



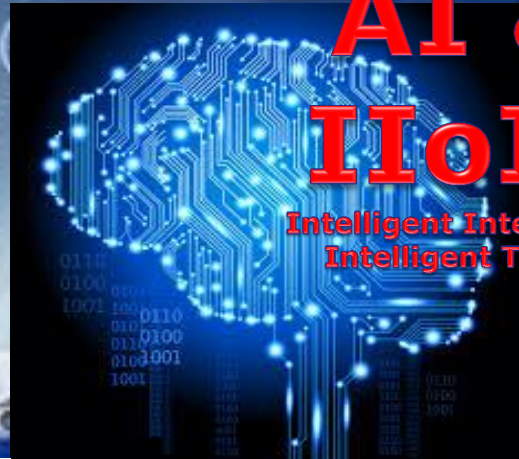
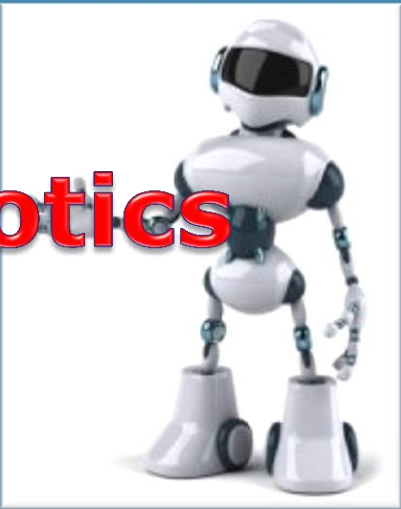
# AI in Europe

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

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

**Cécile Huet, PhD**  
Deputy Head of Unit A1  
Robotics & AI  
**European Commission**

**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**

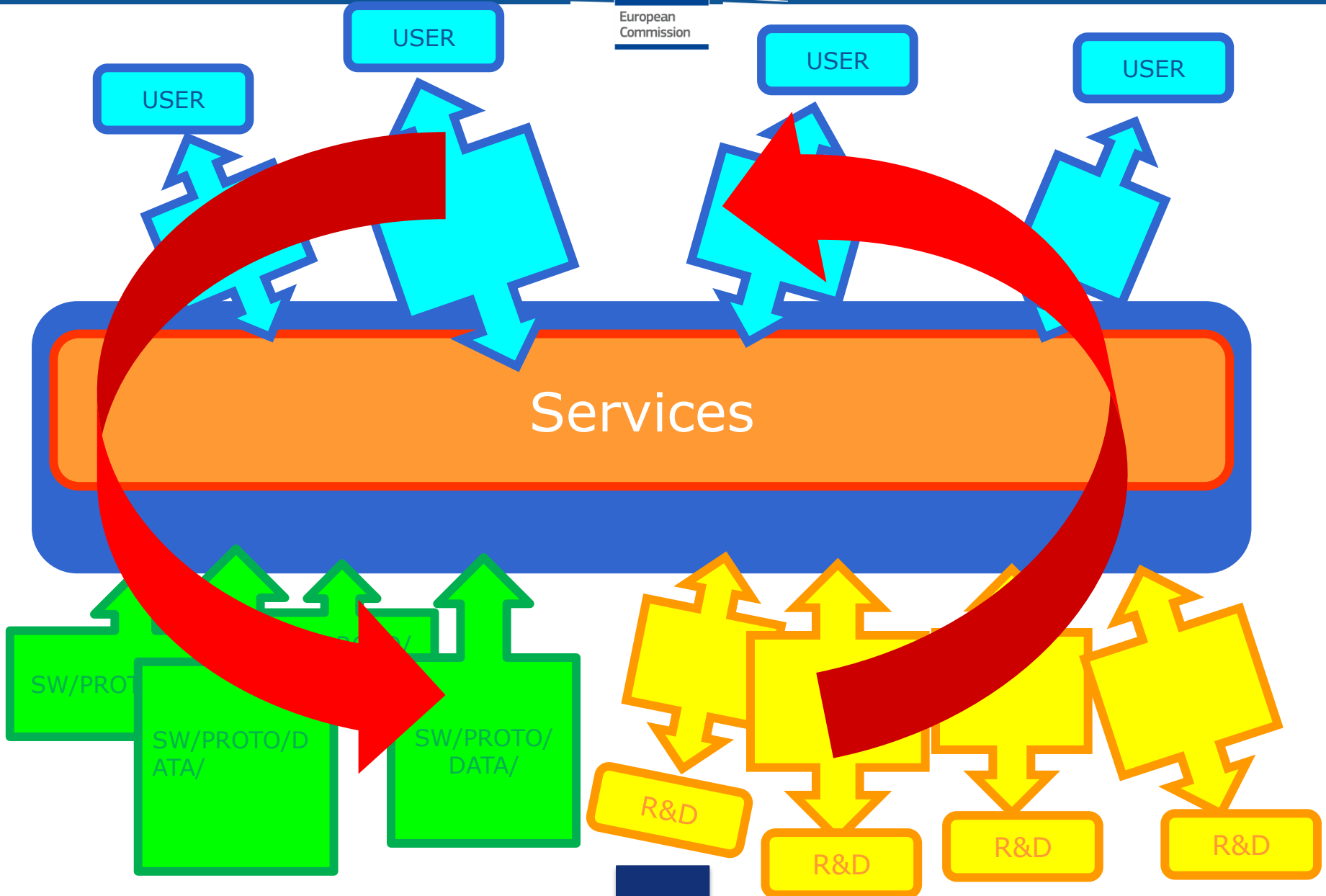
**Issue 3: AI potential not fully exploited in Europe**

**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**





# **H2020 - ICT-26-2018-2020 Artificial Intelligence**

## **TYPE:**

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

**CALL DEADLINE: April 17 – 2018**

**TOTAL BUDGET: 20M€**

**To be called again in 2020**

## **SCOPE: European AI-on-demand platform**

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**.

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)



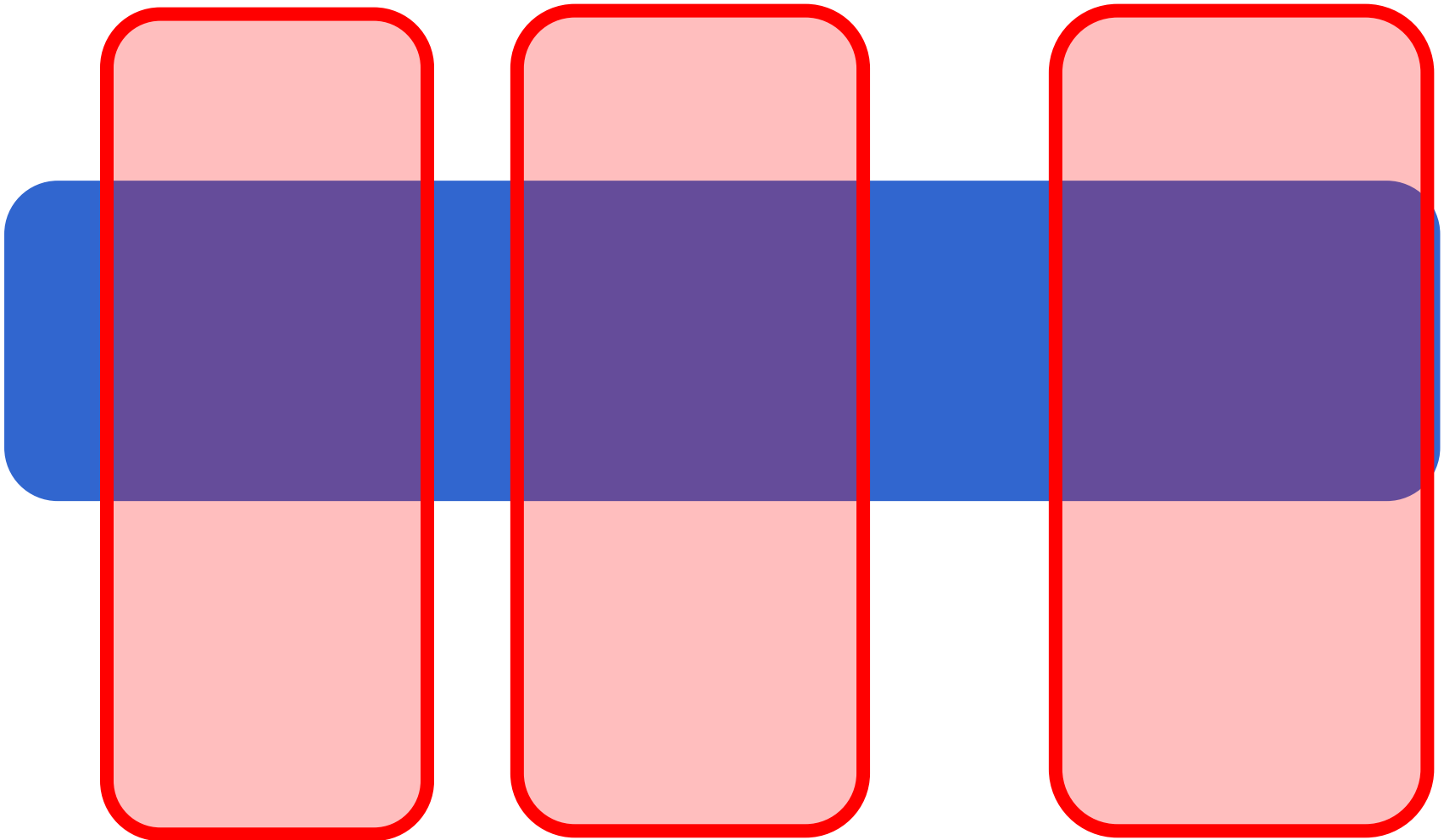


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**TECHNO  
CHALLENGE**

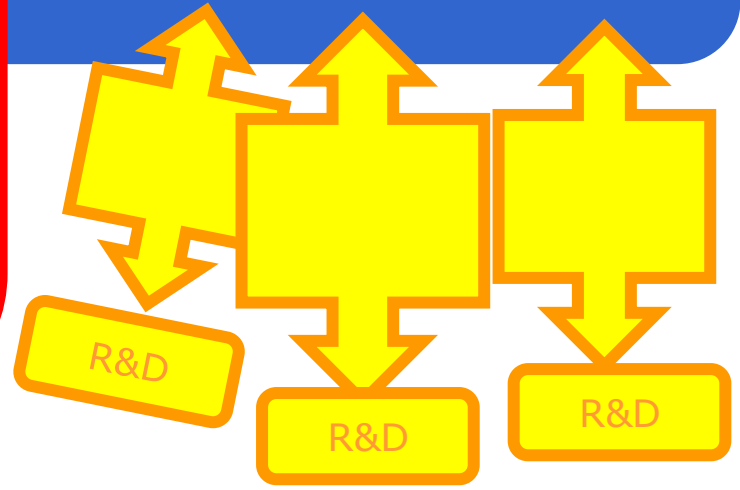
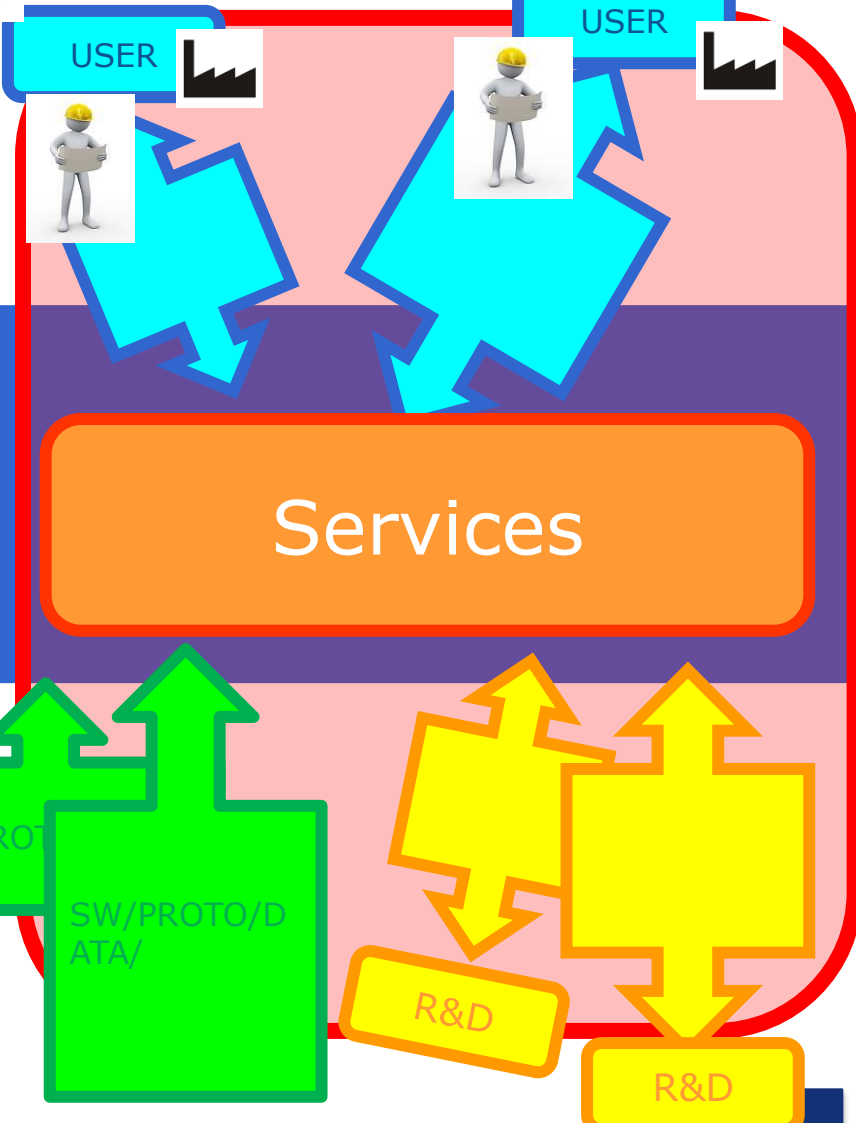
**TECHNO  
CHALLENGE**

**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/D  
ATA/

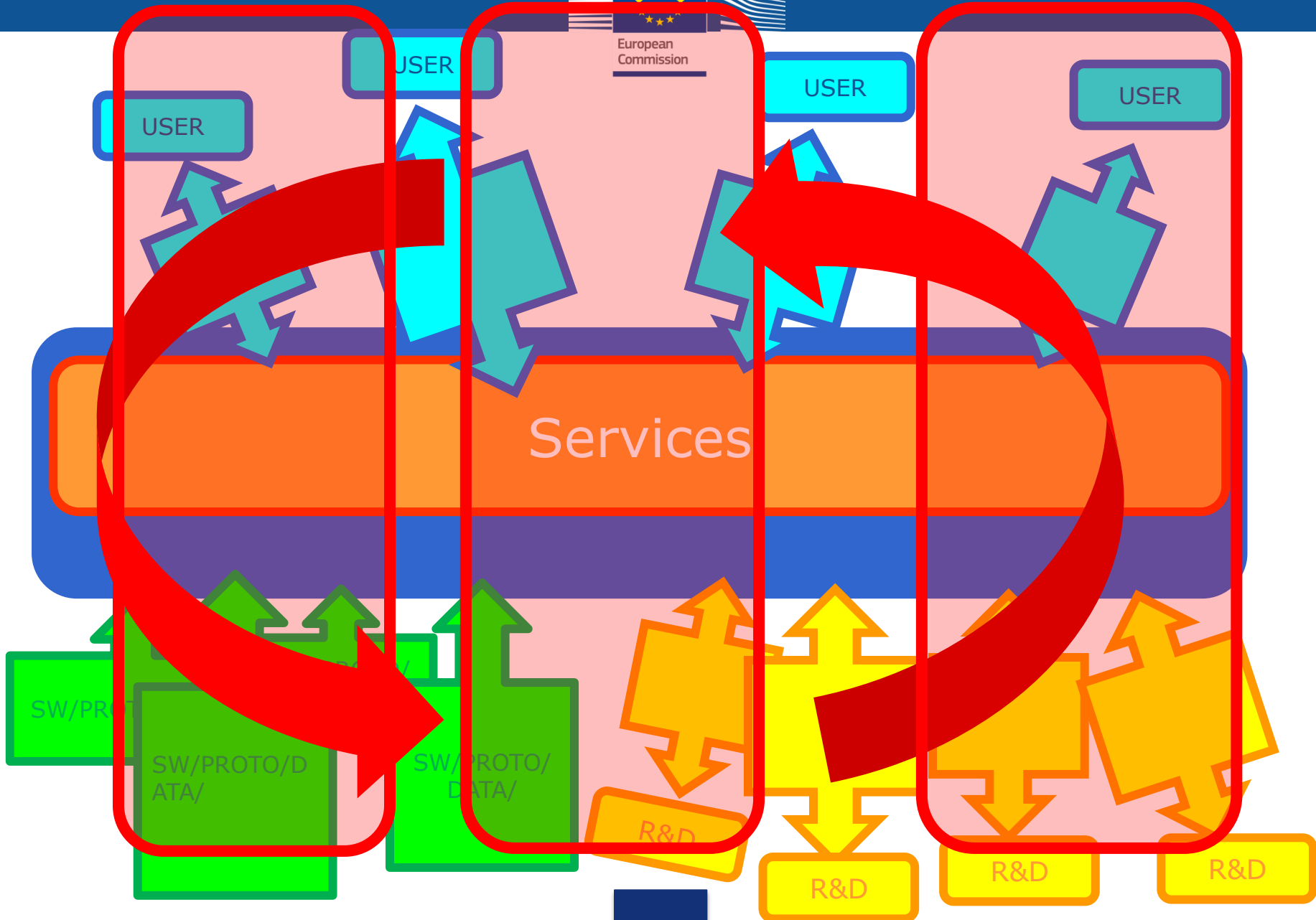
SW/PROTO/  
DATA/

R&D

R&D

R&D

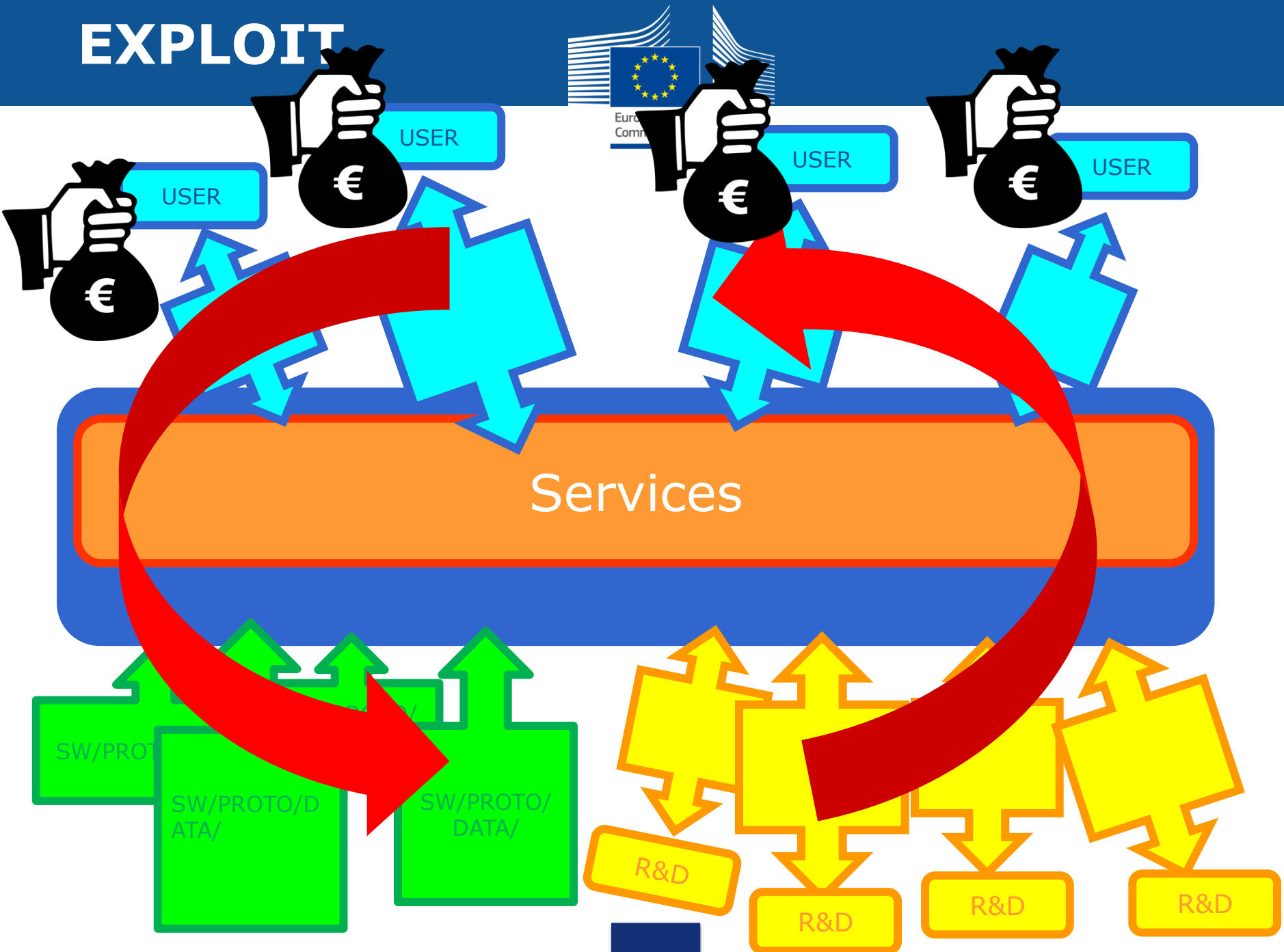
R&D



## 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;

# K. Actions involving financial support to third parties (FSTP)

European  
Commission

Specify:

- **objectives** and the **results** to be obtained

Include:

- **types of activities** for which a third party may receive financial support
- **persons or categories of persons which** may receive financial support
- **criteria** for **awarding** financial support
- **criteria** for **calculating the exact amount** of the financial support
- **maximum amount\*** to be granted to each third party and the **criteria** for determining it.

\*may not exceed EUR 60 000 for each third party unless it is **necessary** to achieve the objectives of the action)

# K. Actions involving financial support to third parties (FSTP)

European  
Commission

## Open calls requirements

- **Published widely (calls and results)**
- **Ensure transparency, equal treatment, no conflict of interest and confidentiality**
- **Clear European dimension**



# 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).

## Expected Impact:

- ❑ Building a sustainable AI-on-demand platform, becoming **THE REFERENCE, mobilising the entire European AI community**, and ensuring a **leading position** for Europe in AI.
- ❑ Reinforcing European **excellence** and **leading** position worldwide in major **research** and **application** domains, especially through the research and innovation efforts to fill important technology gaps.
- ❑ **Boosting technology transfer** of AI, especially towards SMEs and non-technology sectors, and disseminating the **economic benefits** of AI to a large user base.

# STRATEGY BUILDING

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# Work Programme topic: ICT26-AI

- **RIA – Research and Innovation Action**

**!!!! Including:**

**Research**

**Innovation**

**Coordination**

**Strategy building**

# Work Programme topic: ICT26-AI

- **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

- 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 – 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?*

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



# Future Outlook

## *NEXT STEPS:*

*Support to the platform will continue in 2020 to consolidate the offer + support the exploitation*

# European AI-on-demand "platform"



## IMPORTANT QUESTIONS

- Where is there added-value
- How to select Challenges
- How to create virtuous circles
- Which profiles are needed? Researchers/industry but the "middle layer" => integrators, engineers,...
- Size/weight of the various components of the efforts

# European AI-on-demand "platform"



Ecosystem bringing the knowledge and capacity on the one hand, and the users of such technology on the other hand.

- ❑ What mechanisms, tools, support, and infrastructure would be necessary to make this knowledge used by researchers and industry?
- ❑ Which are the needs for the different types of users?
- ❑ How to address the common and the specific needs?
- ❑ How to mobilise the community to contribute to such platform?
- ❑ How to embed quality check of the algorithms?
- ❑ SERVICE LAYER = who/what?

Which support services / integration services are needed?

- ❑ Access to data?
- ❑ Access to infrastructure?
- ❑ Barriers?
- ❑ Sustainability

# Comments on Challenges

- ❑ Not small competitions – major tracks in the proposal
- ❑ Including:
  - **From research to innovation => challenge driven research**
  - **In parallel developing the structure of the "platform"** (methodology to make data available, access to existing resources (HPC/COUD, SW), documentation, data formatting, etc.)
  - **Participants in the challenges should already be in the proposal**



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# Where to find the information?

Participant portal:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-26-2018-2020.html>

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- European Statistics Programme
- Hercule III Programme

**TOPIC : Artificial Intelligence**

**Topic identifier:** ICT-26-2018-2020  
**Publication date:** 27 October 2017

**Types of action:** RIA Research and Innovation action  
**DeadlineModel:** single-stage  
**Opening date:** 31 October 2017  
**Deadline:** 17 April 2018 17:00:00  
Time Zone : (Brussels time)

Horizon 2020  
Pillar: Industrial Leadership  
Work Programme Year: H2020-2018-2020  
Work Programme Part: Information and Communication Technologies  
Call : H2020-ICT-2018-2020  
H2020 website  
Call budget overview

**Topic Description** + More

**Specific Challenge:**

## **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***

## Next steps:

- Mobilise the major stakeholders
- Work hard
- Submit on time

**Thank You**