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# Pixel Phase2 Meeting: Introduction and News

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# News since CMS Upgrade week



- We have now RD53 collaboration
  - ATLAS/CMS RD collaboration proposal for development of ROC circuits in CMOS 65nm was presented at last LHCC in June: LHCC endorsement !
  - 17 institutes are participating in RD53:
    - from ATLAS: Bonn, CPPM, LBNL, LPNHE Paris, NIKHEF, New Mexico, UC Santa Cruz;
    - from CMS: Bari, Bergamo-Pavia, Fermilab, Padova, Perugia, Pisa, PSI, also RAL, Torino; from both: CERN (also on CLIC) and RAL
  - 99 collaborators, ~50% chip designers
  - Spokepersons elected by IB members in July: Jorgen for CMS and Maurice for ATLAS
  - Next IB in October (date to be confirmed) after the ECFA meeting: it will be a foundation meeting, with discussion on MoU and how to work/finance the project. Feedback from different institutes fundamental.
- Design Kit for TSMC (provided by IMEC) could be available ~ TWEPP conference. To be followed, CERN should be doing first tests

# CHIPIX65



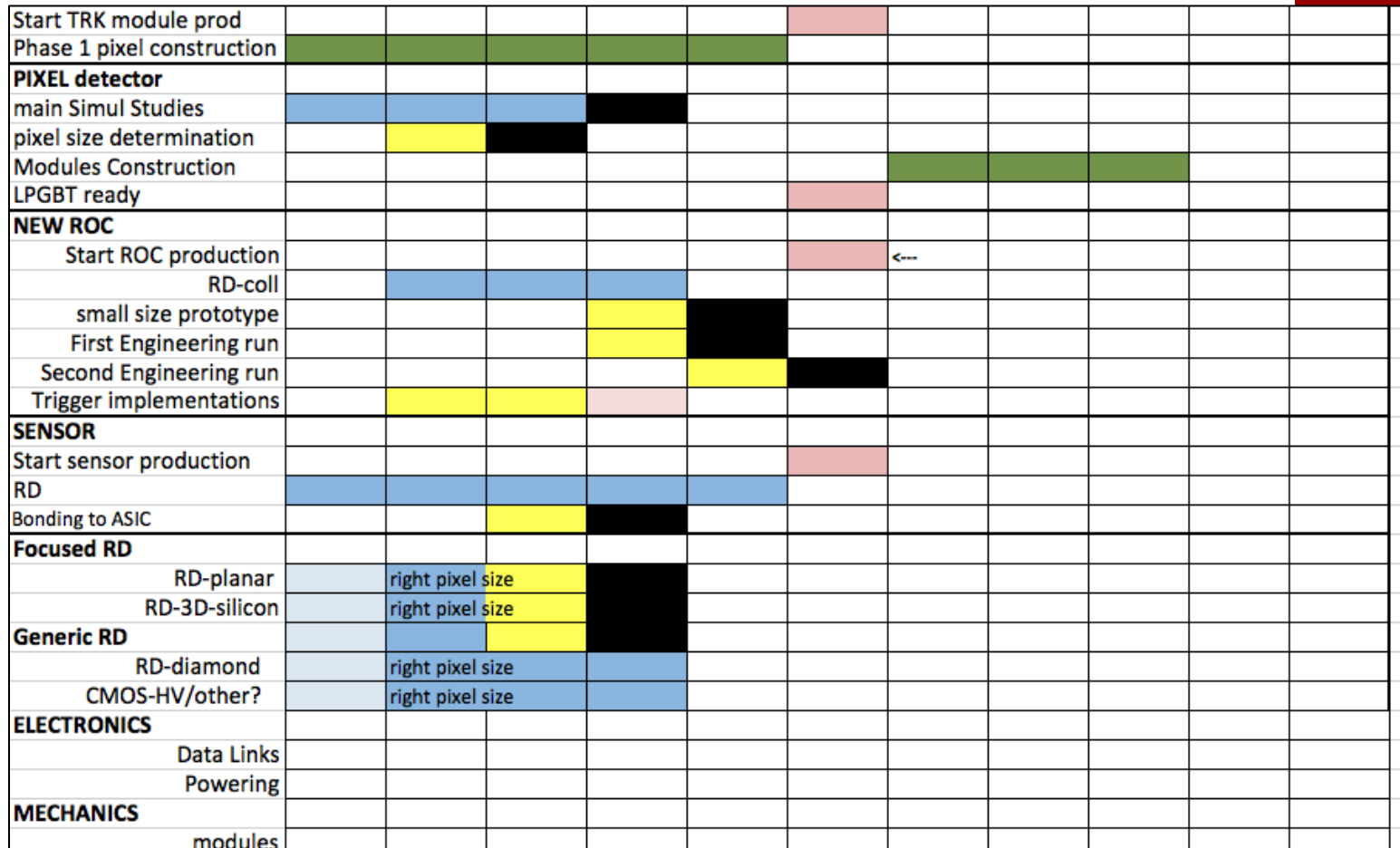
- Italian CMS/ATLAS groups submitted in July a detailed proposal to INFN to finance the RD on CMOS 65nm for the next three years.
  - Bari, Milano, Padova, Pavia, Perugia, Pisa, Torino
- It will make the contribution of the INFN groups stronger and self-consistent inside the RD53 international collaboration. CHIPIX65 might allow to finance about 2 MPW submissions per years and the development of a detailed test bench
  - The proposal has the support of RD53 and CMS-Tracker project
- All groups are in CMS and in RD53, but Milano that is working already on CMOS 65nm for the FTK ATLAS project
- The project is subject to approval by a referee board and a full presentation of the project will be made in October 2013 to the whole INFN CSN5 that is managing all the RD projects. Decision will be taken before the end of the year

# Appointments for Phase 2



- 2013
  - ECFA/ATLAS/CMS workshop (September)
  - LHCC report on Phase 2, with cost scale fro RRB
- 2014
  - CMS Technical Proposal on Phase 2 (Tracker aiming a full first version for April 2014)
- 2016
  - CMS Tracker TDR
- Other later date, construction of Outer Tracker (from Duccio's slides)
  - 2018: Final system test
  - 2019: start module production
  - 2020: sub-detector integration
  - 2022-2023: Tracker delivered to P5

# Pixel Ph2 R&D draft timeline versus general schedule



# Needed reviews/workshop

## Pixel Phase 2



- Need to prepare well for the Technical Proposal
- Certainly Pixel Ph2 much later than Outer Tracker
- To be decided the best way to proceed, first steps to be taken already in 2013:
  - Reviews / workshops, making on status of the art and to decide on next steps / organizing the R&D
  - Sensors and Electronics the first obvious cases
  - November TK-Ph2 days easier to get more people
    - Only sensors ? Could be useful to add some other presentation on few items strictly connected with module design like powering and data links ?
    - Discussion at TUSC tomorrow