

EXPERTISE & KNOWLEDGE TRANSFER – CLUSTERS 3, 4, AND 5

- 1- Using our ongoing H2020 FET-Open (Pathfinder, the new name. Start at TRL 2 and end at TRL4) Epistemic AI project **results** in a follow-up project (**starting at TRL4** or 5 to a higher TRL).
- 2- Sharing the Smart Factory lab at Campus Bruges, KU Leuven facilities (Connected Complex system of Humans and machines/robots).
- 3- Expertise in the following research topics:
 - a. Modelling Advanced **Uncertainty**
 - b. **Optimisation** under Advanced Uncertainty
 - c. **Decision Making** under Advanced Uncertainty
 - d. Uncertainty in **AI** (Epistemic **Machine Learning** Models)
 - e. Human Machine/Robot interaction

The projects and/or research **ideas** for a possible joint proposal (Fig 1.)

- SMART **DIGITAL DECISION-MAKING** IN INTERCONNECTED Uncertainty SYSTEMS OF HUMANS & Machine
- Smart **Platform** in Interconnected Uncertainty Systems of HUMAN & Machine under Industry 5.0

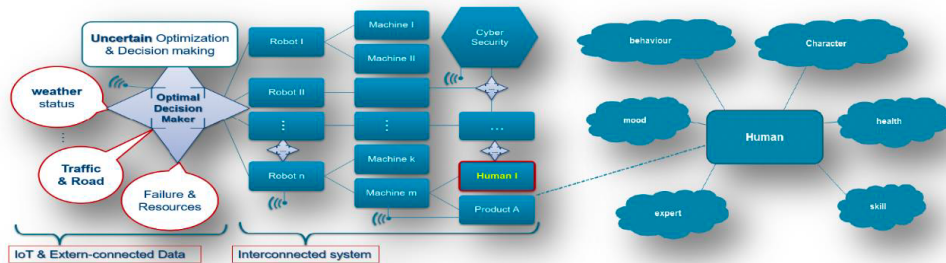


Figure 1 - Interconnected systems of Human and things

The schema and the title could be **adapted** to different **domains** such as (Smart), Military, Society, City, or Farm. Depending on the Clusters, we need to consider a domain based on the EC priority. For instance for CL3:

- A resilient EU prepared for emerging threats
- A secure, open and democratic EU society
- Creating a more resilient, inclusive and democratic European society
- Secure and cybersecure digital technologies

We are ready to be a **partner** or **leader** if there are other proposals.

This idea could also be applied to an even broader scope like a city or country to optimise globally all city operations such as power demand, traffic delay, emergency systems, security, etc. by considering any unexpected failures, uncertainties, economy, social, and internal/external updated real-time information resulting in smart-X: smart-city or smart-country, etc.

PARTNERS

DFG / FWO call			
1) KU Leuven (BE)	M-Group	2) ...	

CONTACT

LMSD, M(echatronics)-GROUP, KU Leuven Campus Bruges, Dr Keivan Shariatmadar¹

¹ keivan.shariatmadar@kuleuven.be