EUROPEAN DEFENCE AGENCY

AI in defence

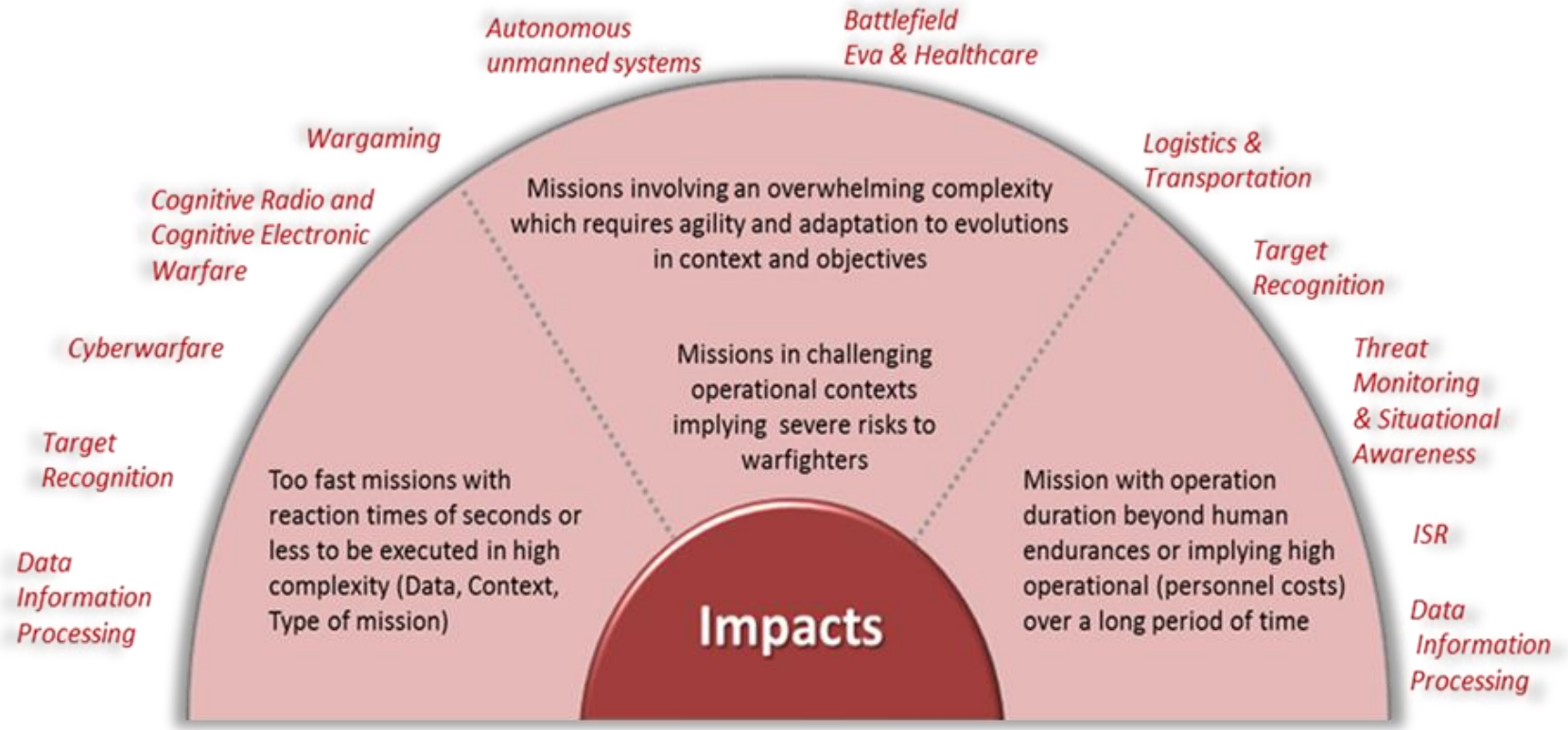
Jean-Francois Ripoche /Director EDA Research Technology and Innovation

SEDE Public Hearing
On Opportunities and challenges of the use of Artificial Intelligence – enabled systems in security and defence

What AI is about for Defence?

- AI related opportunities for defence:
  - Reduces risk of life losses in conflicts (armed forces and collateral).
  - Increases efficiency of equipment and people.
  - Reduces costs during training and operations.
- AI induces also new vulnerabilities
  - Manipulation of information (social networks, …)
  - Cyber attacks
  - Increased dependency of decision making systems with technology being considered as “black box”/trust and interfaces between Humans and Machines still to be developed

Assessing the Impact of AI to military applications



Opportunities in the AI Era

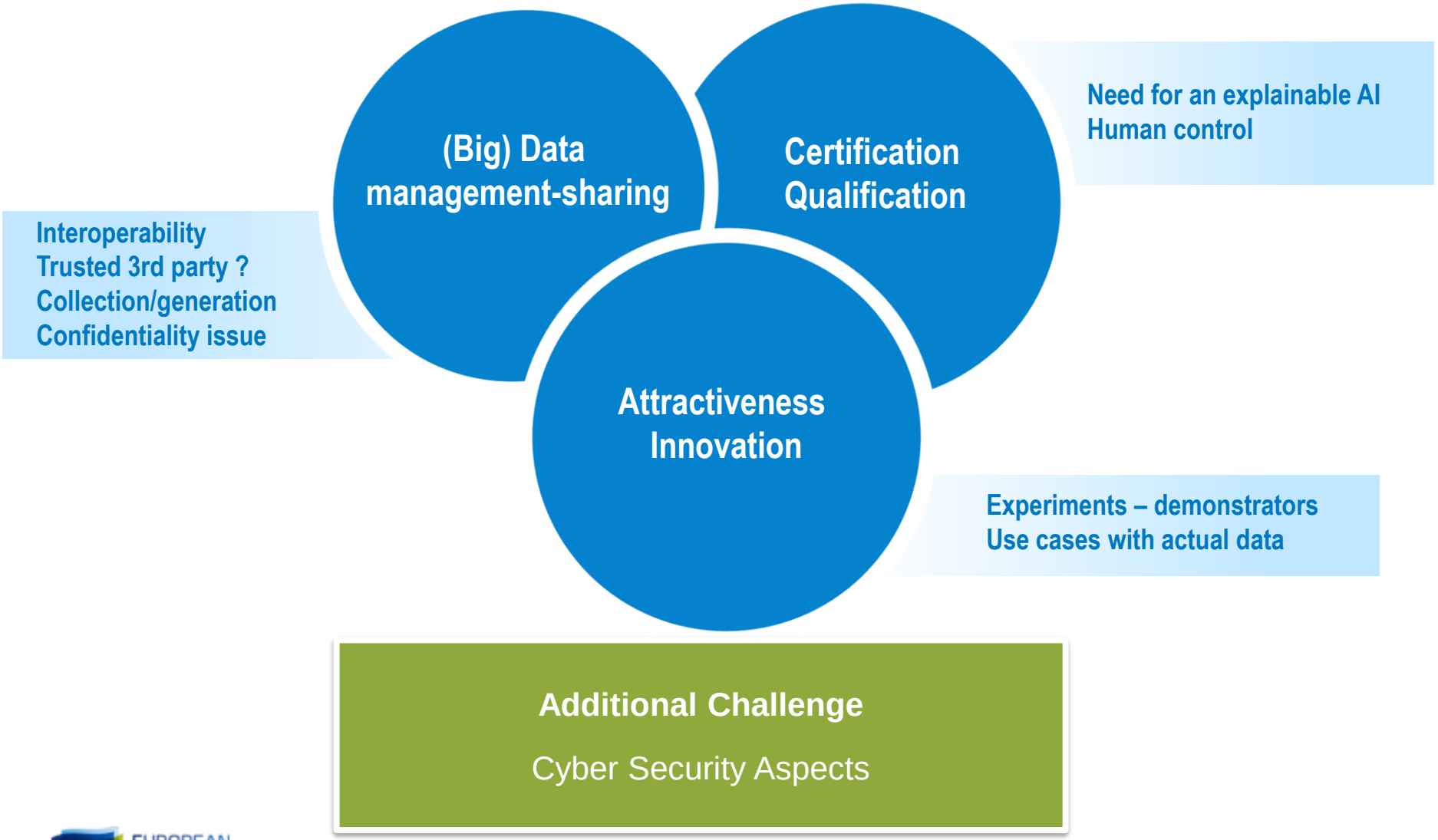
The growing role of AI and developments in autonomous systems as well as human-machine interfaces will alter the capability landscape.

There are many opportunities for AI enabled systems in defence.

- To improve intelligence gathering, surveillance and reconnaissance, making our threat analyses better and more accurate
- To speed up reaction times, data processing and decision-making;
- To reduce workloads and training needs of sensor operators
- To increase our operational readiness by streamlining logistics and maintenance;
- To lower operational costs by simplifying workflows and increasing accuracy;
- To better protect our troops and innocent civilians by improving targeting precision.

Key Challenges

Areas where common approaches should bring added-value



Other Defence Challenges

Technology

Doctrinal / Operational

Business / Societal

Acquisition

Organizational / infrastructure

Legal / Ethical

Relevant EDA strands of work

Capability Development Plan

- Supporting Member States in the implementation of the dedicated CDP priority
- Development of a Strategic Context Case

Overarching Strategic Research Agenda

- Development of cutting edge technologies to increase military capabilities
- Support the introduction of AI solutions / technologies to fill in capability gaps

Key Strategic Activities

- Identification of technology bricks, skills and industrial manufacturing capacities underpinning strategic autonomy

- **Hub for exchange among Member States**
- **Outreach to industry**
- **Synergies with Commission-led activities**

AI activities in EDA: Workshops, Projects and Prize

18 Studies

6 Workshops

12 Projects

1 Innovation Prize

Conclusions

AI is a transformative technology which will impact many of the future systems and military applications. In a defence context, AI presents potential in all domains and all levels of conflicts.

Research on interoperable solutions on a European level is essential for the aspect of survivability of European forces and counter-measures against adversarial usage of AI-augmented systems.

Building trust and confidence between the AI solution and the soldiers is the key for the adoption of the technology

EDA follows a structured approach on AI