

6. Publishable Summary

The proposed pilot line project WAYTOGO FAST objective is to leverage Europe leadership in Fully Depleted Silicon on Insulator technology (FDSOI) so as to compete in leading edge technology at node 14nm and beyond preparing as well the following node transistor architecture. Europe is at the root of this breakthrough technology in More Moore law. The project aims at establishing a distributed pilot line between 2 companies:

- Soitec for the fabrication of advanced engineered substrates (UTBB: Ultra Thin Body and BOx (buried oxide)) without and with strained silicon top film.
- STMicroelectronics for the development and industrialization of state of the art FDSOI technology platform at 14nm and beyond with an industry competitive Power-Performance-Area-Cost (PPAC) trade-off.

The project represents the first phase of a 2 phases program aiming at establishing a 10nm FDSOI technology for 2018-19.

A strong added value network is created across this project to enhance a competitive European value chain on a European breakthrough and prepare next big wave of electronic devices. The consortium gathers a large group of partners: academics/institutes, equipment and substrate providers, semiconductor companies, a foundry, EDA providers, IP providers, fabless design houses, and a system manufacturer. E&M will contribute to the objective of installing a pilot line capable of manufacturing both advanced SOI substrates and FDSOI CMOS integrated circuits at 14nm and beyond. Design houses and electronics system manufacturer will provide demonstrator and enabling IP, to spread the FDSOI technology and establish it as a standard in term of leading edge energy efficient CMOS technology for a wide range of applications battery operated (consumer , healthcare, Internet of things) or not. Close collaboration between the design activities and the technology definition will tailor the PPAC trade-off of the next generation of technology to the applications needs.

7. Annexes

- Letters of support