



AI in Europe

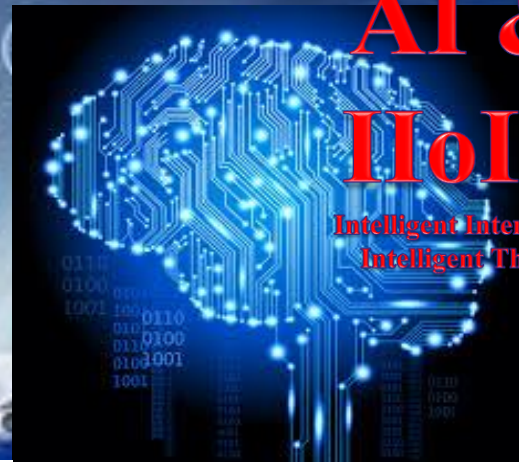
How could the EC help European society and economy to make the best of this revolution?

=> H2020 - ICT-26-2018-2020 – Artificial Intelligence

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Deputy Head of Unit A1
Robotics & AI
European Commission

AI & IIoT

Intelligent Internet of Intelligent Things



Robotics

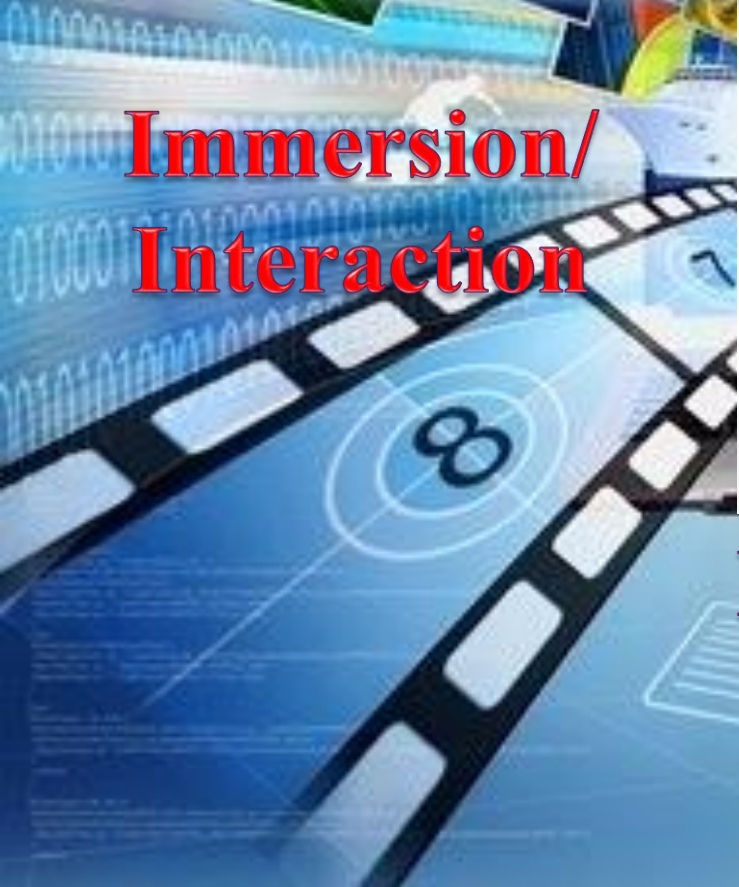


Immersion/ Interaction



Language Accessibility

Media & Data





Issue 1: Scattered European S&T excellence

Issue 2: Huge investment abroad

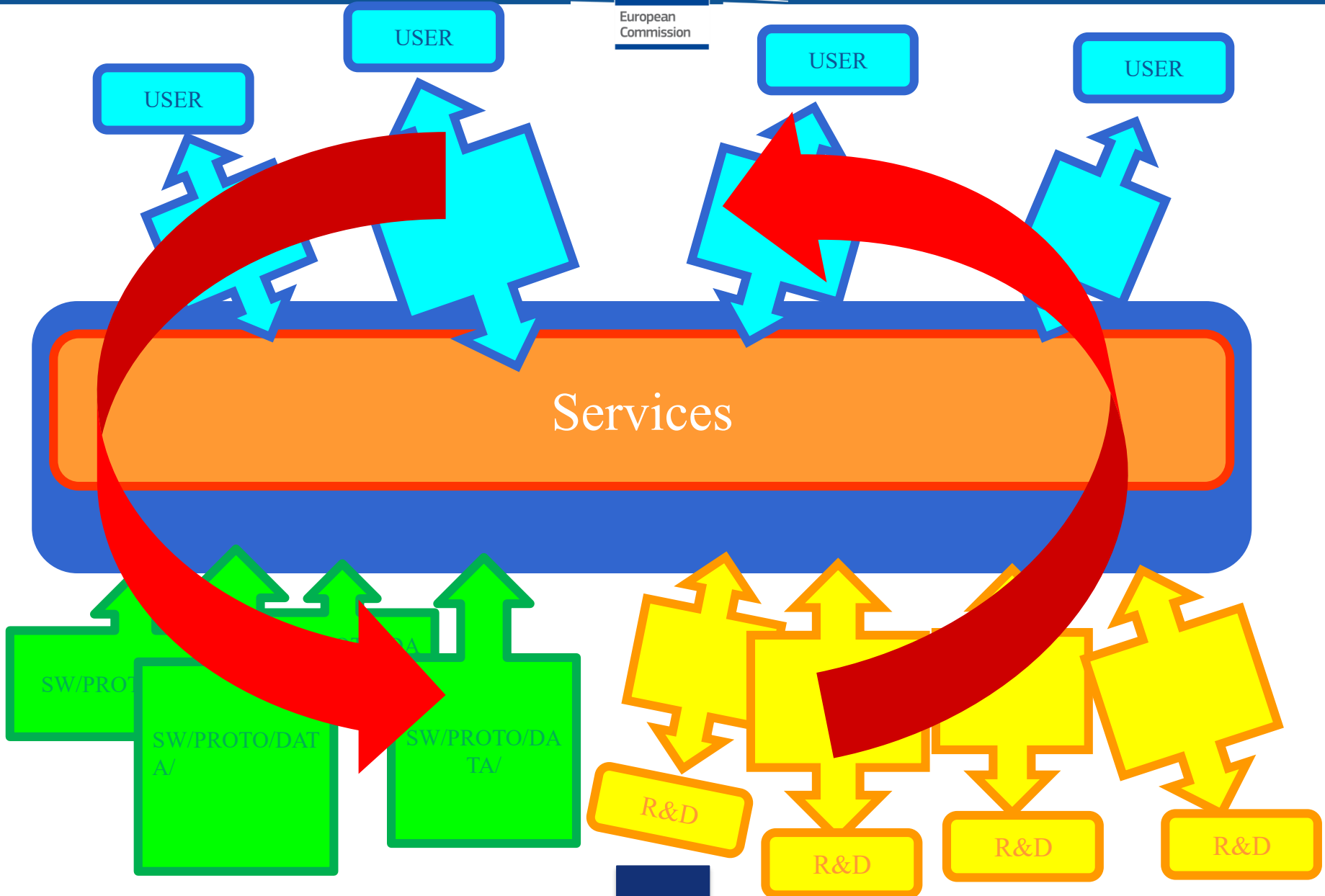
Issue 3: AI potential not fully exploited in Europe

STRATEGY: Develop the European AI on-demand platform

- 1) Join forces in Europe: Build an AI Platform -> ecosystem integrating knowledge, capacity and access to data
- 2) Invest in R&D in areas where Europe can lead
- 3) Boost European industry competitiveness with AI and make European citizens benefit from AI (ageing, transport, etc.)

"One-stop shop"

- **integrating tools and resources**
- offering **solutions and support to all users of AI** to integrate such technology into **application, products and services**





SCOPE: European AI-on-demand platform

- **RIA – Research and Innovation Action**
!!!! Including: Research – Innovation – Coordination – Strategy building
- **Proposal size: 20M€**

European AI-on-demand platform **mobilising** the European AI community to **support** businesses and sectors in accessing **expertise, knowledge, algorithms and tools** to successfully **apply AI** thereby generating **market impact**.

SCOPE: European AI-on-demand platform

The **platform** should:

- central point to **gather** and provide **access** to AI-related knowledge, algorithms and tools;
- support** potential users of AI in order to facilitate the **integration** of AI into applications;

THE PLATFORM = CENTRAL POINT

- ❑ Develop a **European AI ecosystem**
 - ❑ knowledge, algorithms, tools and resources available and making it a compelling solution for users, especially from non-tech sectors.
- ❑ **Build on** and **link to existing** relevant initiatives
 - ❑ existing platforms, data repositories, cloud computing, HPC,...
- ❑ Facilitate the **interaction** with existing **data portals**, and **resources** => **support interoperability**
- ❑ **Connect** and cooperate with other relevant activities of this **workprogramme**
 - ❑ DIHs, Pilot,...

BUILDING THE PLATFORM: structure & content

❑ WHO:

Mobilise the European AI community => researchers, businesses and start-ups to provide access to knowledge, algorithms and tools;

❑ WHAT:

Define **sustainable processes and structures**

governance, access, business models, licensing, etc.

Develop a **suitable software infrastructure**

❑ APIs and tools to aggregate existing tools and algorithms and to make them easily deployable in applications, as well as to access data and computing resources

❑ **HOW: Filling important technology gaps through challenge-based and/or user-driven research and innovation efforts.**

❑ application or technology focus in major domains (e.g: robotics, IoT, CPS, intuitive interfaces, personalised applications, healthcare, manufacturing or agriculture)

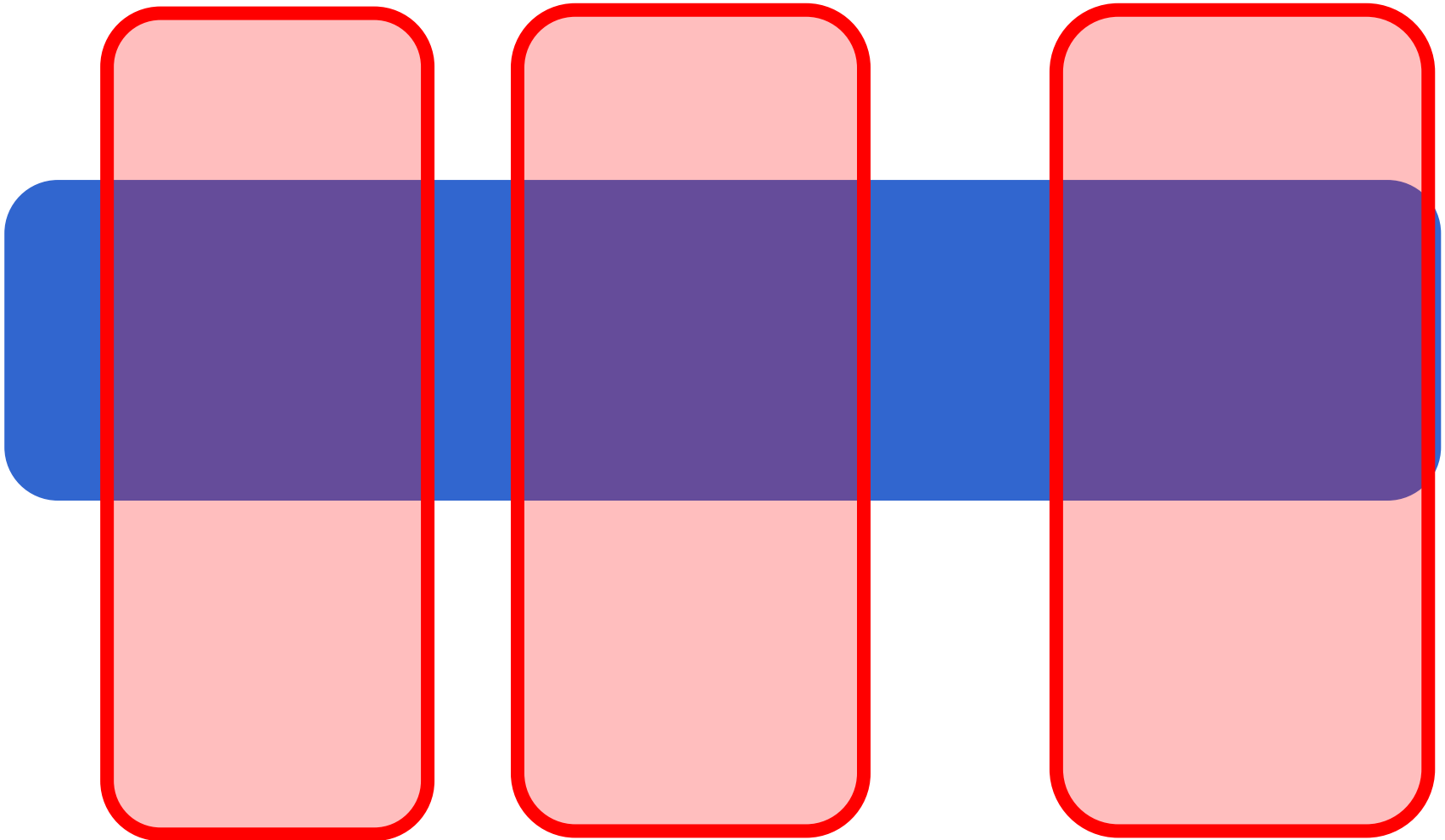


European
Commission

**TECHNO
CHALLENGE**

**TECHNO
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**USER NEED/
APPLI
CHALLENGE**

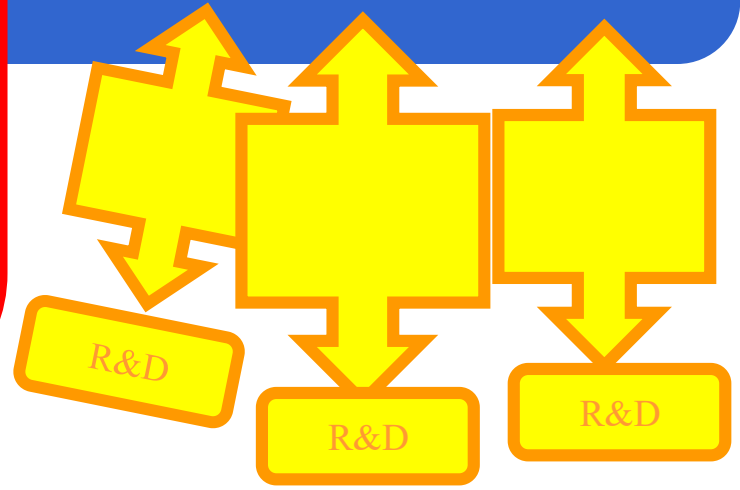
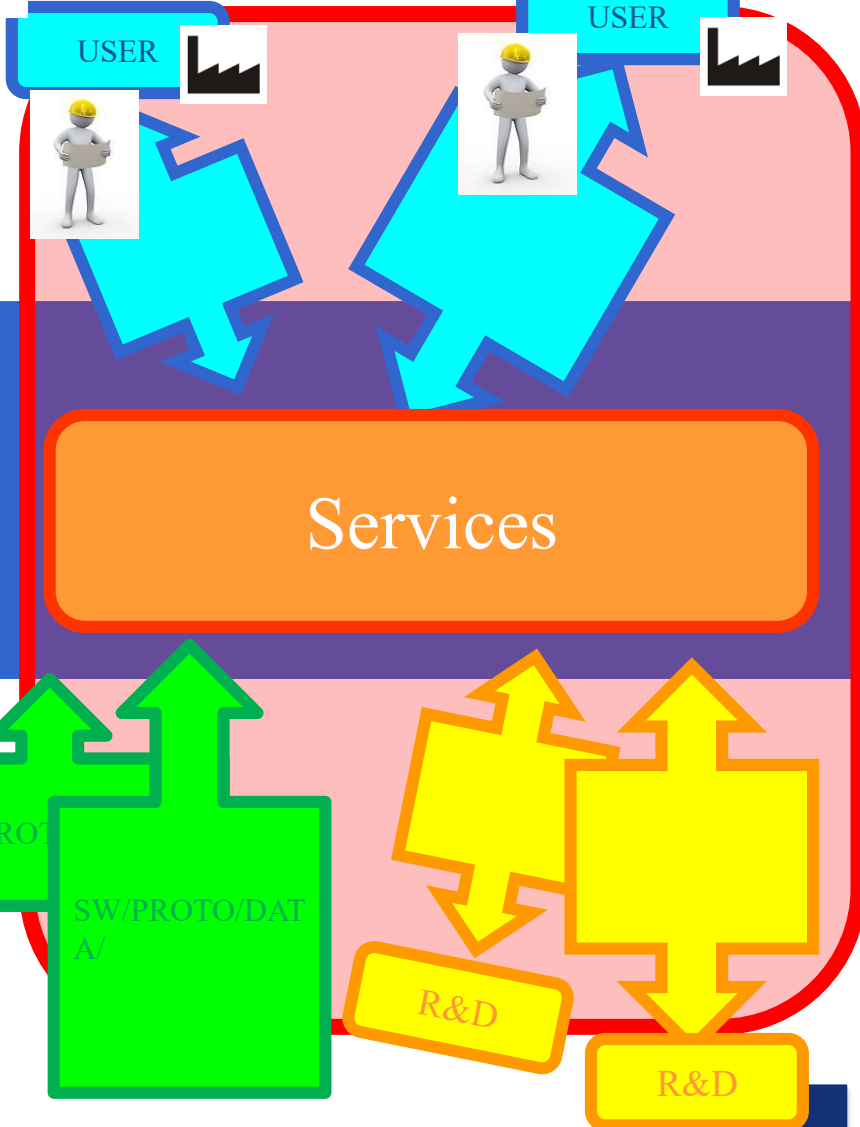




European Commission



TECHNO CHALLENGE



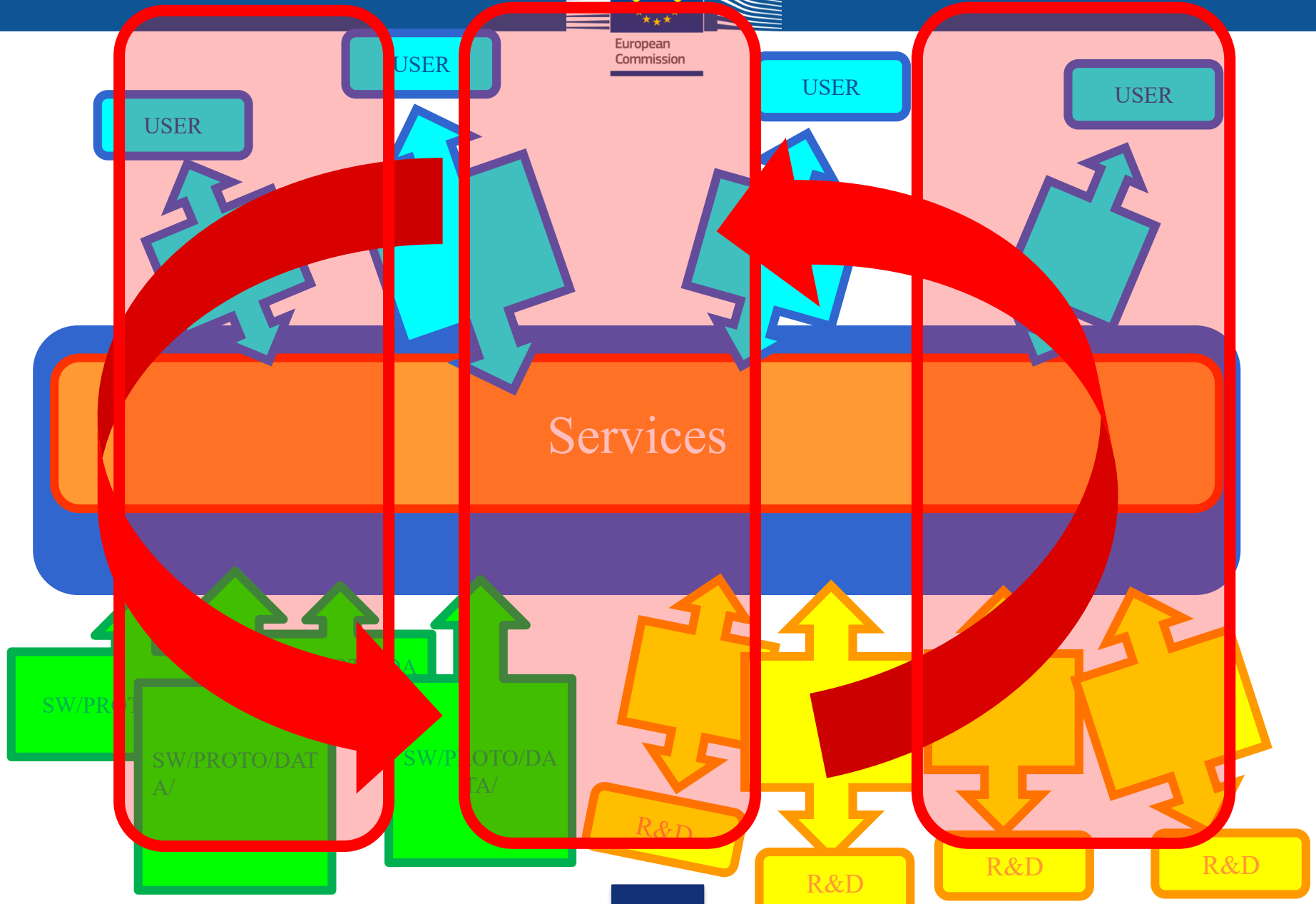
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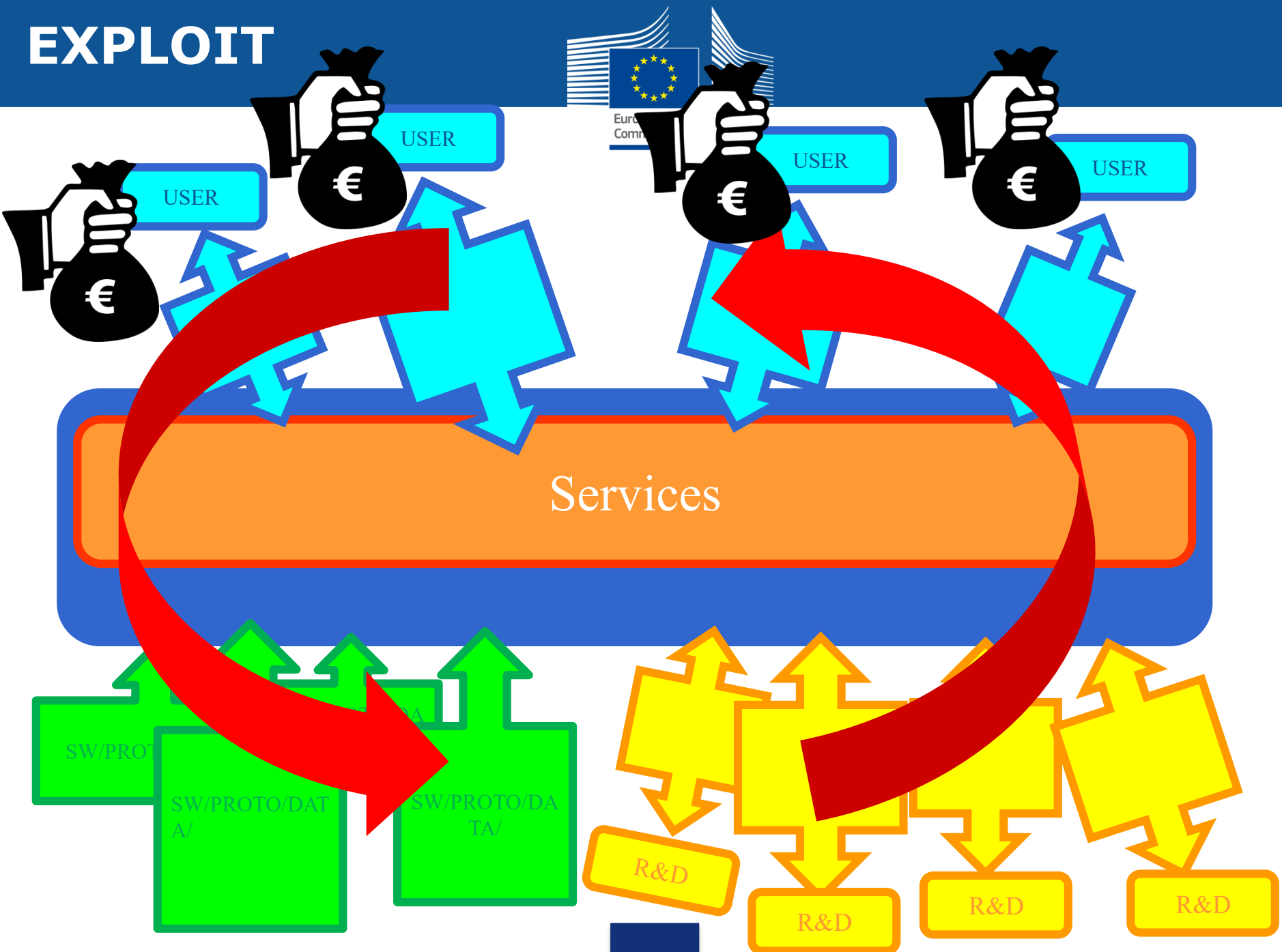
European
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MAJOR COMPONENTS:

- **Gathering user requirements**
 - based on representative set of its future users (researchers and industry).
- **Research and innovation efforts => strong synergies with the platform building**
 - providing user requirements, guiding its development, exploiting its resources, and contributing to its content
- **Additional efforts**
 - might be necessary to ensure that the needs of the various types of potential users of the platforms are represented
- **Comprehensive service layer => facilitate use and uptake of the platform by end-users and researchers;**

EXPLOIT



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- Reaching out to new user domains and boosting the use of the platform.
 - FSTP* to fund promising projects exploiting the resources and services offered by the platform to foster technology transfer of AI-based solutions
 - Maximum 3M€ funding [EUR 50.000. EUR 200.000] per third party;

* FSTP= Financial support to Third Parties

STRATEGY BUILDING

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- Developing a Strategic Research and Innovation Agenda for AI including ELSE aspects
 - building on relevant initiatives and strategies (e.g.: Big Data PPP, Robotics PPP, AIOTI , CPS (CyPhERS), cybersecurity cPPP).

Work Programme topic: ICT26-AI

1. What are you looking for?

- **RIA – Research and Innovation Action**

!!!! Including: Research – Innovation – Coordination – Strategy building

- **Proposal size: 20M€**

- **Critical components:**

- **Ecosystem building**

⇒ mobilise the major players in Europe to lead the platform

⇒ Build in mechanisms to involve all European AI stakeholders

- **Select few major representative challenges (techno / appli.) to drive the platform development [should cover from Research to exploitation]**

- **Research – fill gaps / build on strength**

- **Mechanism to develop the platform (processes, structure, sw, etc.)**

- **Mechanism to exploit the platform => FSTP to SMEs, non-tech, etc**

- **Mechanism to develop strategy – involving the relevant stakeholders (incl. non-technical aspects)**

2. What do you NOT want?



| What do you <u>NOT</u> want? | What do you want? |
|--|---|
| Standard RIA project | This is a program covering from Research to Exploitation & Community & Strategy building |
| Projects focusing on a single specific application/technology | It should include a set of substantial and representative challenges It should combine Research and Innovation + community&strategy building |
| Small consortia | The major labs (RTOs, Academia) and major industrial players should be on board Cover whole value chain/network |
| Pure monolithic technology platform | Rather an aggregation of/ and link to existing tools and resources - ecosystem |
| Simple repository of SW and Data | The service layer is key |

Work Programme topic – topic evolution

3. Is this new or has it been called before?

e.g. How is it new / different from previous calls

What previous WP topic is it linked to? What

are the main changes?

Is it linked to other topics in the current WP? (e.g. in LEIT or other pillars)

It is new but should capitalize on results and resources from other parts of LEIT

- *Robotics*
- *Big Data*
- *HPC/CLOUD*
- *Should ideally link to relevant applications/societal challenges: Health, autonomous transport, smart cities, agriculture, security (including cybersecurity), etc.*
- *In the longer term the platform should have a 2 ways interaction with all the H2020 topics*
 - *1) Providing tools to the other parts of the WP*
 - *2) Becoming a central repository gathering AI-relevant resources resulting from H2020 projects*

Work Programme topic – topic evolution

4. Current project portfolio *(if relevant)*

e.g. Please mention some highly relevant projects!

Is there an overview of current project portfolio?

Are there clusters / groups of projects?

Never called before but building on existing H2020 topics

- *Robotics (one of Europe's strength in AI)*
- *Big Data*
- *IoT*
- *Autonomous transport*
- *FET*
- *Cloud/HPC*

Work Programme topic – Key actors

Who are the leading players?

- Major AI Labs and industries (providers and users) in Europe

Is there a key group of actors (eg. cPPP or other) driving this?

e.g. Relevant cPPP(s), technology platform(s), other groups ...

Most directly relevant: SPARC – Robotics PPP / Big Data Value PPP

Future Outlook

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?

NEXT STEPS: support to the platform will continue in 2020 to consolidate the offer + support the exploitation

SOME OTHER RELEVANT CALLS

- **European Data Infrastructure: HPC, Big Data and Cloud technologies**
- **ICT-12-2018-2020: Big Data technologies and extreme-scale analytics**
- **ICT-15-2019-2020: Cloud Computing**

Next Generation Internet (NGI)

- **ICT-25-2018-2020: Interactive Technologies**
- **ICT-27-2018-2020: Internet of Things**
- **ICT-29-2018: A multilingual Next Generation Internet**

S+T+ARTS == STARTS initiative

Artists stimulating innovation for Europe

HORIZON2020
WP 2018-20

STARTS is exploring unconventional art-inspired solutions to industrial/societal problems and new art-inspired technology uses.

Three fields of action:

1-STARTS Prize giving visibility to successful art-technology collaborations

2-STARTS Residencies embedding artists in technology institutions

3- STARTS Lighthouse Pilots addressing important challenges in teams with artists

Opportunities:

(a) The H2020 LEIT program encourages all proposers to enhance their innovation capacity by including artists as out-of-the-box thinkers in their proposals.

Running projects wanting to host artists can apply to the STARTS residence program

(see www.starts.eu)

(b) Call ICT-32-2018 : STARTS lighthouse pilots (4MEUR each) opens 31-10-2017

Pilot 1 Art-inspired interactive human-centred environments

created by digital objects and novel (social) media for cities and homes.

Pilot 2 Art-inspired urban manufacturing de-centralised digitally-

enabled production systems and co-creation in urban environments.

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Upcoming events / information days

BROKERAGE EVENT – DEC 5 – BRUSSELS

Interested → please send email to: Cecile.huet@ec.europa.eu

THANK YOU

For more information please contact Idealist2018

<http://www.ideal-ist.eu/>