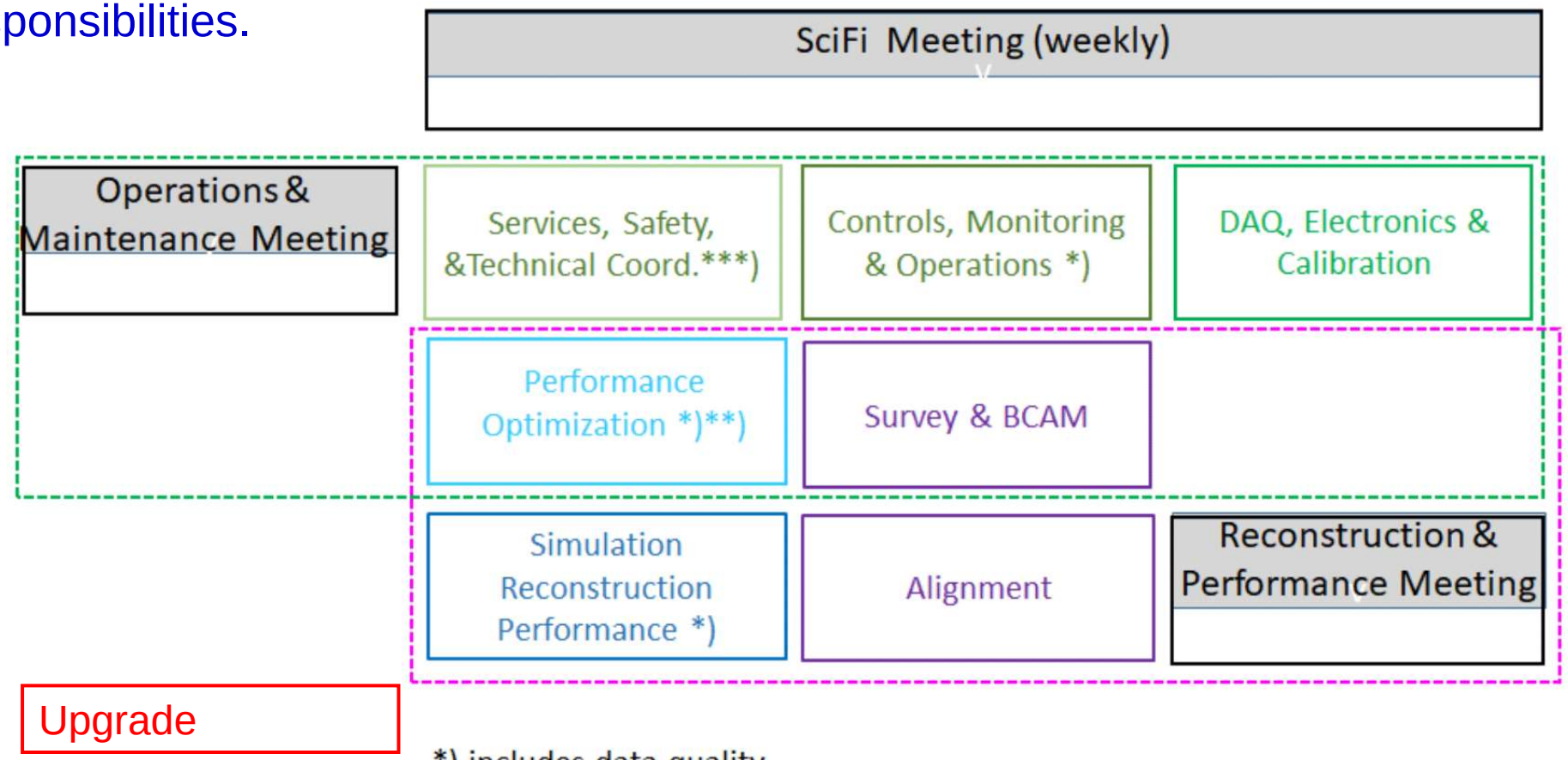
OUTLOOK

27 February 2023

Blake Leverington, Pascal Perret

Current organisation

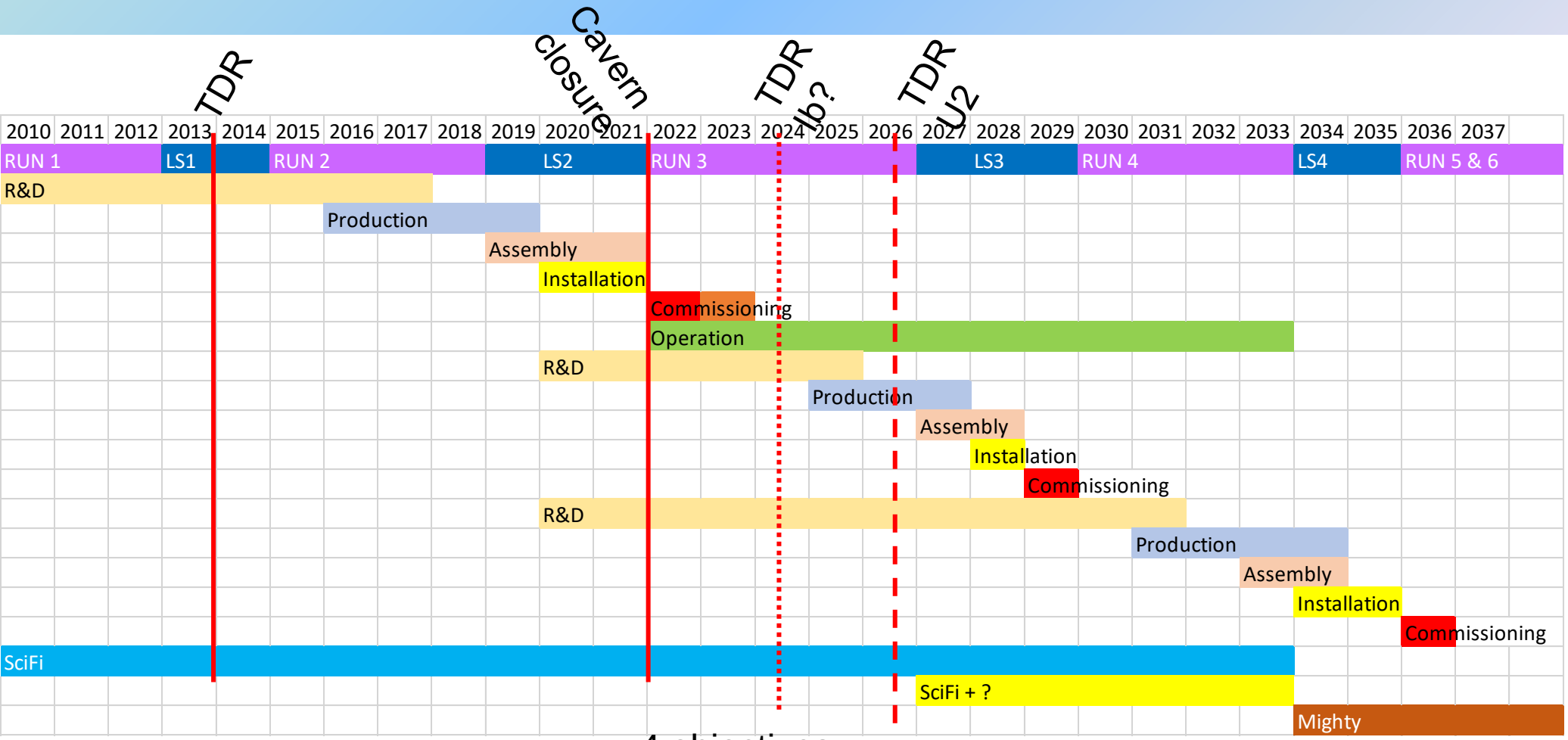
- It works fine
  - We will update it when needed and clarify the current work packages a bit with tasks and responsibilities.



*) includes data-quality
**) includes HV & threshold settings, and clustering
***) Technical coordination: planning of interventions, planning maintenance, communication w/ CERN service units

SciFiWorkPackages < LHCb < TWiki (cern.ch)

Our roadmap



- A lot achievements
- Still a long way to go

4 objectives

- Keep the good spirit, communication
- Run 3: Make a robust, reliable detector and reach nominal performances
- Run 4: which detector ?
- Run 5: Mighty tracker

Our roadmap

- 2023: Complete SciFi commissioning
  - Commissioning experts: we need you!
  - Achievements of smooth SciFi running and nominal performances
- 2024: Reliable SciFi operation and maximisation of tracking performances
- Reinforced documentation: web pages, notes, publications, etc.
  - SciFi construction paper
    - Dedicated workshop
  - Performance paper

A look backward: 2014 - 2022

- TDR time

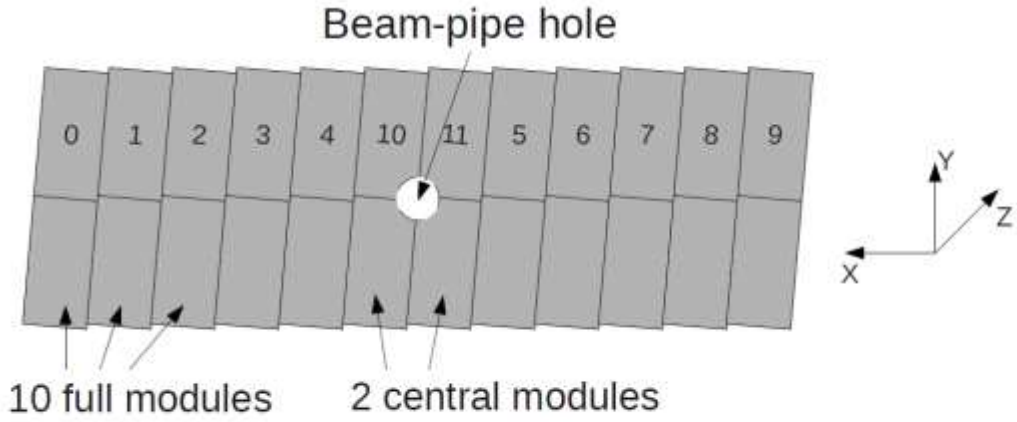
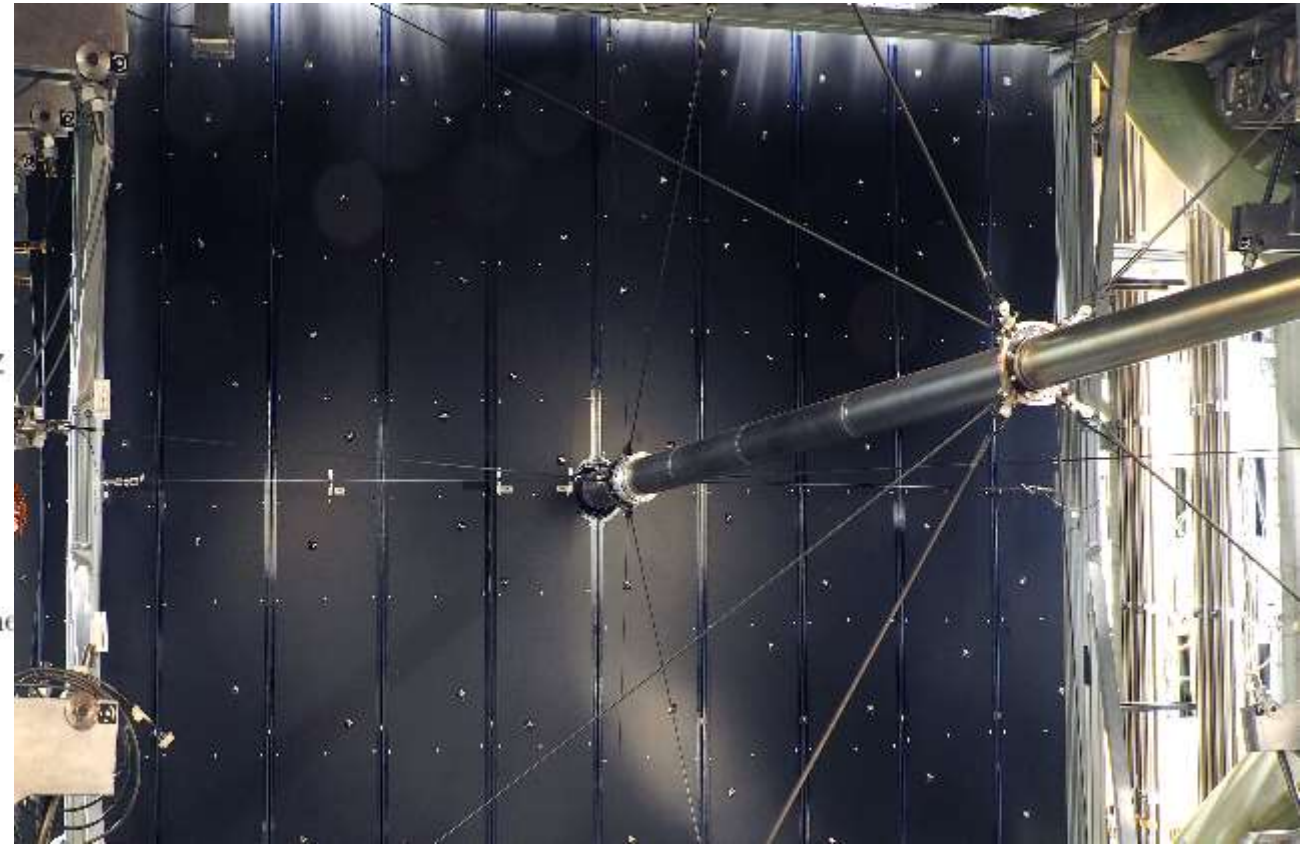


Figure 3.5: The structure of one detection layer is made up of 12 fibre modules. The
and 11 have a cut-out to allow the beam-pipe to pass through the detector.

2022



A look backward: Fibre Q.A.

CERN

> 11 000 km of fibres

A look backward: Mat production

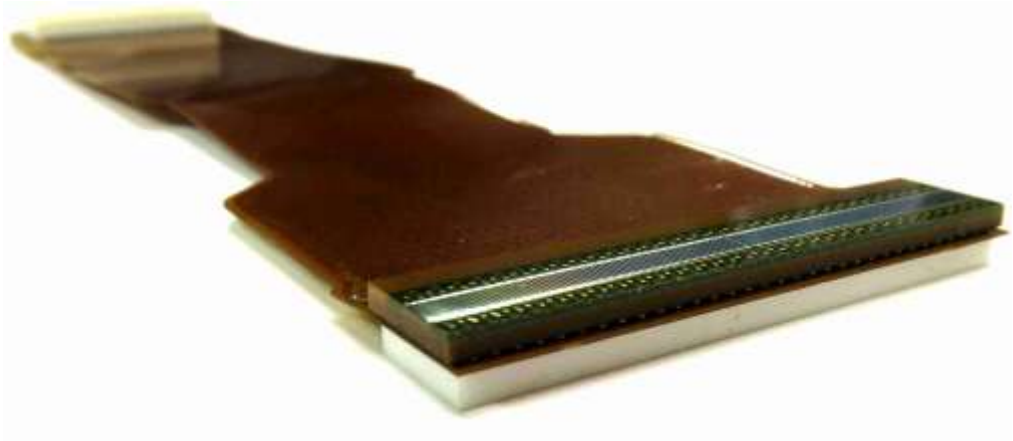
CERN: prototype (2012)

1543 mats produced

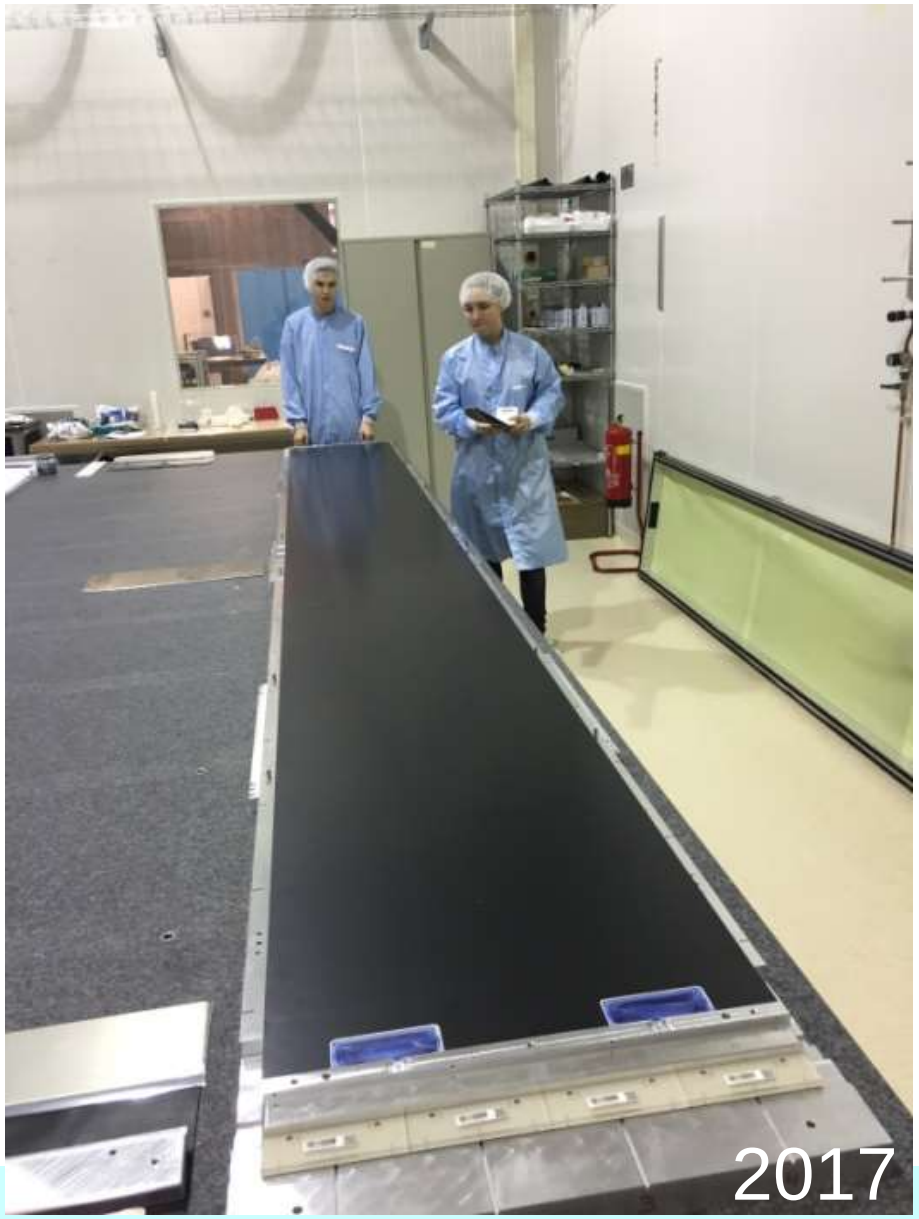
A look backward: SiPM production

EPFL

4500 delivered after testing



A look backward: Module production

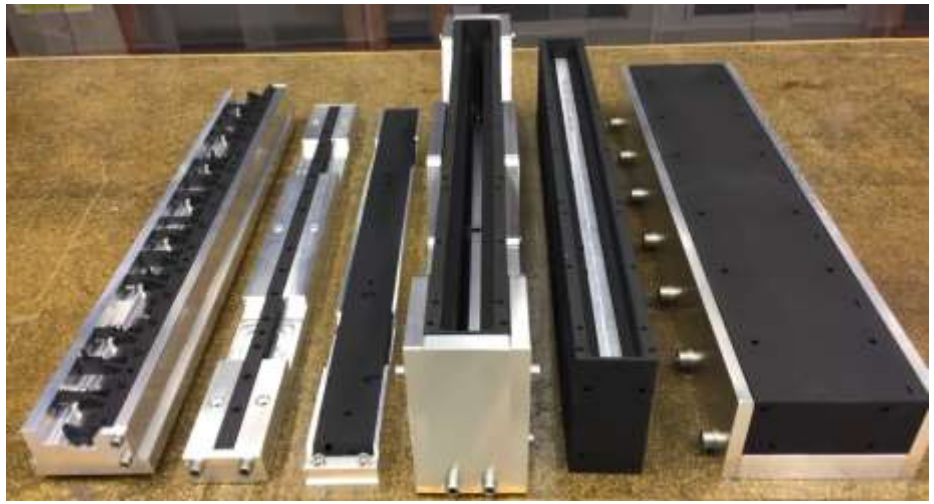


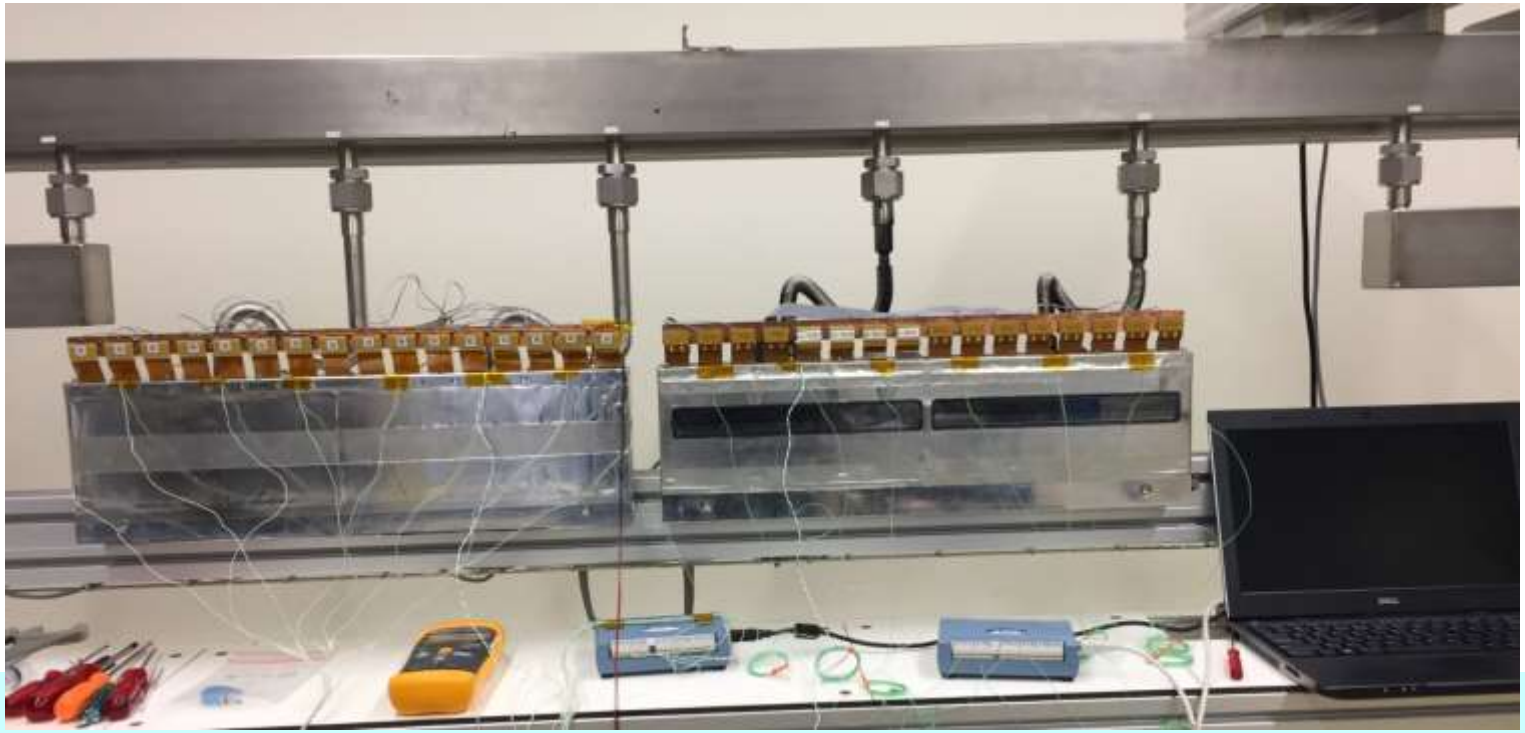
Heidelberg

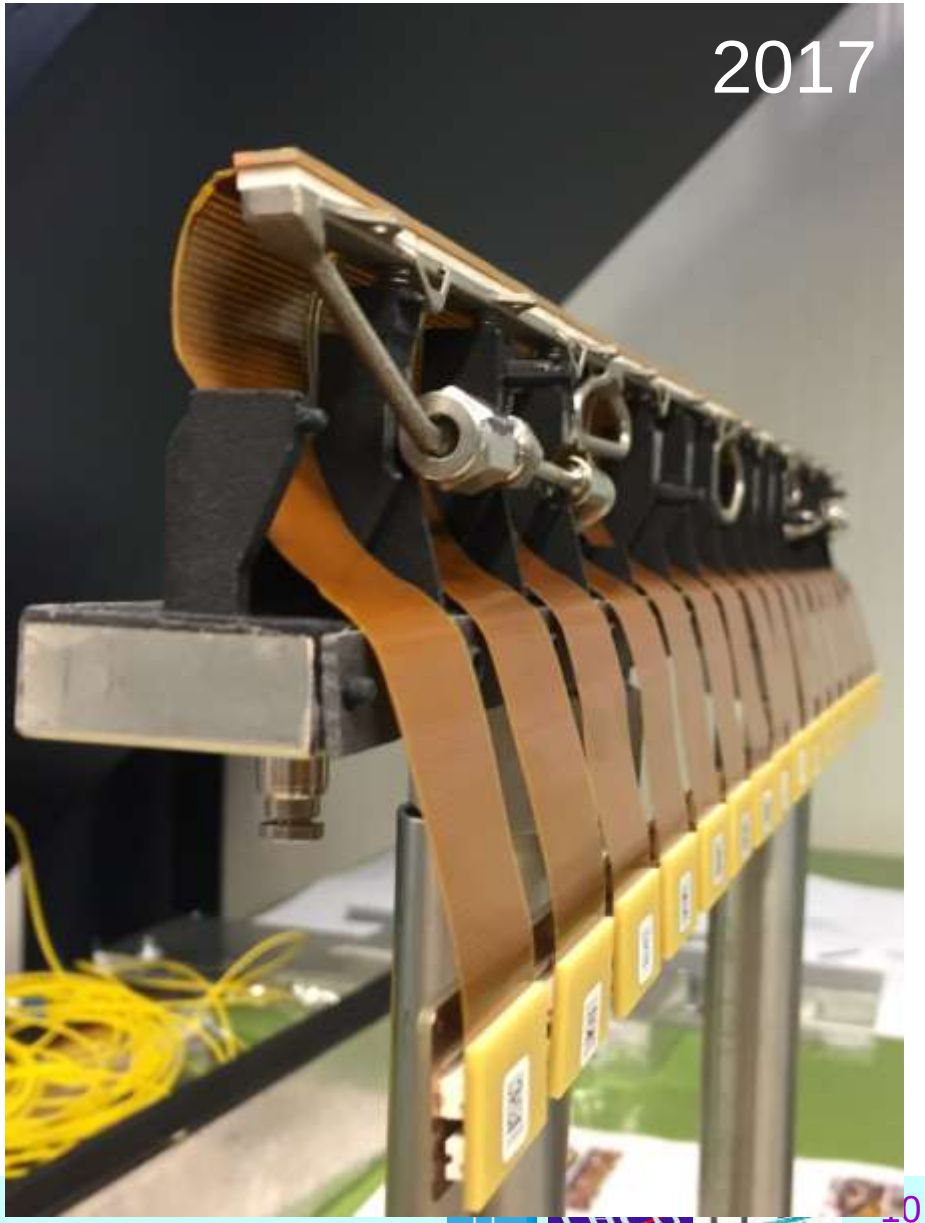
NIKHEF

A look backward: Coldbox production

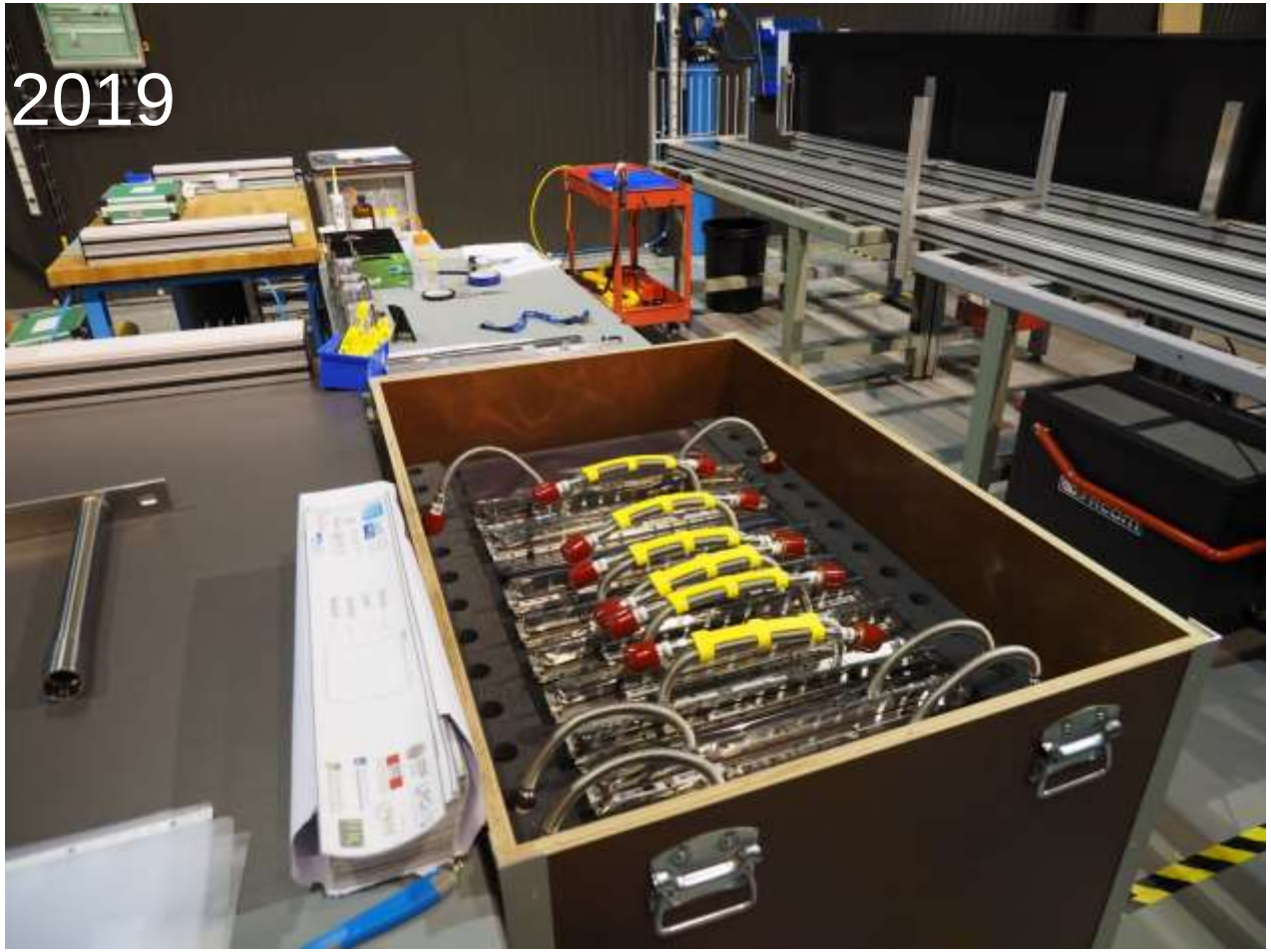
NIKHEF





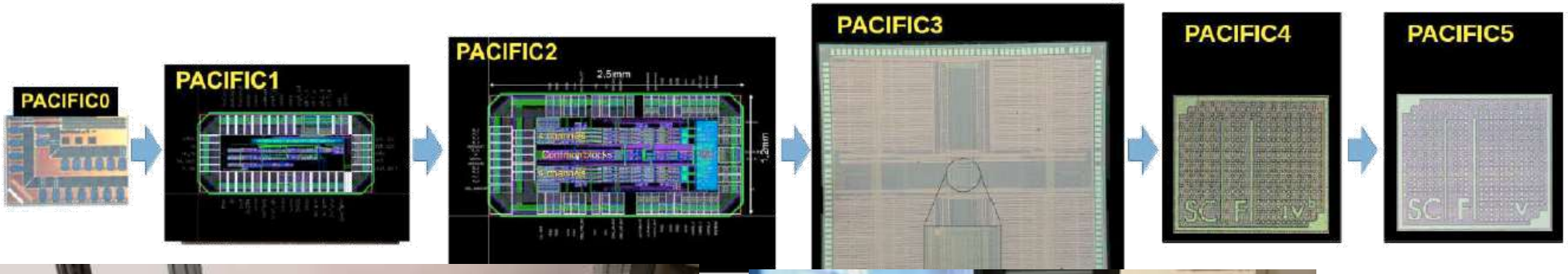


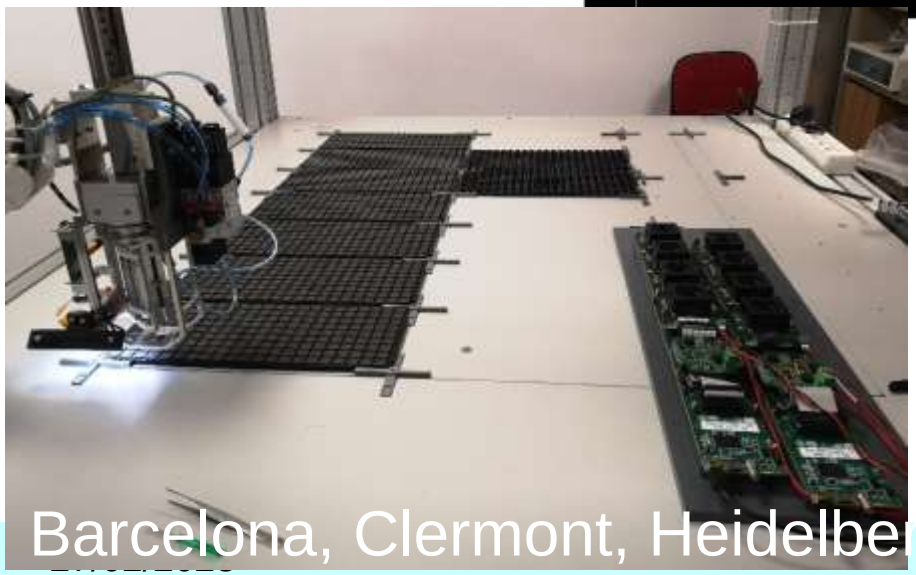
A look backward: Module assembly



A look backward: PACIFIC

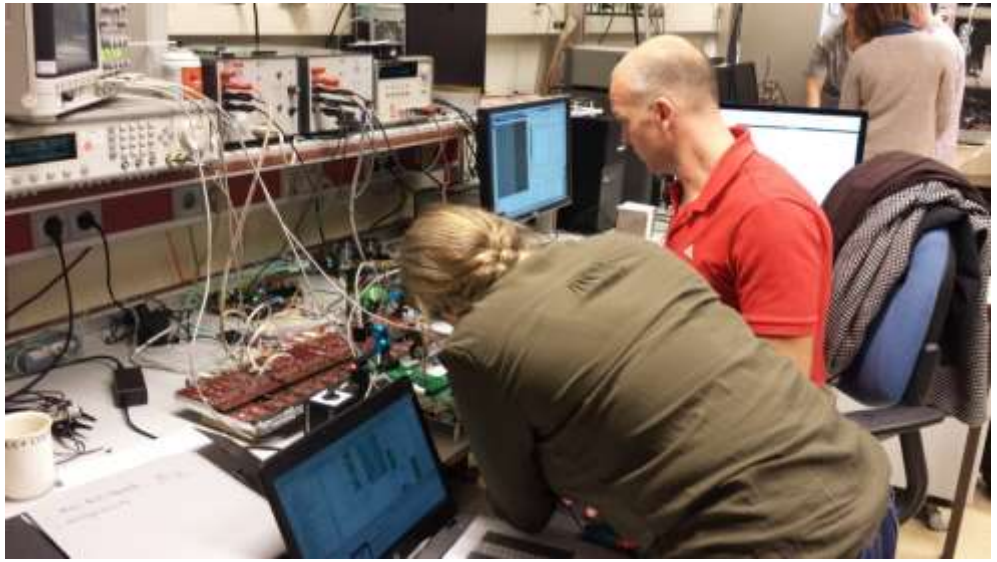
IBM 130nm			TSMC 130nm		
2013	2014	2014	2015	2016	2017
PACIFICr0	PACIFICr1	PACIFICr2 / 2b	PACIFICr3	PACIFICr4 / 4b	PACIFICr5
Preamplifier from AMS 0.35	Three analog channels Different test structures First I2C	8 channels Common bias I2C	64 channels 2xCommon bias I2C	64 channels Common bias I2C, ADC, local DACs 8b Single ended output	64 channels Common bias I2C, ADC, local DACs 8b Differential out SLVS

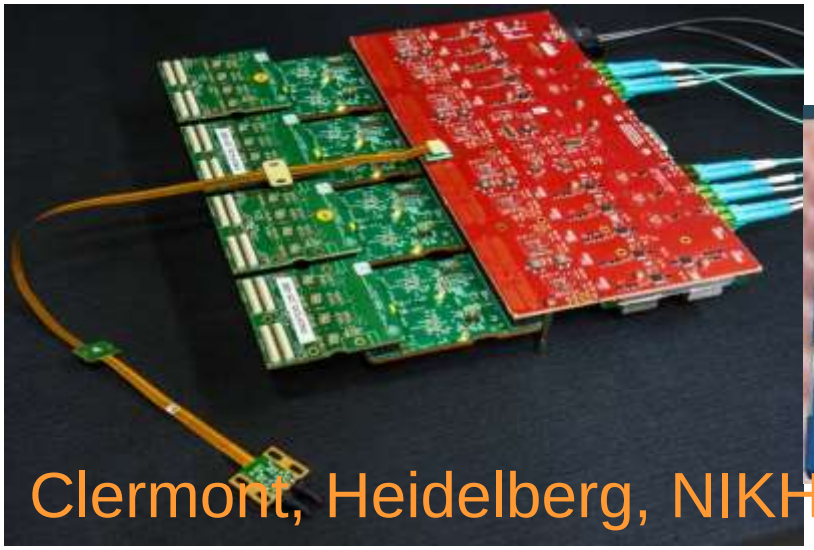




Barcelona, Clermont, Heidelberg, Valencia + Tsinghua

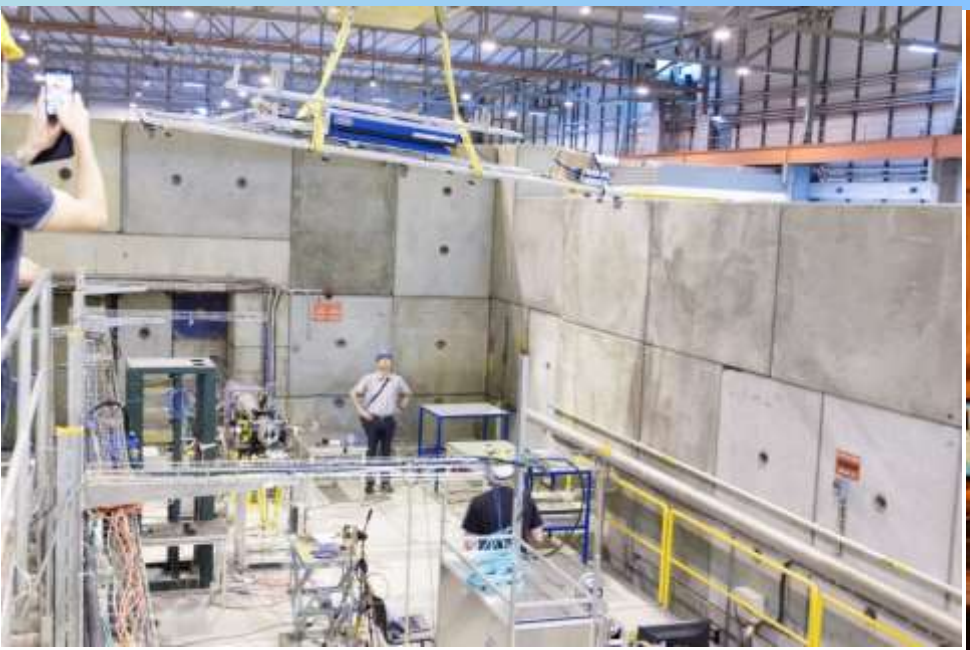
A look backward: Electronics





Clermont, Heidelberg, NIKHEF, Paris, Rio

A look backward: Test beam



SPS

CHARM

DESY

Mezzanine set-up

A look backward: Assembly hall

A look backward: C-Frame assembly

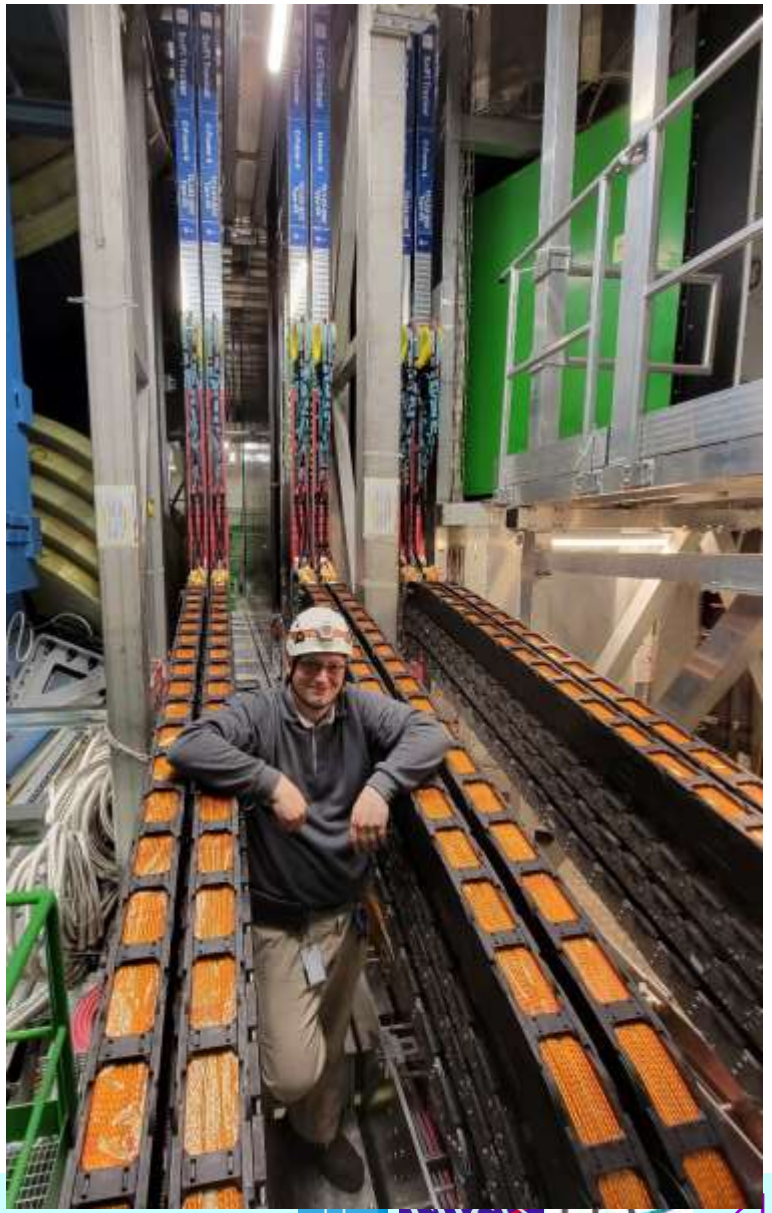
A look backward: FEB installation & commissioning

A look backward: C-Frame assembly

A look backward: C-Frame survey

A look backward: Moving to the cavern

A look backward: Cabling



A look backward: Last FEB & First data