Möjligheter inom konkurrenskraft och standardisering
Kl. 13:00-13:45

European Commission

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In this session, we look at collaboration opportunities for core digitalization technologies and sustainable industry.

How can competitiveness and standards be strengthened through research and innovation ?

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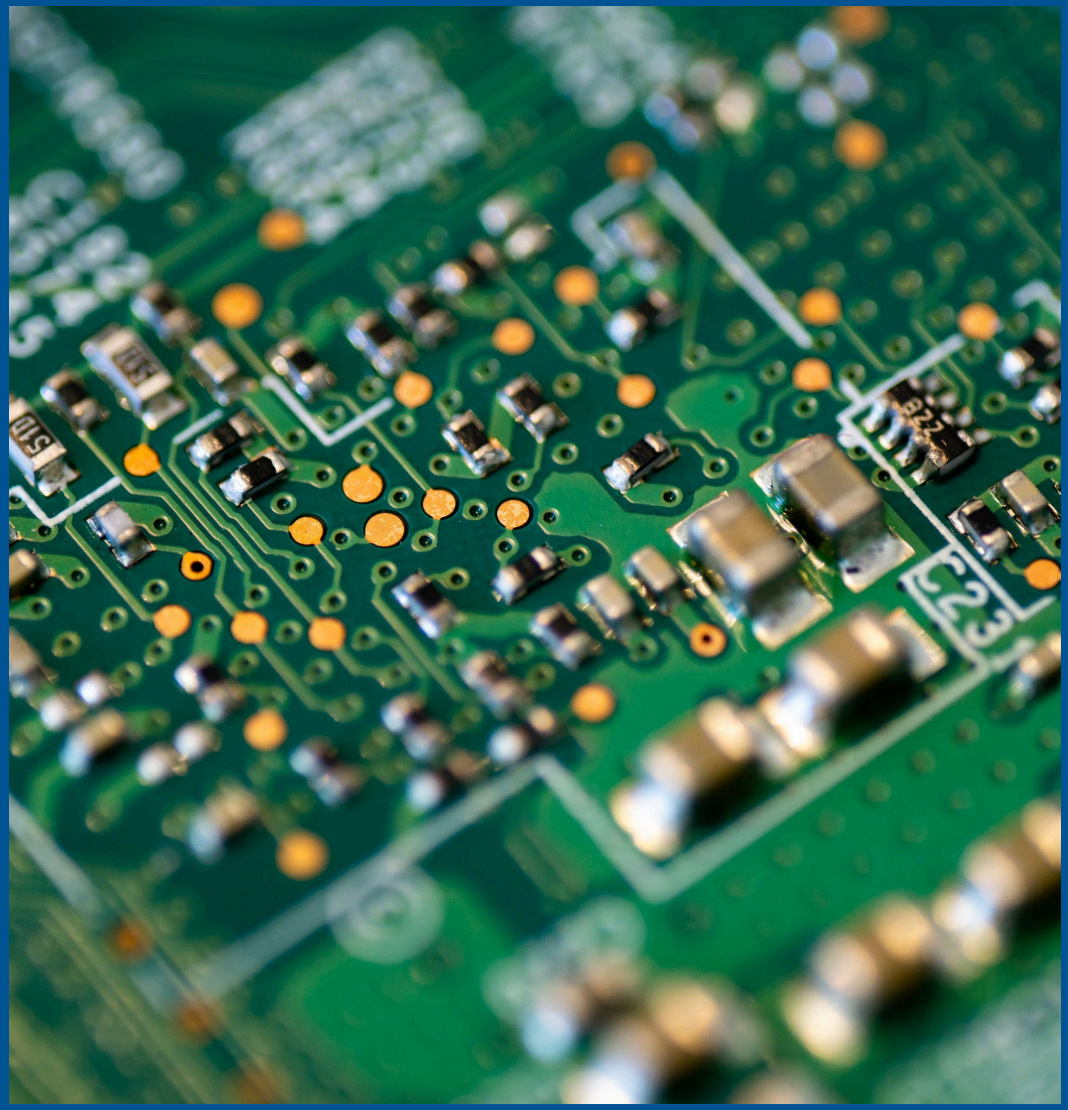
Benefits of Standards:

- Facilitate the integration of diverse technologies.
- Enable interoperability and avoid vendor lock-in.
- Support the free movement of goods, services, and data.
- Contribute to achieving the UN Sustainable Development Goals.



”Standards” in a broad sense

open source initiative®

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE

sis Svenska Institutet för Standarder

ISO

Matter smart home connectivity standard

matter

WIKIPEDIA The Free Encyclopedia

cen

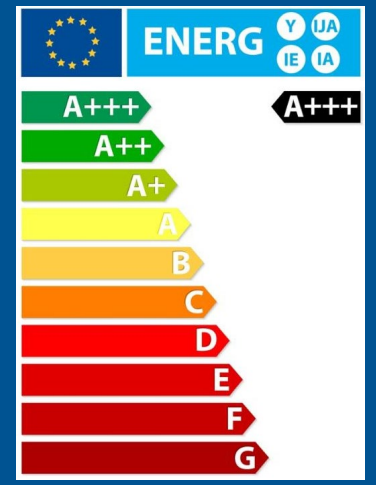
cen CENELEC

ETSI

Why is standardistation important for competitivness?

- Pre-competitive research
  - Sets the level playing field
- EU-projects are more than research
  - ’neutral meeting place’
    - Meeting place for procurers and developers
    - Meeting place for supervisory authority and developers
  - Labelling (CE, Energy Efficiency, etc.)

- New approach to enable global leadership of EU standards
- EUR-Lex - 52022DC0031 - EN - EUR-Lex
- EUR-Lex - 32023H0498 - EN - EUR-Lex



AI, data & Robotics Assoc. - ADRA

1. Create a **compelling goal for EU's digital future,** embraced by Europe's citizens
2. Encourage **public procurement of EU-based AI** to accelerate adoption and drive innovation
3. **Boost European investments** in ADR, securing EU-based ownership and command
4. **Strengthen the digital single market** to ensure fast scaling of AI offerings across EU member states
5. Ensure **consistency of AI Act standardization with sector-specific** regulation and standards
6. Ensure the **completeness of the entire AI value chain** to enhance the EU´s sovereignty

The world is changing

- Openess in research
- Software defined …
  - Radio, vehicle, infrastructure, etc.
- Market regulations
  - EU internal market
  - US
  - China

”Core” technologies

- Standards to ensure democratic values, data protection, cybersecurity, environmental and other considerations

New standards should define **HYDROGEN** quality and technical interoperability to allow industries to decarbonise by using hydrogen

Raw materials used in **BATTERIES** – powering electric cars and a range of other electronic devices – should be mined in line with strong environmental and labour standards

Chips needed to enable smart watches and other **CONNECTED DEVICES** require strong protections against cyber threats

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Science vs Safety

Trustworhty AI

Nanoscience vs Nanosafety

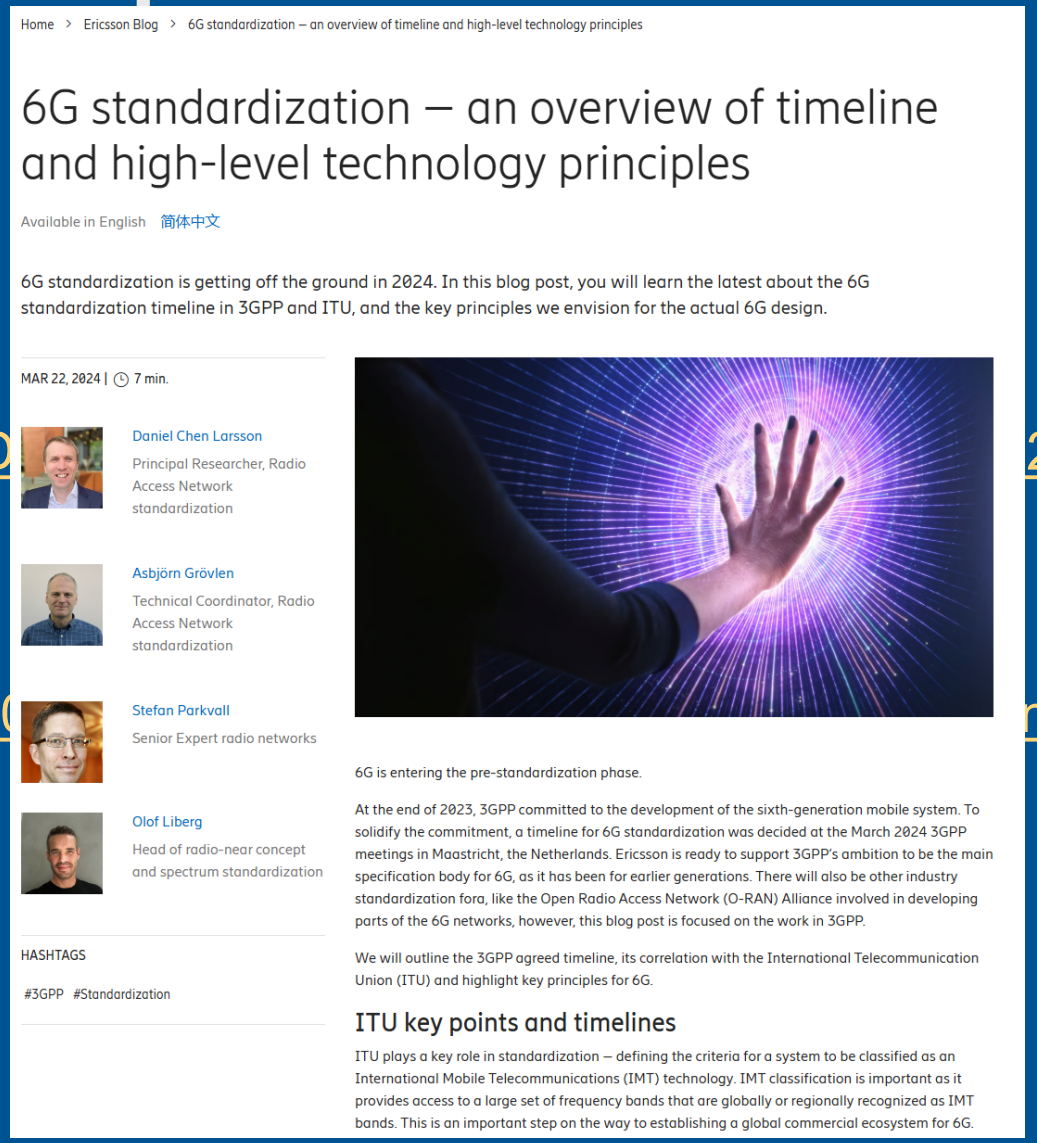
Quantum Computing vs Post Quantum Crypto (PQC)

Latency in communication networks

Example 6G

- 1980 ---------- 2020
- NMT -> GSM -> 3G -> 4G -> 5G -> ?

- European Parliament report:
  - https://www.europarl.europa.eu/RegD…2024)757633_EN.pdf
- Member states survey/report:
  - https://6g-ia.eu/wp-content/uploads/2…nal.pdf?x44222
-



Home > Ericsson Blog > 6G standardization – an overview of timeline and high-level technology principles

6G standardization – an overview of timeline and high-level technology principles

Available in English 简体中文

6G standardization is getting off the ground in 2024. In this blog post, you will learn the latest about the 6G standardization timeline in 3GPP and ITU, and the key principles we envision for the actual 6G design.

MAR 22, 2024 | 7 min.

Daniel Chen Larsson
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Asbjörn Grövlen
Technical Coordinator, Radio Access Network standardization

Stefan Parkvall
Senior Expert radio networks

Olof Liberg
Head of radio-near concept and spectrum standardization

HASHTAGS

#3GPP #Standardization

6G is entering the pre-standardization phase.

At the end of 2023, 3GPP committed to the development of the sixth-generation mobile system. To solidify the commitment, a timeline for 6G standardization was decided at the March 2024 3GPP meetings in Maastricht, the Netherlands. Ericsson is ready to support 3GPP's ambition to be the main specification body for 6G, as it has been for earlier generations. There will also be other industry standardization fora, like the Open Radio Access Network (O-RAN) Alliance involved in developing parts of the 6G networks, however, this blog post is focused on the work in 3GPP.

We will outline the 3GPP agreed timeline, its correlation with the International Telecommunication Union (ITU) and highlight key principles for 6G.

ITU key points and timelines

ITU plays a key role in standardization – defining the criteria for a system to be classified as an International Mobile Telecommunications (IMT) technology. IMT classification is important as it provides access to a large set of frequency bands that are globally or regionally recognized as IMT bands. This is an important step on the way to establishing a global commercial ecosystem for 6G.

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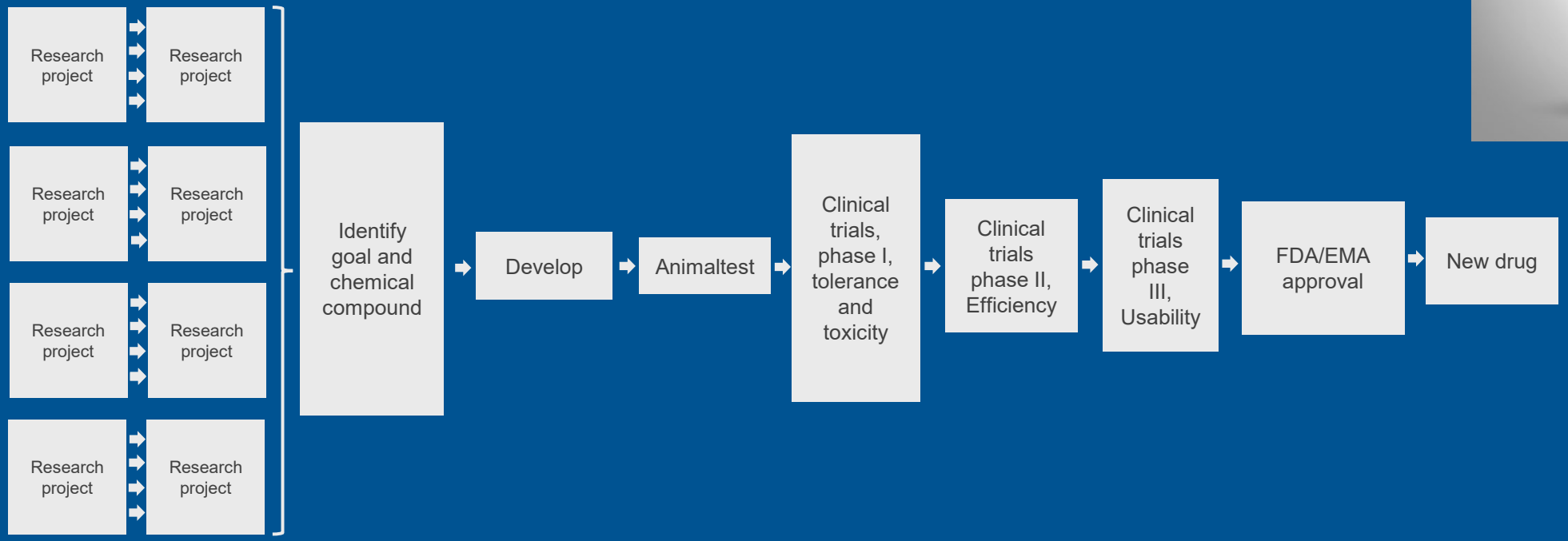
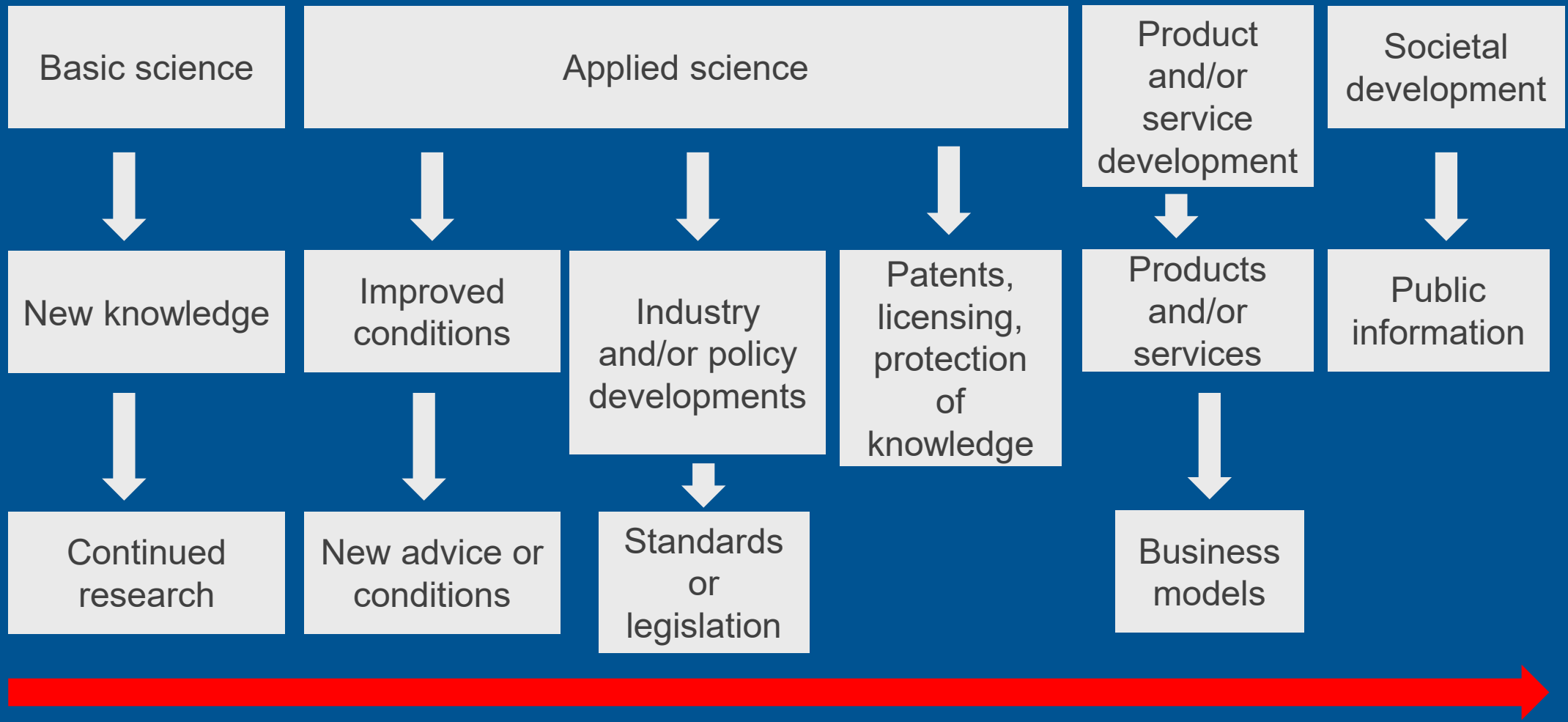
Value chains in pharmaceuticals and biotech



FDA – Federal Drugs Administration (USA)
EMA – European Medicines Agency (EU)

Visualize in value chains

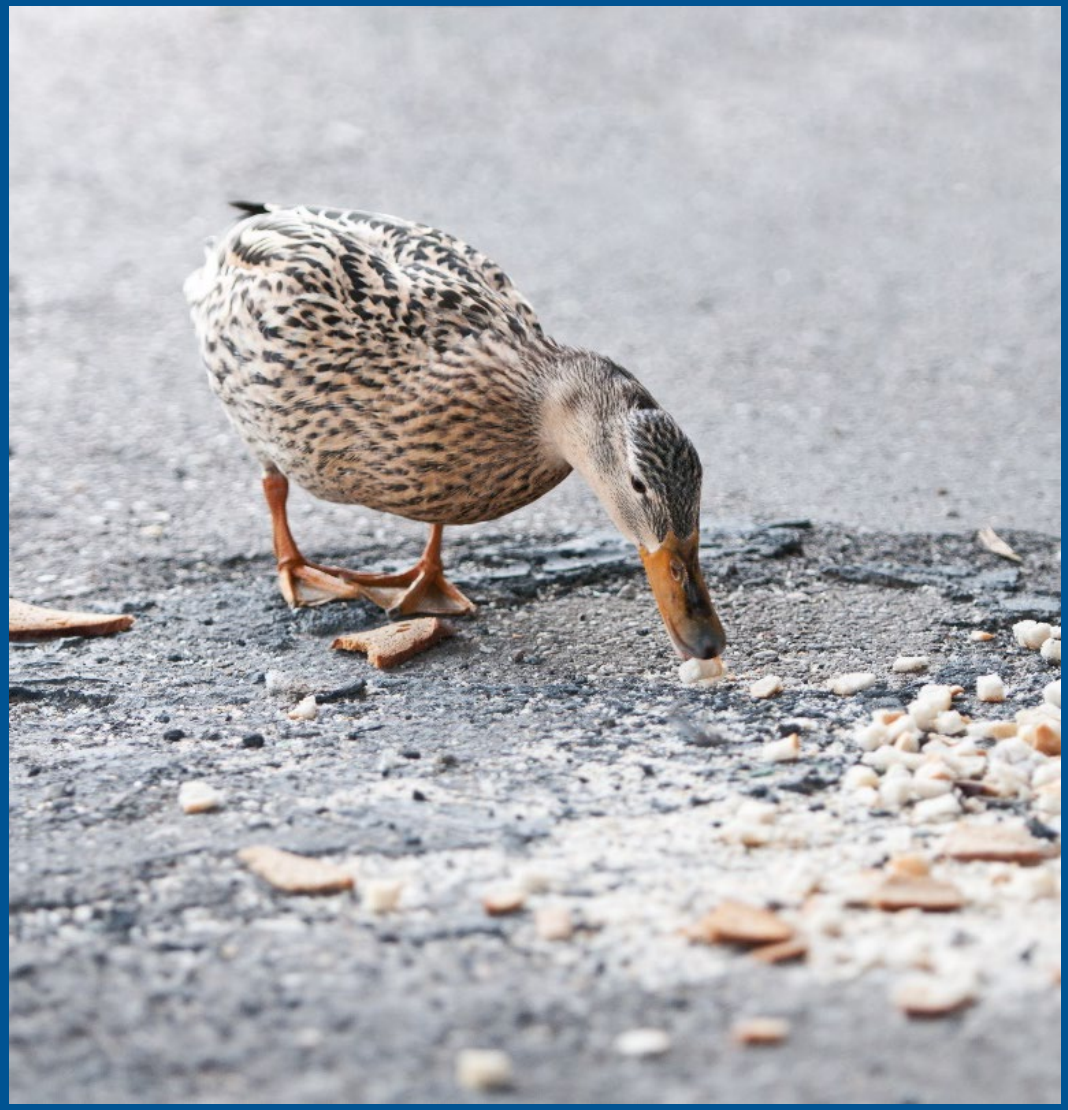


Leaving a trail of breadcrumbs …

’It is probable’ that something will occur after the end of the project

’Chain of evidence’, identified activities and previous experience indicates that …

Participating organisations have vast experience in …



European partnerships

European commission

EU industry

Member States

Framework programmes

European Partnerships

National programmes

Research and Innovation project

European Commission

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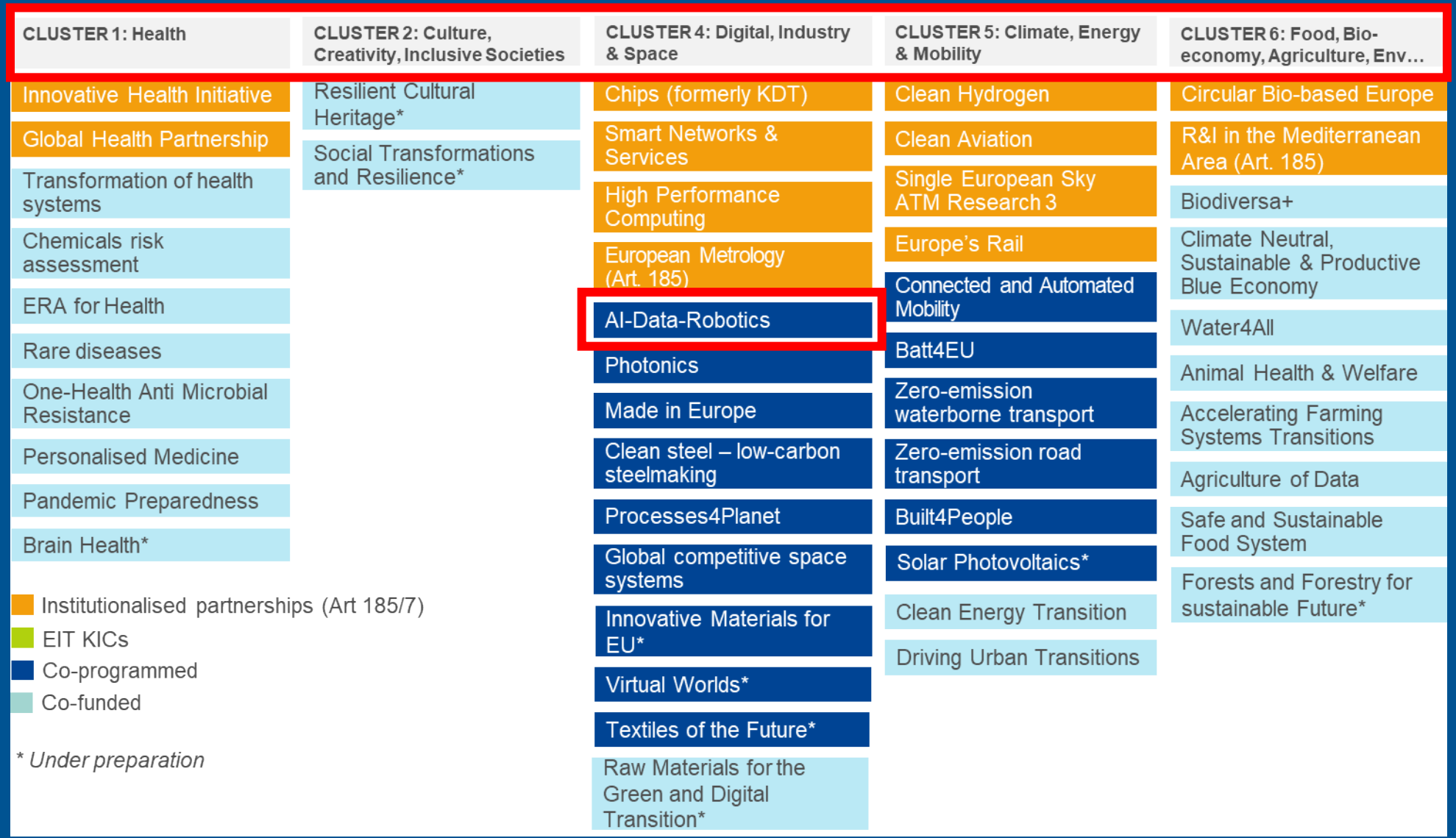
European Partnerships for industrial competitivness (Pillar 2)



Example: AI, Data and Robotics ADRA

Founding organisations

EurAi

European Association for Artificial Intelligence (EurAI)

BDV

Big Data Value Association (BDVA)

CAIRNE

Confederation of Laboratories for Artificial Intelligence Research in Europe (CAIRNE)

ellis

European Laboratory for Learning and Intelligent Systems (ELLIS)

euROBOTICS

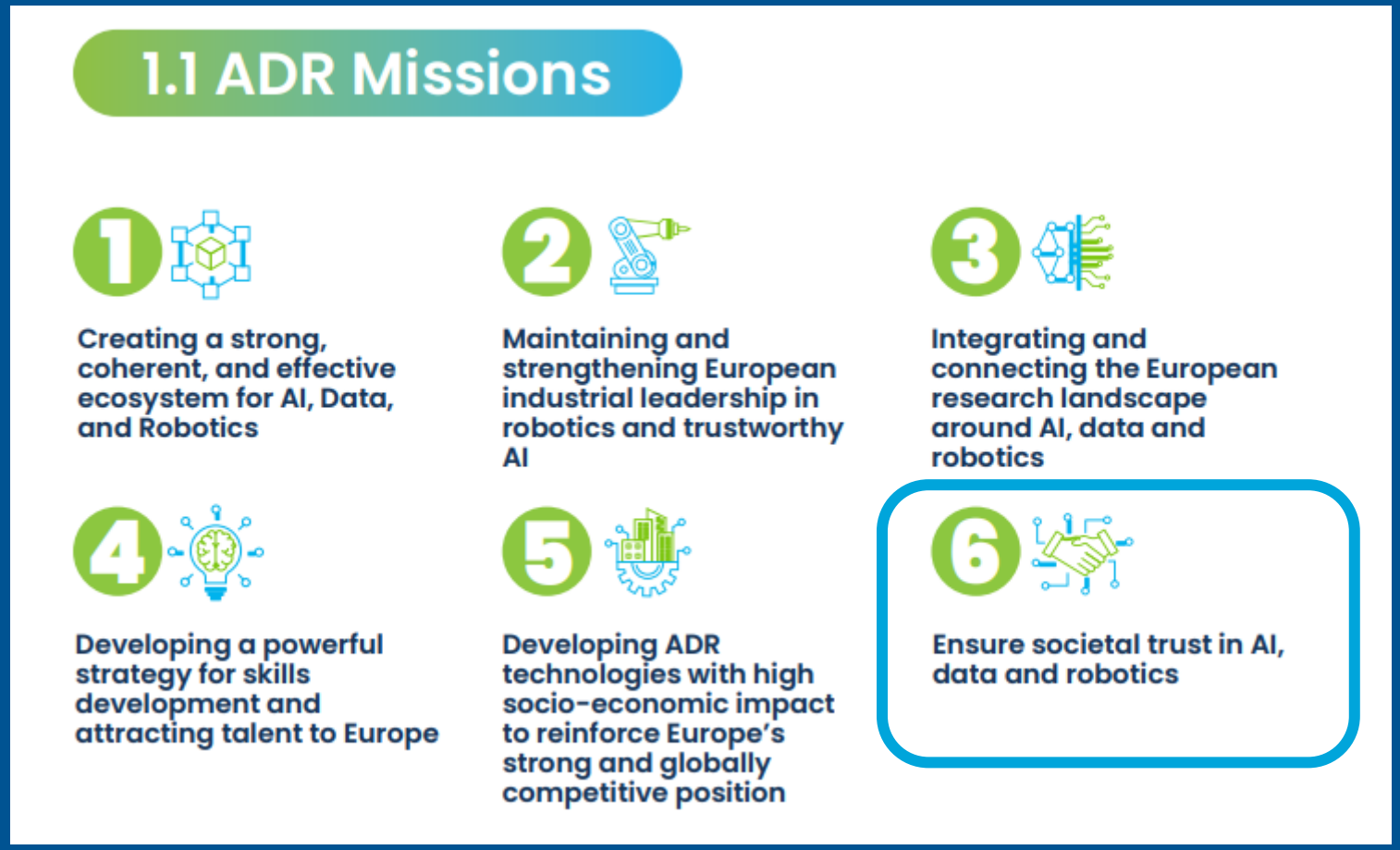
European Robotics Association (euRobotics)

adra

The AI Data Robotics Association

European Commission

Example: AI, Data and Robotics ADRA SRIA



Action

- **Promote standard, guidelines**
- **Promote sandboxes**
- **Engage with regulator and policy makers**

Adra Strategic Research Jul24_v2-2_0.pdf

Work programme 2025

2025: Robust and trustworthy GenerativeAI for Robotics and industrial automation

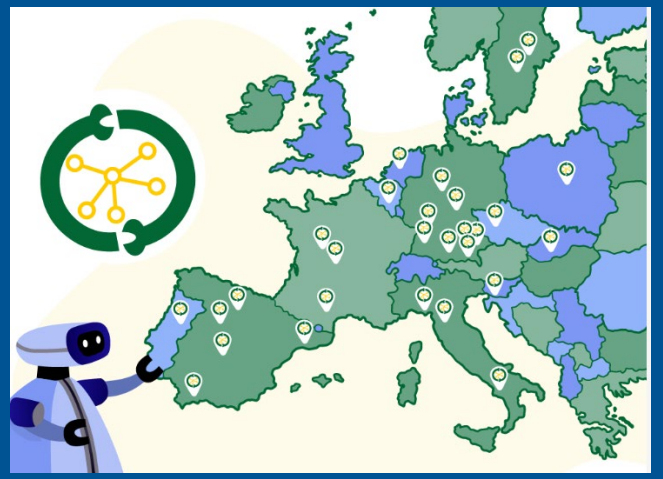
One of the goals is to train and fine-tune generative AI models that meet the necessary standards for ensuring the safe operation of robotics hardware.

An evolution from existing projects

Example:
2021: European coordination, awareness, standardisation & adoption of trustworthy European AI, Data and Robotics (Partnership) (CSA)

euROBIN
THE EUROPEAN EXCELLENCE NETWORK ON AI-POWERED ROBOTICS

KTH, Örebro university



SAFEXPLAIN
Safe and Explainable Critical Embedded Systems based on AI

[Safe and explainable critical embedded systems based on AI | RISE]

AGIMUS
INNOVATIVE ROBOTICS FOR AGILE PRODUCTION

And many more

[Funded projects]
[Adra-e]
[Home Page | AI-on-Demand]

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Potential scopes and objectives Made in Europe

Pitch event for members: Thursday, 3 April 2025

- Integrated approaches for remanufacturing
- Physical and cognitive augmentation in advanced manufacturing
- Advanced manufacturing technologies for leadership of EU manufacturers in products for the net-zero industry
- GenAI4EU in Robotics and industrial automation
- Smart integration of net zero technologies into Energy Intensive industries

How do I find partners?

2025: Innovative Advanced Materials for sealants and coatings (co-programmed with IAM4EU)

Research should build on existing standards or contribute to standardisation of technologies for IAM-based sealings and coatings

New Partnership innovative advanced materials
IAM4EU
SRIA

IAM4Sweden
Net Zero Industry
impact innovation
PRODUKTION2030
Smartare Elektroniksystem
ELECTRONIC COMPONENTS & SYSTEMS
LIGHTer
METALLISKA MATERIAL
innovair
Innovative Materials Arena
SIO GRAFEN

IAM4Sweden möte |
1 april 2025, 14.00-15.30,

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Commissions' Information meetings

- Cluster 1 "Health" 22 May 2025
  - Events | The research and innovation community platform
  - Horizon Europe - Cluster 1 Health Brokerage Event 2025, 5th - 6th May
- Cluster 2 "Culture, Creativity and Inclusive Societies", 15 May 2025
  - Events | The research and innovation community platform
  - Online brokerage event organised on 16 May 2025
- Cluster 3: TBC
- Cluster 4 "Digital, Industry and Space", 13 May 2025 - 14 May 2025
  - Events | The research and innovation community platform
- Cluster 5, " Climate, Energy and Mobility" 06 May 2025
  - Onsite brokerage event, 06 May 2025, 16:00 to 19:00
  - Events | The research and innovation community platform
- Cluster 6, " Food, Bioeconomy, Natural Resources, Agriculture and Environment " 20-21 May 2025
  - Events | The research and innovation community platform
  - 27 May 2025: Brokerage event (on-site)
  - 28 May 2025: On-site interactive training for applicants

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