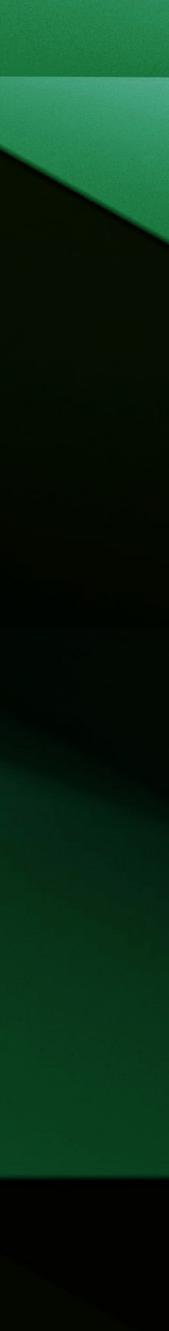
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The progress towards the EU's Digital Decade ambition Final Summary of Key Findings Deloitte LLP

25 March 2022



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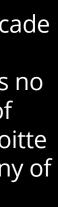
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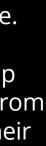
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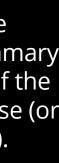
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Context, scope and purpose of the study

In the context of the EU's digital vision, this study provides an update on the EU's progress towards the Digital Decade targets, and the status of the Recovery and Resilience Facility, and identifies policy enablers that alongside digital investment could help deliver the EU's digital ambitions.

Context for the study

The EU's 2030 Digital Compass sets out the ambition for the digital transformation of the EU and Digital Decade targets to measure progress towards that ambition.¹ The Recovery and Resilience Facility (RRF) is a temporary instrument intended to mitigate the impact of the pandemic while supporting digital and green investments.

A report published by Deloitte in June 2021 found that:²

- The Digital Decade targets are ambitious and will require Member States to make significant progress across each target area.
- The gap between current and target levels of digitalisation varies greatly across Member States, with each facing different challenges.
- Further private and public investment may be needed in certain areas to achieve targets, **in particular** Infrastructure, Digital Skills and Businesses.

Scope of the study

A year on from the launch of the RRF in February 2021, Deloitte has undertaken a study, commissioned by Vodafone, that builds on the previous report by:

- the Digital Decade targets;
- from the **RRF**;
- digital transformation.

This document presents a summary of the key findings from the main report to that study, to be published on 25 March 2022. It should be read in conjunction with that report.

1 European Commission 2 Deloitte (2021)

• Providing an overview of the current state of digitalisation in the EU27 and progress made towards

• Summarising the progress of the RRF and the **digital investments** that are being made by Member States

• Identifying key policy enablers, that could help make digital investments more effective and unlock the further investment that is needed to support the

Purpose of the study

This Summary of Key Findings, alongside the main report, is intended to provide a basis for discussion of:

- Where action may be needed in order to achieve the EU's digital targets.
- What Member States have already achieved and how these achievements can inform future investments.
- How to unlock the potential of the RRF as an opportunity to stimulate digital and sustainable transformation.





Key findings

The EU's digital vision is ambitious, and while progress is being made towards digitalisation targets, the scale and complexity of the digital transformation means that digital investments and policy enablers are key to realising the vision.

The EU's digital vision



The EU's digital vision presents the ambition for a prosperous digital future

- The EU's vision is to become digitally sovereign and to develop the digital capabilities to empower people and businesses.¹
- Through its vision, the EU could support the creation of new digital ecosystems (e.g. smart cities, smart grids, e-government, e-health) that could generate significant economic, environmental and social benefits.

Digital Decade targets

Progress is being made towards the digital targets, but gaps remain

The Digital Decade targets provide a framework to measure the EU's digital transformation. Reaching the targets will be an important foundation for the vision to be realised.

- Across the EU27, **further progress has** been made in reducing the gap between current and target levels of digitalisation.
- In some areas **progress** towards targets appears to be slower.
- In all areas the gap still exists, and the size of the gap varies across Member States.

1 European Commission 2 European Commission

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The RRF



The RRF is providing significant digital investment to help achieve the targets and realise the EU's vision

RRF funding to support investments is being released, and could support progress towards the Digital Decade targets and the EU Vision.² Further public and private sector investment will also be needed to achieve this.

- 21 Member States have started to receive RRF funding, with 15% of total funding across Member States' RRPs having been disbursed.
- Around €130bn of RRF funding is allocated to **digital investments**.
- These investments will be phased and will both take time to be completed and take effect.

Key policy enablers



Policy could enhance the impact of planned digital investments and unlock the further investment that is needed

Key policy enablers to support digital investments and unlock the further digital investment that is needed to realise the EU's vision could include:

- Co-ordination across government to ensure digital investments are effectively targeted, synchronised, and timed.
- **Connecting digital ecosystems** so that digital investments are more effective in enabling digital ecosystems to emerge.
- **Demonstrating digital value** to help unlock further public and private sector digital investment.
- Facilitating data sharing to enable innovation and value creation from digital investments and, in turn, unlock further digital investment.



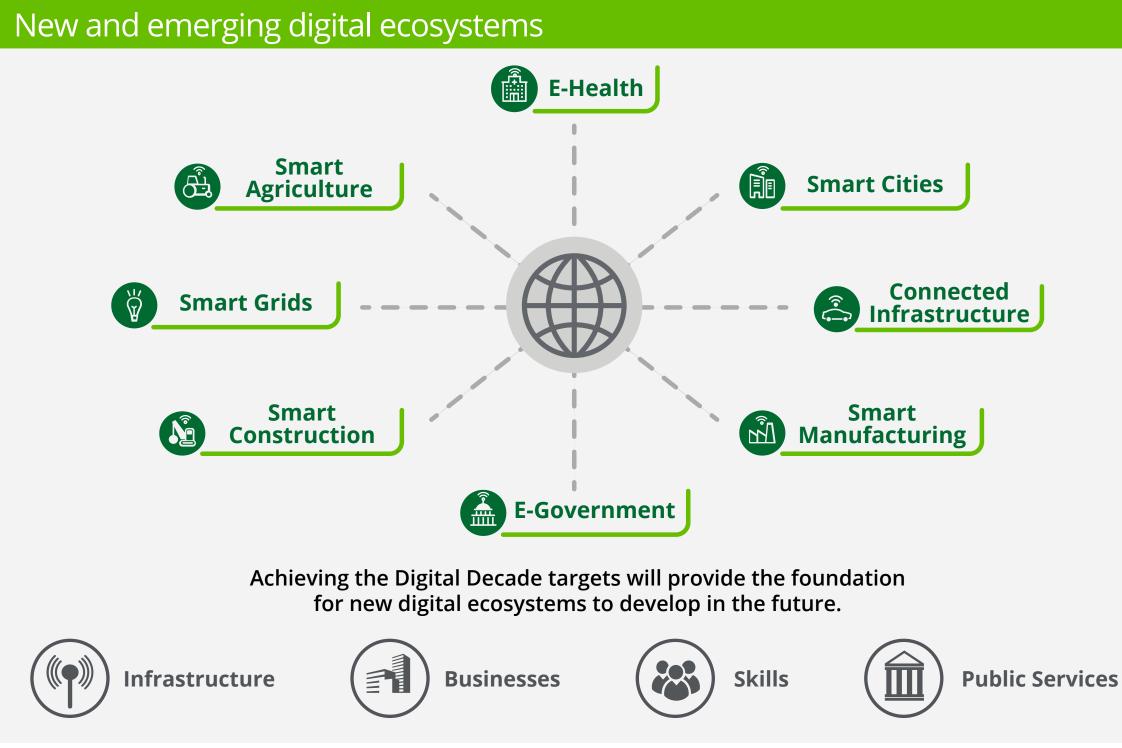


The EU's digital vision | Ambition for a prosperous digital future

The EU's vision is to help build the digital capabilities that empower people and businesses and create digital ecosystems that can generate significant economic, environmental and social benefits.

The EU's vision for a digital future

The EU has the vision to be digitally sovereign in an interconnected world by building and deploying technical capabilities that empower people and businesses to seize the potential of the digital transformation, and help build a healthier and greener society.¹



1 European Commission: 2030 Digital Compass; 2 European Commission: Shaping the Digital Transformation in Europe; 3 European Commission: Supporting the Green Transition; 4 World Economic Forum

The progress towards the EU's Digital Decade ambition

Final Summary of Key Findings



Benefits of digital ecosystems

Economic benefits: Productivity gains and innovation that drive economic growth.

The cumulative **additional GDP** contribution of **new digital technologies** could amount to €2.2trillion in the EU by 2030.²

Environmental benefits: Energy efficiency and reduced emissions that support sustainability.

Technologies could help reduce emissions by 7 times more than the amount created by the ICT sector and could reduce global emissions by up to 15%.³

Social benefits: Inclusion and better quality of life for all citizens.

Usage-based insurance (UBI), coupled with Assisted driving technologies, which use real-time vehicle data, could help reduce the projected annual death toll of 2m from road accidents by 10% by 2025.⁴



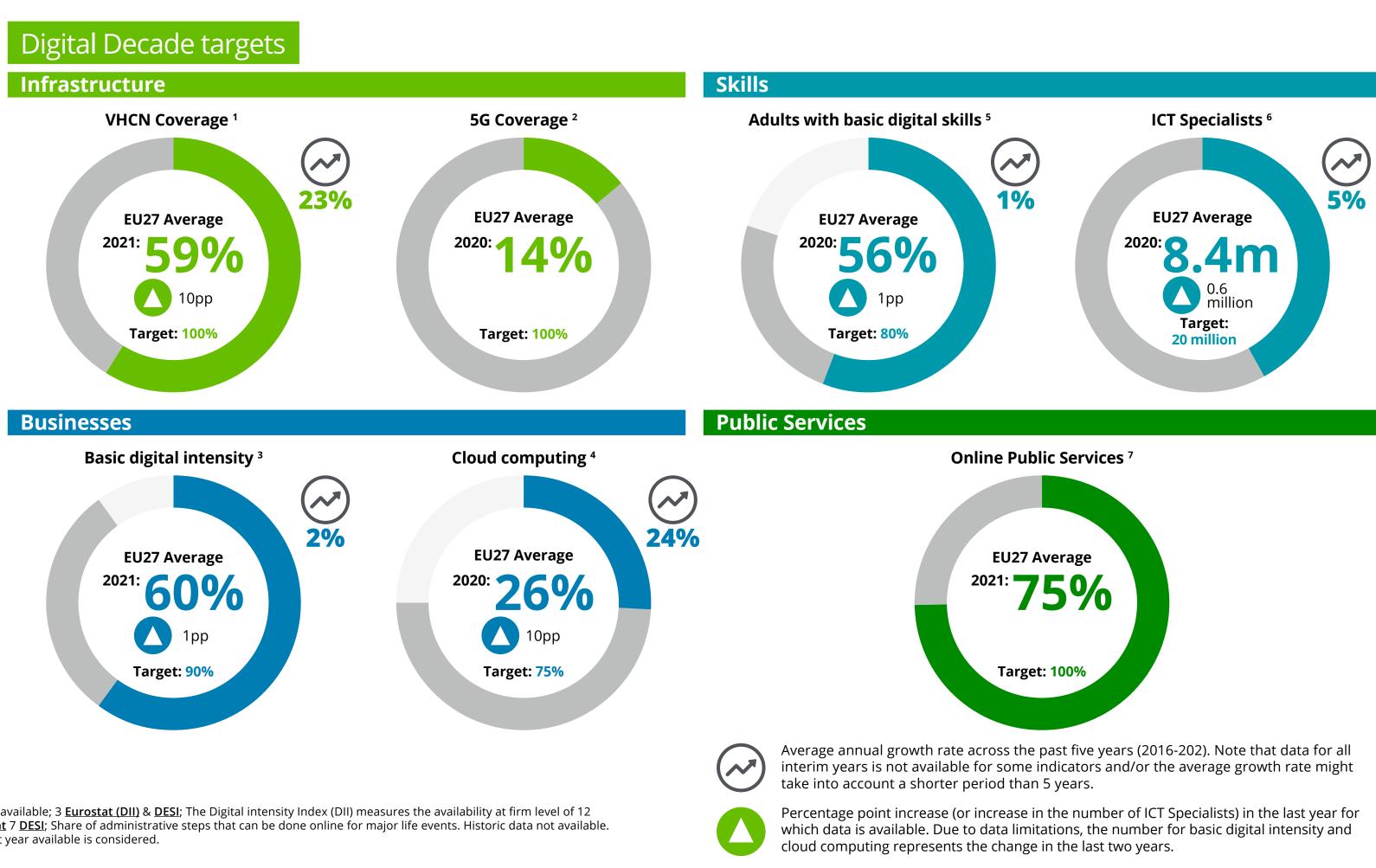
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Digital Decade targets | Summary of progress towards the targets

While gaps still remain, further progress has been made towards the Digital Decade targets over the last year, in particular levels of Very High Capacity Network (VHCN) coverage and cloud computing adoption.

Key takeaways

- In all areas the gaps still exist and vary across Member States.
- Progress has been made in reducing the gap between current and target digitalisation levels over the last year, in particular in increasing VHCN coverage and cloud computing adoption (although gaps remain).
- In some areas, such as business digital intensity and basic digital skills, progress towards targets appears to be slower.
- In some cases assessing indicators over a longer time horizon (e.g. the next 3-4 years) may provide a better indication of progress towards the targets, given that planned digital investments will take time to feed through to the indicators (e.g. it may take several years for investments in digital skills to have a material impact on the number of ICT specialists).
- Further support, including investment, may be needed in areas that appear furthest from the target and/or where there has been relatively slow progress to the target.



1 DESI; Share of households covered by VHCN; 2 DESI; 5G mobile broadband coverage (% of households). Historic data not available; 3 Eurostat (DII) & DESI; The Digital intensity Index (DII) measures the availability at firm level of 12 different digital technologies; 4 Eurostat; Share of enterprises using at least one cloud computing service; 5 DESI; 6 Eurostat 7 DESI; Share of administrative steps that can be done online for major life events. Historic data not available, Note: The data represents the latest data available for each indicator. Where 2021 data is not available, data from the latest year available is considered.







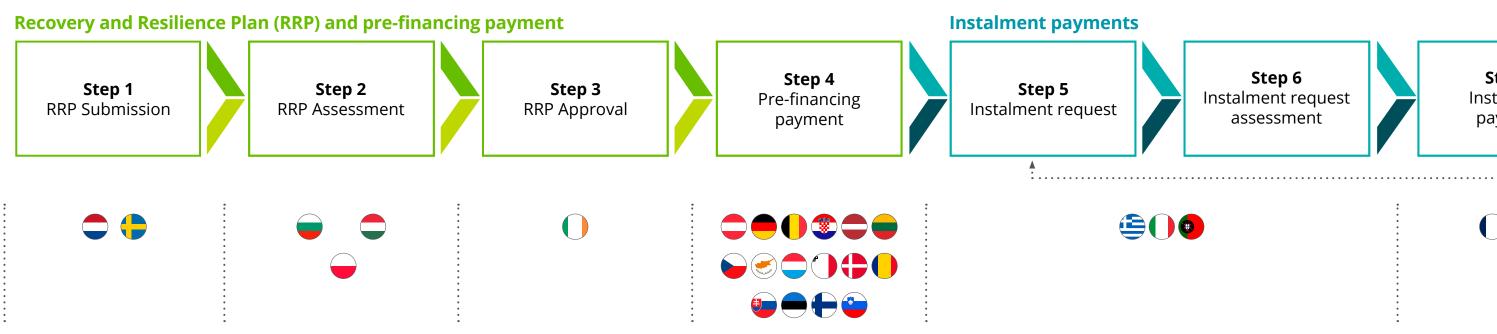
The RRF | The disbursement of funding

21 Member States have started to receive RRF funding, with around 15% of total funding across Member States' RRPs having been disbursed, some of which is already being used for digital investments.

in GDP growth

- differently.

Member States are at different stages of the process to access RRF funds.



1Based on the European Commission's Autumn 2021 GDP forecasts. European Commission

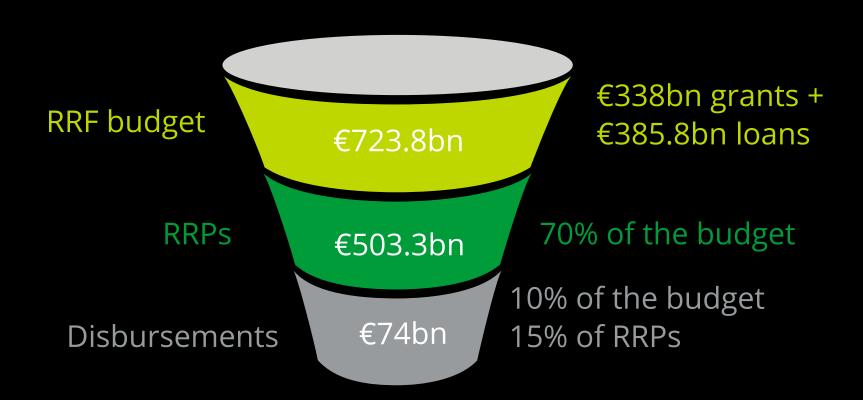


Some funding has already been disbursed, but there will be an update to the allocation of grants to reflect changes

• Of the €503.3bn in the RRPs, €74bn (15%) has been distributed to Member States so far. Some of this funding has already been used for digital investments.

• 30% of the grants in RRPs (€101.4bn) are expected to be reallocated to reflect variations between forecast and actual GDP growth, with Member States impacted

• Based on the latest GDP forecasts (published in November 2021), Ireland, Romania and the Netherlands may see the largest relative decreases in grants while Germany, Portugal and Spain may see the largest relative increases.¹



Step 7 Instalment payment



The RRF | Digital and green RRP investments linked to the Digital Decade targets

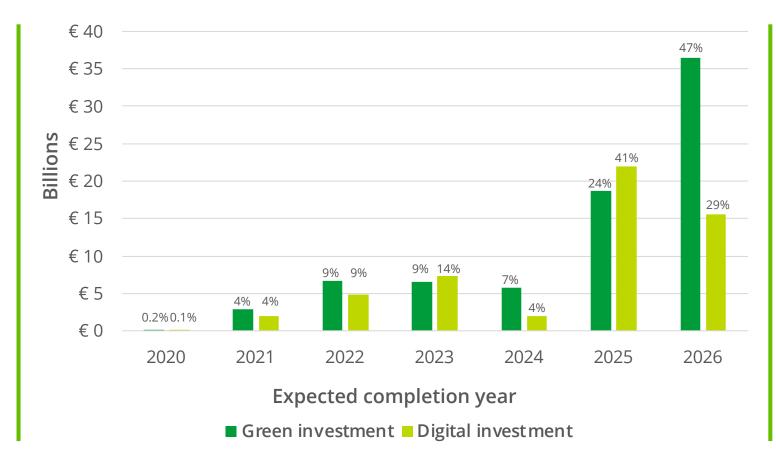
Around €130bn of RRF funding is allocated to digital investments, with some of the largest digital investments focussed on digital health, infrastructure and SME digitalisation; these investments will be phased and take time to be completed and take effect.

The completion of digital and green projects will take time as most investments will be spread over several years and will be completed towards the end of 2025/26.

Based on the investment timeline, it might take some time until the digital progress enabled through those investments will be reflected in the Digital Economy and Society Index (DESI) score.

Figure 1: Investment profile of digital and green investment for six of the seven selected Member States

(incremental proportion of digital/green funding completed over time)¹



Digital expenditure across Member States amounts to 26% of the RRF funding linked to RRPs, around €130bn.²

France

Digital Health Expected investment completion year: 2024

Digital Skills

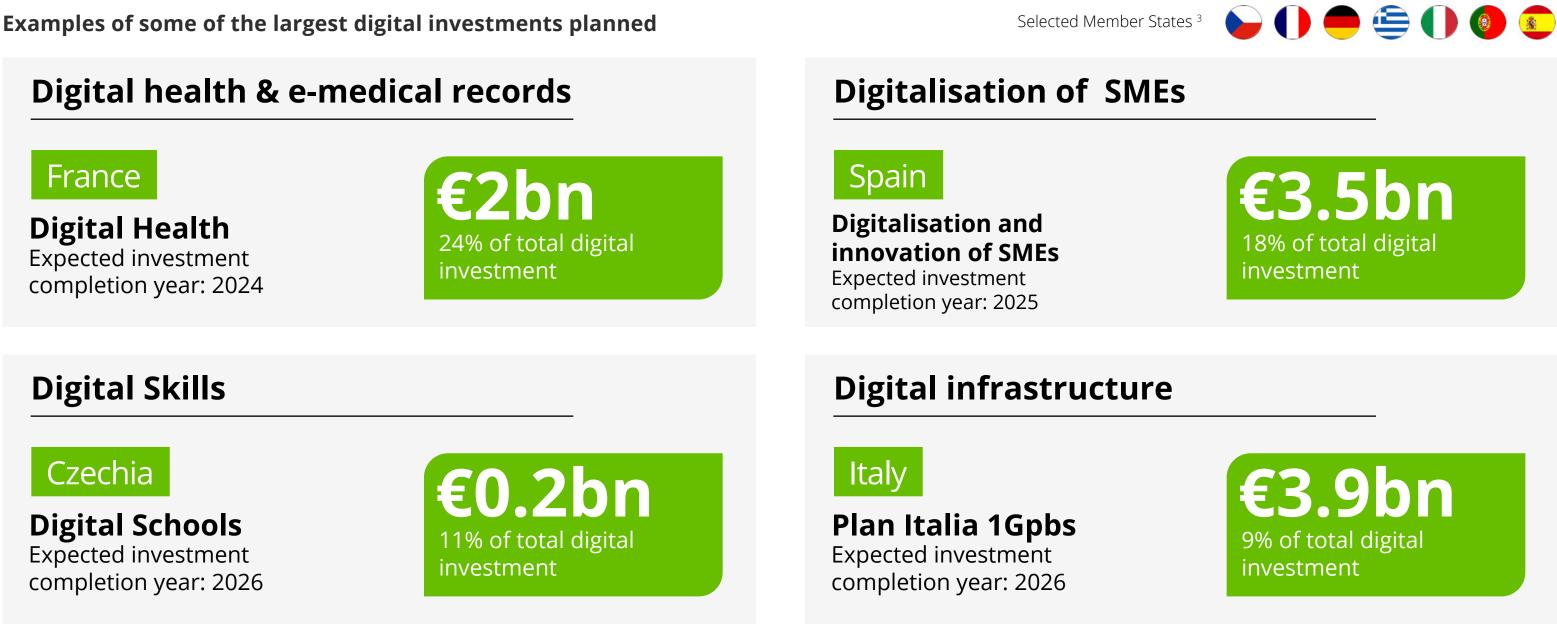


Digital Schools Expected investment completion year: 2026

Details on green and digital investments and the Digital Decade targets that those investments address for each of the seven Member States can be found in the main report.³

Note: 1 Investment year refers to the expected completion date of investment projects and does not show when investments are being carried out (due to data limitations). Some investments may be spread over multiple years. Information is based on the review of the European Commission's RRP assessments and analyses for seven selected Member States; Public information on the investment profile for Italy was limited and , therefore, it is excluded from the chart. 2 European Commission; 3 The Member States whose RRPs contain the relevant information to undertake the analysis.

Member States are investing large amounts in digital health, digital skills, the digitalisation of SMEs, and the deployment of digital infrastructure, contributing towards achieving the Digital Decade targets.





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Key Policy enablers | Proposed key enablers to deliver the EU's 2030 vision

Policy can play a key role in making these digital investments more effective and help unlock the further investment that is needed to support the digital transformation.

Key policy enablers I Enhancing the impact of planned digital investments and unlocking the further investment that is needed

Four key policy enablers have been identified based on a literature review and interviews with policymakers and industry experts. The following sets out potential policy measures for each enabler.



Co-ordination across government to ensure digital investments are effectively targeted, synchronised, and timed.

Creating a whole-ofgovernment coordinator

Using cross-government liaison offices and events Developing aligned crossgovernment Key Performance Indicators (KPIs)

"It's critical to have aligned incentives across government at the central," regional and local authority level"

General Director of an Association for Digitalisation



Demonstrating the value of digitalisation to help unlock further public and private sector digital investment.

Creating pilot schemes as proof of concept

Using case studies as benchmarks

Developing measurement frameworks

"A significant amount of our RRF budget for digital development will be invested in a pilot project to support SMEs"

Assistant Secretary of a Member State's Department for Business





Connecting digital ecosystems so that digital investments are more effective in enabling digital ecosystems to emerge.

Creating forums for public / private collaboration

Trials and testing facilities for industry collaboration

Creating task forces to help facilitate collaboration



"Building connections and enabling knowledge sharing between private entities is crucial"

Managing partner of a public investment fund



Facilitating data sharing to enable innovation and value creation from digital investments and, in turn, unlock further digital investment.

Reducing process complexity

Safeguarding the sharing of data

Creating local data platforms

"Exchanging data between public service systems is key for the digitalisation of the country. This relies on having interoperable standards and systems for data sharing"

Member of a Member State's Parliament











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