

# PROJECT DELIVERY REPORT

**Grant Agreement number: 215297** 

**Project acronym: S-PULSE** 

Project title: Shrink-Path of Ultra-Low Power Superconducting Electronics

**Funding Scheme: Coordination and Support Action** 

**Delivery Number: D3.2.5** 

**Delivery Name: Installation of an Internet Platform** 

**Delivery Date: T0+24** 

File name: SPULSE\_215297\_D3.2.5.pdf

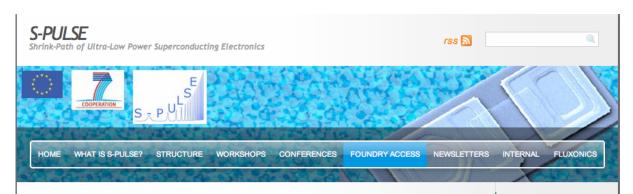
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# See on www.s-pulse.eu:



# Foundry access

The European FLUXONICS Foundry dedicated to Superconducting Electronics will provide ultimately the following services:

- study of technical solutions related to end-user specifications of functional systems;
- estimation of cost and time schedule related to end-user specifications;
  - → design, fabrication, test and delivery of circuits for functional systems upon customer specifications;
  - → or fabrication of chips upon delivery of GDSII drawings by customer.

Drawings should respect the design rules available here. The following ultimate tools and features are planned:

- web-integrated tools for cell library access;
- → web monitoring of fabrication status;
- circuit design check and support;
- → full featured design service provided by Universities of Ilmenau (Germany), Chalmers (Sweden) and Savoie (France);
- → integrated circuit fabrication based on thin film Niobium technology as continuation of today's FLUXONICS Foundry;
- support of system design assembly for cryogenics systems;
- → conferences, expert meetings and annual Open Forum Meetings;
- expert training, technical assistance and know-how transfer for superconductive electronics by means for summerschools, workshops and seminars.

The main technical features of FLUXONICS Foundry are listed below:

- chips are fabricated on silicon substrates and use niobium-based superconducting electronics technology. Check design rules;
- → the critical temperature of superconducting films is 9.2 K;
- + the maximum size of each chip is 8mm x 8 mm area with an active area of 5mm x 5 mm;
- + the maximum number of active superconducting devices (Josephson junctions) per chip is 10,000.

#### Currently, the following services are provided:

- Superconducting Electronics cells can be viewed here. Schematic and layout files can be sent by e-mail upon request to Thomas Ortlepp
- $\tiny \Rightarrow \ \text{technical specifications of the FLUXONICS Foundry can be found \ \text{here. Contact: } \textbf{Juergen Kunert} \ ;$
- circuit design check and support are provided by FLUXONICS Foundry at IPHT upon submission of drawings.
   Contact: Juergen Kunert;
- → full featured design service are available upon request by contacting Thomas Ortlepp, Anna Herr or Pascal Febvre;
- expert training, technical assistance and know-how transfer for superconductive electronics by means of workshops and seminars are proposed upon request. Contact Pascal Febvre or Thomas Ortlepp.

### Date-Time

February 18, 2010 - 19:09

#### **Event Calendar**

W Jan Mar w February 2010

M T W T F S S

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

## Categories

Conference Cryogenics Design and layout Detectors Events Foundry

General Newsletter RSFQ SQUIDs

Workshop

#### Links

ESAS EUCAS 2011