



Thematic Network on Silicon on Insulator Technology, Devices and Circuits.
[IST-1-506653-CA]

EUROSIOI “Who is Who” Guide

Name of the organisation	
<i>Organization Legal name:</i>	Université catholique de Louvain
<i>Organization short name:</i>	UCL
<i>Internet homepage:</i>	http://www.ucl.ac.be

Contact person			
<i>Name:</i>	<i>Flandre</i>	<i>Title:</i>	<i>Prof.</i>
<i>First name:</i>	<i>Denis</i>	<i>Sex:</i>	<i>M</i>
<i>Phone:</i>	<i>3210472540</i>	<i>E-mail:</i>	<i>flandre@dice.ucl.ac.be</i>
<i>Postal Address</i>	<i>Microelectronics Laboratory, Place du Levant 3 1348 Louvain-la-Neuve, Belgium</i>		

Other Senior Researchers: (up to 10 names, please include e-mail address)

Prof. Jean-Didier Legat, legat@dice.ucl.ac.be
Prof. Vincent Bayot, bayot@dice.ucl.ac.be
Prof. Jean-Pierre Raskin, raskin@emic.ucl.ac.be
Prof. Danielle Vanhoenacker, vanhoenacker@emic.ucl.ac.be
Dr. Valeria Kilchytska, lerka@dice.ucl.ac.be
Dr. Xiao-Hui Tang, tang@dice.ucl.ac.be

Experience and expertise fields: (50 words)

Overall study of SOI technologies, devices and circuits, for low-voltage low-power, radiation-hardened, microwave, high-temperature and quantum applications. Device characterization, modelling and subsequent analog, RF and digital circuit design in many SOI processes down to sub-100nm generations. Fabrication of Microsystems fully co-integrating sensors or MEMS with their associated CMOS electronics, as well as of quantum nanoscale devices.

Facilities and Equipment:

Complete pilot fabrication line of about 400 m², for the rapid prototyping and validation of new fabrication steps and of new integrated devices or microsystems, on silicon/SOI substrates (3-inch)

Electrical measurement set-ups over a large range of frequencies (from DC up to 110 GHz) and temperatures (from few mK up to 400°C) on wafer-scale (semi-automatic prober) as well as packaged circuits levels.

Semiconductor simulation tools (ISE, Avanti and Silvaco) in the Microelectronics Laboratory. Electro-magnetic simulations in the Microwaves lab.

Three last international research projects:

SINANO – Silicon based nano-devices – Network of excellence, FP6

ATHIS – Advanced Techniques for High-temperature System-on-chip – Growth, FP5

T206 – Low-power / RF SOI circuits – MEDEA+