RESEARCH GROUP
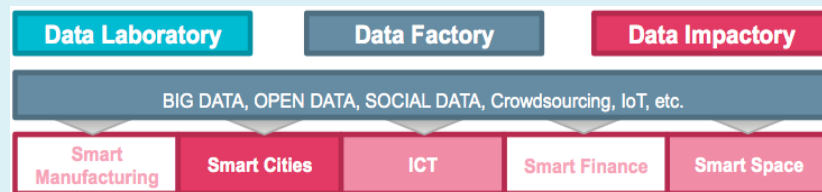
Edge Computing & Networks

Mission

Data is a vital component for many applications. In this context, LIST's Data Intensive Systems research group (DAISY) aims to cover all aspects allowing information flows to be transformed into valuable inputs for targeted applications. Big, linked, open and social data sources, complemented with the Internet of Things (IoT) provide the information ground for impact driven innovation. This innovation capacity is based on 3 complementary pillars:

- The Data Laboratory allows the access, collection, cleaning, structuring and processing of (possibly massive amounts of) data. One of the main challenges are on providing efficient models such as ontologies and standardisation, at the level of a system.
- The Data Factory platform provides the necessary infrastructure to manage and exploit the data, through toolboxes implementing for instance visualization, simulation or analytics components. Despite a good knowledge of all existing solutions, it mainly focused on open one's.
- The Data Impactory layer comes on top of these two pillars to professionally bring impact-driven solutions and transform the resulting data sets into added value for externals partners. The value of the data and associated services is a core concern of this pillar.

Main areas of application

Smart Cities with a focus on Smart Mobility, is currently the main area of application of the group. Its researchers focus on:

- Connected and autonomous vehicles (including cars, public transportation, unmanned aerial vehicles – UAVs)
- Cooperative Intelligent Transportation Systems (C-ITS)
- Location-based services
- Daily user mobility assistance
- Architecting smart mobilities concepts in theirs globality
- Smart Waste Management

Well-being and the silver economy are also another strong area of interest to researchers.

Main Projects

- SENSA: Sustainable, Environmental & Safe tourism in protected areas
- Stimulate: Sustainable E² Mobility Services for Elderly People
- MAESTRO: Constructing a reference framework for self-monitoring devices dedicated to seniors
- MEDIATE: Collaborative and interMEdiating solution for managing Daily Activities for The Elderly at home
- Be-Good: Building an Ecosystem to Generate Opportunities in Open Data
- SWAM: Smart Waste Collection systems
- 5G-MOBIX: 5G for cooperative & connected automated MOBIlity on X-border corridors
- eCoBus: Electrified Cooperative Bus systems
- MUV: Mobility Urban Values

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