The digitalisation of European businesses is essential for the future competitiveness and growth of the economy. It enables companies to innovate in products, services, processes and business models. The European Commission supports an ambitious digital transition, and has set concrete targets for 2030 in the Digital Compass.

**DIGITAL TRANSFORMATION OF BUSINESSES – an overview**

<table>
<thead>
<tr>
<th>BUSINESSES USING</th>
<th>NOW</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud computing services</td>
<td>26%</td>
<td>75%</td>
</tr>
<tr>
<td>Big data</td>
<td>14%</td>
<td>75%</td>
</tr>
<tr>
<td>Artificial Intelligence</td>
<td>8%</td>
<td>75%</td>
</tr>
</tbody>
</table>

SMEs with at least a basic level of digital intensity

<table>
<thead>
<tr>
<th>NOW</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>&gt;90%</td>
</tr>
</tbody>
</table>

To foster European businesses – and in particular SMEs – to digitally transform, the European Commission set up different funding opportunities over 2021-2027, complementing national and regional initiatives.
**HORIZON EUROPE – in a nutshell**

**Summary:** Horizon Europe is the largest transnational research and innovation programme, a successor to Horizon 2020. The programme is prioritised along 4 pillars, broken down in 15 clusters, across all the areas of research and innovation: from excellent science, global challenges and industrial competitiveness, to innovative Europe and widening participation and strengthening the European Research Area. Horizon Europe works in synergy with other funding programmes, among which DIGITAL, ERDF, and CEF.

**Budget:** The budget is €95.5 billion as part of the next long-term EU budget and includes €5.4 billion from NextGenerationEU (NGEU) – the programme out from COVID-19 crisis.

**HORIZON EUROPE BUDGET**

<table>
<thead>
<tr>
<th>EXCELLENT SCIENCE</th>
<th>Total in € million</th>
</tr>
</thead>
<tbody>
<tr>
<td>The European Research Council (ERC)</td>
<td>16 004</td>
</tr>
<tr>
<td>Marie Skłodowska-Curie Actions (MSCA)</td>
<td>6 602</td>
</tr>
<tr>
<td>Research Infrastructures</td>
<td>2 406</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GLOBAL CHALLENGES AND EUROPEAN INDUSTRIAL COMPETITIVENESS</th>
<th>Total in € million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>8 346</td>
</tr>
<tr>
<td>Culture, creativity and inclusive society</td>
<td>2 280</td>
</tr>
<tr>
<td>Civil Security for Society</td>
<td>1 596</td>
</tr>
<tr>
<td>Digital, Industry and Space</td>
<td>15 349</td>
</tr>
<tr>
<td>Climate, Energy and Mobility</td>
<td>15 123</td>
</tr>
<tr>
<td>Food, Bioeconomy, Natural Resources, Agriculture and Environment</td>
<td>8 952</td>
</tr>
<tr>
<td>Non-nuclear direct actions of the Joint Research Centre (JRC)</td>
<td>1 970</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INNOVATIVE EUROPE</th>
<th>Total in € million</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Innovation Council (EIC)</td>
<td>10 105</td>
</tr>
<tr>
<td>European innovation ecosystems</td>
<td>527</td>
</tr>
<tr>
<td>European Institute of Innovation and Technology (EIT)</td>
<td>2 965</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WIDENING PARTICIPATION &amp; STRENGTHENING THE EUROPEAN RESEARCH AREA</th>
<th>Total in € million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widening participation and spreading excellence</td>
<td>2 955</td>
</tr>
<tr>
<td>Reforming and enhancing the European R&amp;I System</td>
<td>438</td>
</tr>
</tbody>
</table>

**TOTAL HORIZON EUROPE**

<table>
<thead>
<tr>
<th>Total in € million</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 517</td>
</tr>
</tbody>
</table>

**Implementation:**

- In pillar II “global challenges and industrial competitiveness”, each cluster has its own work programme. The “Digital, Industry and Space” cluster includes R&I actions for developing the next generation of core digital technologies, implemented in particular through partnerships with industry and academia. Digital is present in the objectives of all clusters, in terms of specific development and uptake of digital for broadly defined sectors such as health, food, energy and mobility.

- The European Research Council (ERC), Marie Skłodowska-Curie actions and research infrastructures under Pillar I cover excellent science in upstream of the innovation chain, whereas the European Institute of Technology (EIT) and the European Innovation Council (EIC) under Pillar III foster a close-to-market innovative approach.

- Horizon Europe is also implemented through the European Defence Fund and is complemented by the Euratom Research and Training Programme.

**Application process:** The Funding and Tenders portal gives an overview of all open, forthcoming and closed funding opportunities. Additionally, precise information on the fund can be found on the Horizon Europe NCP portal.
Horizon Europe should contribute to achieving the digital transition with a substantial increase of investments in main digital R&I activities compared to the past. Below some examples across the different pillars.

**Pillar I (Excellent Science)** includes the European Research Council (ERC) - the first European funding organisation for frontier research, e.g. on emerging technologies - as well as research infrastructure facilities, providing funds for research equipment such as scientific data infrastructures and communication networks.

**Pillar II (Global Challenges and European Industrial Competitiveness)** provides interesting opportunities for R&I in digital transformation in several of its clusters, among which:

- The Digital, Industry and Space cluster worth €15.3 billion, to support research and high-end innovation in enabling technologies, such as Key Digital Technologies, AI, electronics, next generation Internet, high performance computing, big data, 6G;
- The Health cluster, which, with a budget of €8.2 billion, will foster the development of technologies and digital solutions for health and care, including personalised medicine;
- The Food, Bioeconomy, Natural Resources, Agriculture and Environment cluster, which will deploy €8.9 billion for actions including the digitalisation of biodiversity services, agriculture, and digitalisation solutions to support the Green Deal;
- The Climate, Energy and Mobility cluster with €15.1 billion, to implement, among others, climate neutral technologies and innovative digital infrastructures in the energy and mobility field.

**Pillar III (Innovative Europe)** includes:

- The European Innovation Council (€10.1 billion) that also provides accelerator funding for individual SMEs, start-ups and small mid-caps to bridge the financing gap between late stages of research activities and market take-up, to effectively deploy breakthrough, market-creating innovation and scale-up companies;
- The European Institute of Innovation and Technology (€527 million), an independent EU body responsible for boosting Europe’s ability to innovate by financing entrepreneurial talent and supporting new ideas. EIT deploys an instrument called the Knowledge and Innovation Communities (KICs), which are partnerships of businesses, research centres and universities, aimed at solving societal challenges with high innovation potential and creating quality jobs and growth. Among the current eight KICs, one is devoted to digital innovation and entrepreneurial education (EIT Digital) and another is focused on connecting leading manufacturing actors across Europe (EIT Manufacturing).

**Widening Participation and Spreading Excellence actions** (€2.9 billion) contribute to building research and innovation capacity for countries lagging behind.

**Reforming and enhancing the European Research and Innovation system** (€438 million) involves reinforcing policy reforms at national level and complementing them through the development of EU-level policy initiatives, research, networking, partnering, coordination, data collection and monitoring and evaluation.
**Summary:** The Digital Europe Programme (DIGITAL) finances the building of a world-class EU digital capacity to bring digital technology to businesses, citizens and public administrations. It focuses on five key investment areas: supercomputing, AI, cybersecurity, advanced digital skills and deployment activities for the best use of these technologies. European Digital Innovation Hubs (EDIHs) will notably ensure a wide use of digital technologies across the economy and society.

**Budget:** Worth €7.59 billion (2021-2027), DIGITAL is part of the next long-term EU budget - the Multiannual Financial Framework (MFF) – and includes the following investments.

**Implementation:** 4 Work Programmes outline the implementation of DIGITAL

1. **The Main Work Programme 2021-2022**, with a budget of €1383 million, focused on AI, cloud and data spaces, quantum communication infrastructure, advanced digital skills, and the wide use of digital technologies across the economy and society

2. **The European Digital Innovation Hubs (EDIHs) Work Programme 2021-2023**, with a budget of €329 million;


4. The Work Programme for High-Performance Computing is prepared by the EuroHPC Joint Undertaking and follows an independent calendar for adoption.

**Application process:** The European Commission’s Funding and Tenders portal gives an overview of all open, forthcoming and closed funding opportunities.
The **Main Work Programme 2021-2022** (€1383 million) focuses on actions

- Unleashing the potential of data through the setting up of European *common data spaces* built on secure and energy efficient *cloud* to edge technology and promoting the *testing and adoption of trustful AI*;
- Ensuring the deployment of a secure EU *quantum communication infrastructure* (EUroQCI);
- Fostering advanced *digital skills* in key capacity areas through specialised education programmes and other actions;
- Addressing key societal challenges, such as protecting the environment and fighting climate change, through high-impact deployments. For instance, by accelerating the uptake of *blockchain* in Europe, enabling *interoperable digital public services* centred on the needs of users, facilitating the sharing of data across borders in areas like justice and security and promoting an inclusive and trustworthy digital space.

The **European Digital Innovation Hubs (EDIHs) Work Programme 2021-2023** (€329 million) will set up a network of around 200 European Digital Innovation Hubs – i.e. one-stop shops helping companies and public sector organisations to respond to digital challenges – geographically spread all over Europe.

- The selection of EDIHs follows a two-step approach. The first step was an expression of interest by the Member States to designate potential candidates to EDIHs and register them in an online catalogue. Second, the European Commission launched a restricted call for proposals in which only designated potential EDIHS can participate. The selected entities will form the initial network of EDIHs.
- A Digital Transformation Accelerator (DTA) will also be set up to support the work of the EDIHs in accelerating the digitalisation of European businesses.

The **Cybersecurity Work Programme 2021-2022** (€269 million) foresees

- Actions related to the “cyber-shield” announced in the EU Cybersecurity Strategy, including Security Operation Centres (SOC); and
- Actions supporting the implementation of relevant cybersecurity EU Legislation.

Starting 2023, DIGITAL will be expanded to implement actions outlined in the **Chips Act** adopted in February 2022.

**Calls and Work Programmes** for DIGITAL
Summary: The European Regional Development Fund (ERDF) aims at strengthening economic, social and territorial cohesion in the EU by reducing disparities between regions. The ERDF 2021-2027 supports 5 policy objectives to ensure a 1) More competitive & smarter Europe; 2) Greener & low-carbon Europe; 3) More connected Europe; 4) More social Europe; 5) Europe closer to citizens

Budget: The ERDF lies under the EU budget for cohesion policy and for 2021-2027 amounts to €226.05 billion.

Implementation: Resources are allocated to Member States according to their gross national income (GNI) ratio and to regions, divided in 3 categories according to their GDP per capita. An overview of Member States and regions categories can be found online.

- **Group 1:** GNI ratio equal to or above 100% of the EU average
- **Group 2:** GNI ratio equal to or above 75% and below 100% of the EU average
- **Group 3:** GNI ratio below 75% of the EU average

- **More developed regions:** GDP/head less than 75% of the EU average
- **Transition regions:** GDP/head between 75% and 100% of the EU average
- **Less developed regions:** GDP/head less than 75% of the EU average

The ERDF operates under shared management: the Commission adopts the programmes with a decision upon their submission by Member States, which are in charge of the programmes. The latter indicate if support to beneficiaries is deployed in the form of grants, financial instruments or prizes (or their combination).

- **Grants** may take the form of reimbursement of eligible costs actually incurred, unit costs, lump-sums, flat rate financing and financing not linked to costs.
- **Financial instruments** can be implemented directly by the Managing Authorities of the programmes or by entrusted financial bodies (e.g. NPBs, EIB, international financial institutions) selected by the Managing Authority.

Application process: see next page for more information
The ERDF application process differs between financial instruments and grants.

**Grants**

Member States define their operational programmes for 2021-2027 in line with the following policy objectives (PO):

- (PO1) A more competitive and smarter Europe
- (PO2) A greener Europe
- (PO3) A more connected Europe
- (PO4) A more social and inclusive Europe
- (PO5) A Europe closer to citizens

The application for grants runs through the Commission. In this respect, the [Funding and Tenders portal](https://fundingandtenders.ec.europa.eu) gives an overview of all open, forthcoming and closed calls.

**Financial Instruments**

The application for financial instruments is not directly carried out by the Commission. Instead, Managing Authorities decide the modalities and the selection to allocate the funding. Applicants in each Member State/region can find their relevant Managing Authority by using the [online catalogue](https://erdfonline.ec.europa.eu) or they can select their preferred financial intermediaries using the [access2finance.eu](https://access2finance.eu) website.

The ERDF can be used in combination with DIGITAL to fund opportunities for SMEs and Digital Innovation Hubs. The ERDF is also compatible with InvestEU and Horizon Europe.
Summary: The InvestEU programme supports the provision of long-term funding for sustainable investments by leveraging private and public funds. The InvestEU Fund aims at mobilising more than €372 billion of investments through an EU budgetary guarantee, to be implemented by the EIB Group (EIB, EIF) and other financial institutions such as International Financial Institutions (IFIs) and National Promotional Banks and Institutions (NPBIs). These implementing partners are responsible for deploying and leveraging the EU guarantee to support investments in businesses fulfilling specific policy priorities, notably corresponding to the green and digital transitions. The InvestEU implementing partners roll out a broad range of direct and intermediated financial products, such as loans, counter-guarantees, quasi-equity and equity.

The InvestEU Fund is complemented by the InvestEU Advisory Hub, providing technical assistance for the preparation, development, structuring and implementation of investment projects and the InvestEU portal, an EU-wide platform bringing together investors and project promoters.

Budget: Implementing partners have access to the InvestEU guarantee through 4 main policy “windows” to provide financial products to businesses corresponding to their needs.

The InvestEU guarantee represents €26.2 billion to act as a leverage on the financial markets. Advisory support, the project portal and other accompanying measures amounts to €430 million.

Implementation: implementing partners deploy financial products made possible with the support of InvestEU Fund. 75% of the InvestEU guarantee is implemented by the EIB Group (EIB, EIF), while 25% is reserved for other financial institutions such as IFIs and NPBIs.

Financing and investment operations are implemented based on the InvestEU governance structure and implementing partners’ relevant procedures.

For example, to provide capital support to SMEs, an implementing partner has to propose a financial product to deliver capital and build a portfolio of operations under one or more policy windows. SMEs will be eligible for financial support if they meet the eligibility criteria of a particular product.

Application process: Project promoters and businesses interested in debt or equity investments for their projects have to contact local financial intermediaries or implementing partners directly, i.e. through the partner listing provided on the access2finance.eu website.
The InvestEU Programme is composed of three building blocks: the InvestEU Fund, the InvestEU Advisory Hub and the InvestEU portal.

The InvestEU Fund
To support implementing partners to deploy financial products, this Fund supports investments through 4 policy windows with a strong emphasis on EU policy priorities. At least 20% of financial products have to target digital priorities.

1. Sustainable infrastructure
This policy window is devoted to the financing of projects in sustainable energy, digital connectivity, transport, the circular economy, water, waste, other environment infrastructure and more.

2. Research, innovation and digitalisation
This policy window aims at supporting projects in research and innovation, transfer of technologies and research results to the market, demonstration and deployment of innovative solutions to scale up innovative companies as well as digitalisation of businesses.

3. Small and medium-sized companies
The goal of the investments under this policy window is to facilitate SMEs’ access to finance, including capital support for SMEs that were negatively affected by the COVID-19 crisis.

4. Social investment and skills
The projects financed under this policy window relate to skills, education, training, social housing, schools, universities, hospitals, social innovation, healthcare, long-term care and accessibility, microfinance, social enterprise, integration of migrants, refugees and vulnerable people, and more.

The InvestEU Advisory Hub
This Hub serves as central entry point for investors seeking advisory support and technical assistance related to EU investment funds, as well as for businesses with an investment project. Managed by the European Commission and financed through the EU budget, the Hub also connects project investors and advisory partners, allowing them to collaborate directly on reaching a project financing stage.

The InvestEU Portal
This Portal provides enlisting and matchmaking for investors and businesses through an easily accessible and user-friendly project database granting visibility to investors and to investment opportunities available in the EU.
**Summary:** The Connecting Europe Facility (CEF) aims at targeted infrastructure investments across Europe. The facility provides funding to Member States’ projects fostering high performing, sustainable and interconnected trans-European networks in three key sectors: transport, energy and digital. In this way, the CEF benefits people and businesses across all the EU.

**Budget:** The CEF 2021-2027 budget mobilises €20.73 billion, partially coming from the European Strategic Investments in the current Multiannual Financial Framework (MFF) and from the Cohesion Fund. The CEF also works in complementarity with other important funds such as Horizon Europe and the European Fund for Strategic Investments.

**Implementation:** The CEF is implemented through multiannual work programmes per key sector. The budget for each sector is deployed under the direct management of the European Commission (i.e. executive agencies CINEA for transport and energy, HaDEA for digital) or indirect management. In addition to grants, the CEF is implemented also through innovative financial instruments such as guarantees and project bonds.

**Application Process:** Information on Calls and applications can be found on their respective key sector CEF websites.

- CEF Energy funding and projects
- CEF Transport funding and projects
- CEF Digital: calls & implementation
CEF is organised in three key sector programmes.

1. **CEF Energy**
   
   With a budget of **€5.84 billion**, the CEF Energy aims at supporting investments in building new cross-border energy infrastructure in Europe or rehabilitating and upgrading the existing one. In particular, nine priority corridors and three priority thematic areas have been identified in the Trans-European Network for Energy strategy. The CEF supports the implementation of Projects of Common Interest (PCIs) in these priority corridors and thematic areas.

2. **CEF Transport**
   
   With a budget of **€25.8 billion**, the CEF Transport focuses on investments in building new and innovative transport infrastructure in Europe or rehabilitating and upgrading the existing one. More specifically, CEF Transport focuses on cross-border projects and projects aiming at removing bottlenecks or bridging missing links in various sections of the Core Network and on the Comprehensive Network foreseen by the Trans-European Network for Transport policy. **€11 billion** of the budget are reserved for cohesion countries.

3. **CEF for Digital**
   
   With a budget of **€2.06 billion**, the goal of CEF Digital is to support and catalyse investments in **digital connectivity infrastructures of common interest**.

   Actions foreseen to be supported under CEF Digital for 2021-2027 include:
   
   - Deployment of/access to very high-capacity networks, including 5G systems, capable of providing Gigabit connectivity in areas with socio-economic drivers (e.g. schools);
   - Uninterrupted coverage with 5G systems on all major transport paths, including the trans-European transport networks;
   - Deployment of new or upgrade of existing backbone networks including submarine cables, both within/between the EU Member States and third countries;
   - Implementation of digital connectivity infrastructures related to cross-border transport and energy projects and/or the support of operational digital platforms directly associated to these infrastructures.

There are clear synergies between CEF and Horizon Europe

Look at opportunities for synergies [here](#)
With a budget of **€723.8 billion** (in loans and grants, for 2021-2027), the **Recovery and Resilience Facility (RRF)** is at the centre of the [NextGenerationEU (NGEU)](https://nextgeneration.europa.eu/en), temporary instrument to rebound stronger out of the crisis. The Commission raises funds on the markets, on behalf of the Member States, to help them repair the economic and social damage brought about by the recent shocks, and to build a more resilient long-term prosperity.

The RRF is another **important source of funding for the digitalisation of businesses**. Each national Recovery and Resilience plan dedicates at least 20% of foreseen expenditures to foster the digital transition. According to the indicators in the national plans submitted to date, this represents no less than **23.6 billion** for the digitalisation of businesses.

With the EU RRF financing, each [Member State](https://europa.eu/ropeast/fund/rrf_en) implements specific actions as outlined in their plan. The national authorities indicate whether, when and how support to beneficiaries is deployed through their respective websites.


**Other funding programmes of interest**

- The [Single Market Programme](https://ec.europa.eu/info/-/archive/trade_en) aims to improve SMEs’ access to finance and is managed by the [European Innovation Council and SMEs Executive Agency (EISMEA)](https://ec.europa.eu/innovation/)
- The [Common Agricultural Policy](https://ec.europa.eu/agriculture/) (CAP) supports small companies and rural communities to make more out of digital technologies
- The [Microfinance Facility](https://ec.europa.eu/enterprise/financing-microfinance_en) helps the SME sector by providing loans to individuals for setting up or developing a small business
- The [European Social Fund Plus](https://ec.europa.eu/social/main.jsp?catId=67&langId=en) (ESF+) provides support to SMEs to help them improve their competitiveness, for example via trainings
- The [European Maritime, Fisheries and Aquaculture Fund (EMFAF)](https://ec.europa.eu/fisheries/financing-enabled-sme-sustainable-development-fund) supports SMEs in fisheries and aquaculture
- The [LIFE programme](https://ec.europa.eu/environment/life), managed by the [European Climate, Infrastructure and Environment Executive Agency (CINEA)](https://ec.europa.eu/environment/life), helps companies bring their green products, technologies, services and processes to the market

**DISCLAIMER** - The purpose of this guide is to provide basic facts on existing EU funding opportunities for the digitalisation of businesses. This guide is making no claim to be exhaustive and neither the Commission nor any person acting on the Commission’s behalf may be held responsible for the use which may be made of the information contained therein.