additional funding for IRS enforcement, operations, and modernization. The bill has an (for some parts discriminatory) immediate and long-term supply chain impact on clean energy industries, notably for renewable energy industries – including clean hydrogen), decarbonization activities, energy intensive users –and automobile manufacturers in the US and beyond, as well as its suppliers in third countries including the EU. The **Advanced Manufacturing Production Credit** (total estimated value of \$31 billion) of is available for \$35 per kilowatt hour of capacity for battery cells created for domestic production and sale of qualifying solar and wind components. In combination with the **Clean Vehicle Tax Credit**, the Advanced Manufacturing Credit can benefit suppliers of clean products in the United States.
- **Canada:** In the fall economic statement, Canada announced **two clean energy tax credits to match U.S. subsidies** of the IRA and ensure that Canadian companies remain competitive: **a 30% refundable tax credit for capital investments in low-carbon energy generation and technology (\$6.7 billion over 5 years)** and **a tax credit for hydrogen production**. The design of the hydrogen tax credit has yet to be determined, but the government suggested it would be modelled on tax credits in the IRA.
- **Japan: State-owned Japan Oil, Gas and Metals National Corporation (JOGMEC)** supports exploration and technological development by Japanese companies through equity capital and liability guarantees. Investment by JOGMEC in rare earth overseas projects involving Japanese companies to diversify supply. Its purpose, scope, structure, and obligations are defined in the [JOGMEC ACT](#).

- **Japan:** Under the planned revision of JOGMEC ACT to be submitted to the Diet JOGMEC is to strengthen financial support for Japanese businesses' rare earths exploration and refining operations².
- **Japan: Under ESPA,** specific companies supplying designated critical commodities can receive a variety of public support tailored to their needs, including financial and fiscal support (e.g., subsidies) over medium to long term. Moreover, *critical commodities* designated as *special goods* will receive additional public support. Definition of critical goods still pending.
- **Japan: Under ESPA,** the government will designate *critical technologies* that will be eligible for public support for R&D, notably in space science, marine science, quantum science and AI.
- **Japan:** On 1 October METI launched a new **Resource Autonomous Economy Strategy Planning Office** and new **Study Group to design a Pro-Growth Economy with Circular Economy and Resource Autonomy**. The Study Group will explore ways to encourage industries to use circular resources against the backdrop of limited domestic resources, increasing global demand for critical raw materials, unexpected supply disruptions and economic fallout from weakening yen. The objective is to draft a policy proposal on circular economy by the end of March 2023, which will address i.e., reuse of resources, generating resources, sharing resources and use of resources longer-term (based on previous Japan's Circular Economy Vision 2020).
- **China:** The Implementation Plan for the Development of New Energy Storage Technologies during the 14th Five-Year Plan Period implements several investment measures to develop energy production and storage in emerging fields such as compressed air, hydrogen, battery, and thermal energy, with the goal of reaching self-reliance in those fields. The goal is notably to reach 100 GW of battery storage capacity by 2030.
- **China: The 14th Five Year Plan** include an entire chapter devoted to boost the digital sector's added value to 10% of GDP by 2025. This notably includes targeted investments in 6G and in cloud services. According to the law "Classified Catalogue of Telecommunications Services 2015" updated in 2019, only Chinese companies can be licensed to operate cloud services for security reasons and to guarantee a protected market for Chinese companies.

² The revised legislation is reported to: i) increase the ceiling of JOGMEC's loan and investment ratio by expanding government's support though JOGMEC from the current level of 50% to 75% of investment in projects; ii) allow JOGMEC to invest in or grant debt guarantees to domestic Japanese mineral-refining operations (at present JOGMEC can only support refining operations overseas, in practice in China); iii) allow JOGMEC to actively support overseas mining and projects involving Japanese companies (risk money support).

- **China: China Hydrogen Alliance** is a public body charged with boosting hydrogen production in China. Hydrogen has been included as one of China's six industries of the future and has received important investments as part of the 14th Five Year Plan for a Modern Energy System.
- **Singapore:** Singapore's research priorities and funding have been detailed in the Research Innovation Entrepreneurship Programme (RIE2025). RIE2025 gives priority to health, sustainability, digital economy, advanced manufacturing, and security. RIE strategies respond to new technological and societal driving force.
- **Singapore:** In February 2021, Singapore has announced the establishment of the **Southeast Asia Manufacturing Alliances (SMA)** a tripartite alliance (public-private) to secure supply chain resilience in the region. Grants up to S\$ 1.5 million are provided by the Economic Development Board of Singapore (The Ministry of Trade and Industry's economic development body), while Enterprise Singapore (government agency for business development) provides matching events and platform. A network of private sector "Strategic Partners" offer preferential services (reduced costs on leasing and logistics) for businesses that join the Alliance.
- **Taiwan:** November 2022 - The government is planning tax incentives to encourage investment in leading-edge semiconductor manufacturing processes. Taiwan has in the pipeline amendments to its domestic legislation - the Statute of Industrial Innovation. This piece of legislation (last amended in January 2022) states that companies with critical position in global supply chain may claim investment tax credit ("ITC") of 25% on research and development ("R&D") expenditure and 5% on procurement of machinery/equipment. The applicable period for utilizing such ITCs span 7 years, beginning from 1 January 2023 to 31 December 2029 (expiry date of Statute).
- **Taiwan:** ministry will draft measures to stop Taiwanese IC engineers moving to China - a problem Taiwan has long struggled with in the face of China's efforts to poach tech talent from Taiwan with high pay, perks, and senior positions at Chinese chipmakers.
- **India:** The Production Linked Incentive (PLI) Scheme managed by the Ministry of Heavy Industries provides subsidies and incentives under several national programmes to local industries to help develop local supply chains. Local governments participate by providing land and facilitating permitting for the benefiting companies. Benefitting industries have included the battery ecosystem (under the 'National Programme on Advanced Chemistry Cell Battery Storage') with US\$ 2.49 billion over 5 years in subsidies to develop 50 GWh of battery capacity in India. Beneficiaries must ensure 60 percent domestic value addition within 5 years.
- **India:** An additional PLI scheme was launched to boost solar panel production in India as well, with a budget of US\$ 600 million. The goal is to attract US\$ 2.30 billion in private financing and to reach an additional 10 000 MW solar electricity production capacity in India. This project is managed by the Ministry of Renewable Energy. Additional PLI are being launched in the pharma sector, the steel sector the electronics sector and in the mobility sector.
- **India:** The **National Hydrogen Mission** was launched in August 2021 as a blueprint for India's transition to a hydrogen-based economy. The goal is to reach a production of 5 million tons of green hydrogen by 2030. The Indian government is offering special manufacturing

zones to produce hydrogen, with free energy transmission across state lines and priority connection to the grid. This is managed by the Ministry of New and Renewable Energy.

- **India:** The **Digital India** campaign aims to promote local production capacity and innovation capabilities to create jobs, meet domestic demand, and create export markets in the electronic industry. The objective is to develop the electronics sector to be worth US\$ 300 billion by 2026. 4 sectors are being supported: Semiconductor and Design, Smartphones, IT Hardware, and Components.
- **India:** The **National Infrastructure Pipeline** was launched in 2019 with the objective of developing physical infrastructure in India. The objective is to expand roads networks, housing, urban development, railways, conventional power, renewable energy, and irrigation. Notably the pipeline includes the creation of several infrastructure corridors between large cities. The development of the industrial corridors will be used as the foundations where Production Linked Incentive (PLI) Schemes in critical sectors will be implemented to benefit from the brand-new infrastructure.
- **India:** The **Sagarmala Program** launched in 2015 and lasting until 2035 includes 574 projects to modernise India's ports. Its goal is to reinforce export opportunities for developing industries supported under the PLI schemes.
- **Supply Chain Resilience Initiative by Australia, India, and Japan** to cooperate on supply chain resilience in the Indo-Pacific region. Cooperation consists of sharing of best practices on supply chain resilience; and holding an investment promotion/buyer-seller matching event.
- **Australia:** Australia's Supply Chain Resilience Initiative provides businesses up to \$2 million to establish or scale a manufacturing capability or a related activity to address supply chain vulnerabilities for a critical product or input identified in the Sovereign Manufacturing Capability Plan. The main new policy tool established in September 2021 is the SCRI grant (AUD 50 million) to improve access to critical products in times of crisis.

Public Procurement Measures Used in Support of Domestic Production Capacities, Resilience, and Security of Supply, etc.

- **US: Buy America** - The Infrastructure Investment and Jobs Act (IIJA), enacted in November 2021, extended the “Buy America” requirements to all federally funded infrastructure projects. All iron, steel, manufactured products, and construction material need to be produced in the United States. A product is considered to be US-manufactured if 55% of its components are US-made.
- **US: ‘Buy American’ rules** for procurement not covered under the WTO Agreement on Government Procurement. The rules apply to all U.S. federal government agency purchases or federally financed purchases of goods valued over the micro-purchase threshold (US\$ 10 000). To be considered as being produced in the U.S., goods must be manufactured in the U.S. and at least 55% of the cost of their components must come from the U.S. Waivers can be granted for the public interest, non-availability or if the cost of U.S. products is unreasonable compared to equivalent foreign products. IT and “Commercial off-the-shelf” products are exempt. Impact on the US’ international commitments under the Government Procurement Agreement (GPA) is not yet clear.
- **US: Inflation Reduction Act** includes elements related to public procurement with significant appropriations to “Buy America(n)” programmes (support for US Postal service to “electrify” its fleet with subsidies,) and the implementation of Defence Production Act (\$500m earmarked for critical minerals manufacturing) without foreign bidders allowed.
- **China:** China applies Buy National policy, with a few exceptions. Under its Government Procurement Law, it applies de jure market access barriers, including “buy national policy” and “indigenous innovation,” which give preferential treatment to goods and services developed locally. In theory, foreign-invested companies in China are to be treated like domestic companies, but in practice domestic companies are preferred.
- **China:** The Medium- and Long-Term National Plan for Science and Technology Development directs government agencies to buy products listed in certain procurement catalogues, which include only qualified indigenous innovation products (with few exceptions).
- **China:** China’s New Infrastructure Plan unlocked US\$1.4 trillion on a digital infrastructure public spending programme in the sectors of 5G networks, industrial internet, inter-city transportation and rail system, data centres, AI, ultra-high voltage power transmission, and new-energy vehicle charging stations. The goal is to stimulate the development of strategic sectors for the Chinese economy and help the rise of Chinese “champions” in those industries. This effort has been compounded by similar infrastructure plans developed by 25 of China’s provinces.

- **Japan: Under ESPA**, the government will designate critical, core and sensitive infrastructures in 14 sectors including aviation, railways, gas, oil etc. The government will have the right to pre-screen any projects in those sectors, recommend remedies and potentially order operators to change suppliers or abandon transactions.
- **India:** India's 2017 "Preference to Make in India" Order gives preference to local production of goods and services for a wide range of products within public procurement markets. The Order introduces classes suppliers (Class I, II and non-local suppliers) in function of how much local content those suppliers use (above 50%, 50% > and 20% > respectively). Sensitive sectors such as railways or defence require the supplier to be Class I or II for a bid to be eligible. Greatest procurement priority is allocated to tender submissions with the highest percentage of local content and the government may mandate technology transfers.
- **India:** India launched in 2021 the PM Gati Shakti Yojana plan, a US\$1.33 trillion national master plan for the development of multi-modal connectivity to economic zones, with the goal of reinforcing physical infrastructure in India. The plan will be managed by a joint committee of 16 ministries and include works in the sectors of rail, roadways, and aviation. The plan also includes the creation of 109 pharmaceutical and medical clusters, and 38 electronic manufacturing clusters to reinforce domestic production in those sectors.
- **India:** The National Monetisation Pipeline project was launched in 2021 and aims to monetize government assets worth US\$ 81 billion by leasing them to private actors under Public Private Partnership model. The goal is to reinforce investments in critical physical infrastructure such as roads, railways, power sector assets, gas & oil pipelines, and optic fibre assets by raising fund and increasing efficiency.
- **Australia and Singapore** launched the Australia – Asia Sun Cable project in 2022. The goal is to develop physical interconnections between Singapore and Australia's electric grids, to reinforce Singapore's access to green electricity via massive investments in solar farms in Australia.

Stockpiling of Critical Inputs

- **US:** The U.S. Department of Energy (DOE), Department of Defence (DoD), and Department of State (DOS) signed a memorandum of agreement (MOA) that sets the foundation for a critical minerals stockpile to support the U.S. transition to clean energy and national security needs. DoD, which manages the National Defence Stockpile (NDS), currently stockpiles critical minerals for national security purposes. The MOA creates a new, interagency process for stockpiling minerals that enable vital clean energy technologies.
- **Japan:** JOGMEC operates a national stockpiling system of rare metals to secure long-term raw materials supply. Stockpiles are sufficient to meet 60 to 180 days' demand. In addition, under the planned **Mining Act** to be adopted by the Diet, Japan is to restrict access to rare-earth resources in Japan's exclusive economic zone (offshore deposits).
- **Korea:** State owned **Korea Resources Corporation** runs a stockpile storage system for rare metals.
- **China:** it is estimated that China stockpiles 1.5 million to 2 million tons of copper, 800 000-900 000 tons of aluminium, and 250 000-400 000 tons of zinc. China is also believed to have around 7,000 tons of cobalt, a key metal used in battery manufacturing.
- **China:** The government promotes the consolidation of Chinese companies into a handful of big groups per sector, often state-owned or state led. This is meant to increase their bargaining power on international markets and to modernise the sector.
- **Singapore:** Particularly in the field of food, the government can use its discretionary power to ensure a minimum quantity of private stockpiles, which need to be maintained for a stipulated period (such as the Rice Stockpile Scheme). Seen its exposure to Malaysia and Indonesia imports, Singapore has stockpiles of food to prevent crisis. The presence of the stockpiles is known but not the actual numbers to [affect their negotiation with overseas suppliers](#).
- **UK:** The UK is creating **strategic reserves** of water treatment chemicals: monitoring stockpiles of chemicals and exploring stockpile requirements.
- **Australia:** Australia maintains a National Medicine Stockpile storing medications, vaccines, antidotes, and PPE to be used in case of supply chain disruptions in the health sector.

Prioritisation of Supplies of Goods and Services

- **US: The Defence Production Act** gives the US President the authority to expedite and expand the supply of materials and services from the U.S. industrial base needed to promote the national defence. DPA authorities may be used to:
 - Require acceptance and preferential performance of contracts and orders.
 - Provide financial incentives and assistance for U.S. industry to expand productive capacity and supply needed for national defence purposes.
 - Provide antitrust protection for businesses to cooperate in planning and operations for national defence purposes, including homeland security.
 - The DPA provides authority to obtain information from businesses, including information needed for industry studies.
 - US will establish a DPA Program to provide loans, grants, and other financing to build and expand the health resources industrial base.
- **US: Inflation Reduction Act** has domestic content requirements (Clean Electricity Production Credit, Electricity Produced from Certain Renewable Resources Credit, and Energy Credit as well as local final assembly requirements (Clean Vehicle Credit) which can be seen as an heavily financial incentive to change the composition of the renewable energy, battery and automotive supply chain, and expand production and assembly in the US for the US market and beyond on US soil, resulting from the improving economies of scale resulting from US production and proximity of the EV supply chain.
- **China:** Communist Party cells are increasingly imposed on all companies established in China, including foreign-invested companies. These cells (can) serve as direct transmission mechanisms for Party directives.
- **UK: Via UK Make,** the UK is encouraging development of domestic production capacities for PPE within the health sector.

Trade & Investment Measures such as Tariffs, Export Restriction, Anti-coercion Measures

- **US: “Section 232 investigation”** has effectively been concluded on Wednesday 21 September. The White House announced that President Biden agreed with the Department of Commerce’s (DoC) determination that imports of neodymium-iron-boron (NdFeB) permanent magnets threaten national security and that the Administration will implement a series of recommendations proposed in the DoC report. The DoC, however, rejects the imposition of any tariffs or restrictions on imports since “the current severe lack of domestic production capability throughout the magnet supply chain, tariffs and quotas would have an adverse impact on consuming sectors and might incentivize businesses to move operations incorporating NdFeB magnets offshore.” DoC also argues that the national security of U.S. allies and partners is essential to U.S. national security, partially basing its decision on Australia, Japan, and the EU’s reliance on rare earth minerals or oxides. However, the report adds, whether to impose tariffs or other import restrictions may be imposed later is unsurprisingly left open to re-evaluation as the U.S. develops its domestic production capacity.
- **US:** The DPA sets up the Committee on Foreign Investment in the United States (CFIUS). CFIUS can review foreign investments and real estate transactions by foreign persons in the US in case those investments could present a risk to national security. CFIUS can impose conditions on the acquisitions or refer the case to the President for decision. Australia, Canada, NZ, and the UK are exempted from review by CFIUS, but the EU is not.
- **US:** The Export Control Reform Act allows the US government to enact controls on exports, re-exports, and transfers of emerging and foundational technologies if they could be used to threaten the national security of the US or if they give a qualitative military or intelligence advantage to the US. 14 emerging technologies are identified, including biotech, AI, and semiconductors.
- **Korea: Promotion of tech acquisition through overseas M&A** for areas where it is difficult to secure “core tech” among essential items in domestic value chain. Acquisition funds of EUR 2 billion + advisory, consulting, and follow-up integrated management.
- **China: Export Control Law** is a comprehensive framework for restricting exports of military and dual-use products and technology for national security and public policy reasons. Exports and transfers of products, technology, and services are subject to licensing requirements and may be prohibited based on the product features, end-users, destinations, or end-uses.
- **China:** Stringent new data protection rules such as the Personal Information Protection Law (PIPL) restrict the flow of data out of China.
- **China:** the development of technical standards is strongly guided by the government, both at home and internationally. China wants to become an international standards setter. Some of its courts are claiming exclusive jurisdiction on standard-essential patents (SEPs).
- **China: The Foreign Investment Law** from 2020 gives discretion to local authorities to block any FDI. It also includes a negative list of sectors published by the Ministry of Commerce in which foreign direct investments are prohibited or severely restricted. There are 58 sectors, including automotive manufacturing, basic and value-added telecommunications services, transportation, energy, utilities,

banks and financial institutions and agriculture. The law also includes an Encouraged Activities List of sectors in which incentives are provided.

- **China:** The Foreign Investment Law also includes a national security review for any FDI that may affect national security. The review is triggered by any acquisition in sectors such as major agricultural products, major energy and resources, infrastructure, transportation services, key technologies, and key equipment manufacturing.
- **China:** The Foreign Investment Information Reporting System centralized information submitted by all foreign companies investing in China when collected at province-level, to enable the Ministry of Commerce to have a clear picture of overall FDI in China.
- **UK:** The UK passed in 2021 the National Security and Investment Act (NSIA). NSIA sets up a FDI screening regime with mandatory notifications to the government for acquisitions in 17 “most sensitive” economic sectors, including defence, communications, and energy. The government can review and potentially block acquisitions if they risk undermining the UK’s national security.
- **Australia:** Reforms to the Foreign Investment Review Board (FIRB) in 2020 introduced a mandatory notification procedure for acquisitions connected to “national security business” or “national security land” or linked to critical infrastructure. Critical infrastructure cover 15 sectors including electricity, gas, water, port, healthcare, and cloud among others. The government can order divestment or prohibit the acquisition if it finds that it could present risks to national security.
- **India:** The Department of Science and Technology has launched a grand challenge for developing the Indian Standards for Electric Vehicle Charging Infrastructure to help develop the local industry.
- **India:** India revised its FDI policy in 2020 to make foreign acquisitions of Indian companies more difficult. Notably, companies from countries that share a border with India (China being the target here) must submit to a security analysis before an acquisition can go through. However, the government may decide to scrutinize acquisitions by any foreign entity. The Indian government has published for guidance a list of sensitive sectors in which it is likely to scrutinise acquisition. Sectors include broadcasting, telecommunication, satellites – establishment and operation, private security agencies, defence, civil aviation and mining and mineral separation of titanium-bearing minerals and ores.

Specific Measures for Critical Raw Materials

- **US: Executive Order ‘America’s Supply Chains’:** in-depth reviews of industrial bases. The reviews include requests for comments with detailed questionnaires, as well as recommendations for strengthening resilience.
- **US: ‘section 232 investigations’** have effectively been concluded on Wednesday 21 September. The investigation served to collect market information from companies and stakeholders. The Trump Administration launched two investigations, on aluminium and steel, which conclusions led to tariff hikes of 10 and 25% respectively. The report dwells on the dominant role of China in the supply chain, and the risks associated with the US’ import dependency on China, especially for sintered magnets (100%). The proposed response is based on efforts to make investments in key segments of the magnet supply chain; incentivize domestic production; work with allies and partners on supply chain resilience (including through the Minerals Security Partnership and other cooperation channels on rare earths); support the development of a skilled workforce to produce neodymium magnets in the United States; and support ongoing research to mitigate supply chain vulnerabilities. Referenced instruments to support US domestic production include manufacturing tax credits under the Inflation Reduction Act, DoD programmes, DPA Title III orders and EXIM Bank financing for export-oriented projects. The current Administration has now announced that President Biden agreed with the Department of Commerce’s (DoC) determination that imports of neodymium-iron-boron (NdFeB) permanent magnets threaten national security and that the Administration will implement a series of recommendations proposed in the DoC report.
- **US: Executive Orders 13817** (A Federal Strategy To Ensure Secure and Reliable Supplies of Critical Minerals) **and 13953** (Addressing the Threat to the Domestic Supply Chain From Reliance on Critical Minerals From Foreign Adversaries and Supporting the Domestic Mining and Processing Industries). EO13817 launched an in-depth review of critical minerals supply chains necessary for the US economy and national defence and investigated expanding mining production in the US. EO13953 charged the Secretary of the Interior to produce every 180 days a report on critical minerals supplies and potential risks from foreign powers.
- **US:** As part of the **Inflation Reduction Act (IRA)**, there is an **EV tax credit** (total estimated value of \$8 billion) when minerals and battery components have local content. Critical materials must be extracted or processed in country the US has a Free Trade Agreement (FTA) or recycled in North America. Starts at 40% <1/1/24; increases to 80% on 1/1/27. For battery components (10% of the value of a vehicle for PHEV and 30%-40% for BEV), they must be manufactured or assembled in North America at value as of 2023 at 50% increasing to 100% after 2028. The **Advanced Manufacturing Production Credit** (total estimated value of \$31 billion) of is available for \$35 per kilowatt hour of capacity for battery cells created for domestic production and sale of qualifying solar and wind components and 10% to produce critical minerals.

- **Japan: JOGMEC** supports exploration and technological development by Japanese companies through equity capital and liability guarantees. Investment by JOGMEC in rare earth overseas projects involving Japanese companies to diversify supply. Its purpose, scope, structure, and obligations are defined in the [JOGMEC ACT](#).
- **Japan:** Under the planned revision of JOGMEC ACT to be submitted to the Diet JOGMEC is to strengthen financial support for Japanese businesses' rare earths exploration and refining operations³.
- **Japan: JOGMEC** operates a national stockpiling system of rare metals to secure long-term raw materials supply. Stockpiles are sufficient to meet 60 to 180 days' demand. In addition, under the planned **Mining Act** to be adopted by the Diet, Japan is to restrict access to rare-earth resources in Japan's exclusive economic zone (offshore deposits).
- **Korea:** The state-owned **Korea Resources Corporation** runs a stockpile storage system for rare metals.
- **Korea:** has an **early warning system** in place to monitor 20 key raw materials to ensure stable supplies.
- **Korea:** MoTIE has arranged an MoU between LG Energy and several Canadian companies to reinforce critical mineral supply chain cooperation. These MoUs will help Korean companies to establish new supply chains in North America for secondary batteries and EVs, particularly in conjunction with the US Inflation Reduction Act. Through these deals, LG Energy Solution will be able to **tap into Canada's stable supply stream of critical minerals for manufacturing secondary batteries in North America**, and Korea Mine Rehabilitation and Mineral Resources Corporation KOMIR will be able to provide better support to private sectors with data on Canada's mining investment.
- **China:** big state-owned enterprises are encouraged to take a leading role in their sectors, to ensure market stability, to provide guidance and support for smaller (Chinese) companies, to promote compliance with government directives and maximum benefit for China. The government actively supports consolidation into few powerful companies, often also state-owned.
- **China:** The Export Control Law also permits the imposition of temporary export controls on non-listed goods, services, and technology up to two-years. Since January 2022, the list of products subject to export control also includes all rare earth metals.
- **The UK and Australia:** The two countries have set up Working Group on critical minerals in 2021. Australia and the UK are continuing to identify investment opportunities that would bolster Australia's critical minerals sector and the UK's manufacturing and energy ambitions.

³ The revised legislation is reported to: i) increase the ceiling of JOGMEC's loan and investment ratio by expanding government's support through JOGMEC from the current level of 50% to 75% of investment in projects; ii) allow JOGMEC to invest in or grant debt guarantees to domestic Japanese mineral-refining operations (at present JOGMEC can only support refining operations overseas, in practice in China); iii) allow JOGMEC to actively support overseas mining and projects involving Japanese companies (risk money support).

- **UK: adopted the UK Critical Minerals Strategy in July 2022** that sets out the government's plans for improving the resilience of critical minerals supply chains and increasing UK security of supply. Through this strategy, the UK intends to **accelerate** growth of the UK's domestic capabilities; **collaborate** with international partners; **enhance** international markets to make them more responsive, transparent, and responsible.
- **UK:** The UK established its first **Critical Minerals Intelligence Centre** in July 2022, which will provide ongoing intelligence on the supply of and demand for critical minerals. The Centre will provide advice for the government on economic, environmental, ethical, and geopolitical issues linked to supplies of critical mineral resources. The Centre has already published reports on the UK's future demand of critical raw materials for EV batteries, and on the dependency for the UK of 26 critical materials.
- **India and Australia:** The two countries have concluded a bilateral commercial cooperation across the rare earth elements to reinforce supply chains between the two countries in the rare earth sectors.

Specific Measures for Semiconductors

- **US: Chips Act** to include a \$52 billion budget directed towards domestic semiconductor research, design, and manufacturing. The bill was signed on August 9th 2022.
- **US: The Facilitating American-Built Semiconductors (FABS) Act** is to provide semiconductor investment tax credits. The bill was incorporated under the Chips Act.
- **Japan:** Specific subsidies have been proposed in ESPA, targeted at the semiconductors sector to support domestic production. A package worth approx. JPY 800 billion (EUR 6.15 billion) to support the domestic semiconductor industry, with the highlight being the construction of the chip plant in Kumamoto Prefecture by the joint venture of Taiwan Semiconductor Manufacturing Co. (TSMC), Sony and Denso.
- **Japan:** The creation of RAPIDUS – a corporation in which Japan’s major chips manufacturers are participating to establish mass production of next-generation semiconductors – was announced on November 11th 2022.
- **Korea:** Korea recently passed its own Chips Act that give specific advantages to Korean chipmakers with tax breaks to increase production in Korea, with the goal to encourage them to spend a combined about EUR 379 billion by 2030 to facilitate Korea becoming a global powerhouse in memory and non-memory chips. Large companies will get a tax credit of 15% while SMEs capex spending will get a tax break of 25%. Any additional investment in chipmaking in 2023 will get another 10% tax break. In addition, the act streamlines administrative procedures for chipmakers. Samsung Electronics and SK Hynix will notably benefit from those provisions.
- **UK – South Korea** Critical Supply Chain Resilience MOU signed in February 2022. The UK and the ROK plan to explore deeper collaboration including by sharing approaches to building mutual capability, coordination of joint principles and responses to economic shocks, and working together in multilateral fora including, but not limited to, G7+ and G20.
- **China:** Tax breaks, cheaper utility rates, low-interest loans, free or discounted land for chipmakers to meet higher technical standards and to advance technology and to incentivize reshoring and development of local capacity (foreign invested companies are also eligible for these breaks). The general objective is to have complete supply chains under Chinese control (see also Dual Circulation Strategy).
- **India:** The DIR-V program aims to catalyse the country’s semiconductor ecosystem through mass production of next generation indigenous microprocessors. The Indian governments has signed several MoU with electronics firms for them to source themselves with India-made chips. The first India-made chips called Shakti and Vega are expected to be produced by 2023-2024 under the guidance of the Ministry of Electronics and Information Technology’s “Microprocessor Development Programme”. The programme is part of the Indian government’ “Self Reliant India” strategy.

- **India:** The Semicon India Program is a government programme aimed at reinforcing the Indian electronics industry to reduce import dependencies. The programme provides US\$ 10 billion for 100 Indian companies in the field of electronics. The Indian government committed to cover 50% of the costs of companies investing in the sector. Projects in the field of photonics and sensors will see their costs covered to up to 30%. Additional investments by 5 private companies of US\$ 20.5 billion have been pledged as part of the plan for the creation of electronic chip and display manufacturing plants along the semiconductor supply chain. The scheme is run by the Ministry of Electronics and Information Technology.
- **India:** India has launched an “India Semiconductor Mission” to act as the central entity coordinating all semiconductors-related policies of the Indian government and ensure their smooth implementation.
- **Japan:** On 30 September METI approved production plans for advanced memory semiconductors in Hiroshima by Micro Memory Japan and Micron Technology for the subsidy in the maximum amount of ¥46.5billion. Micron which conducts development and production in both the U.S. and Japan. METI emphasized that this would contribute to further strengthening of Japan-US cooperation on semiconductors.
- **UK:** the government is working on the UK Semiconductors Strategy. UK Parliament is conducting an inquiry into the Semiconductors Industry in UK (see: <https://committees.parliament.uk/work/6724/the-semiconductor-industry-in-the-uk/>).



European
Commission



Internal market,
Industry,
Entrepreneurship
and SMEs