

# **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**

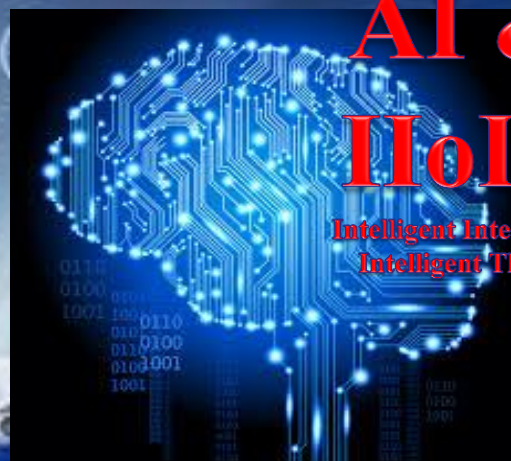
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Robotics & AI  
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**Robotics**

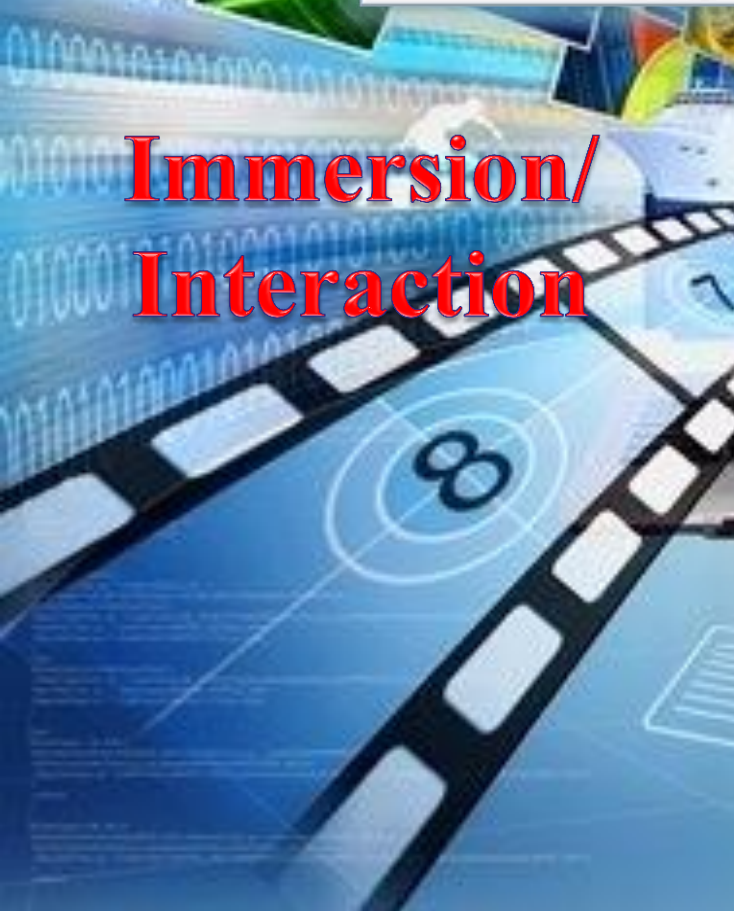


**AI &  
IIoIT**

**Intelligent Internet of  
Intelligent Things**



**Immersion/  
Interaction**



**Language  
Accessibility**

**Media  
&  
Data**



**Issue 1: Scattered European S&T excellence**

**Issue 2: Huge investment abroad**

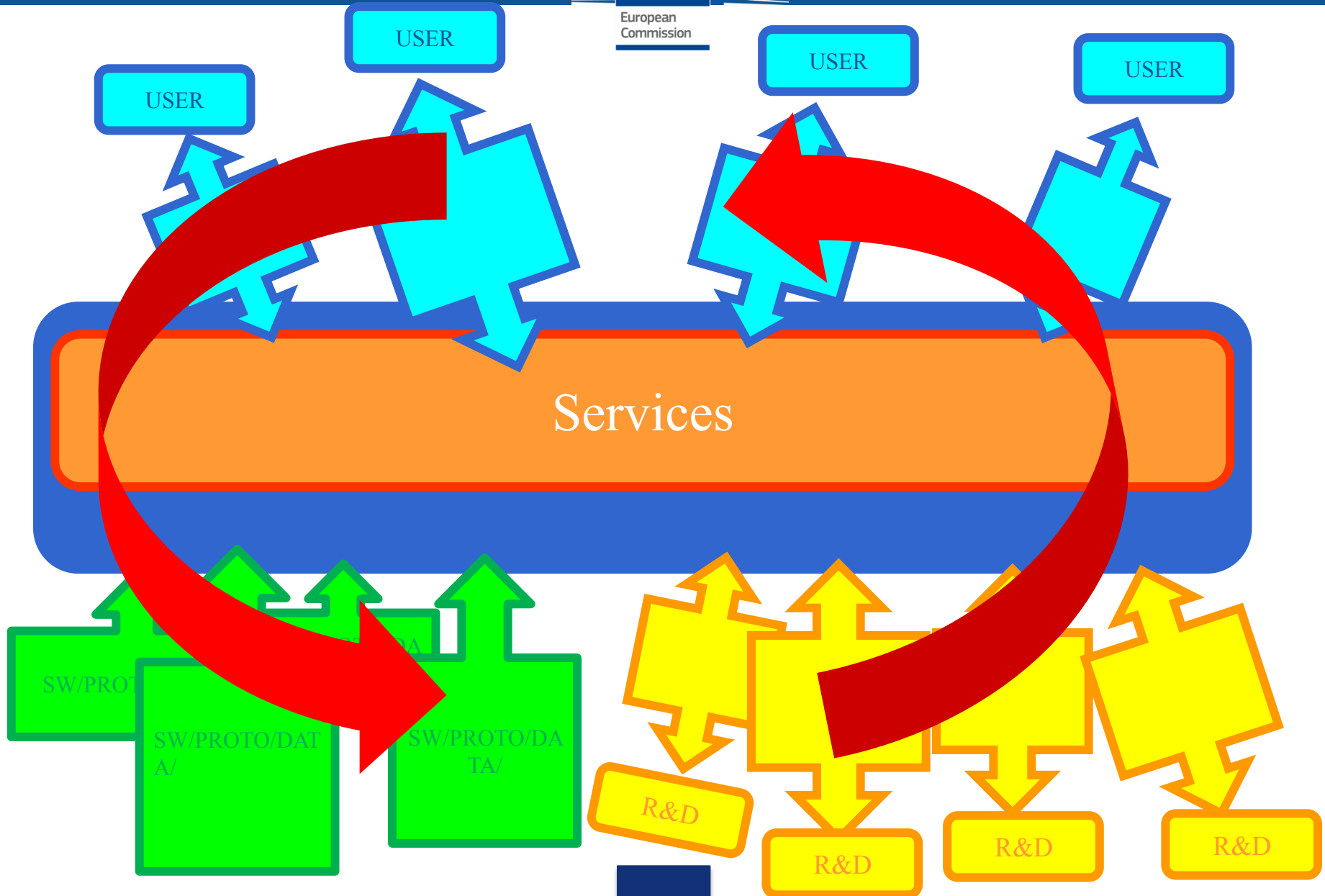
**Issue 3: AI potential not fully exploited in Europe**

## **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.**

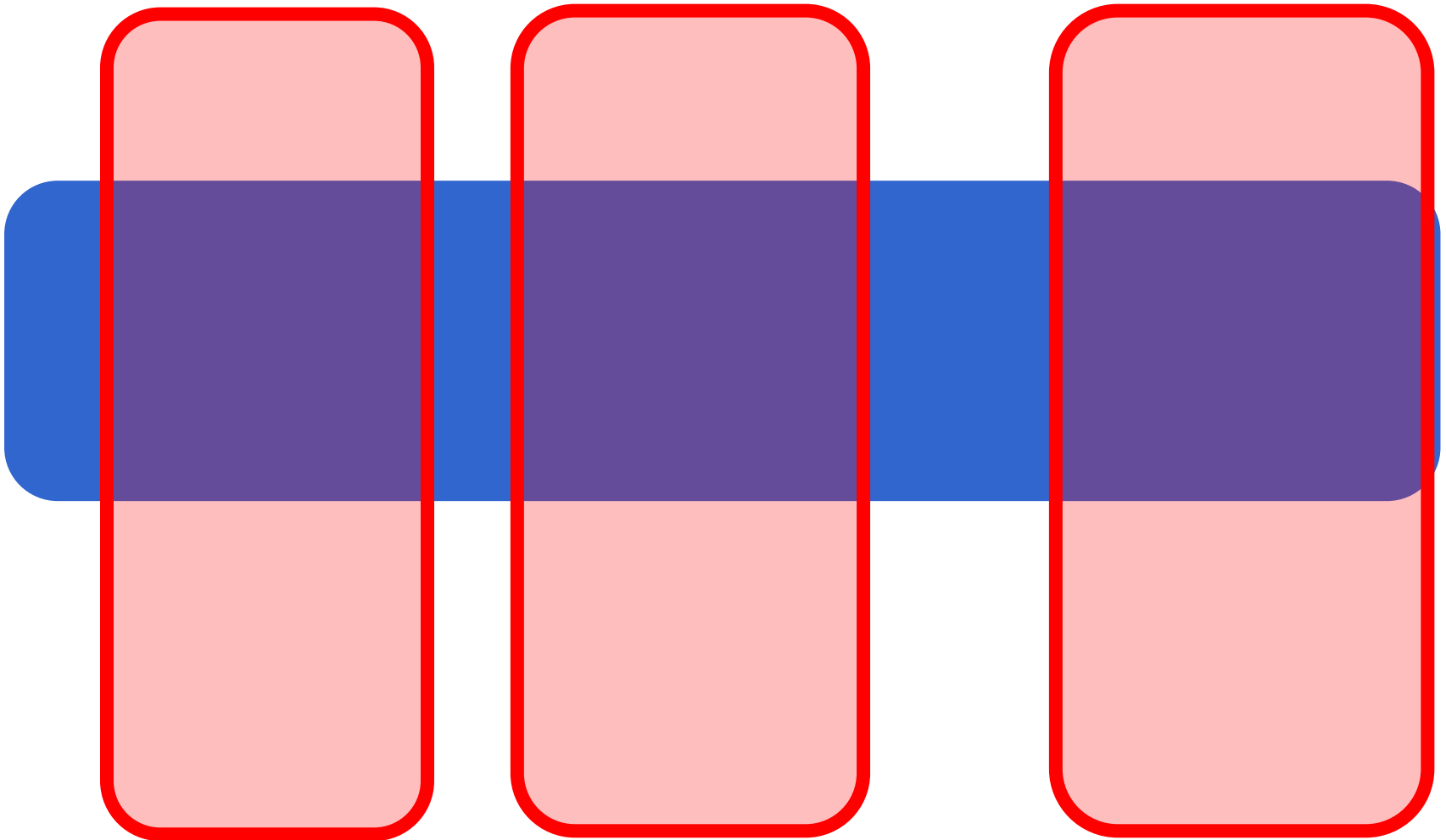
❑ application or technology focus in major domains (e.g: robotics, IoT, CPS, intuitive interfaces, personalised applications, healthcare, manufacturing or agriculture)



**TECHNO  
CHALLENGE**

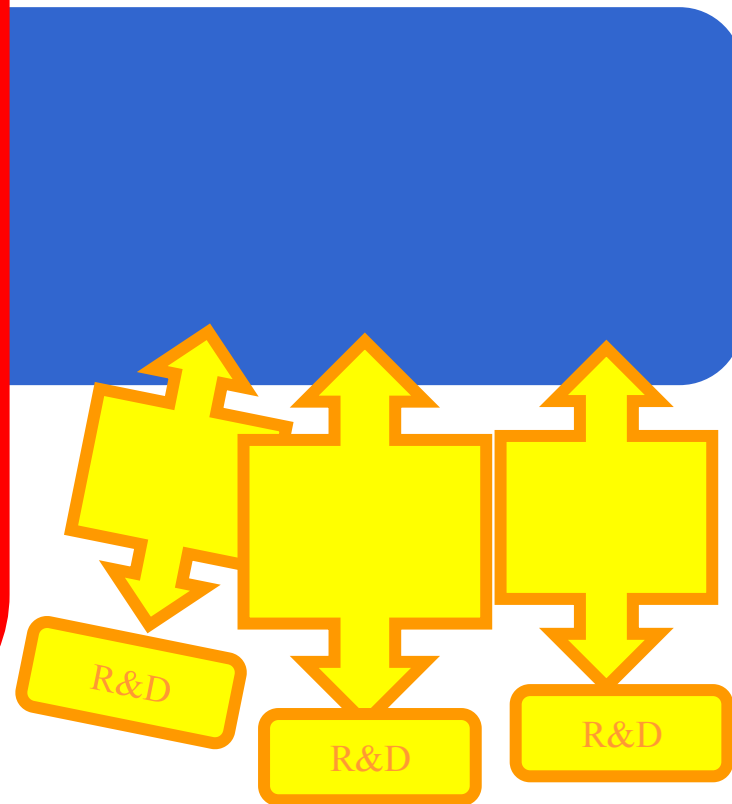
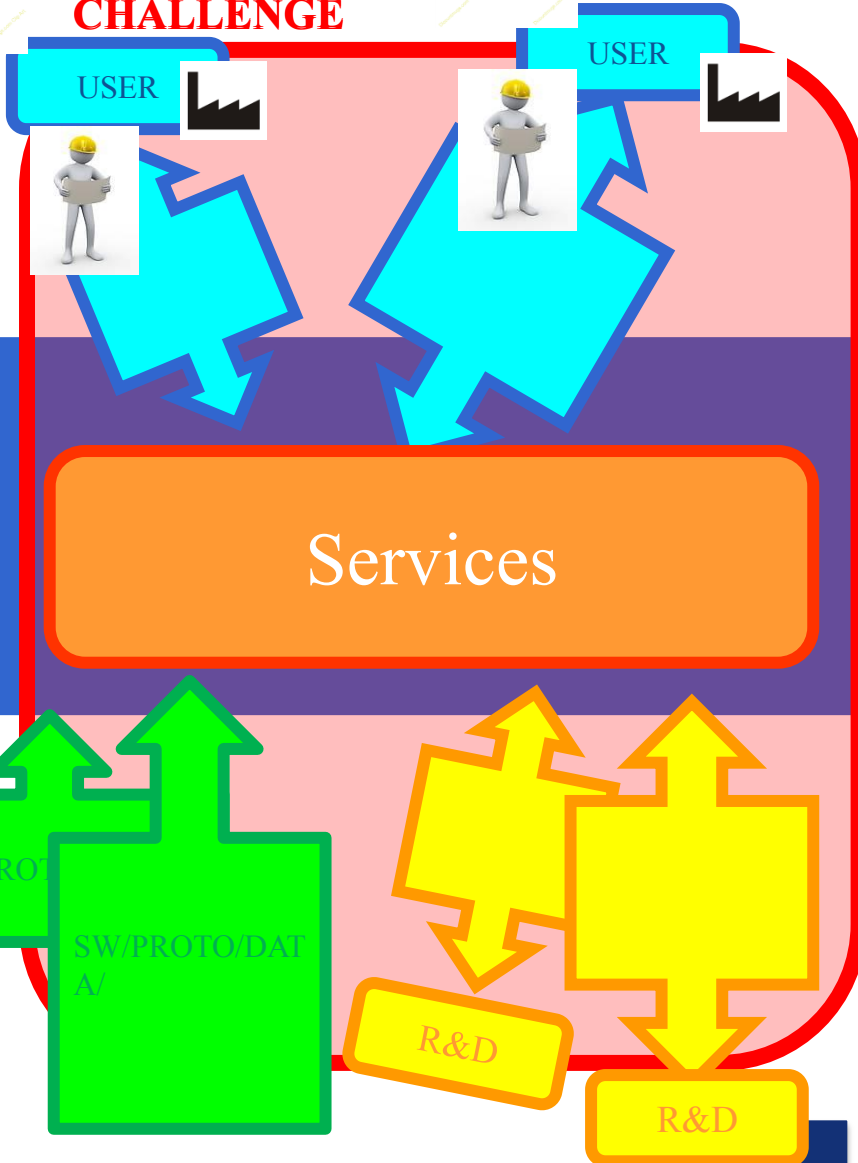
**TECHNO  
CHALLENGE**

**USER NEED/  
APPLI  
CHALLENGE**





# TECHNO CHALLENGE



TECHNO  
CHALLENGE

TECHNO  
CHALLENGE

USER NEED/  
APPLI  
CHALLENGE

European  
Commission

USER

USER

USER

USER

Services

SW/PR

SW/PROTO/DAT  
A/

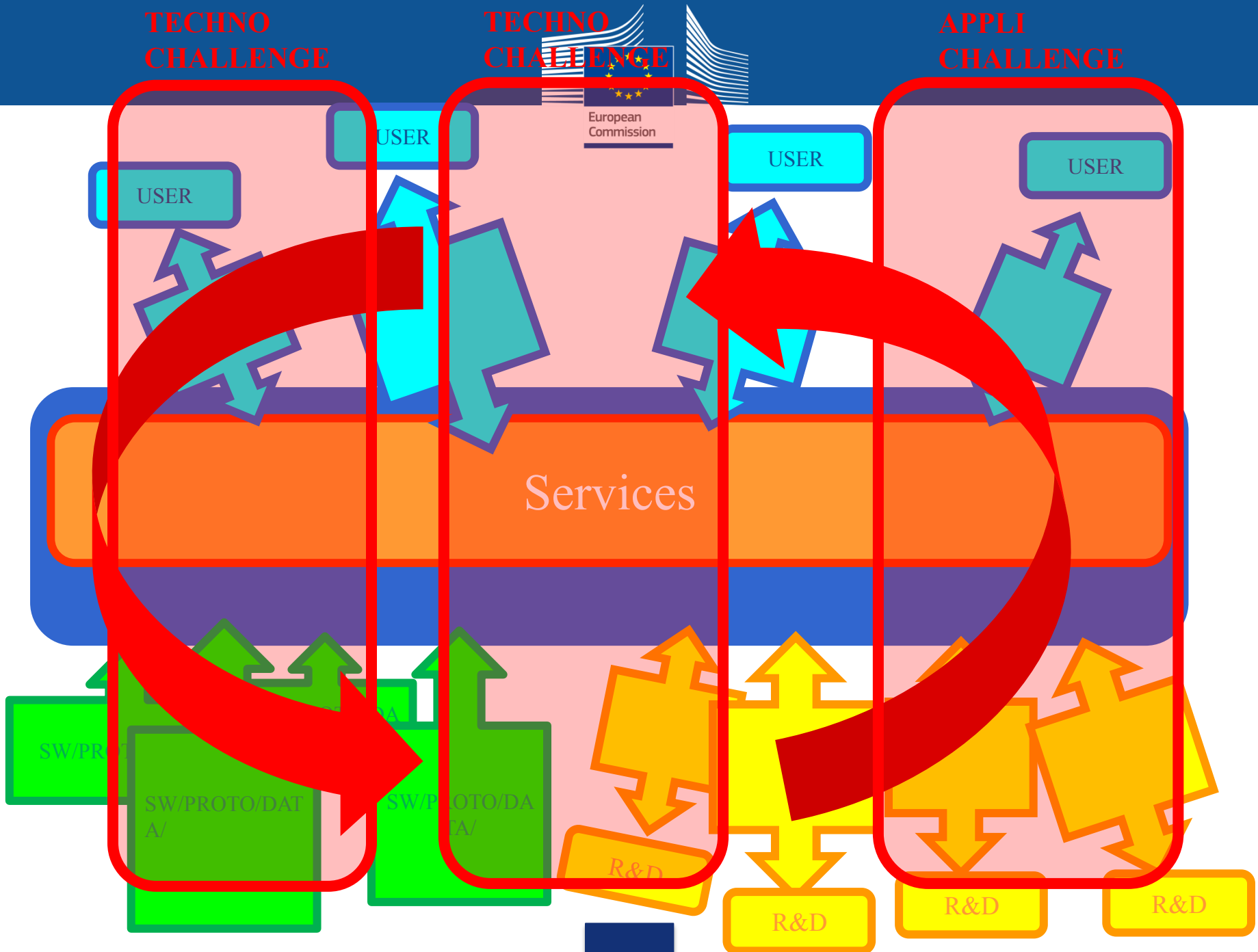
SW/PROTO/DAT  
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R&D

R&D

R&D

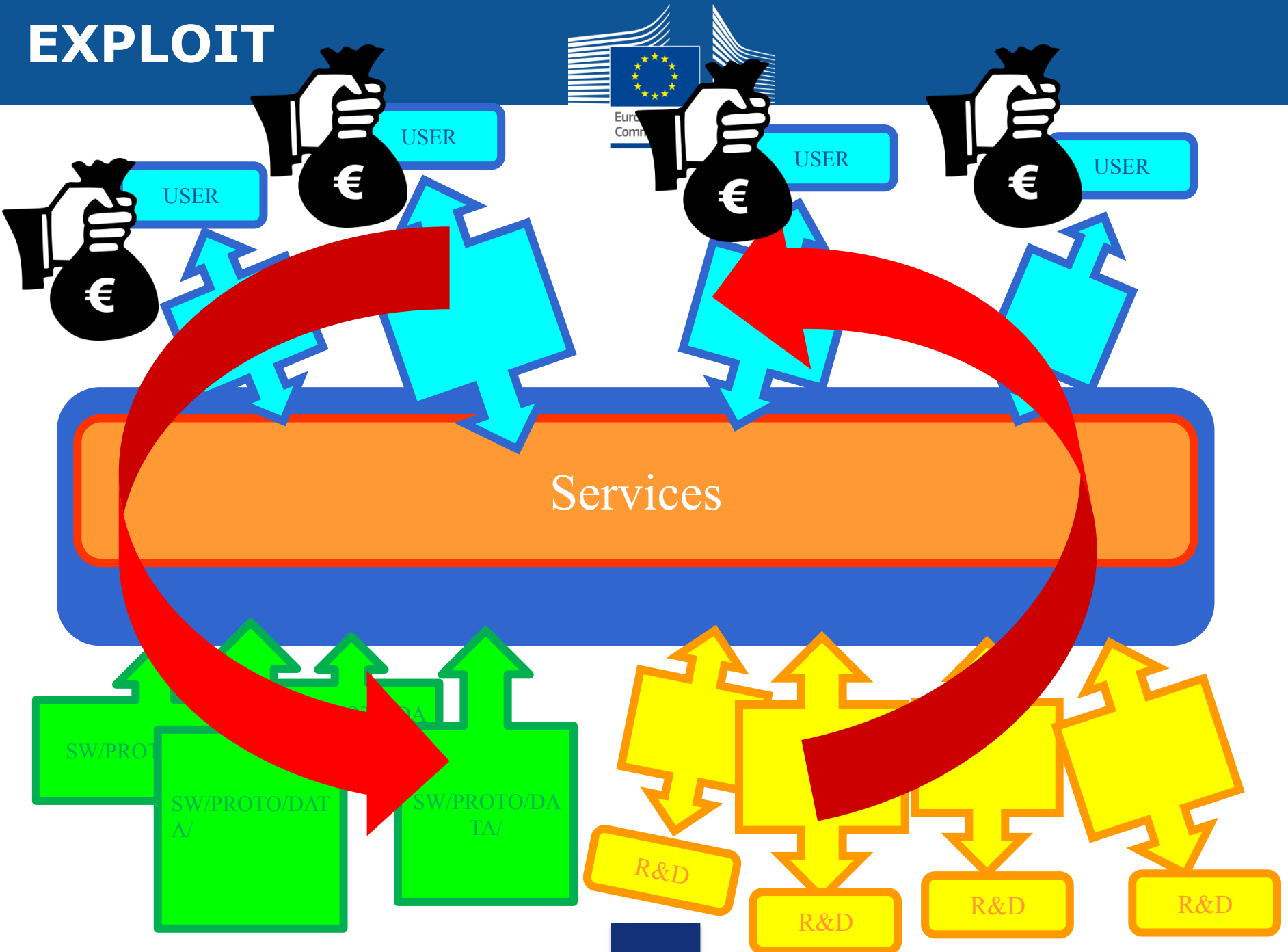
R&D



## 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



# EXPLOIT

## EXPLOIT

- 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

## STRATEGY BUILDING

- 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?
<del>Standard RIA project</del>	This is a program covering from Research to Exploitation & Community & Strategy building
<del>Projects focusing on a single specific application/technology</del>	It should include a set of substantial and representative challenges It should combine Research and Innovation + community&strategy building
<del>Small consortia</del>	The major labs (RTOs, Academia) and major industrial players should be on board Cover whole value chain/network
<del>Pure monolithic technology platform</del>	Rather an aggregation of/ and link to existing tools and resources - ecosystem
<del>Simple repository of SW and Data</del>	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 to host artists can apply to the STARTS residence program (see [www.starts.eu](http://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](mailto:Cecile.huet@ec.europa.eu)

**THANK YOU**

*For more information please contact Idealist2018*

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