© European Union, 2022



IEA Experts Group on R&D Priority – Setting and Evaluation Workshop

The role of standardisation in the valorisation of knowledge

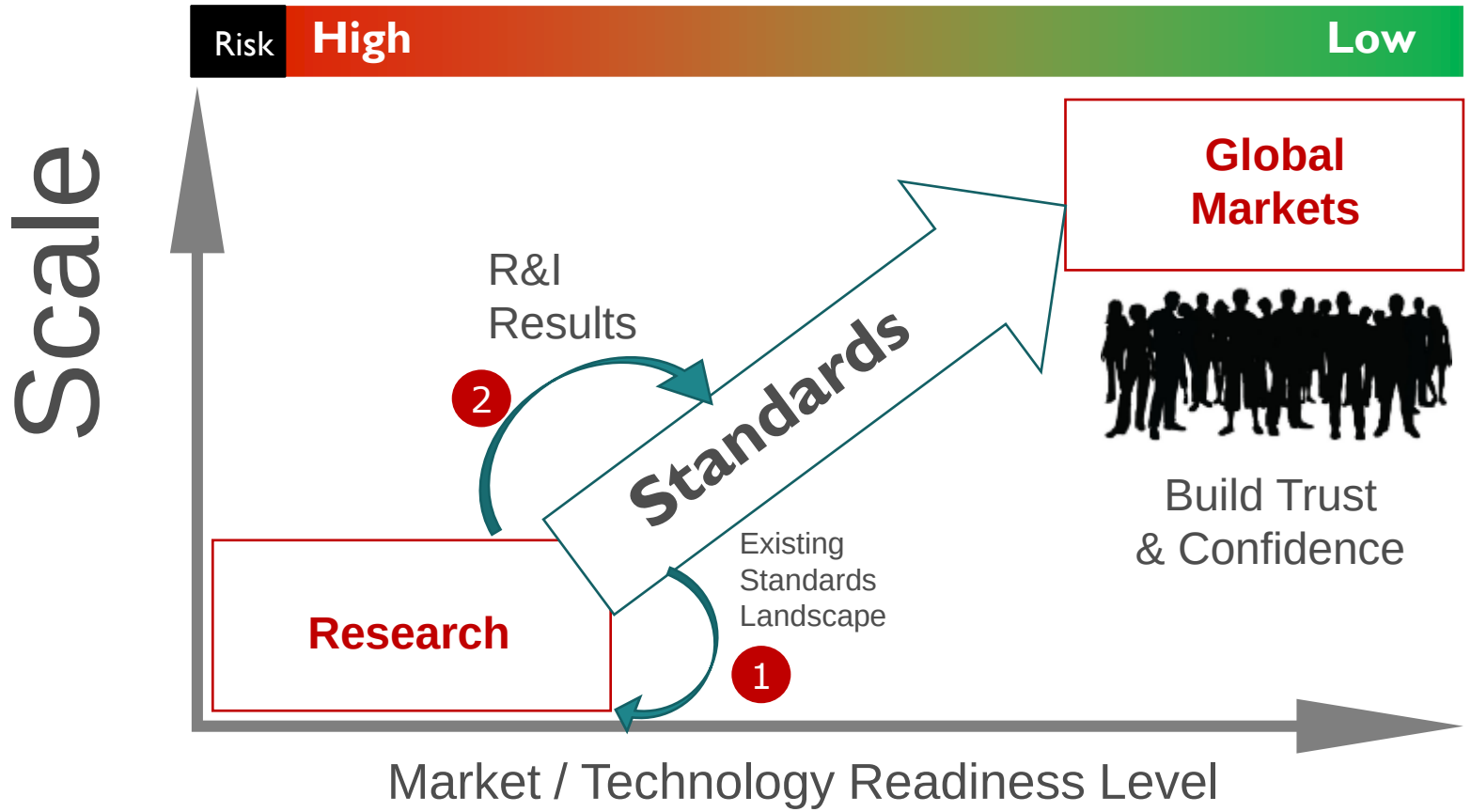
21 November 2024

Federica Baldan
Unit E.2 – Valorisation Policies & IPR
DG Research & Innovation

European Commission

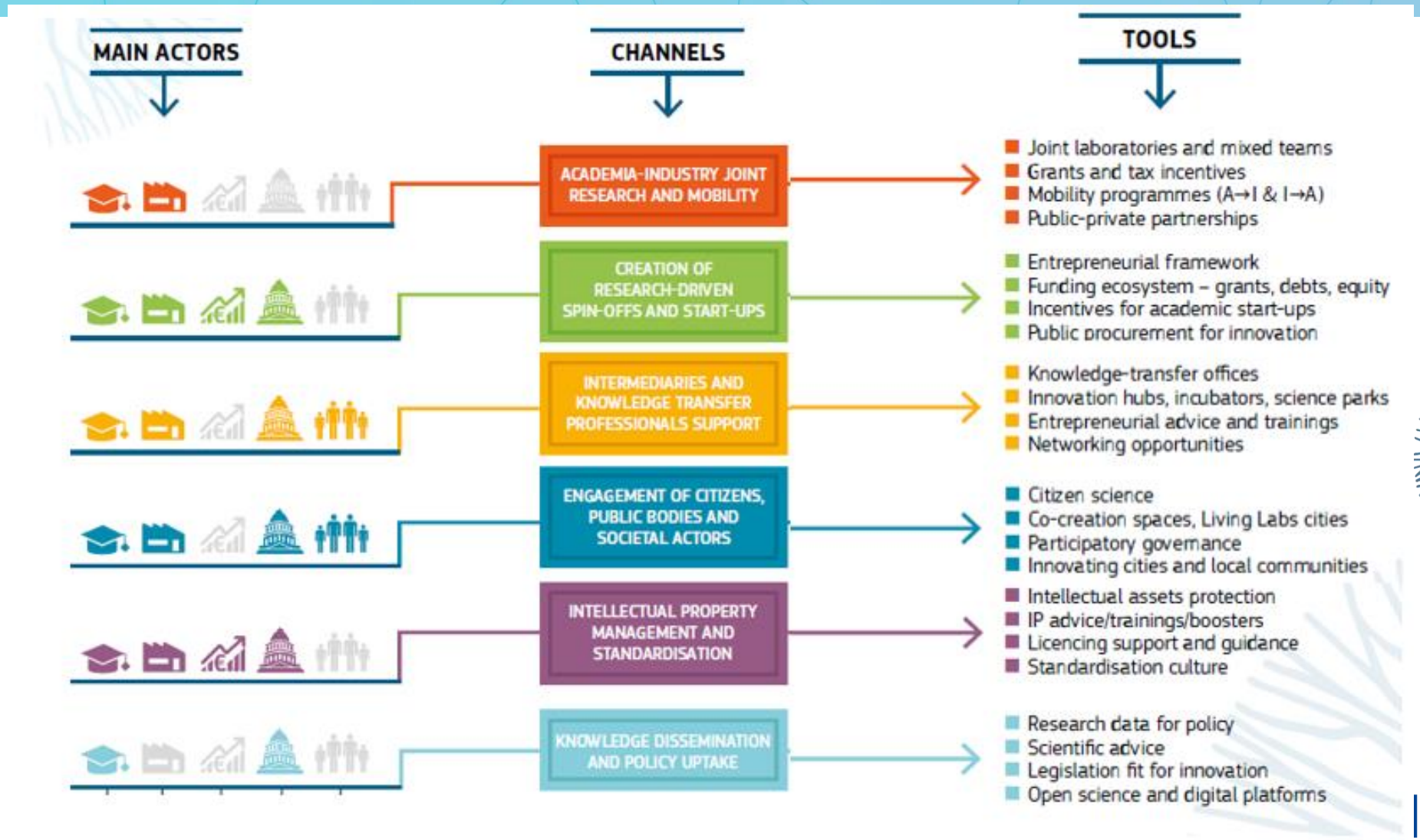
Why Integrate Standards, Research & Innovation

Bridge the Innovation Gap for Impact at Global Scale



Standards De-risk & Accelerate Technology-Product-Service Development, Adoption & Scaling

Knowledge Valorisation Channels





European Commission

Policy Context



© European Union, 2022

European Commission

ERA Action 7: Outcomes

Guiding principles for knowledge valorisation

- Adopting a common line on policy instruments for improving knowledge sharing and valorisation in Europe.
- Introducing broad approach by addressing intellectual assets management, linkage to standardisation and policy-making, industry-academia collaborations and involvement of citizens.

Council Recommendation adopted on 2 December 2022



The Guiding principles are **supported** by:

i) Codes of practice on **intellectual assets management** and on **standardisation**

Commission Recommendations adopted on 1 March 2023

ii) Codes of practice on **industry-academia co-creation** and **citizen engagement for knowledge valorisation**

Commission Recommendations adopted on 1 March 2024

European Commission

The way forward

Draghi report

- **Promoting market uptake**, by increasing the market readiness of R&I results through **standardisation**. Facilitating the entry of novel technologies and business models to the market by **issuing standards (labels/seals)** for promising technologies
- **Supporting enabling framework for standardisation** in areas of key industry verticals, such as energy grids, cybersecurity, edge computing, IoT, automotive, raw materials recycling, advanced materials
- **Reinforce EU level coordination, in collaboration with industry and research centres, including definition of standards** and coordination of R&D efforts (e.g. Joint Undertakings and IPCEIs)

Letta report

- EU must continue to **champion the development of standards** for **circular product design, Mobile Telecommunication,** through active collaboration with European standardisation organisations
- The EU must identify the priority areas for **stronger priority effort for standardisation**

European Commission

The Code of Practice on Standardisation in the European Research Area



© European Union, 2022

European Commission

Code of practice on standardisation

Based on the lessons learnt and success factors from examples of Horizon 2020 projects

Higher education institutions and research & innovation organisations

Project partners

Policy actors and stakeholders

Inclusiveness – all types of projects with a wide range of TRLs

European Commission

1. Recommendations for Higher Education Institutions and Research and Innovation Organisations

- Developing a **standardisation policy**, self-standing or as part of an IP or research results valorisaiton policy

- Considering standardisation activities in the **career development plans**

- Providing for **education and training** on standardisation

- Making **technology transfer offices** fit for standardisation

- Developing an **indicator and evaluation** system

Consider Standardisation in the Career Development Plans

In practice:

- Researchers can be appointed as delegates into **technical committees** by their **national standardisation body**
- EC-funded initiatives like StandICT.eu & HSBooster.eu support researchers' participation into technical committees
- Recognition for researcher's contribution to standardisation: Award schemes (CEN-CENELEC Standards+Innovation Awards)

Best practice

In Spain, contributions to standardisation started to be considered in public research and academic careers, through a specific chapter of their evaluation and development scheme devoted to 'Knowledge transfer'.

European Commission

2. Recommendations for Project Partners

- Analysis of the **landscape**

- **Common understanding and strategic position** on standardisation

- Involving **partners with expertise** in making standardisation a tangible part of the project

- Investing in **stakeholder engagement**

- Realistic **outputs, outcomes and impacts** and combined qualitative and quantitative **reporting**

- Ensuring **sustainability** beyond the project duration

European Commission

Ensure Sustainability beyond Project Duration

In practice:

- Consider **long-term standardisation involvement** beyond one single project
- Promote the interest of **Technical Committees** in new pre-standard (CWA) so they can assume their maintenance/upgrade into new standards

Best practice: D^2EPC

*The project has promoted, and leads, **CEN/TC 371/WG 5** on 'Operational rating of energy performance of buildings'. Management of this working group will be continued through H2020 project CHRONICLE, having some common partners and related scope.*

European Commission

3. Recommendations for Policy and Stakeholders

- **Promoting by Member States** standardisation as means of knowledge valorisation

- **Examining by Member States** the standardisation needs of startups and SMEs in R&I projects

- **Standard Development Organisations** to develop their service portfolios to align with R&I activities

- **Use by Member States** national support in relation to standardisation as a R&I valorisation tool

Member States to Examine Startups & SMEs Needs

In practice:

- Member States to examine the role of **startups and SMEs** in R&I projects and encourage them to share successful experiences in standardisation activities
- Member States and SDOs to seek collaborations with leading **SME associations** and **startup incubators**

Best practice: Bitmovin

Bitmovin is a start-up that scaled-up thanks to standardisation. Originally a spin-off from research at Klagenfurt University (AT). Bitmovin's founders entered the standardisation process of a new video technology very early and co-created the ***MPEG-DASH standard****, adopted as* ***ISO/IEC 23009-1****.*

European Commission

Additional Information



© European Union, 2022

European Commission

European Standardisation Panel Survey

Understanding the demand for R&I based standardisation by creating a comprehensive database that

- Analyses current activities and future trends in the R&I – standardisation interface
- Serves as an input for standards policy
- Raises the importance of standardisation for businesses



EU publications

★★★☆☆ Rate this publication

European standardisation panel survey

Final report

The survey aims to identify the demand from industry and other stakeholders for standards as potential results of research and innovation (R & I) projects, to assess how EU R & I framework programmes could tackle them, and generally to raise awareness of the importance of standardisation as a knowledge valorisation channel. A Europe-wide survey revealed that policy initiatives, including regulations and customers' requirements, particularly for industry, as well as organisations' own and collaborative research are the most relevant sources for standard development. Research input is most important for measureme and testing standards, followed by quality and environmental standards. The most significant advantage o research as input for standardisation is free access to scientific content and the ability to keep track of scientific progress. Recommendations are derived for industry, higher education institutes and public research organisations, standard development organisations, research funding organisations and other innovation policy areas.

European Commission

More Information

Guiding Principles for Knowledge Valorisation implementing Codes of Practice (europa.eu)

Factsheet: Code of practice on standardisation in the European Research Area - Publications Office of the EU (europa.eu)

European standardisation panel survey - Publications Office of the EU (europa.eu)

Repository of Best Practices | Research and Innovation

Ongoing Horizon projects supporting standardisation:

HS Booster provides expert services to European projects to help them to increase and valorise project results by contributing to the creation or revision of standards

RISERS builds a cohesive framework integrating practice, policy and R&I to promote the standardisation of industrial symbiosis for high-impact EU resilience.

European Commission



Federica Baldan, European Commission

Federica.BALDAN@ec.europa.eu

European Commission