


Quarterly collaboration-wide MG.T-REX update chat – March 2026



 Wednesday 25 Mar 2026, 14:00 → 15:30 Europe/Stockholm

 Emmy Noether (ESS)

 Alexander Backis (European Spallation Source ERIC)

Description *Join Zoom Meeting*

<https://ess-eu.zoom.us/j/64230592729?pwd=f7Tlla5dxzw7RerLZRuA39YavR0q8a.1&from=addon>

Meeting ID: 642 3059 2729

Passcode: 919559

14:00 → 14:30 **Project update**

🕒 30m



Speakers: Alexander Backis (European Spallation Source ERIC), David Hansson (European Spallation Source ERIC)

14:30 → 15:00 **Geant4 simulations and publications**

🕒 30m



Speaker: John Annand (University of Glasgow)

15:00 → 15:30 **Q&A**

🕒 30m





University
of Glasgow



Science and
Technology
Facilities Council



JAGIELLONIAN UNIVERSITY
IN KRAKÓW



Project overview



PRESENTED BY ALEXANDER BACKIS AND DAVID HANSSON

2026-03-25

Agenda



1 Overview

2 Updates

3 Production

4 Progress

5 Summary

1.

Activities



1. Overview

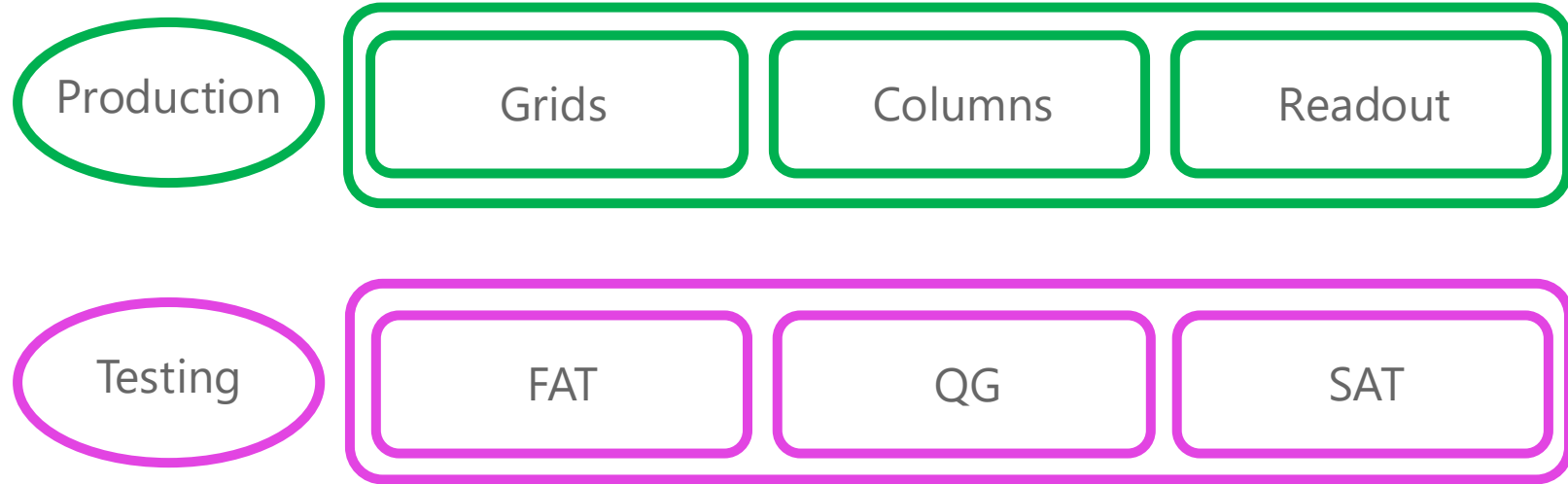
Activities





1. Overview

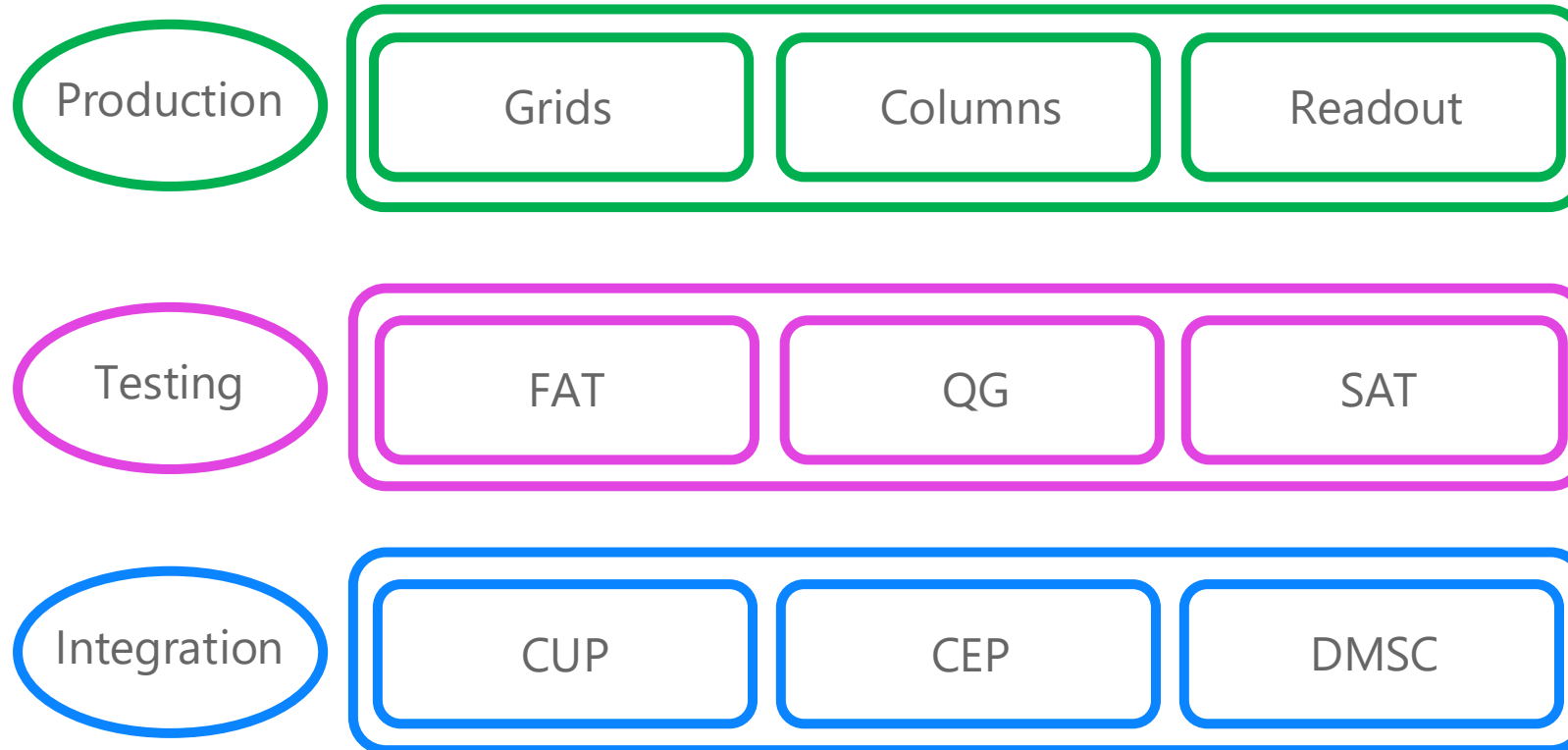
Activities





1. Overview

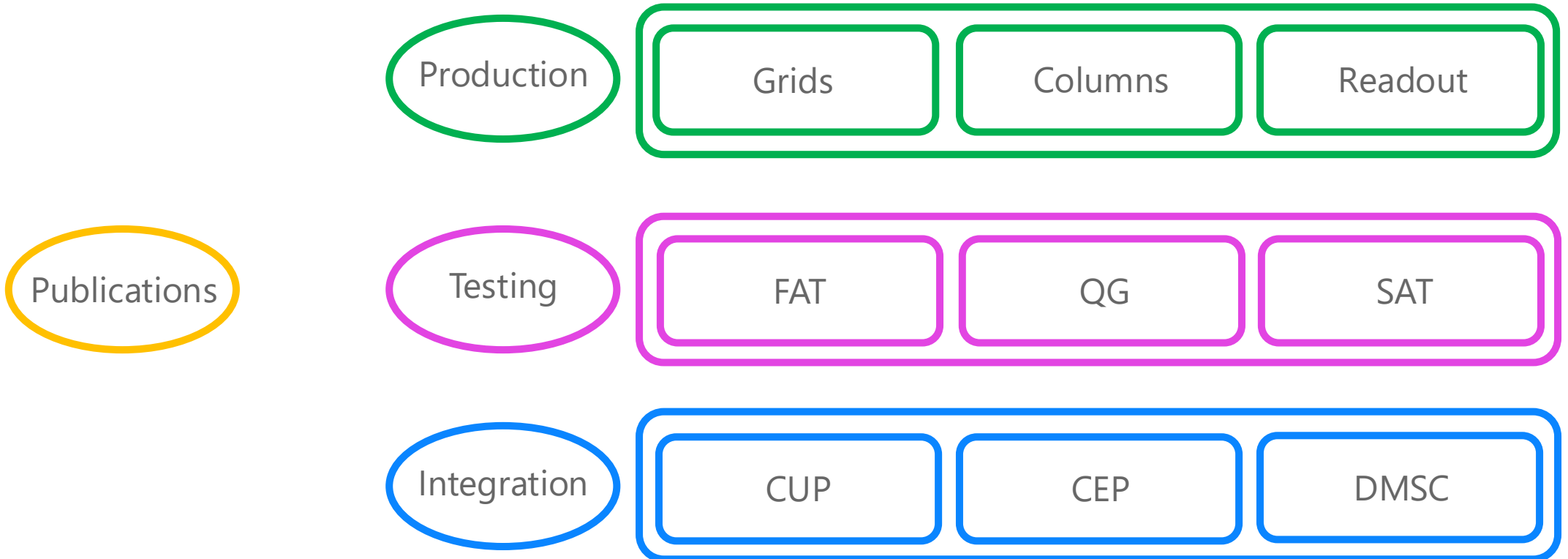
Activities





1. Overview

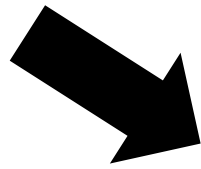
Activities





1. Overview

Activities



Production



Publications

Testing



Integration



2.

Updates



2. Updates

Publications

- Two papers on the Multi-Grid detector have been published:
 - The application of VMM3A readout for Multi-Grid neutron detectors (<https://www.sciencedirect.com/science/article/pii/S0168900225010423>)
 - Neutron interaction properties of structural materials for multi-grid neutron detectors (<https://www.sciencedirect.com/science/article/pii/S0168900226000951>)
- Next in line is the alpha rate paper



2. Updates

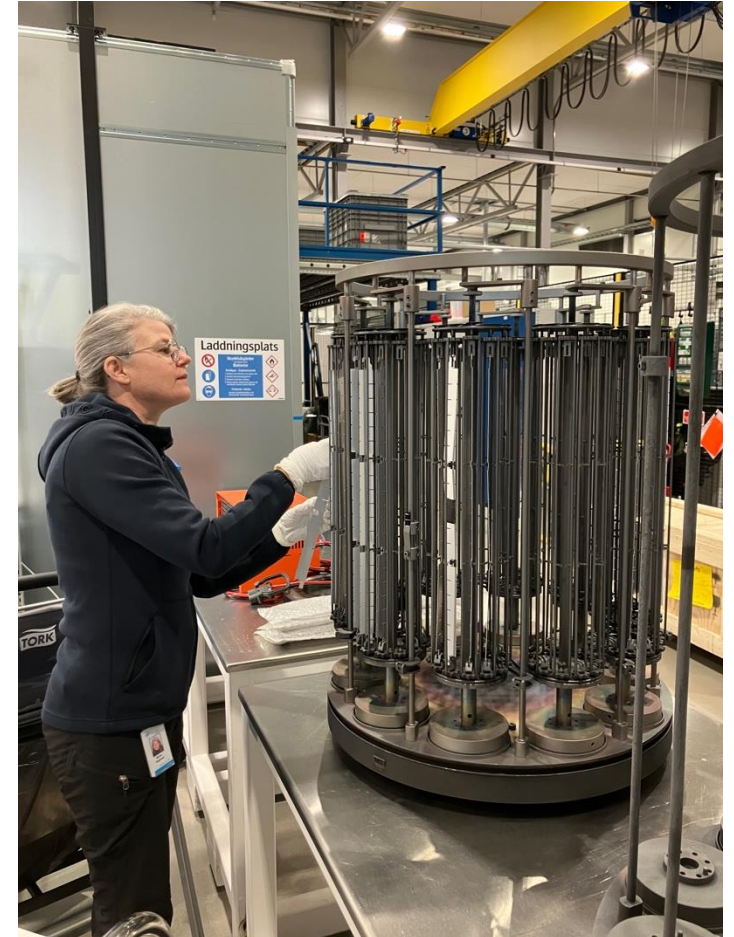
Funding for remaining 60% detector coverage

- Progress in Change Request (CR) for funding of the remaining 60% T-REX detector coverage:
 - NSS-PM Meeting (2/3-2026)
 - Pre-CCB Meeting (11/3-2026)
 - CCB Meeting (25/3-2026) <- After this meeting

2. Updates

Coating process for MG.T-REX has started

- The coating process has started
- The production pace is aligned with our construction plan
- Quality looks excellent





2. Updates

University of Glasgow visits in April

- Two University of Glasgow visits in Lund are planned for April:
 - 13 April – 17 April: Technicians (Kyle and Mark)
 - 20 April – 24 April: Scientists (John and Ken)
- The purpose of the first visit is to start the column assembly and wiring process, while the purpose of the second visit is to start the column testing process

2. Updates

MG.T-REX testing area

- The MG.T-REX testing area is now almost done
- The testing area includes two testing vessels (one column per vessel), as well as HV, flow meters, readout and analysis work station



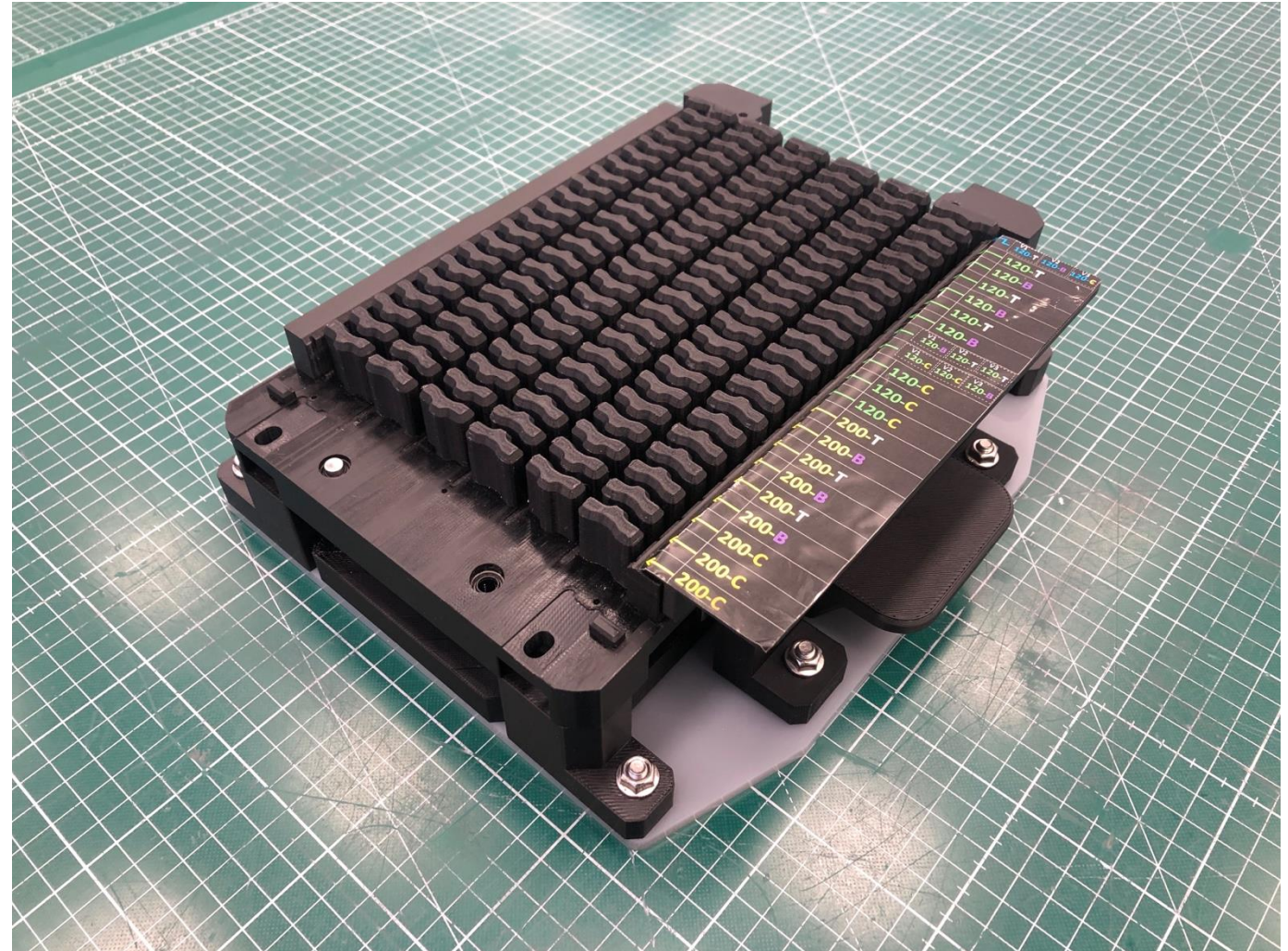
3.

Production

3. Production

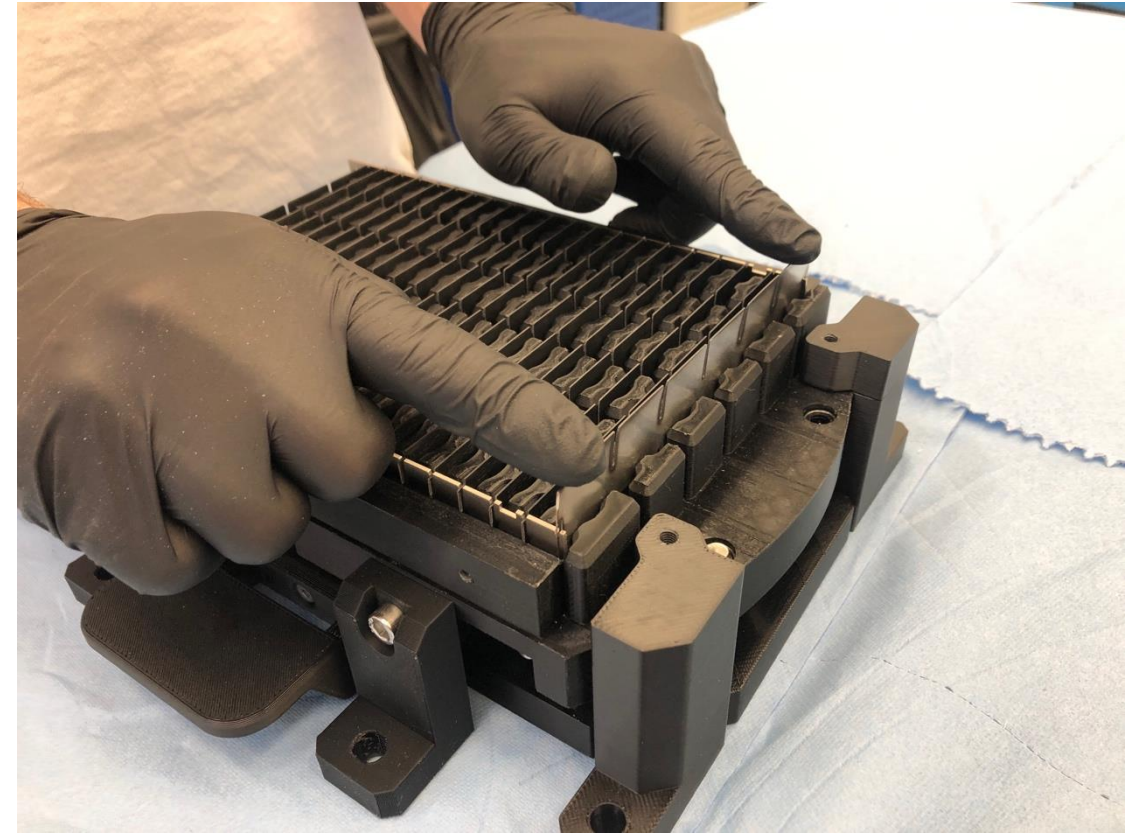
New assembly jig

- New jig (final) assembly jig for the production



3. Production

New assembly jig



3. Production

New assembly jig



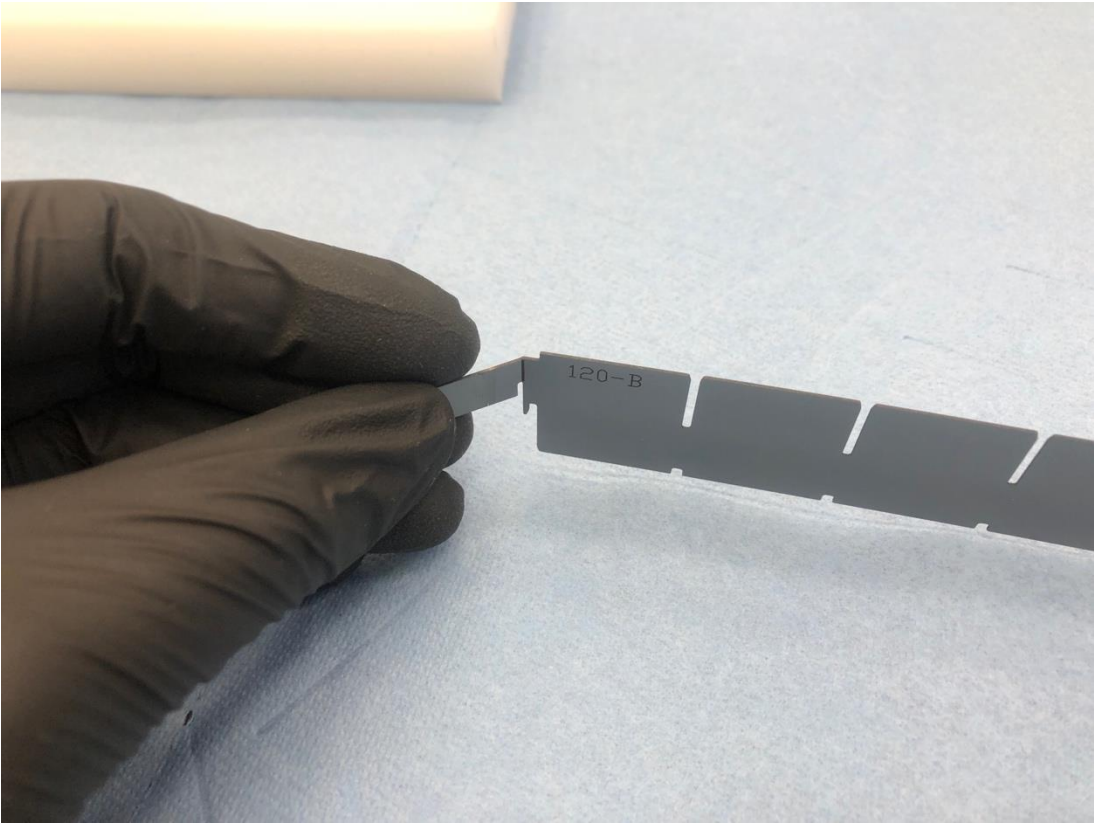
3. Production

New assembly jig



3. Production

Grid production at IPAB



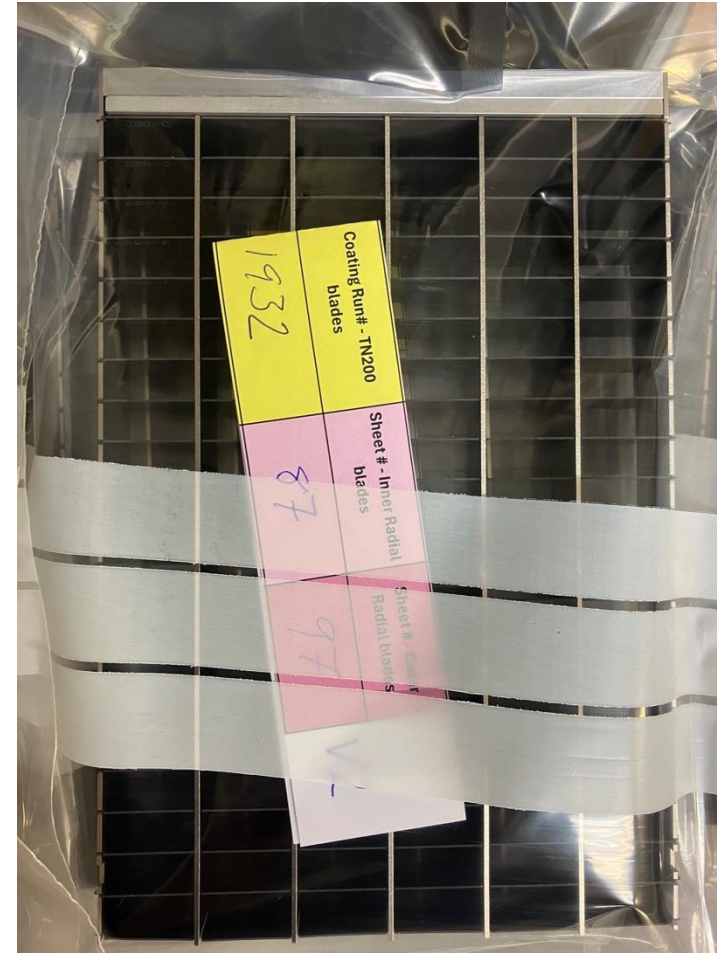
3. Production

Grid production at IPAB



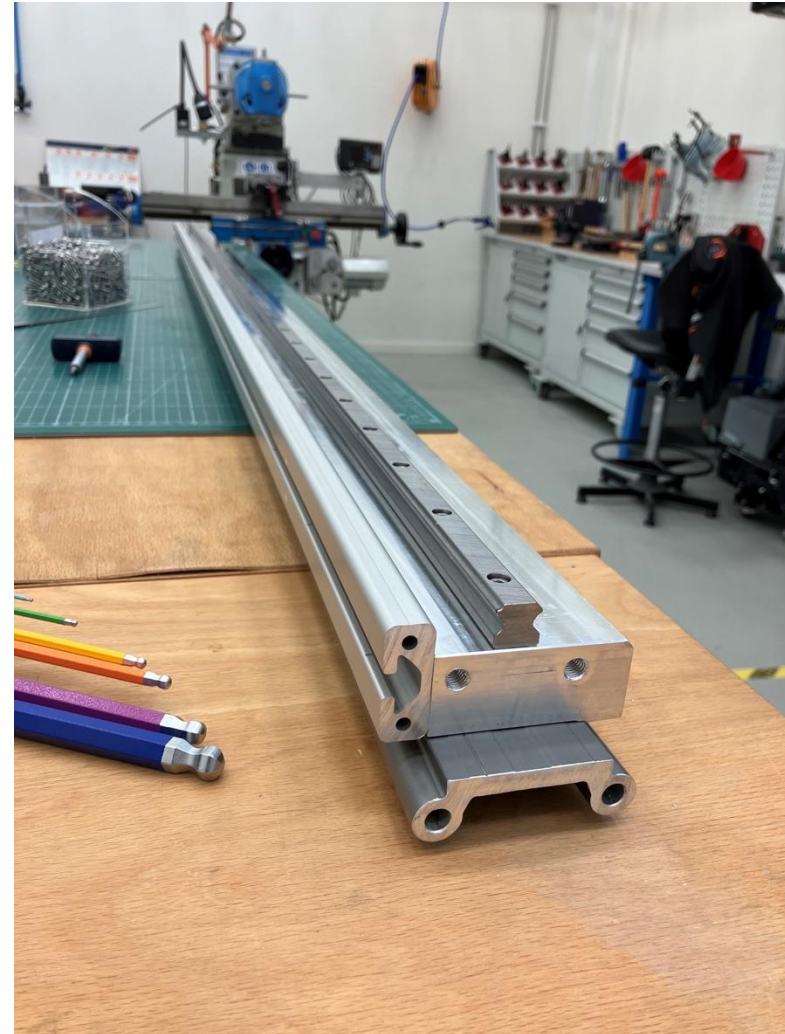
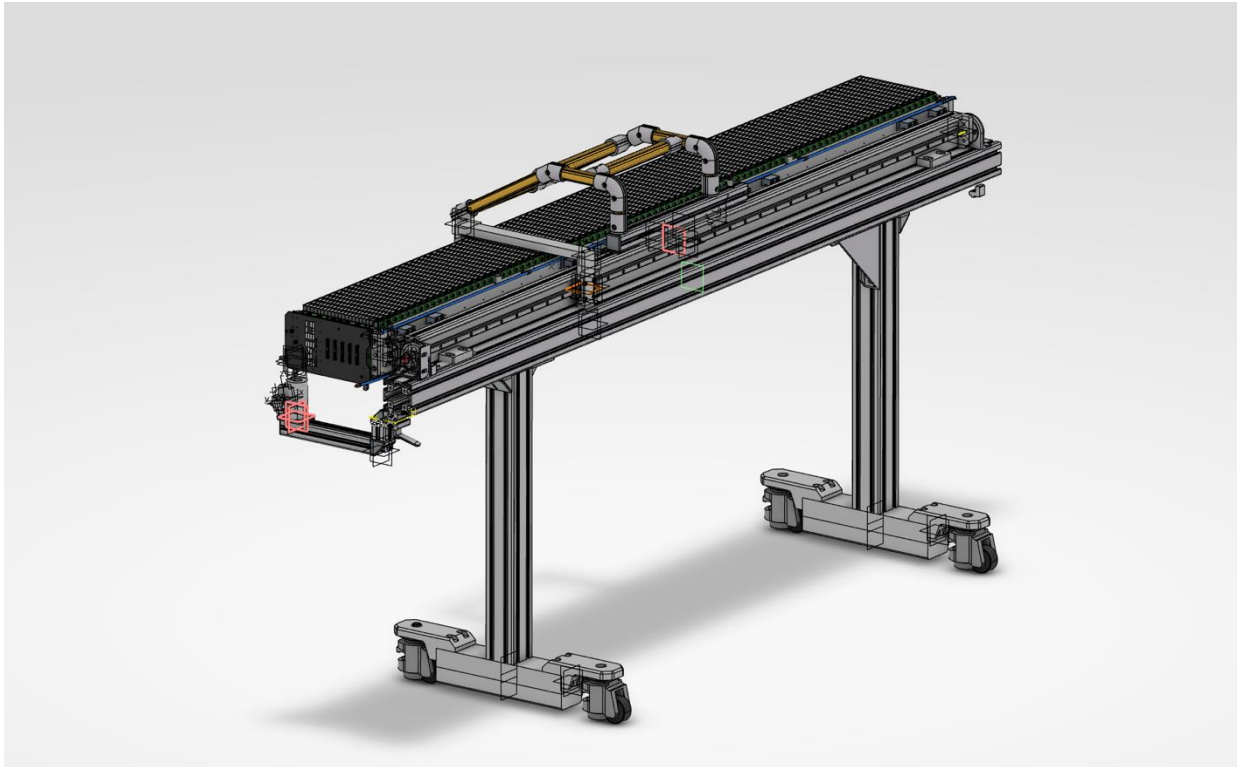
3. Production

Grid production at IPAB



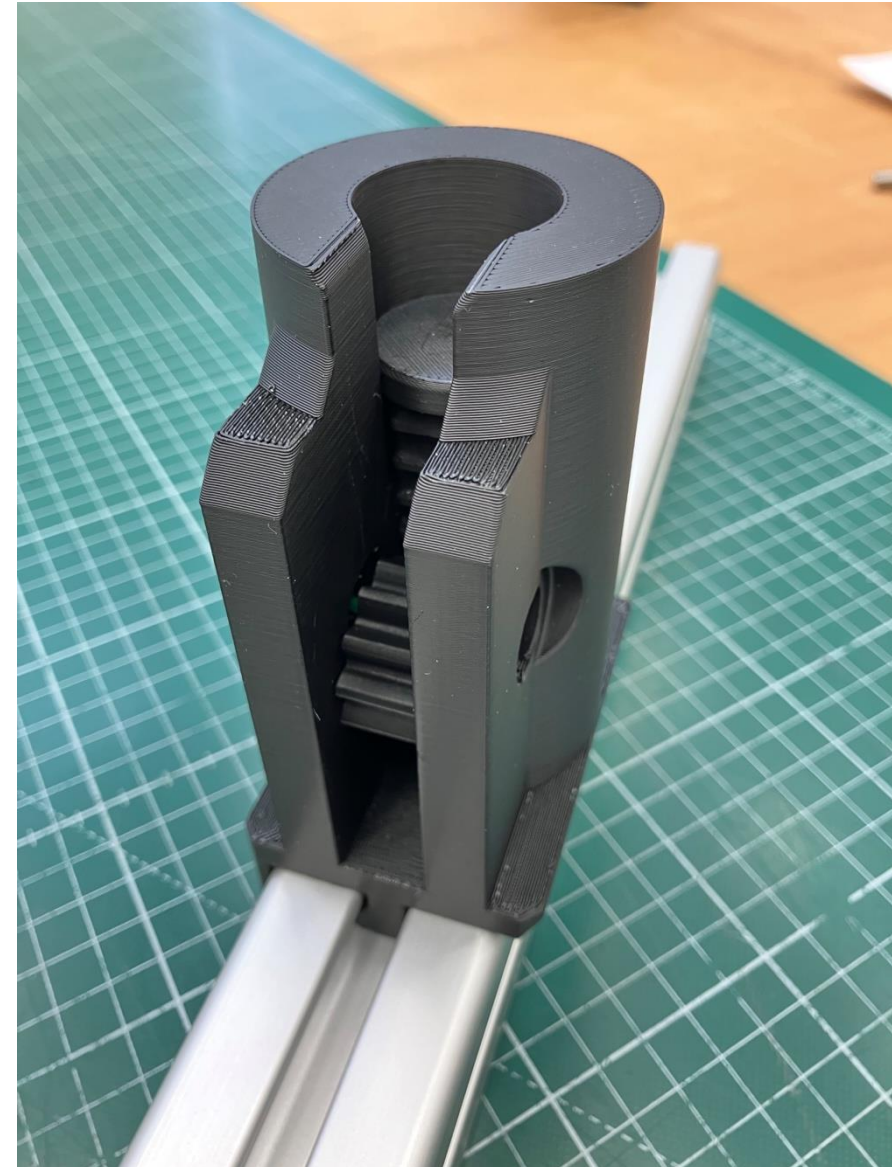
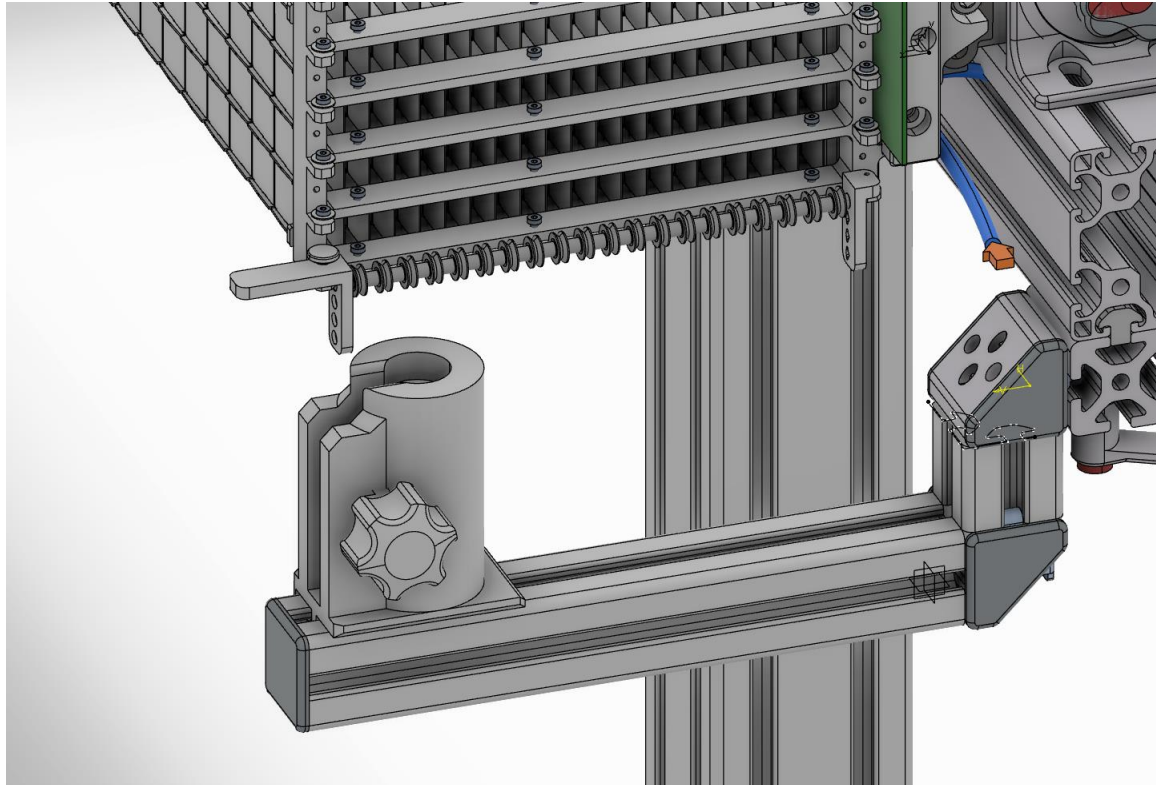
3. Production

Wiring Table



3. Production

Wiring Table



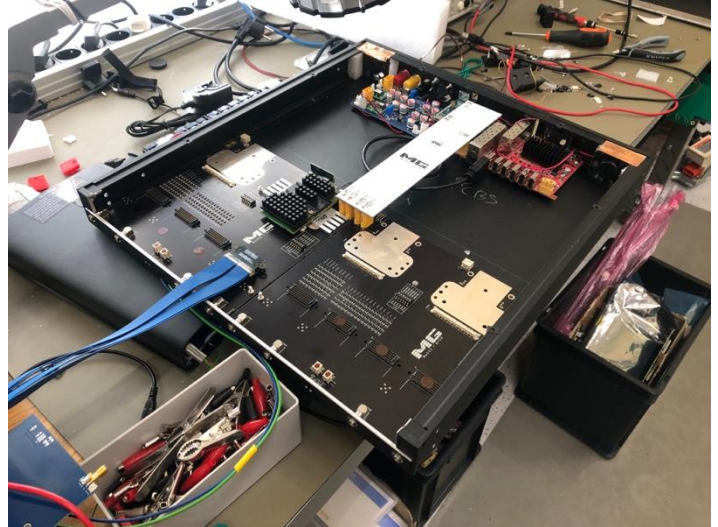
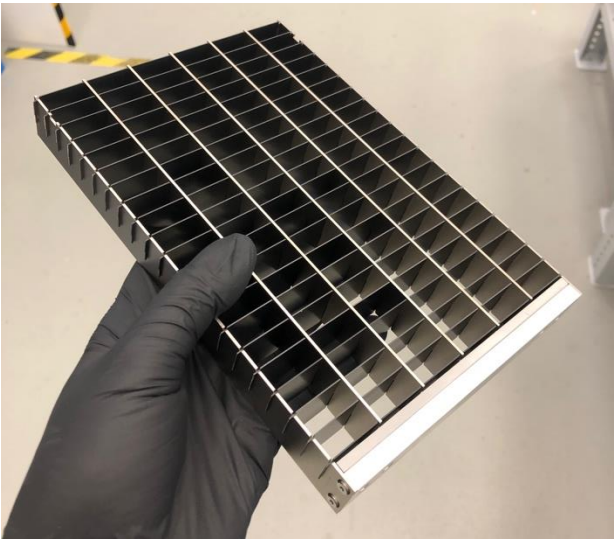
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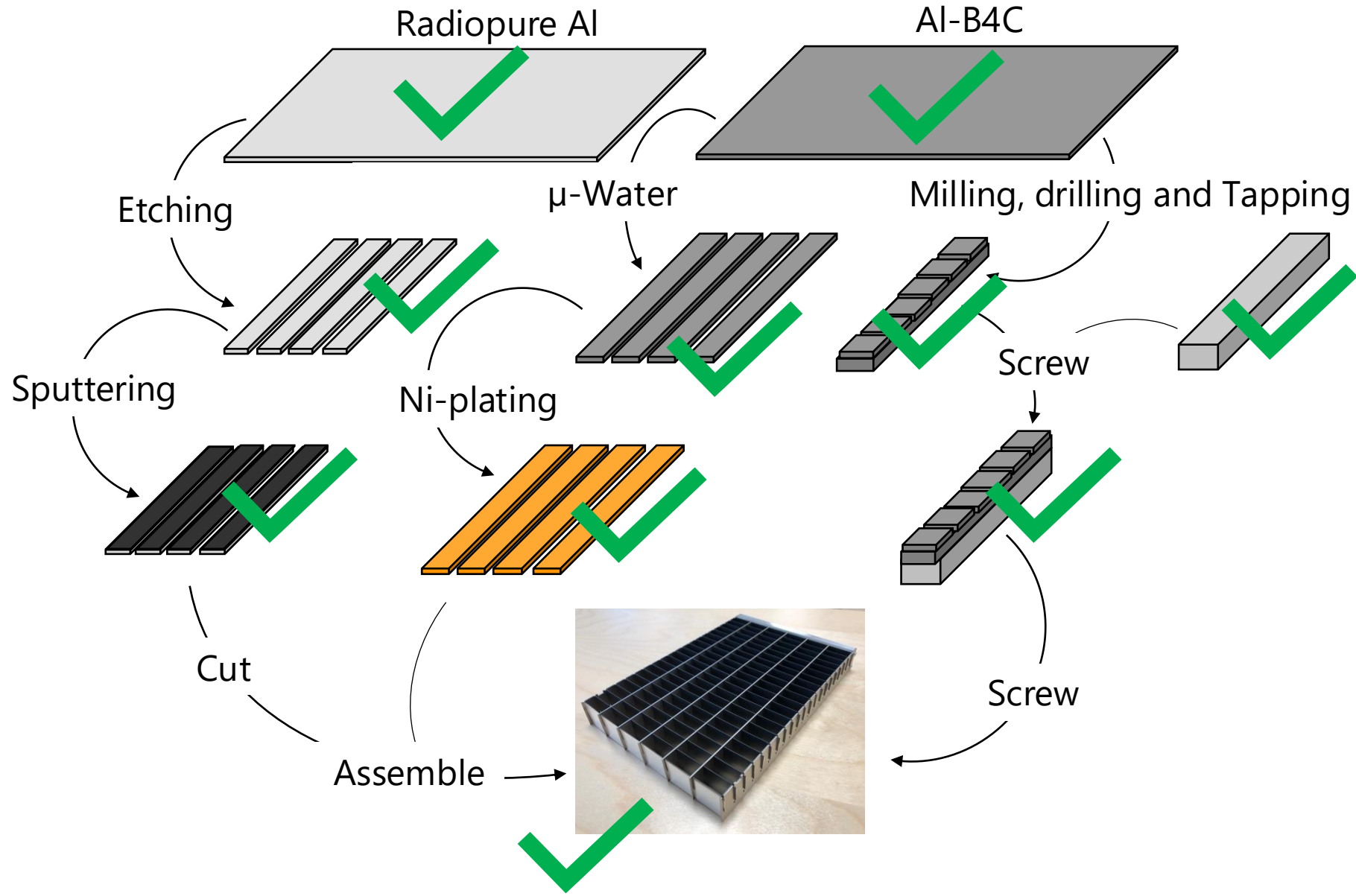
Progress

Grids

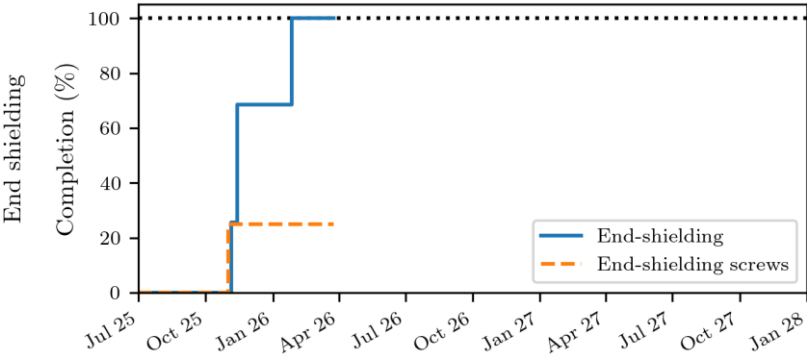
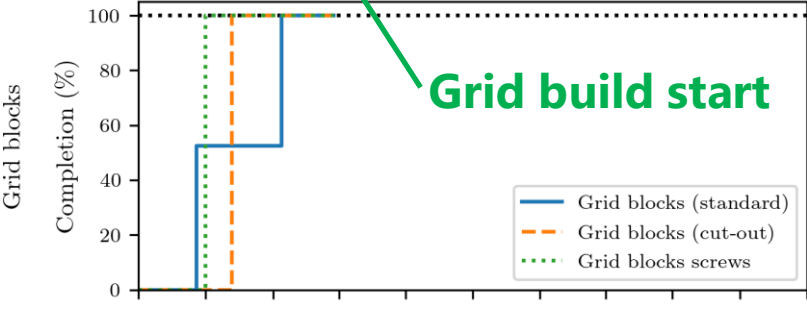
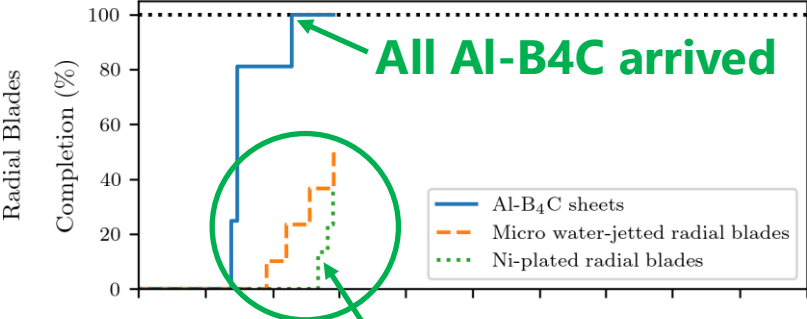
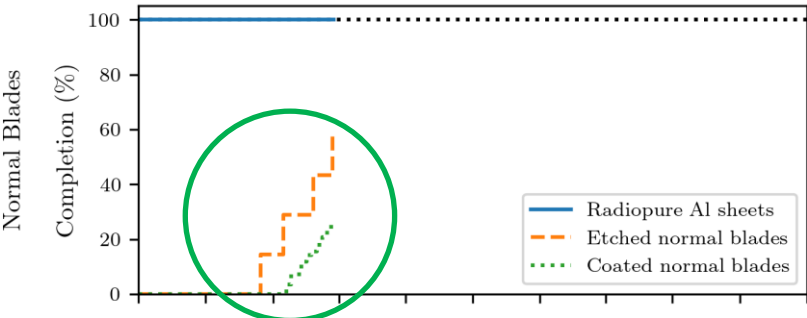
Columns

Readout





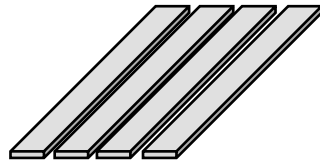
Grid components



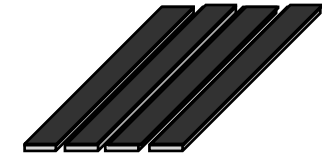
Radiopure Al



Etching



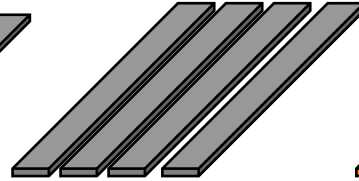
Sputtering



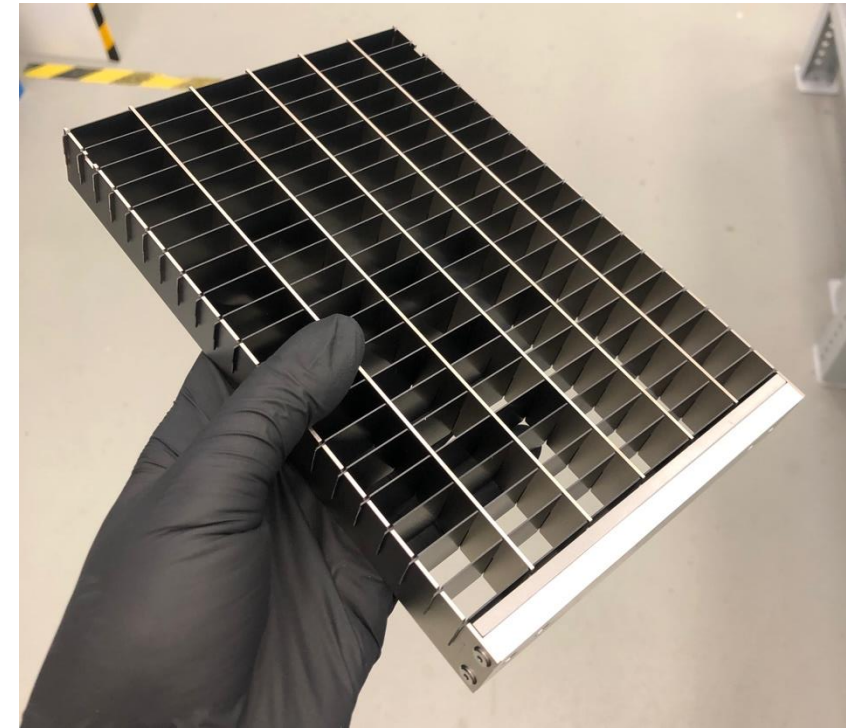
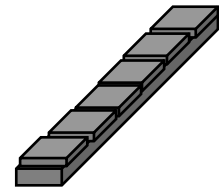
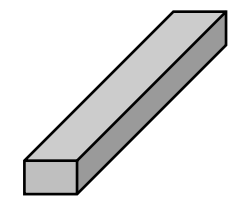
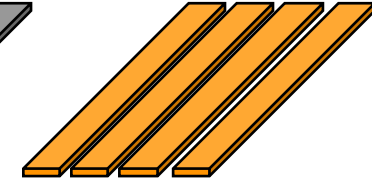
Al-B₄C



μ-Water



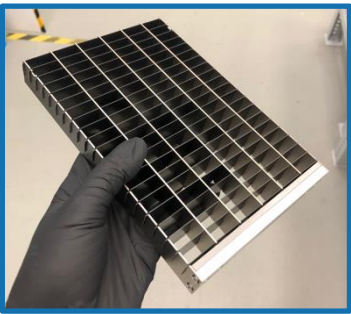
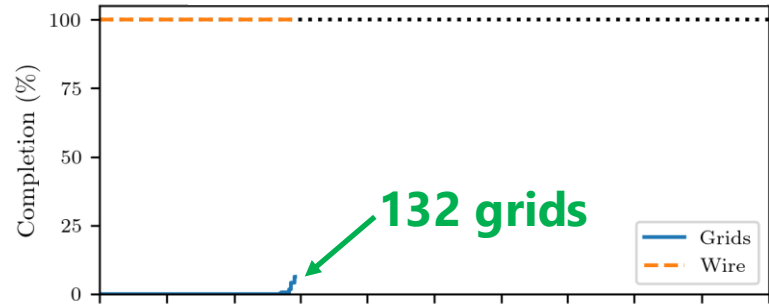
Ni-plating



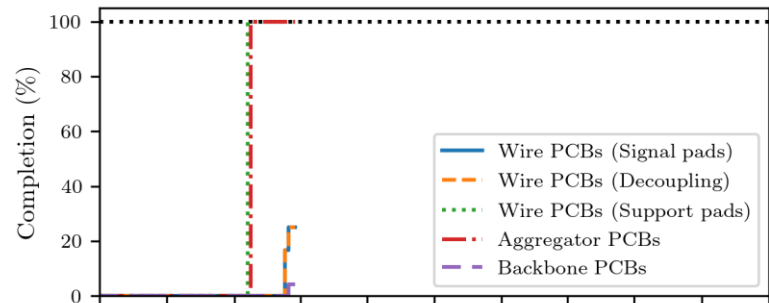
Column components



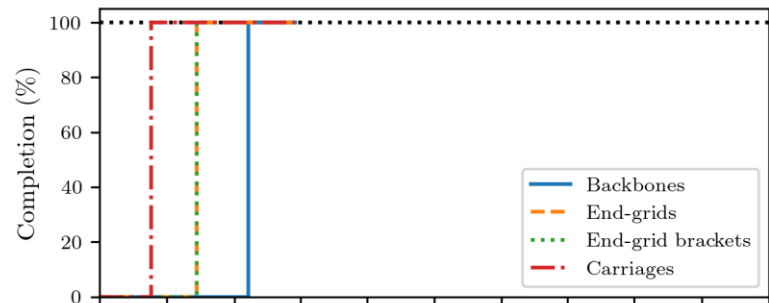
Grids & Wires



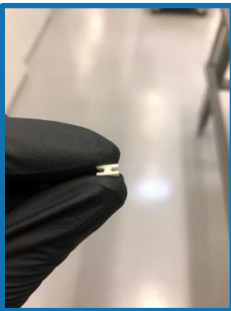
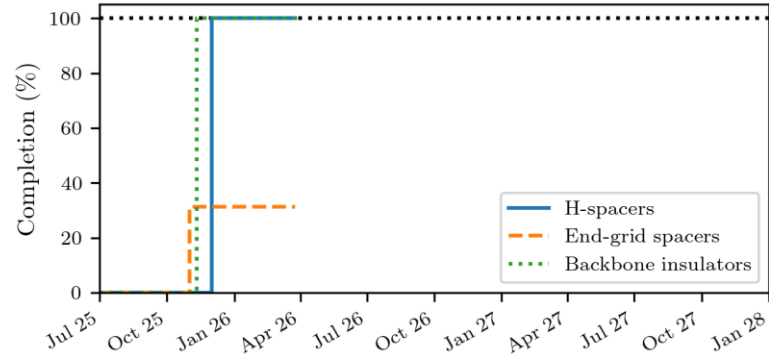
PCBs



Structure



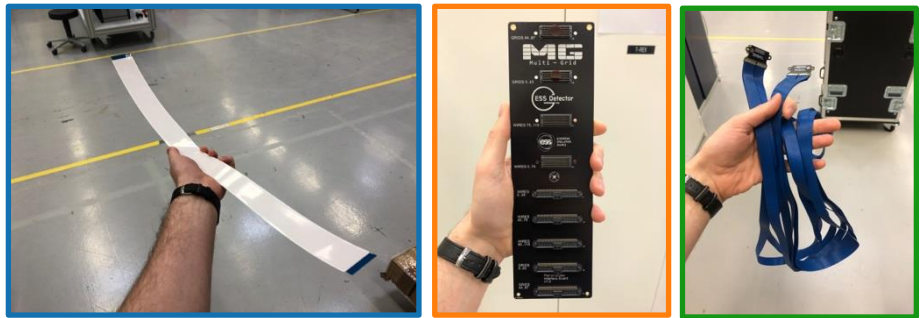
Insulators



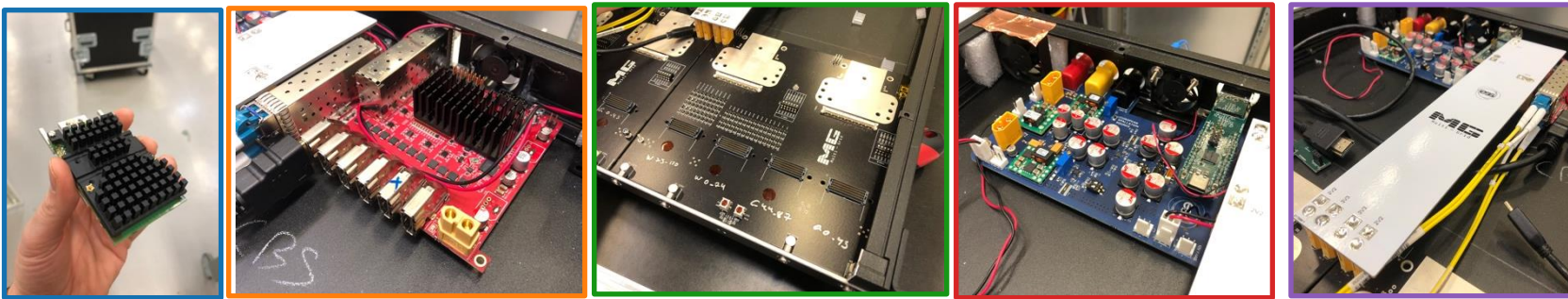
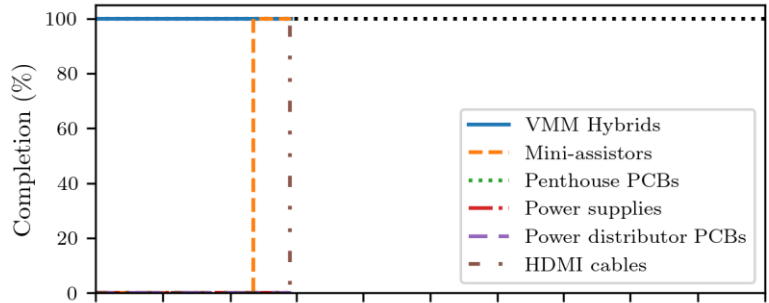
Readout components



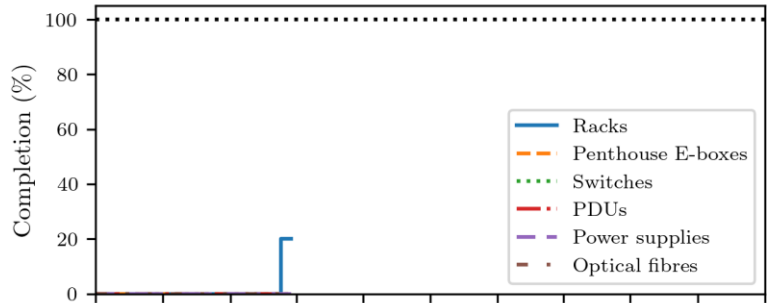
E-box



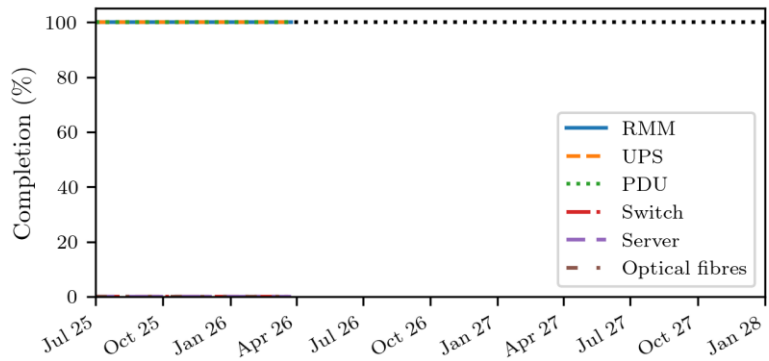
Penthouse E-Box



Interface & Assister racks

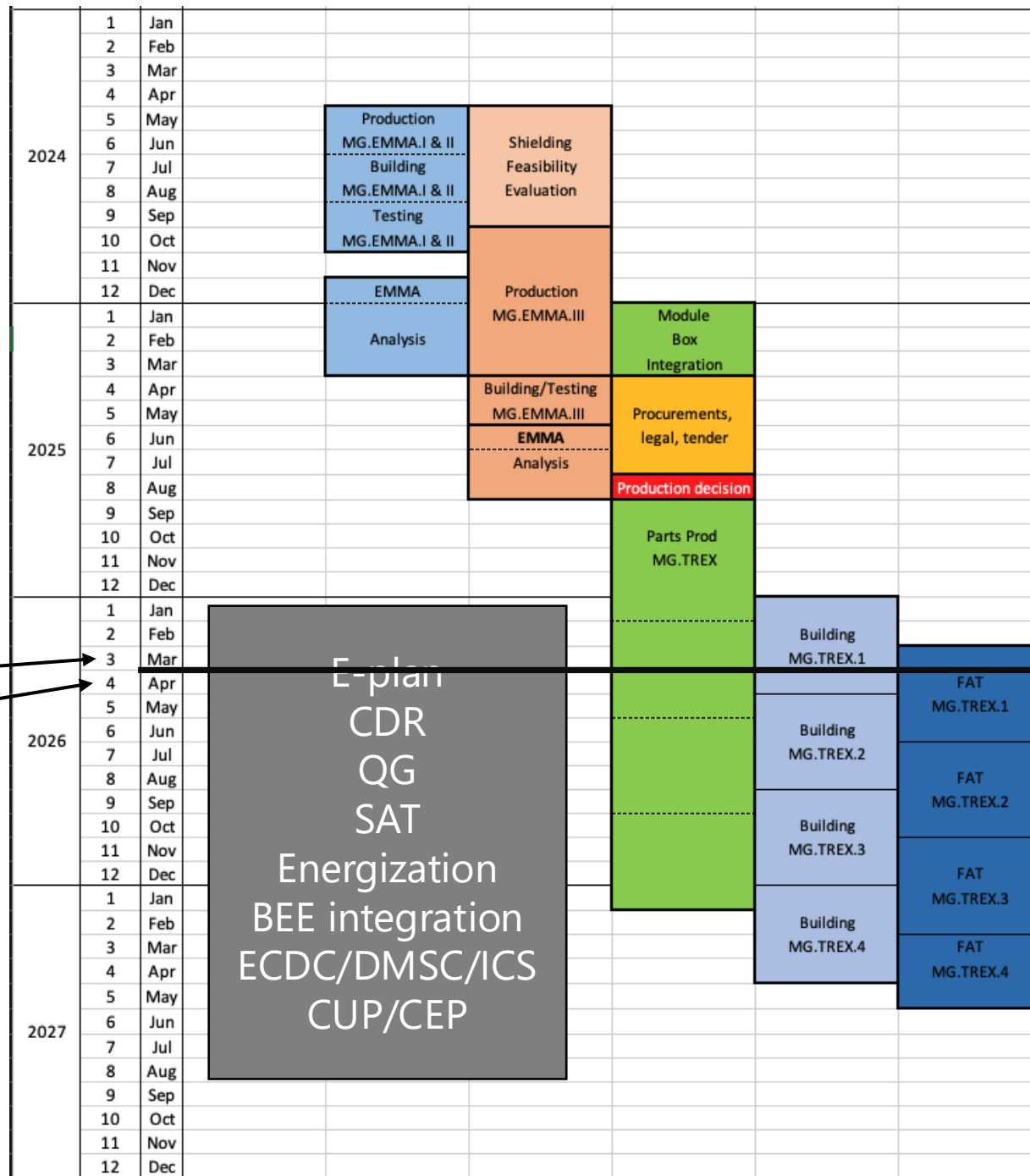


Master rack





Grid building
Column assembly and wiring



Today

5.

Summary



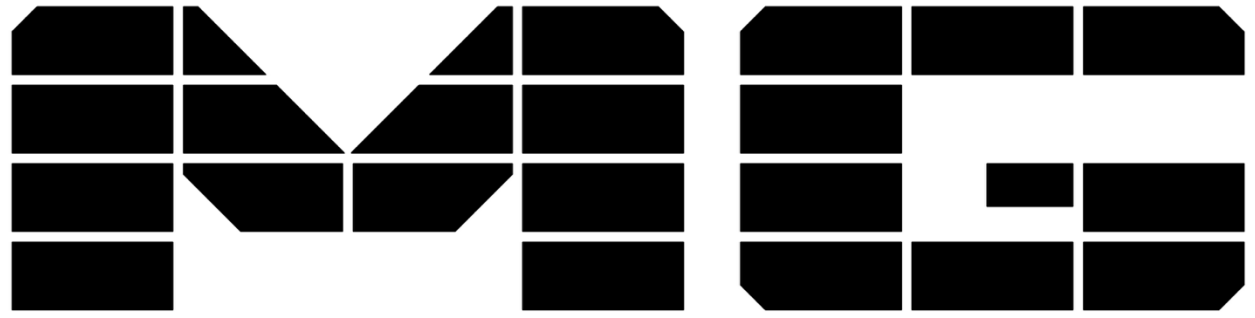
5. Summary

- Part production progressing well
- Testing area is almost ready
- Two publications done, more underway
- Assembly, wiring and testing to start next month

5. Summary

- **Scientists:** Francesco, John, Ken, Kevin, Lai and Me
- **Mechanical Engineers:** David
- **Electronics Engineers:** Aleksandr and Angel
- **Technicians:** Kyle, Ross, Mark, Erlis, Alexander and Marina
- **Project Management:** Susanna
- **Procurement:** Charlotte and Mirko
- **Legal:** Johan
- **Coordinator:** Josef
- **Planner:** Lena
- **Administrative support:** Zsuzsa
- **Technical support:** Roy, Lisa, Fabio S, Jack and Doro
- **Documentation Engineers:** Fabio F





Multi - Grid