THMBCMO22

LEAPS INNOVATION

ICALEPCS CAPE TOWN SOUTH AFRICA 2023

TOWARDS DEFINING A SYNCHRONIZATION STANDARD BETWEEN BEAMLINE COMPONENTS AND SYNCHROTRON ACCELERATORS

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Xavier Serra-Gallifa

This project has received funding from the European Union´s Horizon 2020 research and innovation programme under grant agreement No. 101004728

LEAPS League of European Accelerator-based Photon Sources

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LEAPS-INNOV

LEAPS – the League of European Accelerator-based Photon Sources

LEAPS-INNOVATION – Pilot project that focusses on the implementation of new strategies and activities for long-term collaboration

WP5.3 – Project to provide a solution of synchronization in the sample environment by extending the machine timing system up to the beamlines

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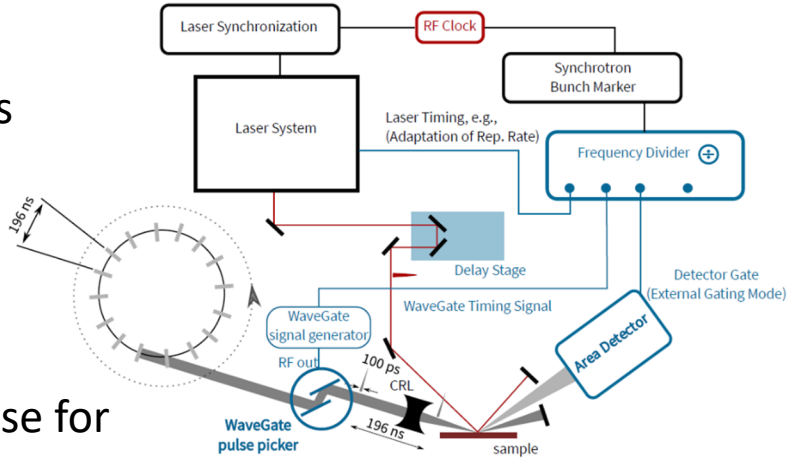
Demonstrator

- Selected a pulse-picker experiment as demonstrator:
  - Timing compatibility
  - Precision capabilities
  - Different facilities
- Selected a HW existing solution as base for our prototype
- Final deadline March’25!



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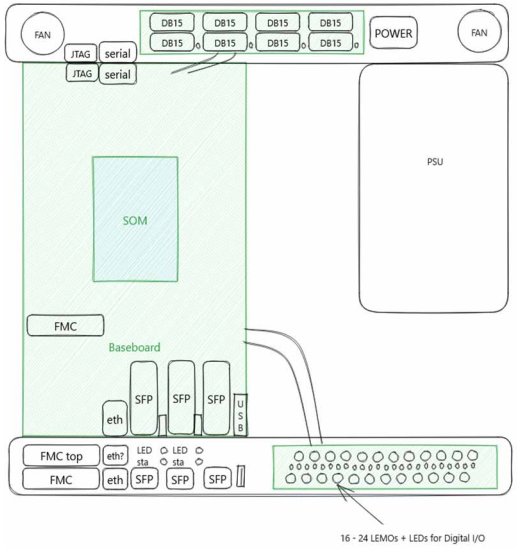
Common needs, joint development

- Need of a precise and flexible solution for beamline synchronization
  - ps precision trigger creation synchronous to the machine
  - Ready for wide variety of experiments
- Many facilities have collaborated:
  - I/O Interface specification
  - Timing systems compatibility
  - Study of available HW architectures (SOM)
- Multiple facilities agreed on a common HW development. Time to work on it!



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https://leaps-initiative.eu

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