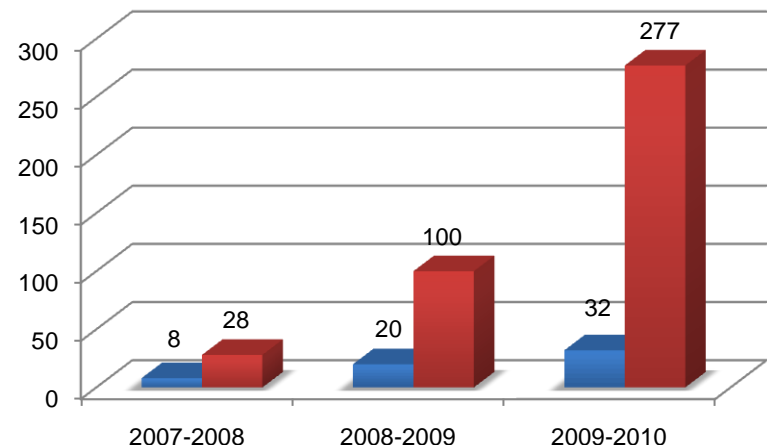# MUG meeting Wrap Up

- A new version of the CMOS8RF (130nm) Mixed Signal Design kit has been developed at CERN and is ready for release.
    - Based on the foundry PDK V1.7
    - Bug fixes on the Short IO library
    - Enhanced mixed signal design implementation workflow scripts.

- A significant amount of training effort was invested last year on the use of the CMOS8RF (130nm) Mixed Signal Design kit.
  70 engineers have attended the Analog and Mixed Signal Workshops.

- The prototype activity in the CMOS8RF (130nm) process has increased significantly over the past 3 years.
    - Designers have now acquired a lot of expertise on this technology, as well as on the use of the design kit and associated CAE tools.

CMO8RF (130nm) Prototyping activity

Kostas.Kloukinas@cern.ch ■ Number of designs ■ Total Silicon Area (mm2)

MUG meeting Wrap Up

- **Feedback from MUG meeting participants:**
  - ❑ A request was raised to develop a scripted design implementation workflow for digital core circuits with separate substrate ground for low noise applications.
    - CERN has plans to develop this flow.

  - ❑ The idea of creating a common IP block repository for the 130nm technology was brought up again this year.
    - The fact that today there are many designs developed and prototyped on the 130nm process should make it easier for the designers to respond to our call to contribute circuits in a common IP block repository.
    - A website hosting a list of all available IP blocks with references to the designer's name could be created.
    - Designers could consult the website for available IPs and contact their fellow designers to acquire the circuit.
    - In this scheme, designers contributing IP blocks will have to provide a minimal amount of support to colleagues that wish to reuse their blocks.

Call for Interest

- Please contact us for participation in:

  - <u>Forthcoming MPW runs:</u>
    - **CMOS6 (250nm)**
      - Tape Out beginning of next year.
      - Support for 3 and/or 6 metal stacks.
    - **CMOS8RF (130nm)**
      - MOSIS Nov. 8, 2010
    - **CMOS9LP/RF (90nm)**
      - MOSIS Dec. 8, 2010

  - <u>Forthcoming AMS Workshops</u>
    - Week of Oct. 18-22
    - End of 2010

- Contact: kostas.kloukinas@cern.ch, evelyne.dho@cern.ch

Microelectronics Users eXchange MUX-2010

To be held at CERN, October 21-22, 2010

http://indico.cern.ch/event/MUX2010

The MUX2010 is the first of a new generation of meetings popular in the HEP community in the late 90's under the name of MUG.
It is organized as a series of educational and information exchange seminars given by experts in industry
and from our community on a variety of topics related to microelectronics design for HEP applications.

Preliminary programme:

Thursday, October 21
9:00	Welcome and Introduction – A. Marchioro, CERN
9:15	3D Silicon integration – J. Knickerbocker, IBM
11:30	Applications of 3D techniques for HEP – S. Vaehaenen, CERN/VTT
14:00	Integrated Power Conversion – S. Saggini, U. of Udine
16:00	Tool challenges at 65nm and below - W. Stronski, Cadence
17:15	Discussion Session: "What do we need next in HEP?"

Friday, October 22
9:00	Designing MEMS Sensors – G. Henriet, ST
11:00	Comparing 130 and 90nm for FE designs - J. Kaplon, CERN
14:00	Analog Design at 90nm and below - A. Baschirotto, U. of Milano
17:15	Feedback and Wrap-Up

Participation registration is mandatory but free of charge. For the registration, please go to the web site above.
Enquiries concerning the workshop programme and participation can be directed to the Workshop Secretariat,
by emailing Evelyne.Dho@cern.ch.

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