

H-INCEPTION

Heterogeneous INCEPTION - CA 701

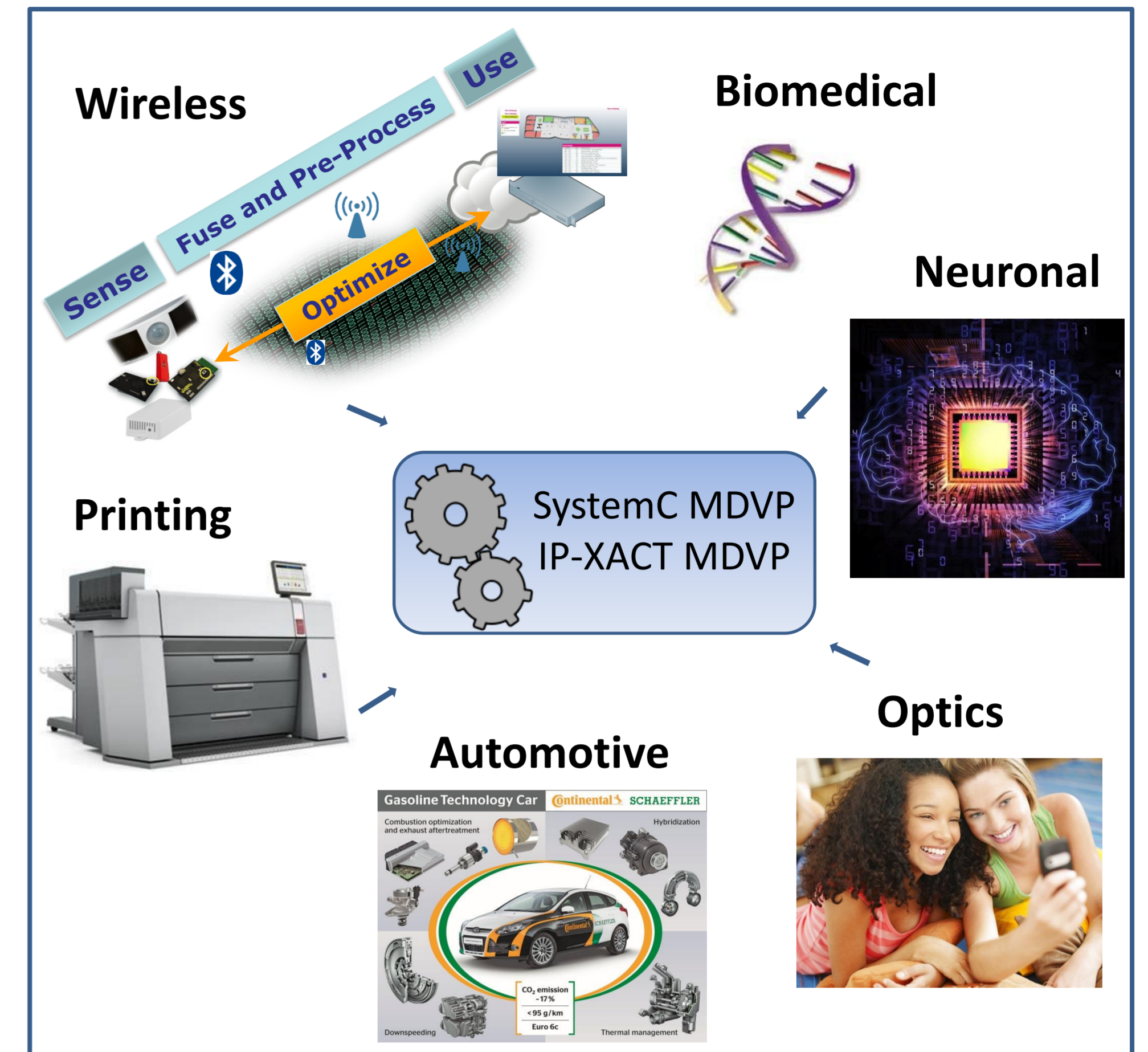
General description

New types of emerging applications require microelectronics which closely interact with the surrounding environment in different physical domains (optical, mechanical, acoustical, biological, etc.).

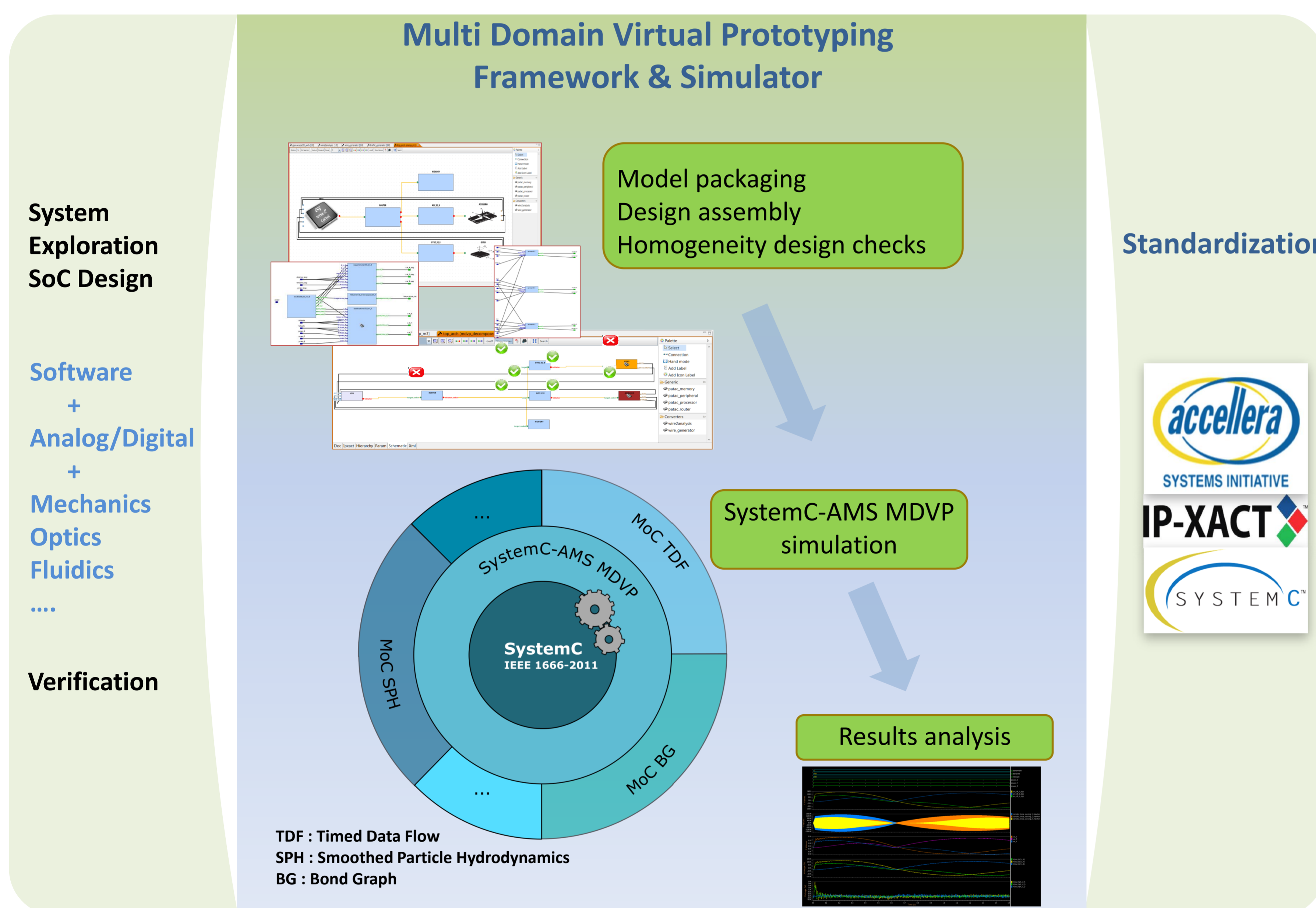
The main challenge is to correctly specify, dimension and verify these multi-domain microelectronics assisted systems, to avoid errors and redesigns which hamper product quality and thus time to market.

H-INCEPTION addresses the system level design needs of heterogeneous applications with the development of tools and a unified design methodology for **M**ulti **D**omain **V**irtual **P**rototyping based on IP-XACT and SystemC extensions.

A rich consortium from 5 countries composed of semiconductor and fabless companies, EDA vendors, research institutes and universities, specifies and validates the development of tools and methodology through 7 applications from various domains such as automotive, wireless, neuronal, printing and biomedical.



Goals / Objectives / Results



Societal impact

Virtual prototyping for heterogeneous applications is key to improving the specification of each physical part composing the system and to develop in advance the embedded software. As a consequence, development costs and number of prototypes will decrease and opportunities for extended architecture exploration will increase. It means :

- Using less resources for their realization
- Improving product quality
 - **Automotive**
Improving performance with a best Bill of Material to fulfill emissions requirements (pollutants + CO2) and other regulations (OBD, ISO26262).
 - **Biomedical**
Decreasing cost of biomedical products
- Reducing time-to-market, increasing competitiveness
- Creating jobs in EDA service & support

Partners



Associated partner



Countries involved

- FRANCE
- SPAIN
- NETHERLANDS
- SWITZERLAND
- GERMANY

Additional information

The project will end on December 31th 2015.



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