

Fostering knowledge valorisation and strategic autonomy

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The policy context – Industrial strategy

The Commission communication (10 March 2020) “A New Industrial Strategy for Europe” and its 2021 update

- The European Green Deal is Europe’s **new growth strategy**. At the heart of it is the goal of becoming the world’s first **climate-neutral continent by 2050**.
- Industry has a leading role to play in what is the greatest challenge and opportunity of our times.
- Stepping up **investment in research, innovation, deployment and up-to-date infrastructure** will help develop new production processes and create jobs in the process.
- **Transition pathways** for European industrial ecosystems (16 key industrial ecosystems) – includes needs for research & innovation, techniques and technological solutions

The Green Deal Industrial Plan (January 2023)

- A comprehensive plan for **enhancing the competitiveness of Europe's net-zero industry** and supporting the fast transition to climate neutrality
- Strong focus on the **development and deployment of key cutting-edge technologies** strategic for the green and digital transitions

The Net-zero Industrial Act (Commission proposal March 2023)

- Create conditions for **stronger research and innovation efforts** to develop and deploy net-zero technologies

The policy context – Research & Innovation

The Council conclusions of 29 May 2018 on ‘Accelerating knowledge circulation in the EU’

- EU needs to make full use of the relevant scientific and technological knowledge it produces and to **ensure a more effective transfer of R&I to society and industry** in order to maximise the impact of R&I investment
- **Research Infrastructures** play an essential role in the advancement and circulation of knowledge

New European Research Area (2020 Commission Communication and Council conclusions)

- additional efforts are needed to **translate the Union’s intellectual and scientific assets** into new products and services that meet societal demands
- developing common **industrial technology roadmaps** to support the implementation of the New Industrial Strategy by jointly, with European Universities and research and technology organisations (RTO) and Technology Infrastructures as important partners
- infrastructures can make a significant contribution to innovation – strengthening the **use of research infrastructures for technological applications** and strategic **development of European technology infrastructures** to quickly develop and test their innovations and successfully introduce them to the market

Council Recommendation on “A Pact for Research and Innovation in Europe” (2021)

- recognises **value creation and societal and economic impact** as part of the common set of values and principles for R&I
- supporting **open access** to research infrastructures, technology infrastructures and their services
- **investing in the availability of research and technology infrastructures**, interactions with industry and other actors
- identifies **knowledge valorisation** as one of the priority areas for joint action in support of the ERA

ERA Policy Agenda: Actions (1)

Deepening a truly functioning internal market for knowledge

1. Enable the open sharing of knowledge and the re-use of research outputs, including through the development of the European Open Science Cloud (EOSC)
2. Propose a EU copyright and data legislative and regulatory framework fit for research
3. Advance towards the reform of the Assessment System for research, researchers and institutions to improve their quality, performance and impact
4. Promote attractive and sustainable research careers, balanced talent circulation and international, transdisciplinary and inter-sectoral mobility across the ERA
5. Promote gender equality and foster inclusiveness, taking note of the Ljubljana declaration
6. Deepening the ERA through protecting academic freedom in Europe

7. Upgrade EU guidance for a better knowledge valorisation
8. Strengthen sustainability, accessibility and resilience of research infrastructures in the ERA
9. Promote a positive environment and level playing field for international cooperation based on reciprocity

Taking up together the green transition and digital transformation and other challenges with impact on society, and increasing society's participation in the ERA

10. Make EU R&I missions and partnerships key contributors to the ERA
11. An ERA for green transformation
12. Accelerate the green/digital transition of Europe's key industrial ecosystems
13. Empower Higher Education Institutions to develop in line with the ERA, and in synergy with the European Education Area
14. Bring Science closer to Citizens

ERA Policy Agenda: Actions (2)

Amplifying access to research and innovation excellence across the Union

15. Build-up regional and national R&I ecosystems to improve regional/national excellence and competitiveness
16. Improve EU-wide access to excellence
17. Enhance the strategic capacity of Europe's public research performing organisations

Advancing concerted research and innovation investments and reforms

18. Facilitate a national process or ERA policy vehicle preparation for identification of running or planned measures contributing to the implementation of ERA
19. Establish an efficient and effective ERA monitoring mechanism
20. Support to the prioritisation, coordination and direction of R&I investments and reforms

Action 12. R&I for the green/digital transition

Taking up together the challenges posed by the twin green and digital transition, and increasing society's participation in the ERA

Action 12 – Accelerate the green/digital transition of Europe's key industrial ecosystems

Four activities

- Development of **industrial technology roadmaps** on low carbon technologies for energy-intensive industries and on circular industrial technologies.
- Creation of a **coordination mechanism** to provide industry with the technology infrastructures needed to test, validate and upscale innovations.
- Build **policy framework** to better support transfer of fundamental/low TRL research results to industrial R&I.
- Address the **social adaptation** of the green (and digital) transitions.

Two processes

- **Consultation process** on the R&I-related needs of industry, including skilling/upskilling needs, digitalisation, R&I driven standardisation, common technology roadmaps, and research and technology infrastructures.
- Development of a **policy approach to link industrial and R&I policies**, notably on how to accelerate the industrial uptake of R&I results, and launch pilots in transport and energy industrial ecosystems.

Challenges to be addressed

Strengthening and accelerating the transfer of R&I to the economy

Increase private and public investments in R&I in sectors where low-carbon technologies are needed

21 MS, 3 AC and 8 SH committed to the action.

Action 12. Technology Infrastructures

New European Research Area (2020 Commission Communication)

- establishing a governance structure for TIs, including bringing together and completing currently existing mappings of available facilities, performing a gap analysis and prioritisation at EU level and elaborating recommendations for common access conditions and engagement models

Advisory Board on Technology Infrastructures (expert group)

- ✓ identification of strategic pilot areas for exploring and implementing a European approach to TIs
- ✓ analysis of the needs of industry, including SMEs and start-ups, for TIs and their facilities and services, in the selected pilot areas
- ✓ proposing criteria, methodologies and processes for the development of investment agendas to serve key industrial ecosystems, based on a mapping and gap analysis
- ✓ provide options and recommendations for a coordination mechanism for TIs at EU level, with the aim to foster the availability and accessibility of TIs as well as inter-connections between complementary TIs and synergies with research infrastructures

Mapping of TIs and stocktaking of national policies and programmes to address and support TIs (study)

- ✓ Stocktaking of national policy initiatives and programmes targeting TIs
- ✓ Mapping of TIs and their services in Europe in selected sectors and identifying the existing gaps
- ✓ Overview of public investment plans focusing on the upgrade and creation of TIs as well as development of TI services at EU, national and regional levels to enable a better understanding of the TI funding landscape in the EU

Analysis of TI access conditions

- ✓ A workshop on TI access conditions with TI managers and users, both private and public users, stakeholders and research infrastructures providing services to industrial users
- ✓ Identification of user categories and access needs, notably for SMEs, and recommendations on best practices of access conditions and means of flexibility needed
- ✓ Recommendations on enhanced and harmonised access conditions to TIs and appropriate EU-level support (e.g. Charter)

Action 7. Knowledge Valorisation

DEEPENING A TRULY
FUNCTIONING INTERNAL
MARKET FOR KNOWLEDGE

Action 7 – Upgrade EU Guidance for a better
knowledge valorisation

Set of foreseen outcomes

- Develop and endorse Guiding Principles for knowledge valorisation
- Development of a Code of Practice for smart use of IP together with stakeholders
- Development of a Code of Practice for researchers on standardisation

21 MS, 2 AC and 9 SH committed to the action.

Action 7. Knowledge valorisation

Council Recommendation on Guiding Principles for knowledge valorisation (2 December 2022)

- pan-European **commitment to accelerate the uptake of research and innovation results** into solutions for people and the planet
- addressed to the **whole research and innovation ecosystem** and all its actors, including explicitly RIs and TIs
- call to develop and implement a relevant and fair **system of incentives for all R&I ecosystem actors** to learn, apply and practice knowledge valorisation, including for public research organisations
- **develop skills and capacities** across all relevant actors to strengthen knowledge valorisation
- consider **specific funding schemes** to complement research funding in order to ensure that knowledge valorisation is incentivised early on in research, including **support to intermediaries**
- promote the careful **management of all intellectual assets** and bring forward the need to strengthen the entrepreneurial culture, practices and skills for enhanced knowledge valorisation across the Union
- call for businesses, particularly SMEs, civil society, citizens, end-users and public authorities to be active partners in co-creating value-adding innovation, thereby improving access to and the use of knowledge and encouraging joint experimentation
- guiding principles are accompanied by **Codes of Practice** that provide more detailed guidance for actors 'on the ground':
 - Codes of Practice on **intellectual assets management** and on **standardisation in the ERA** (adopted 1 March 2023)
 - Codes on **industry-academia collaboration** and on **citizen engagement for knowledge valorisation** (under preparation)
- **EU Knowledge Valorisation Platform** - the stakeholder forum to share experiences and learn about latest developments

Thank you!



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