

CTA Status report

Thomas Schweizer



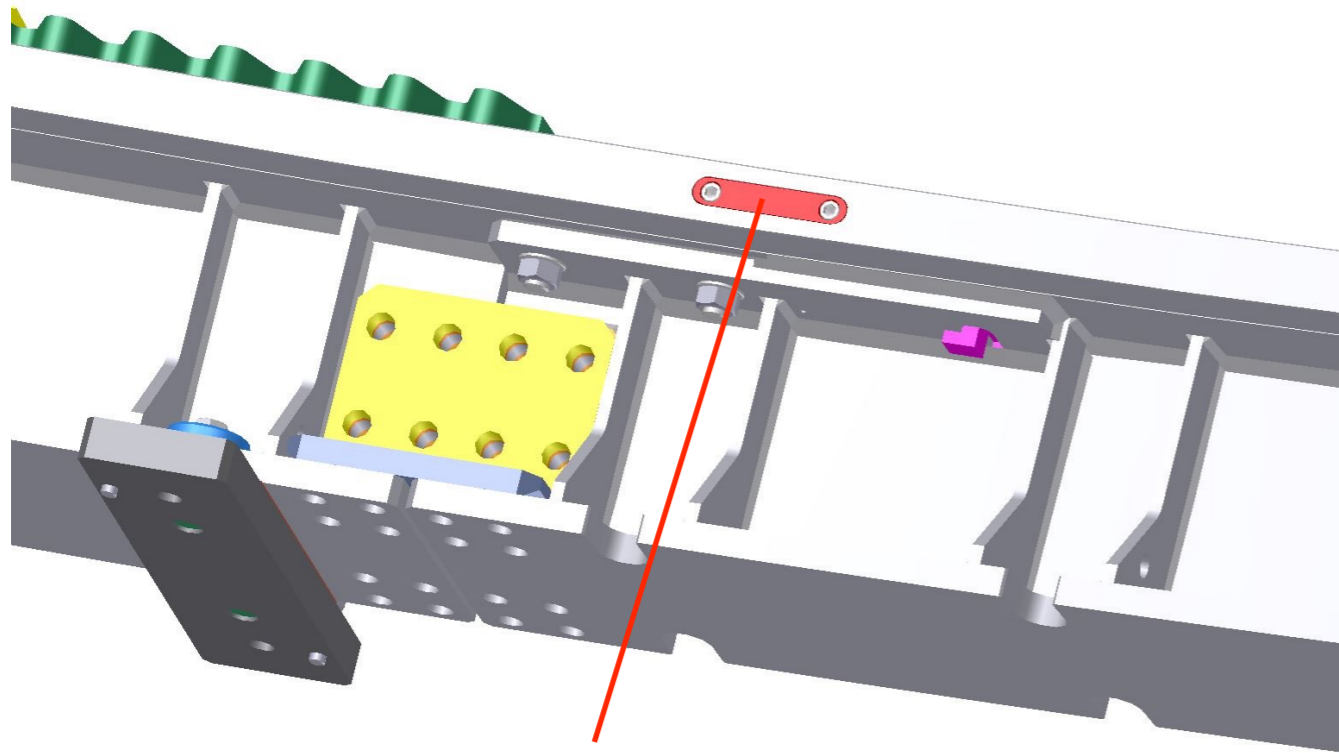
MPI, December 2017

A. Kashit

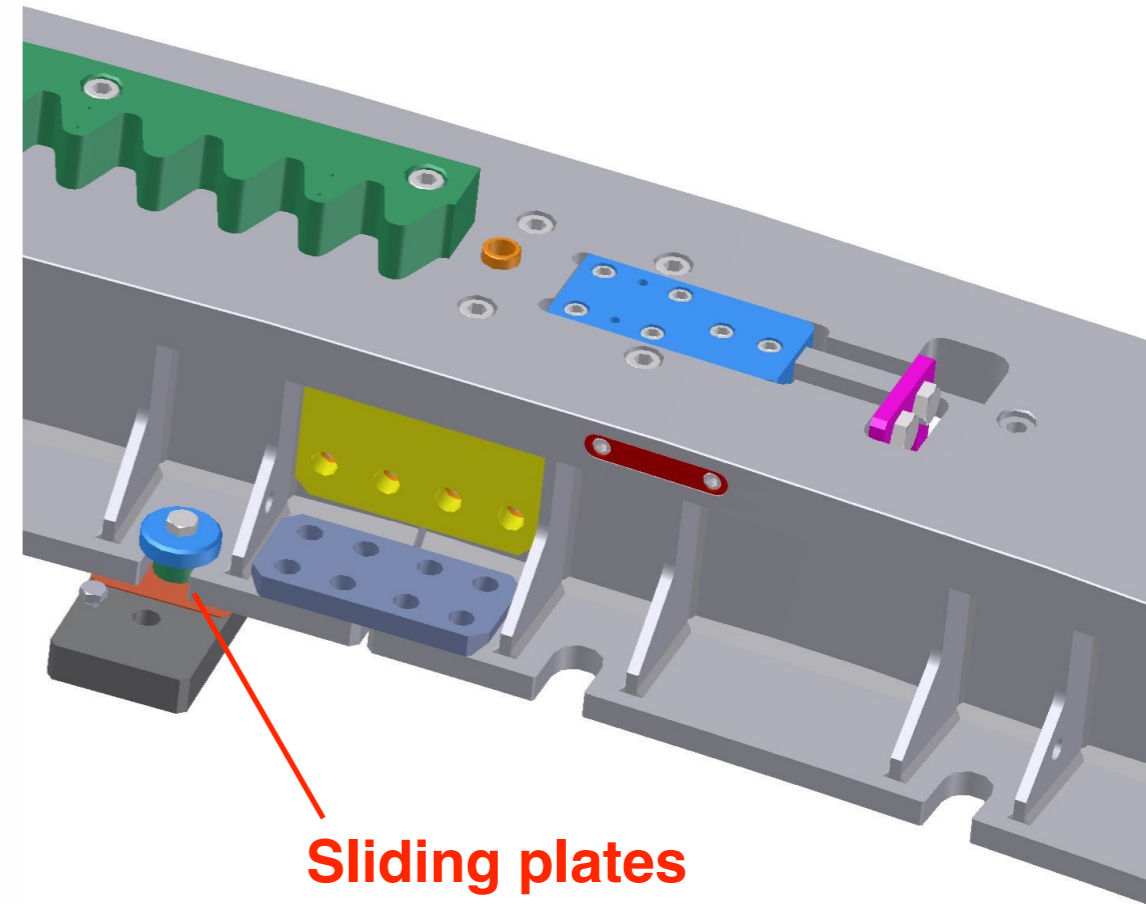
Central Pin & Foundation



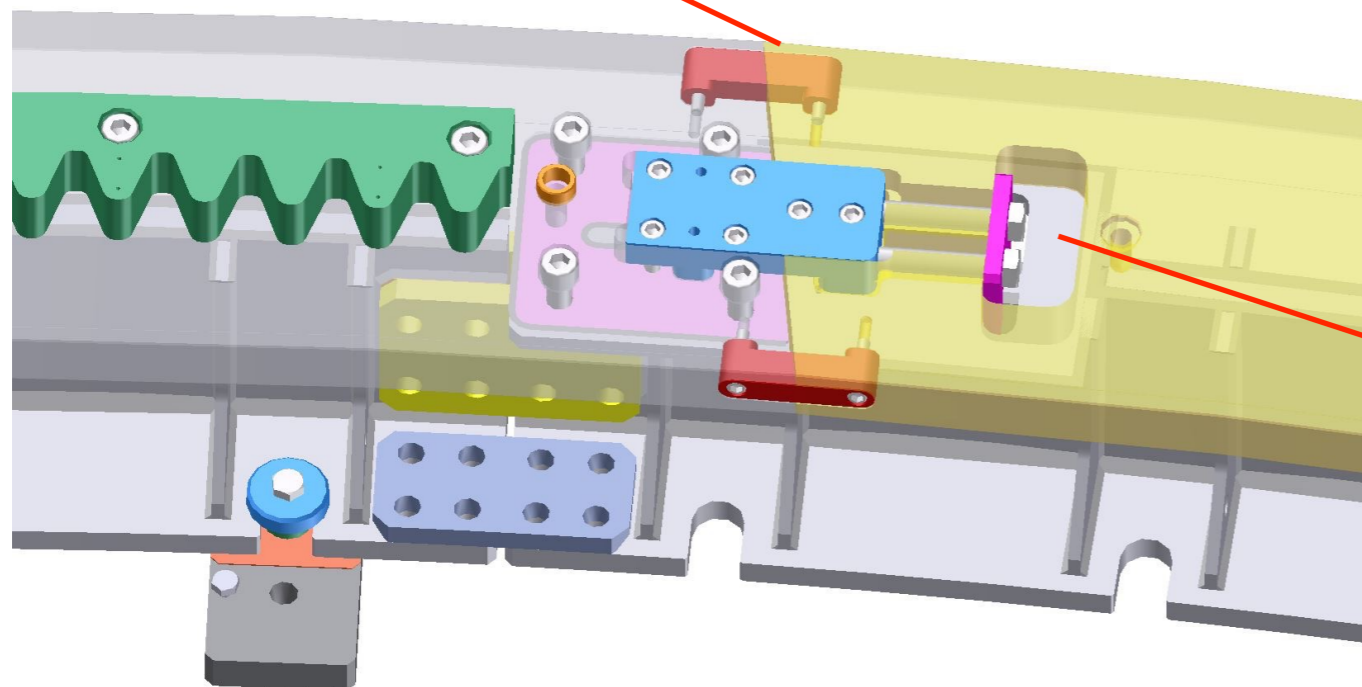
Rail installation in July: Design



spring to fit the level of the rail



Sliding plates
made of brass for
temperature expansion

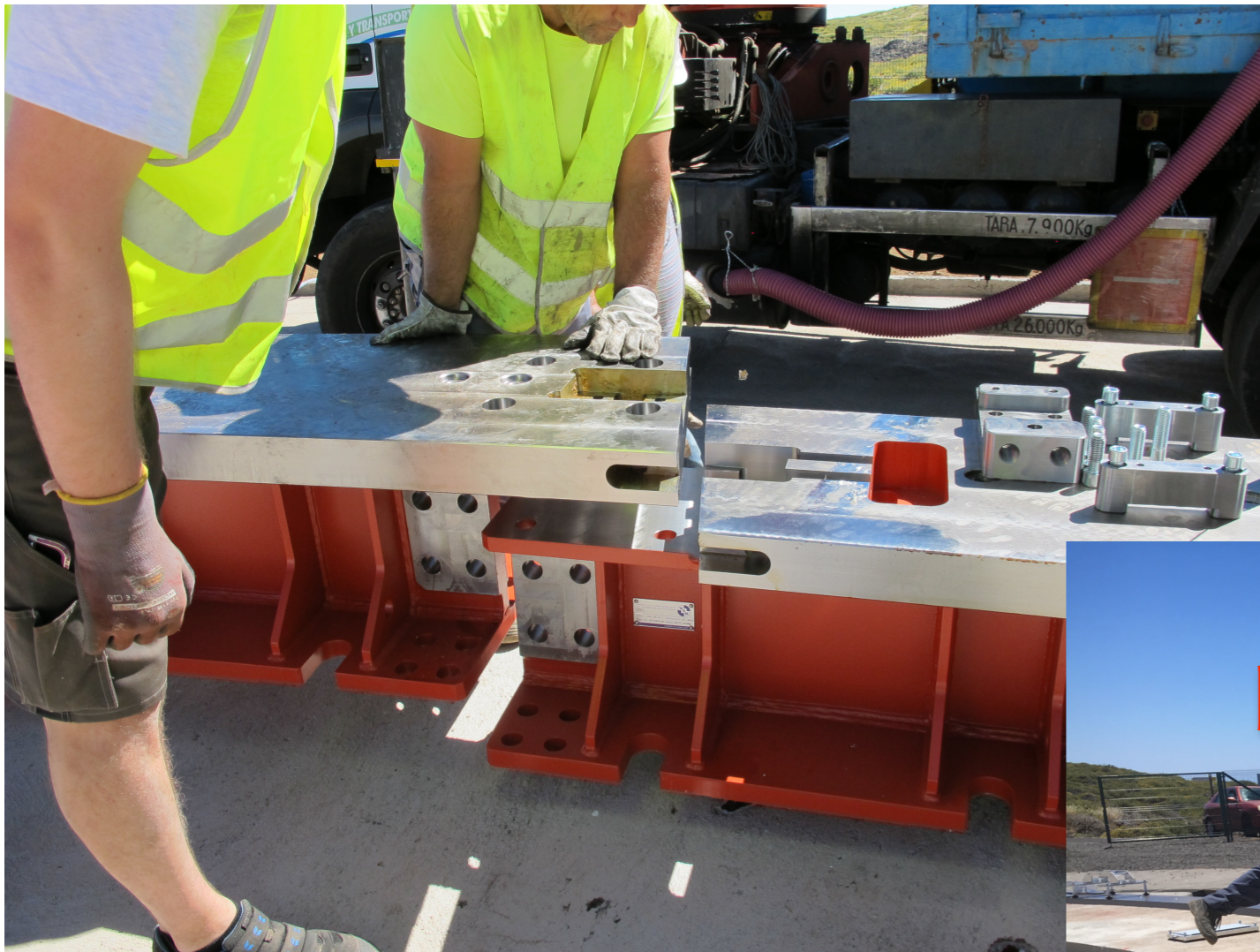


Spring to pull segments together

First segment, Placed with 1 mm precision



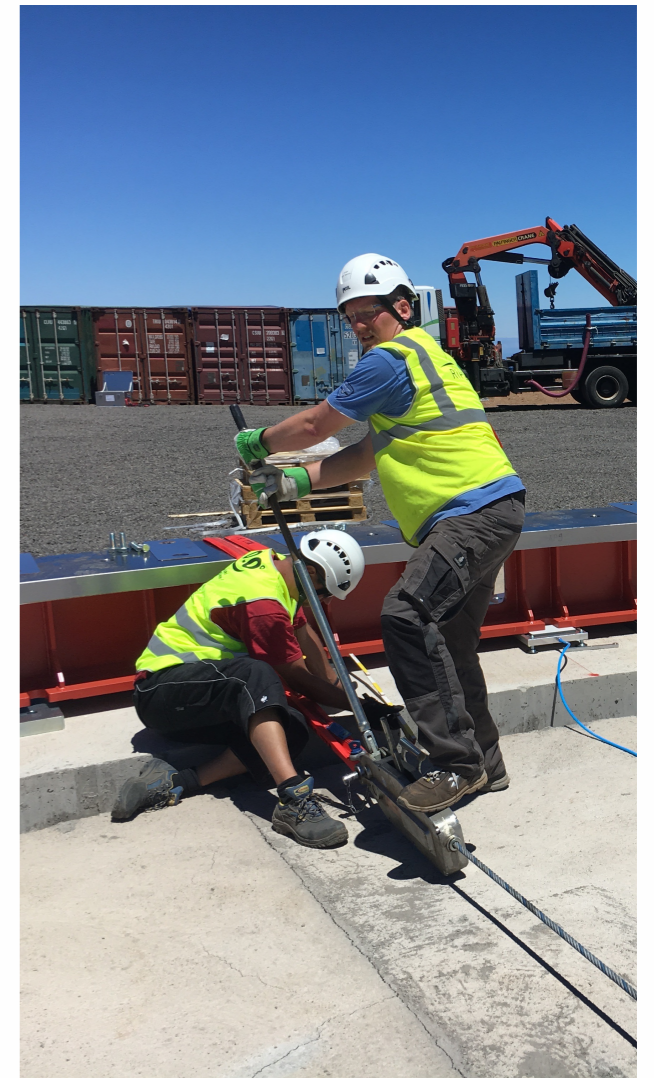
Placement easy and controlled



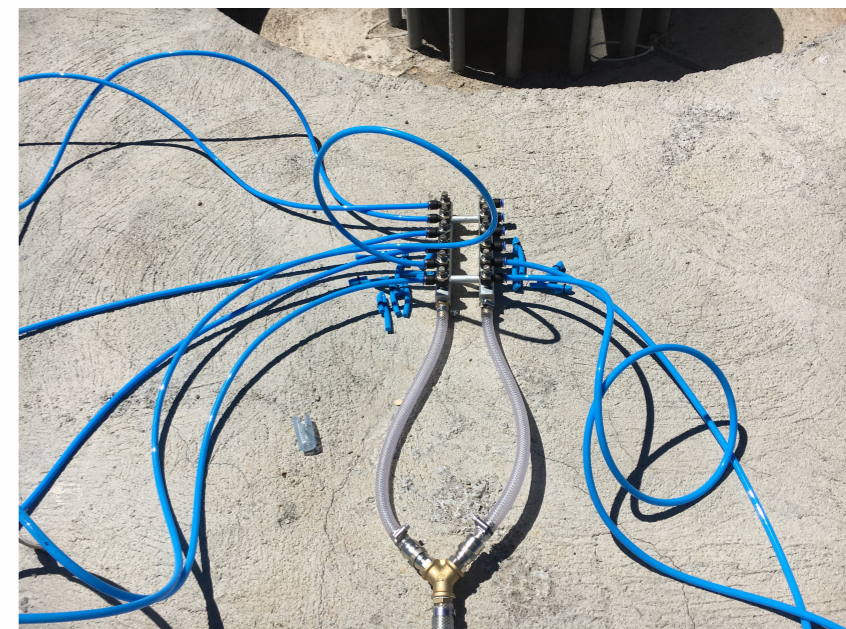
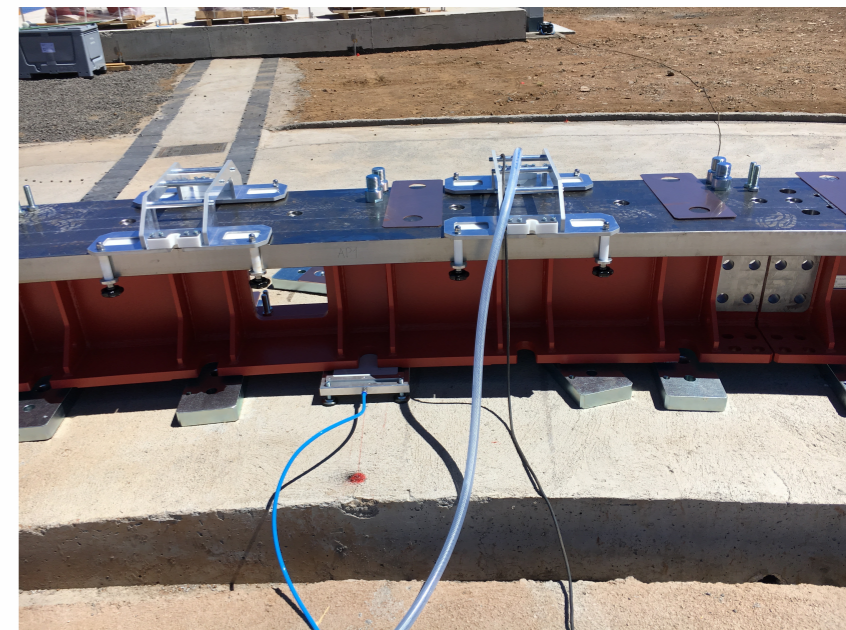
Placing the form springs



Closing the gap



Ring complete, precise placement



Moving the complete ring with steel cables in mm



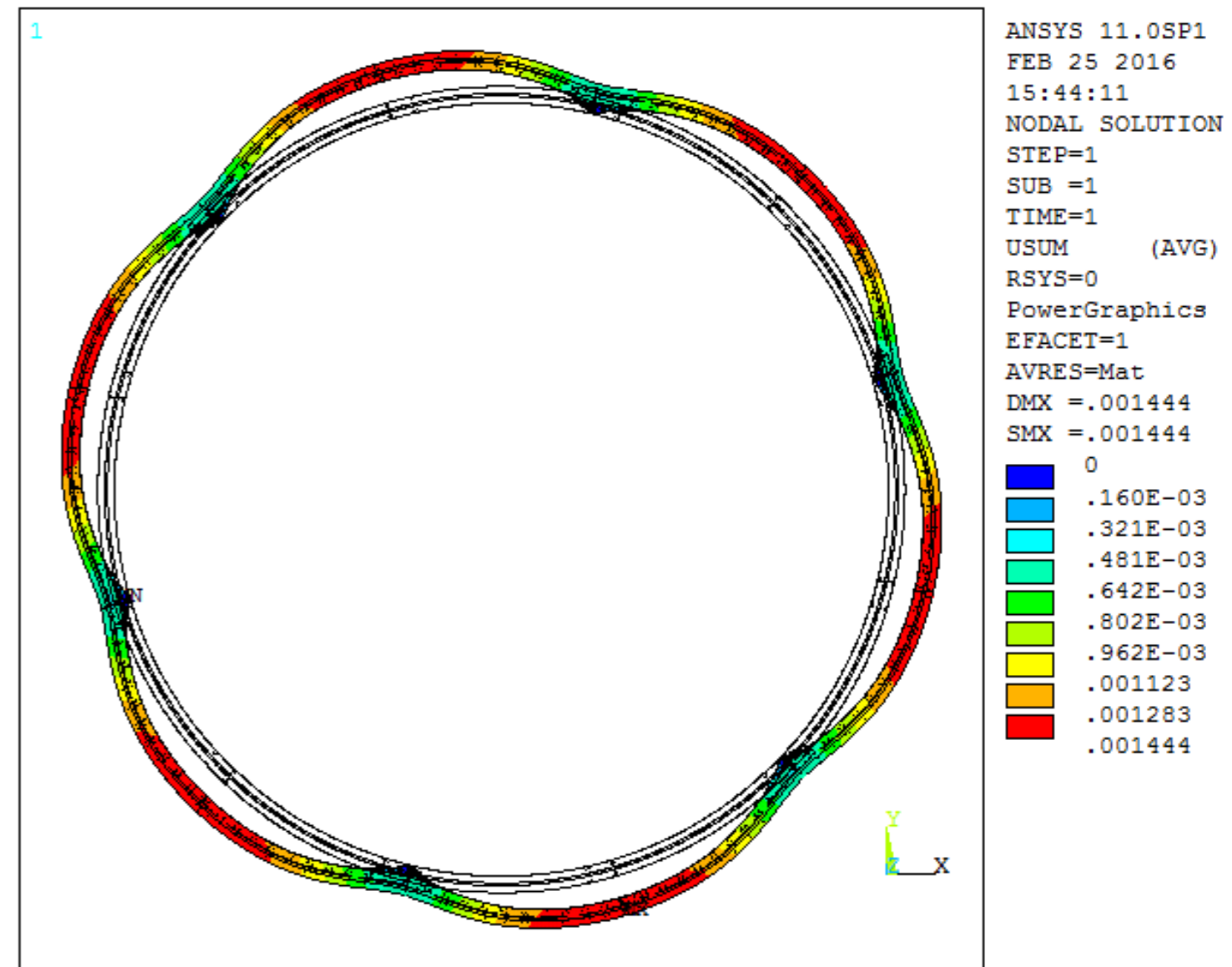
Measuring position with precision 0.3 mm



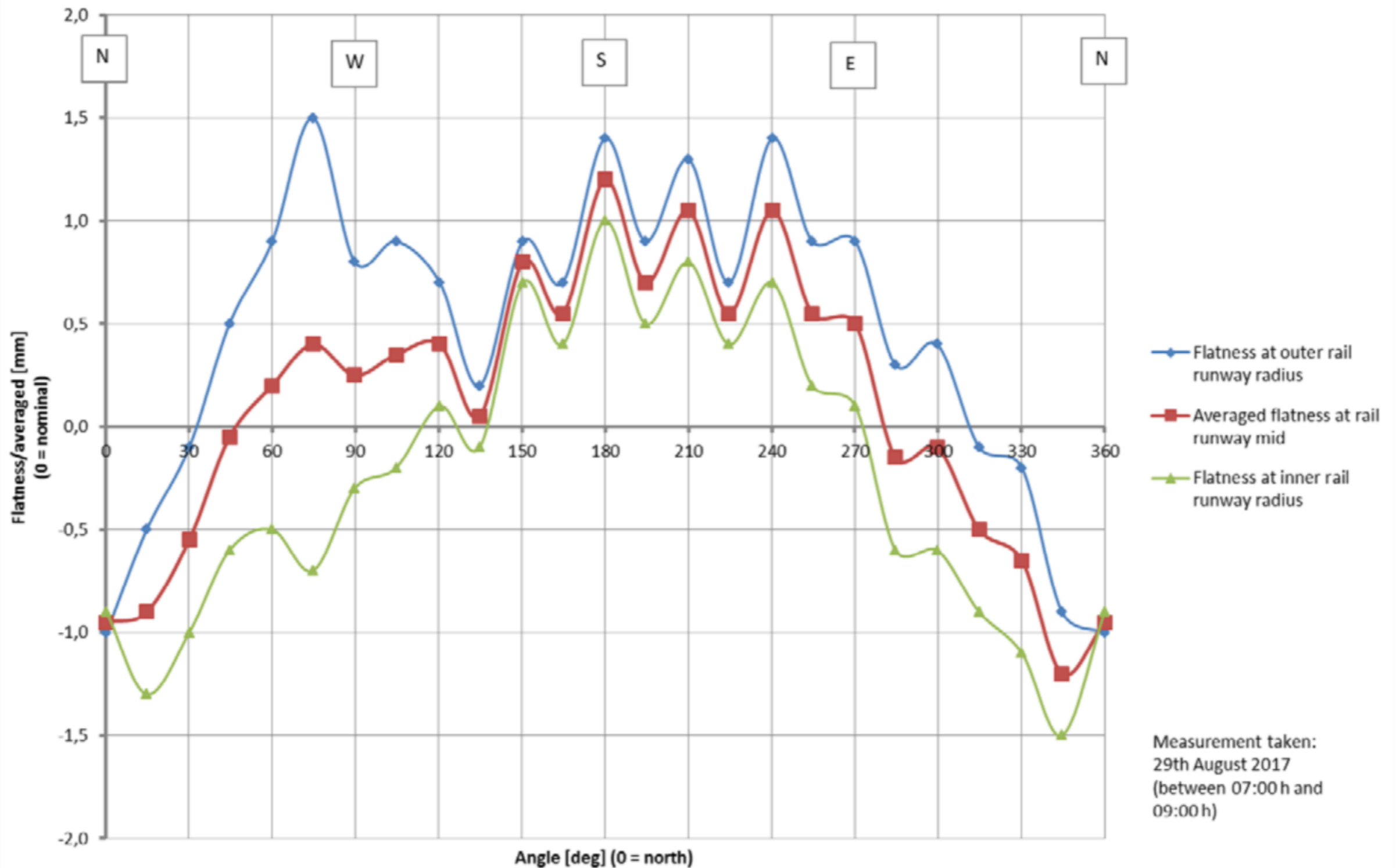
Temperature expansion

Simulation done with fixing 6 points (bogies) and 10 deg temperate increase

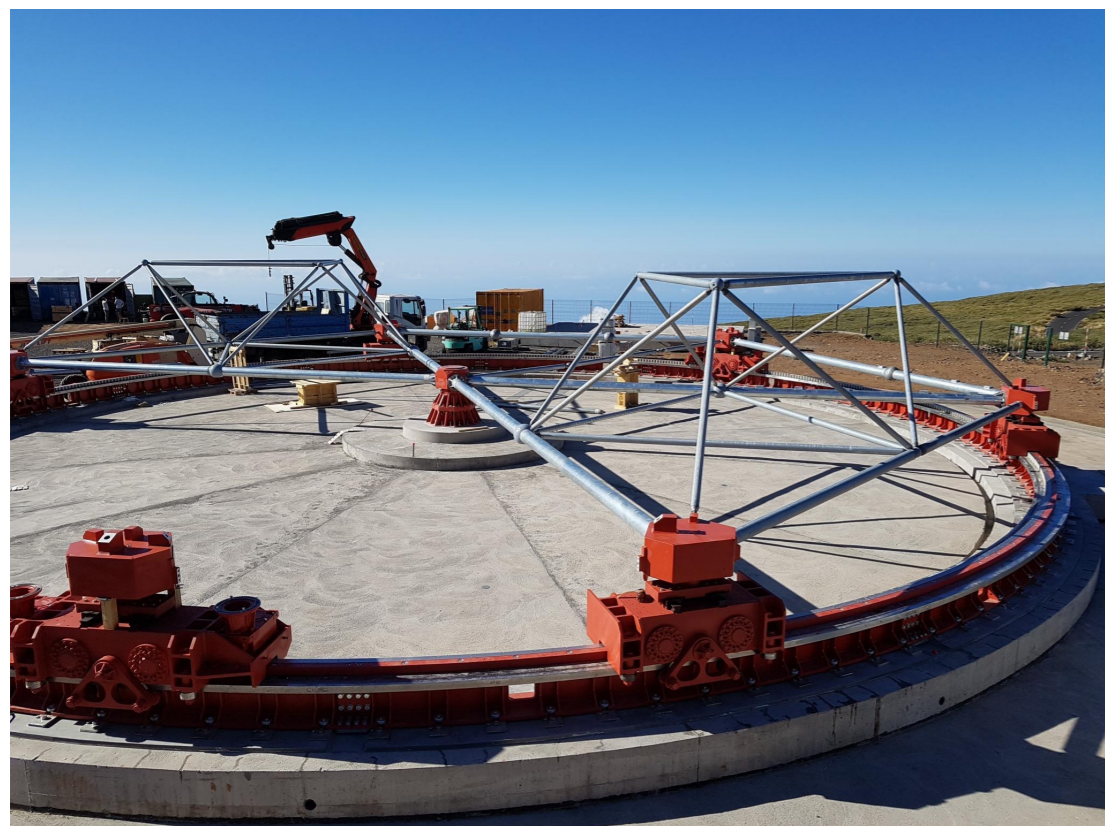
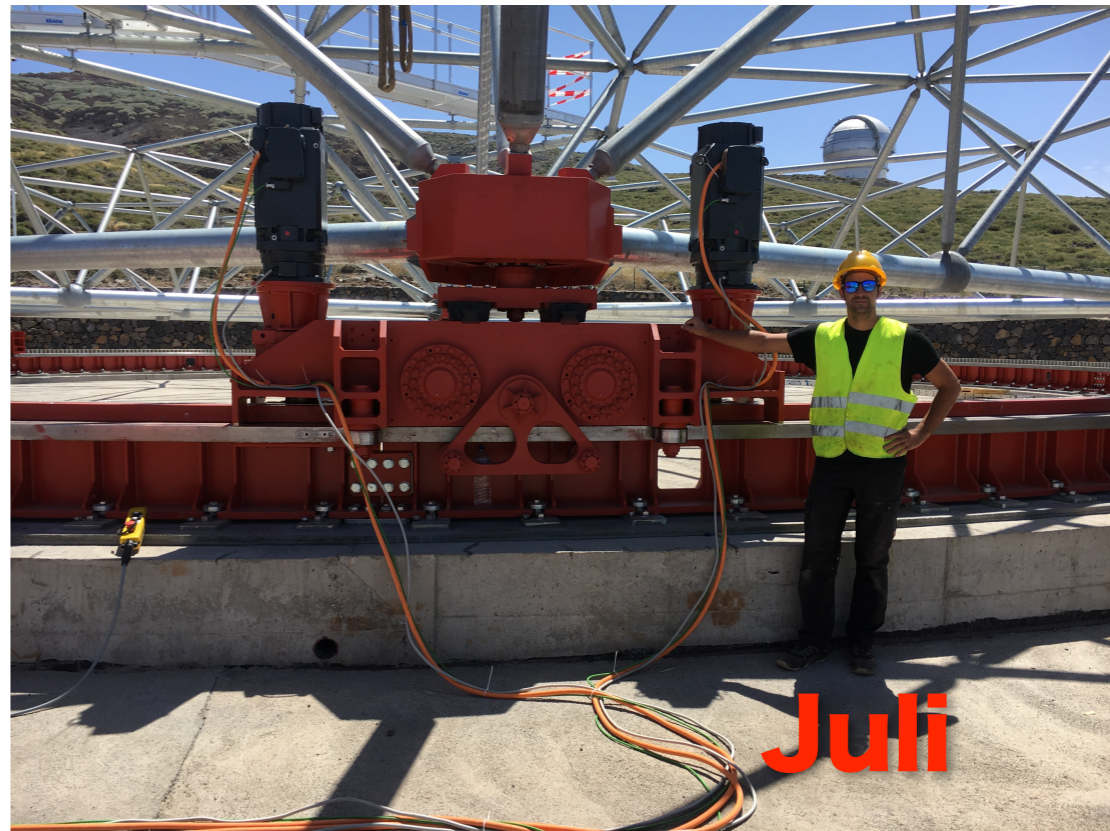
After 3 deg increase the tension is large enough that the rail pedestal will slide



Achieved flatness $\pm 2.5\text{mm}$

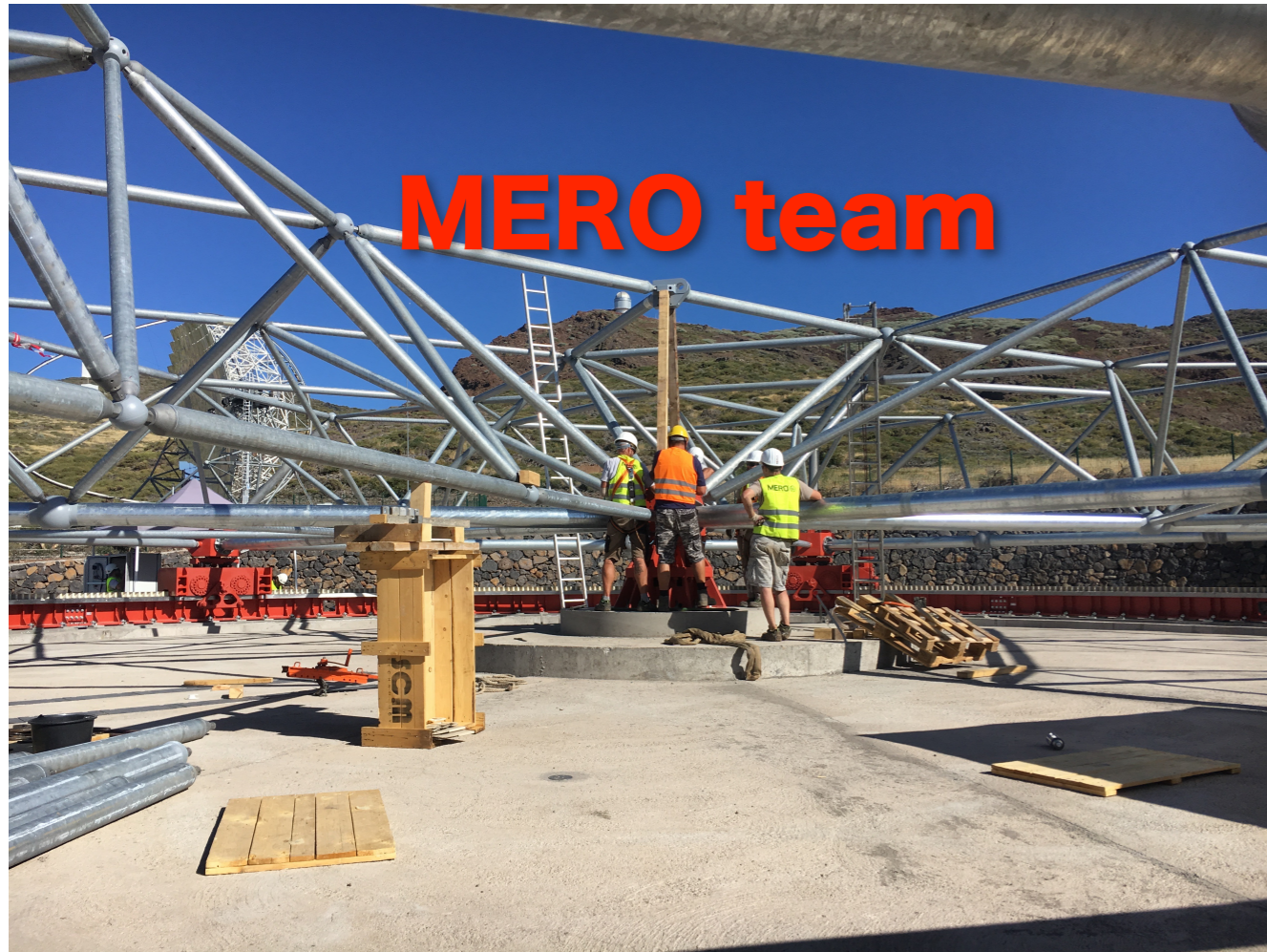


Bogie installation & drive test



Installation of structure

MERO team



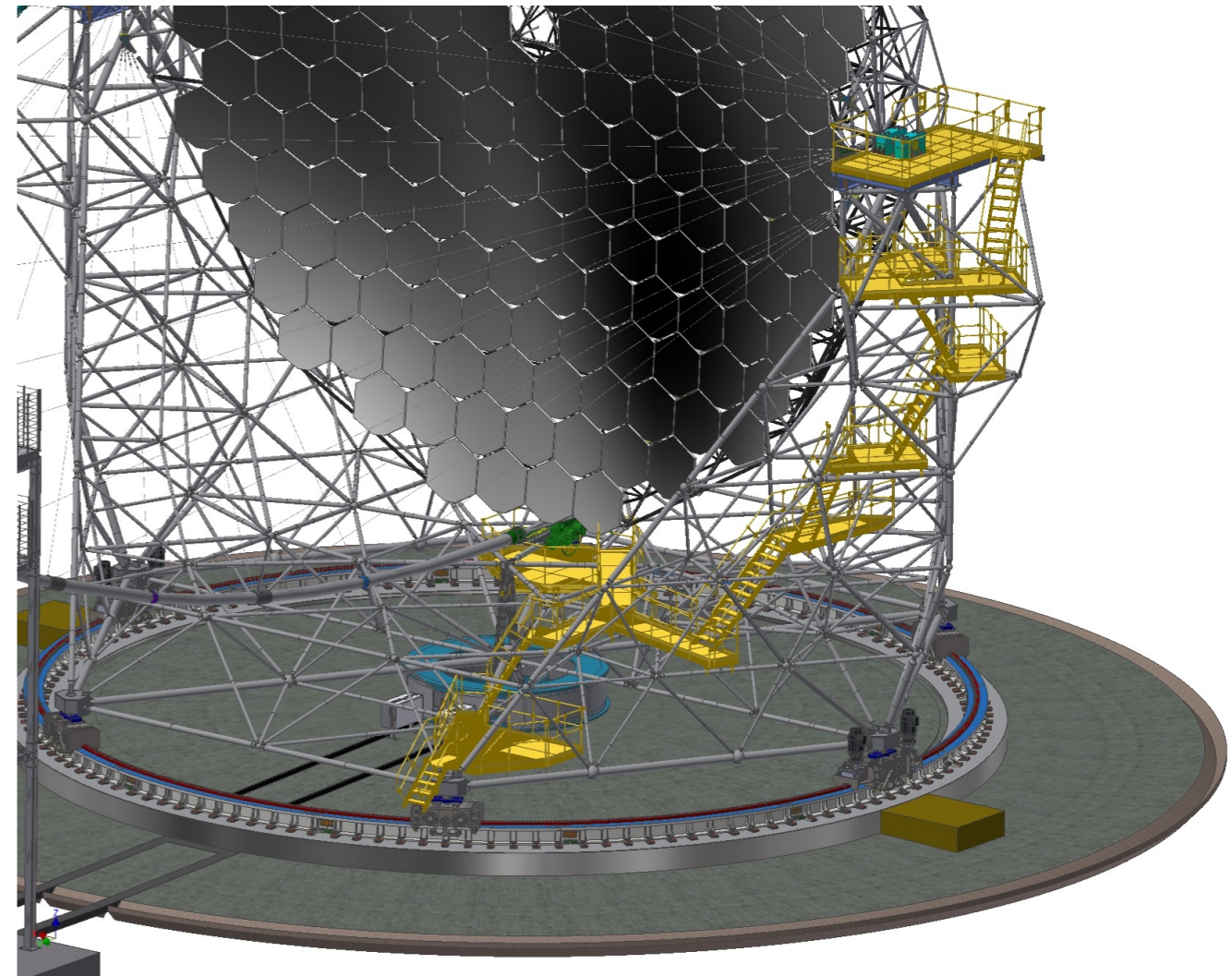
Ongoing works



Understructure finished



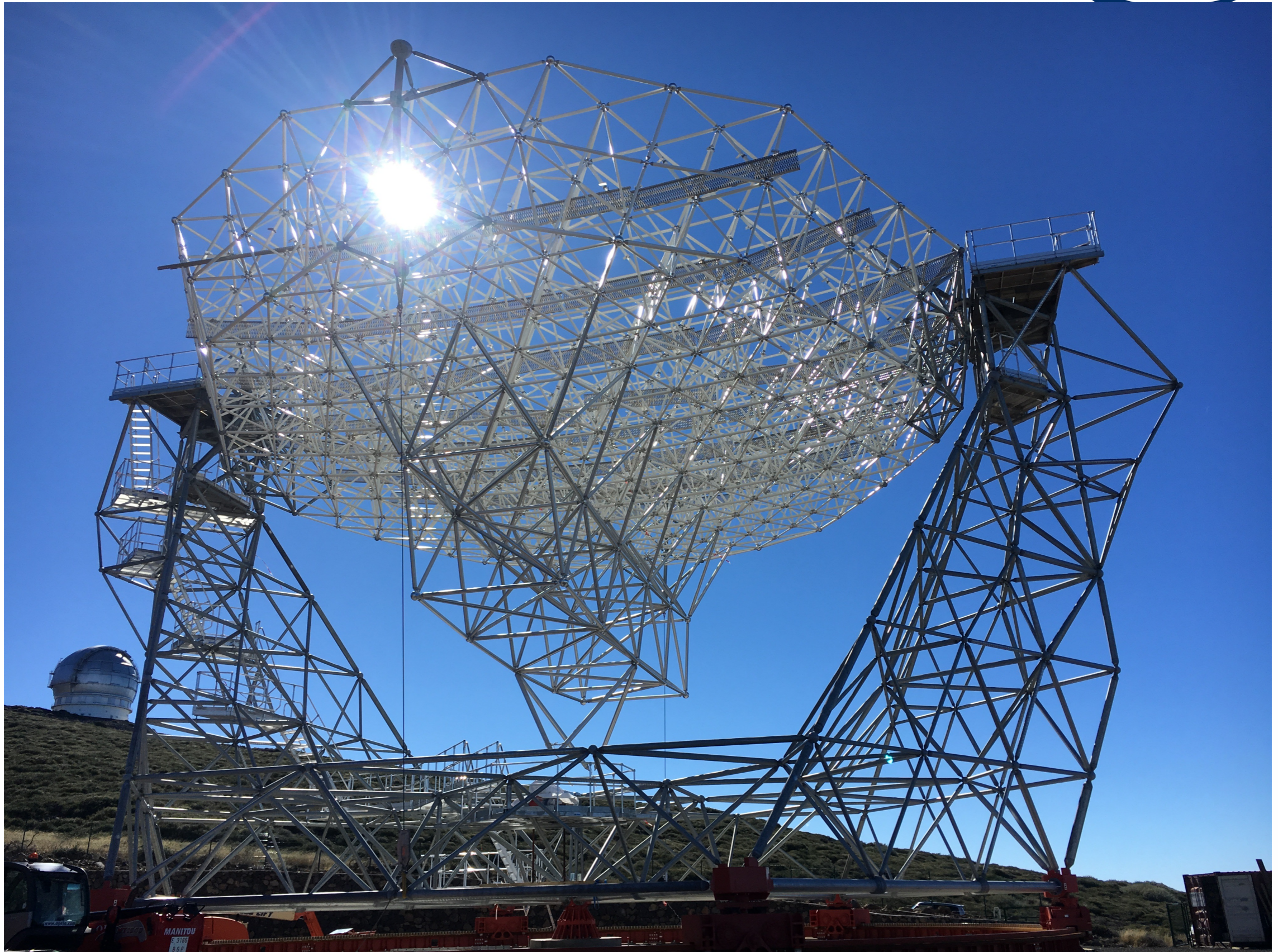
Comfortable staircase



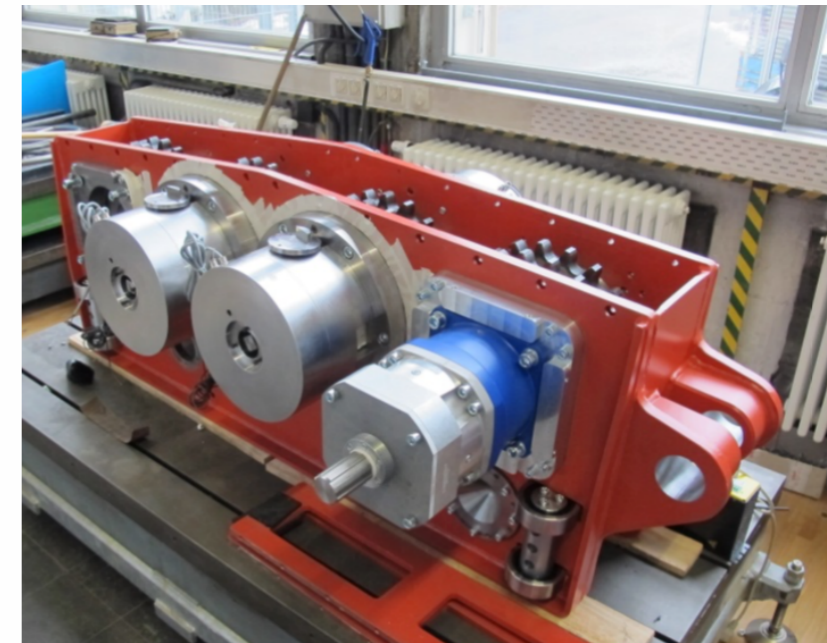
Installation of the dish



Starting to mount the backside



Still missing: Installation of elevation drive



View over the dish



View into the dish

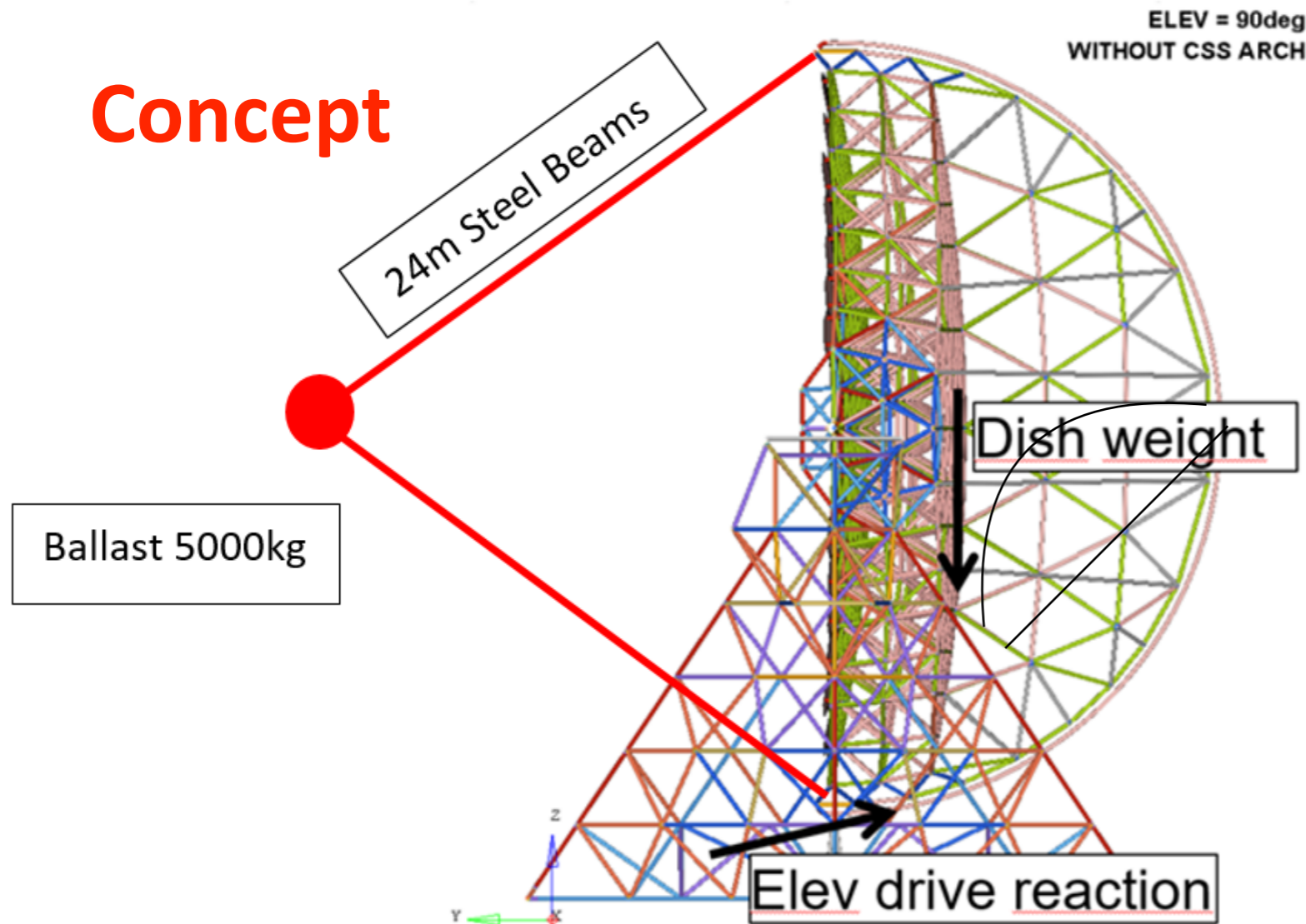


Uwe, the MERO installation expert

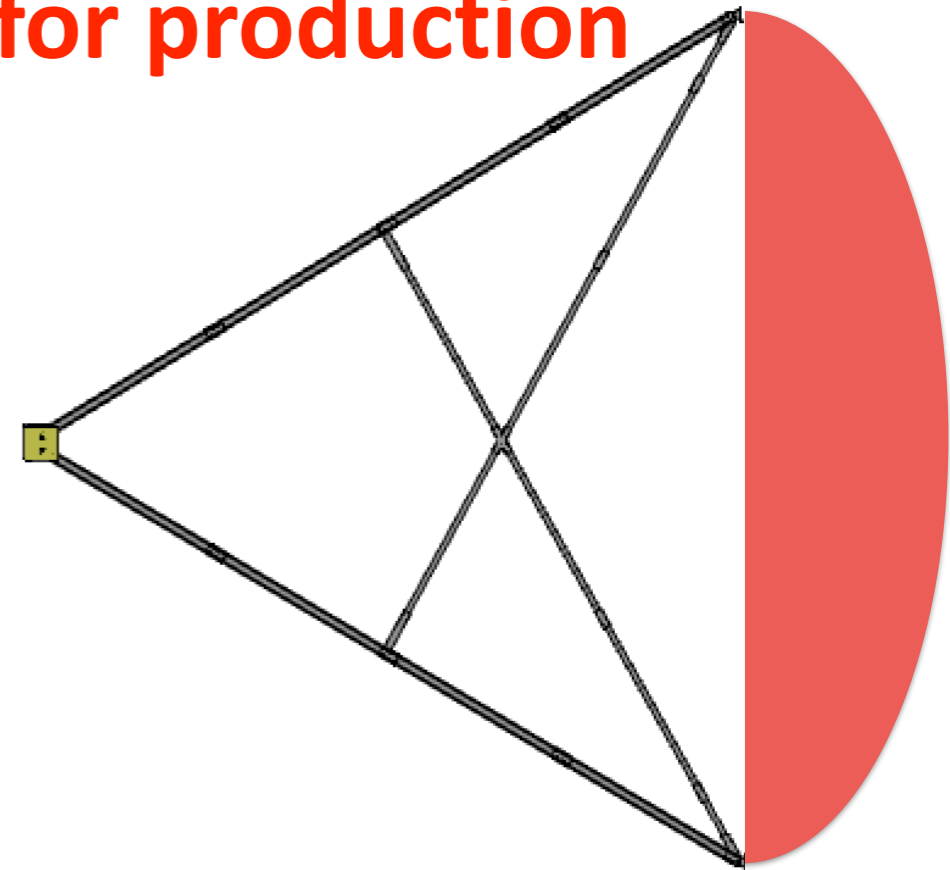


CSS Dummy for mirror installation

Concept



Final design for production



Already produced



The CSS dummy is attached to the arch/dish interface and can nearly completely compensate the imbalance such that the dish can even be rotated manually.

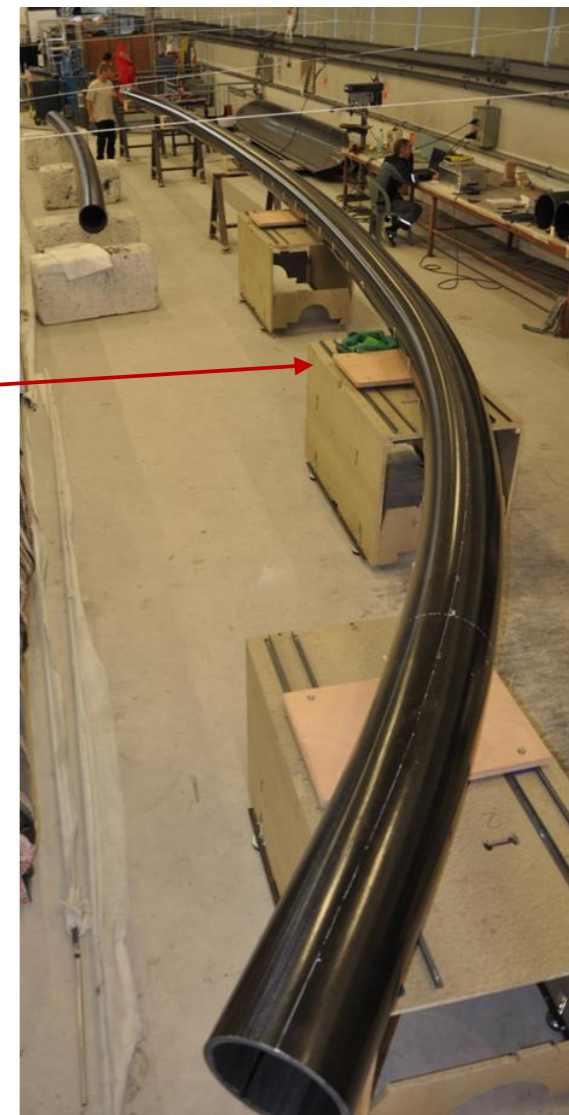
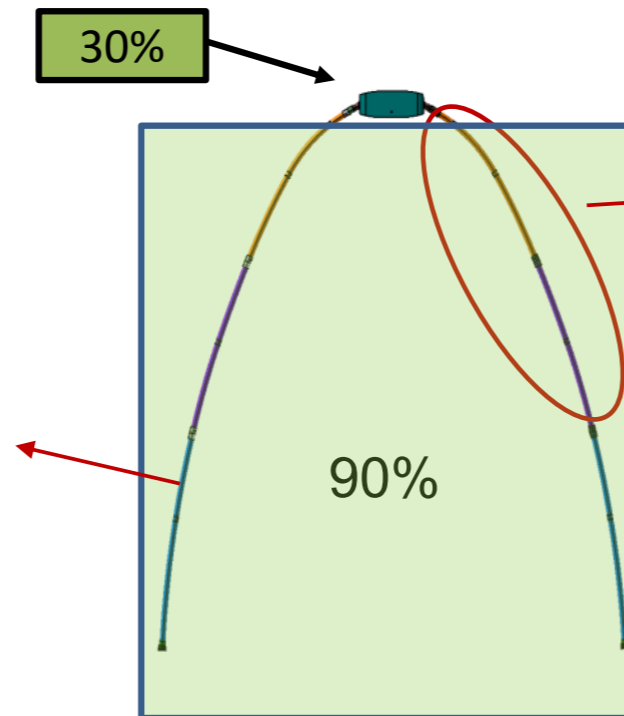
Production of camera support structure



CSS production status

All CSS tubes are produced and shape-controlled

Tubes assembly is on-going



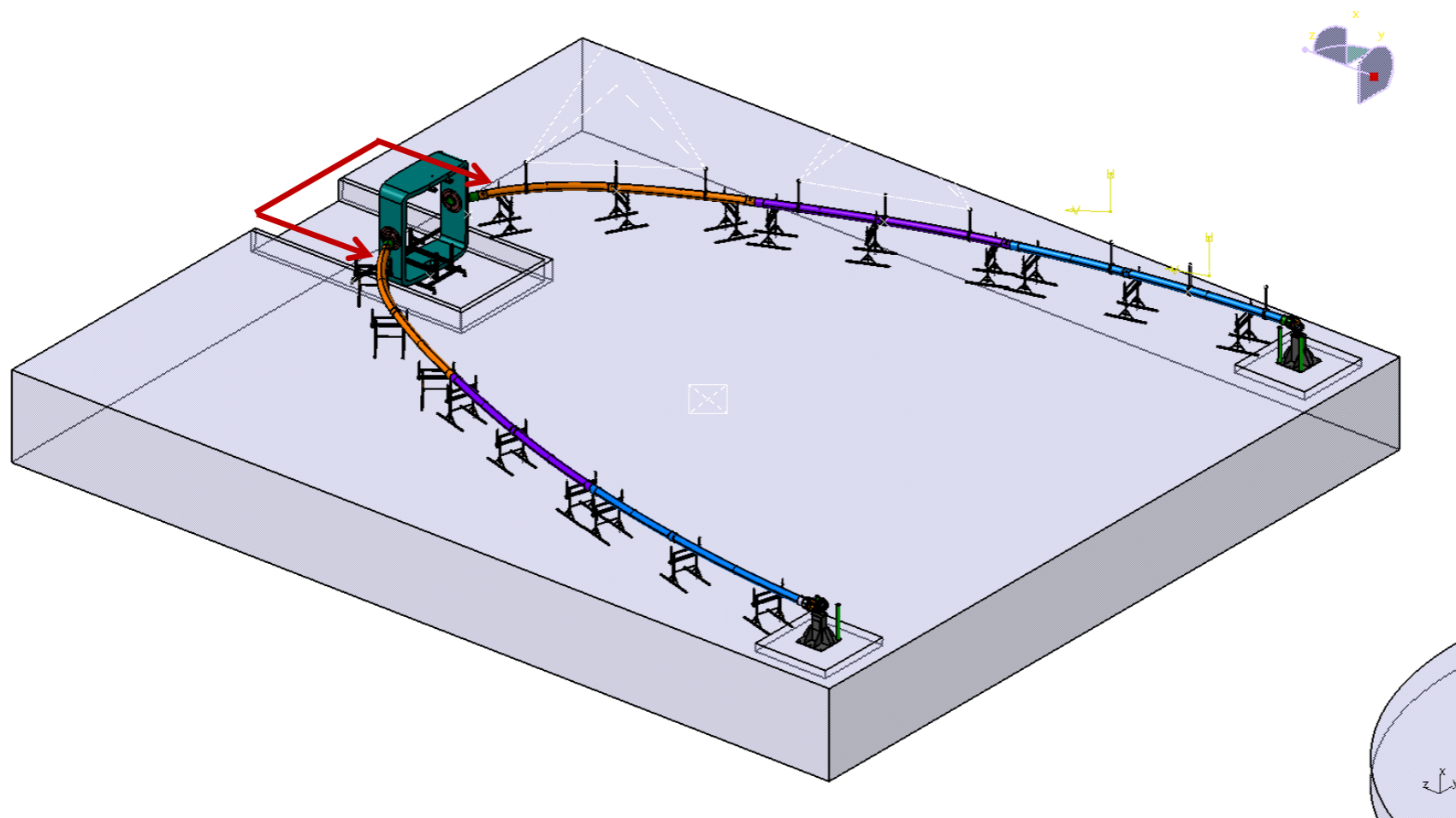
Waiting for CF cables fixations parts to perform seats in resin between CSS and backing plates, CSS and tang bush, etc...

Mounting of Camera support structure



CSS mounting

8- Installation of crane spreader and slings

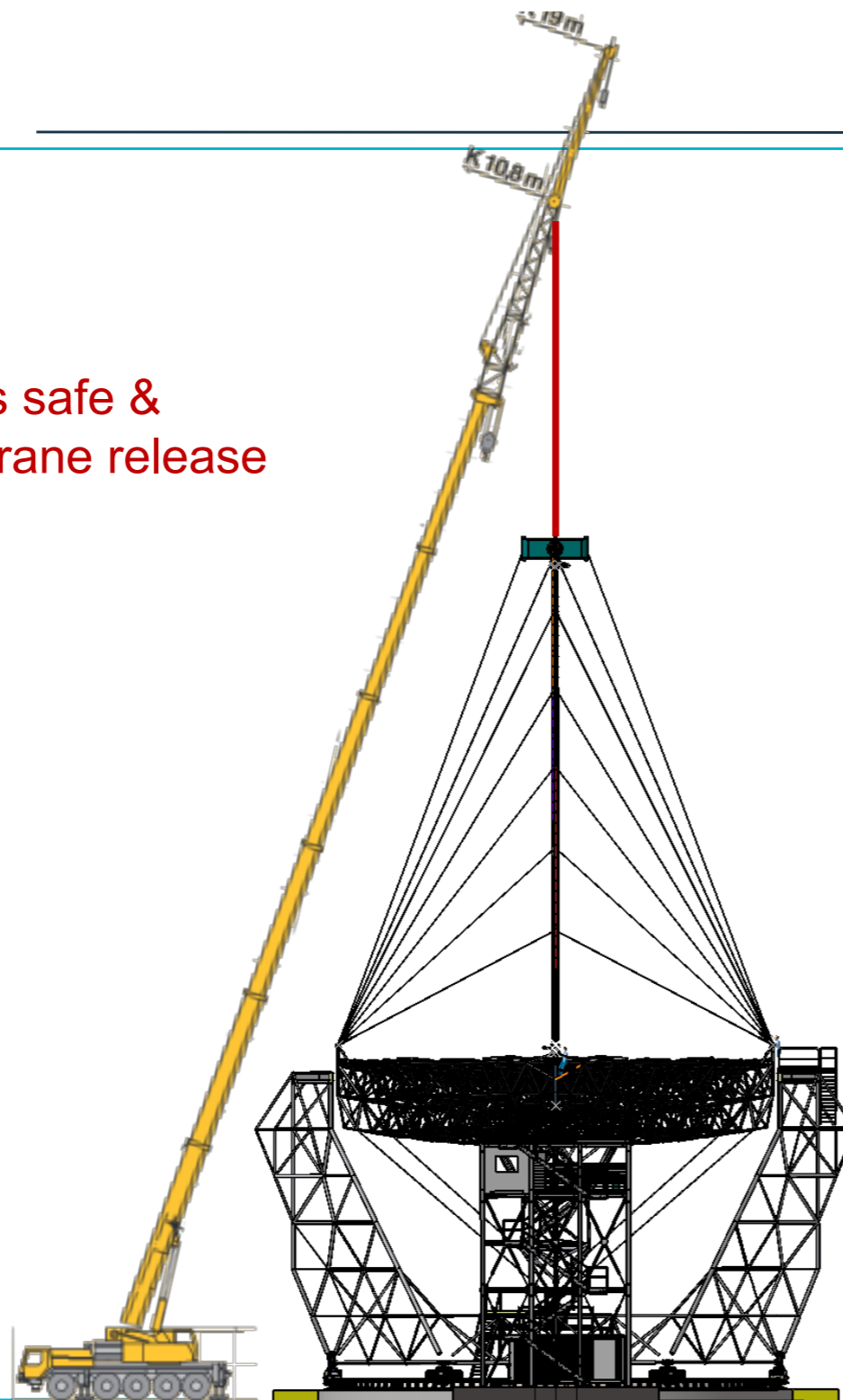


Installation of Camera support structure

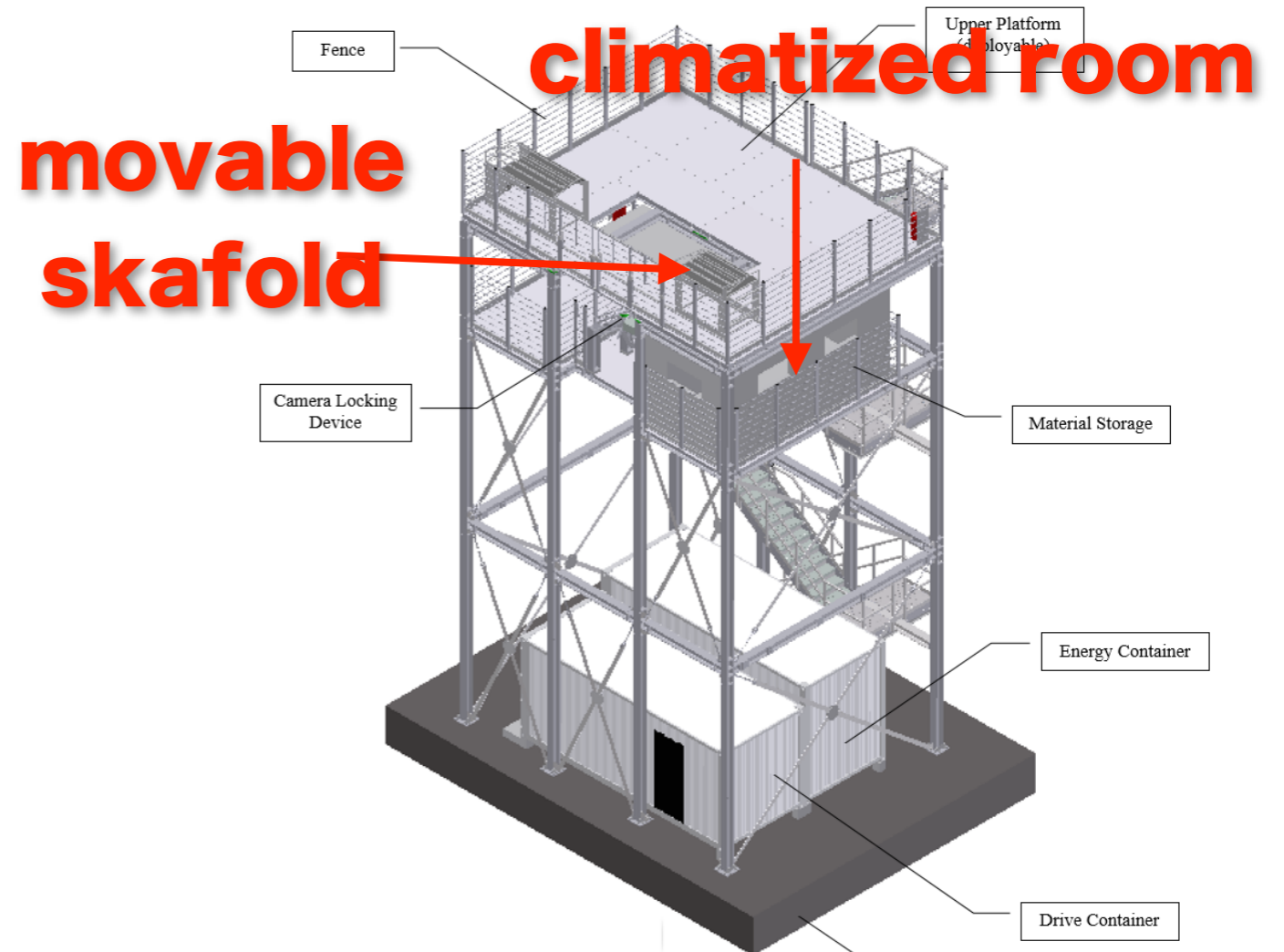
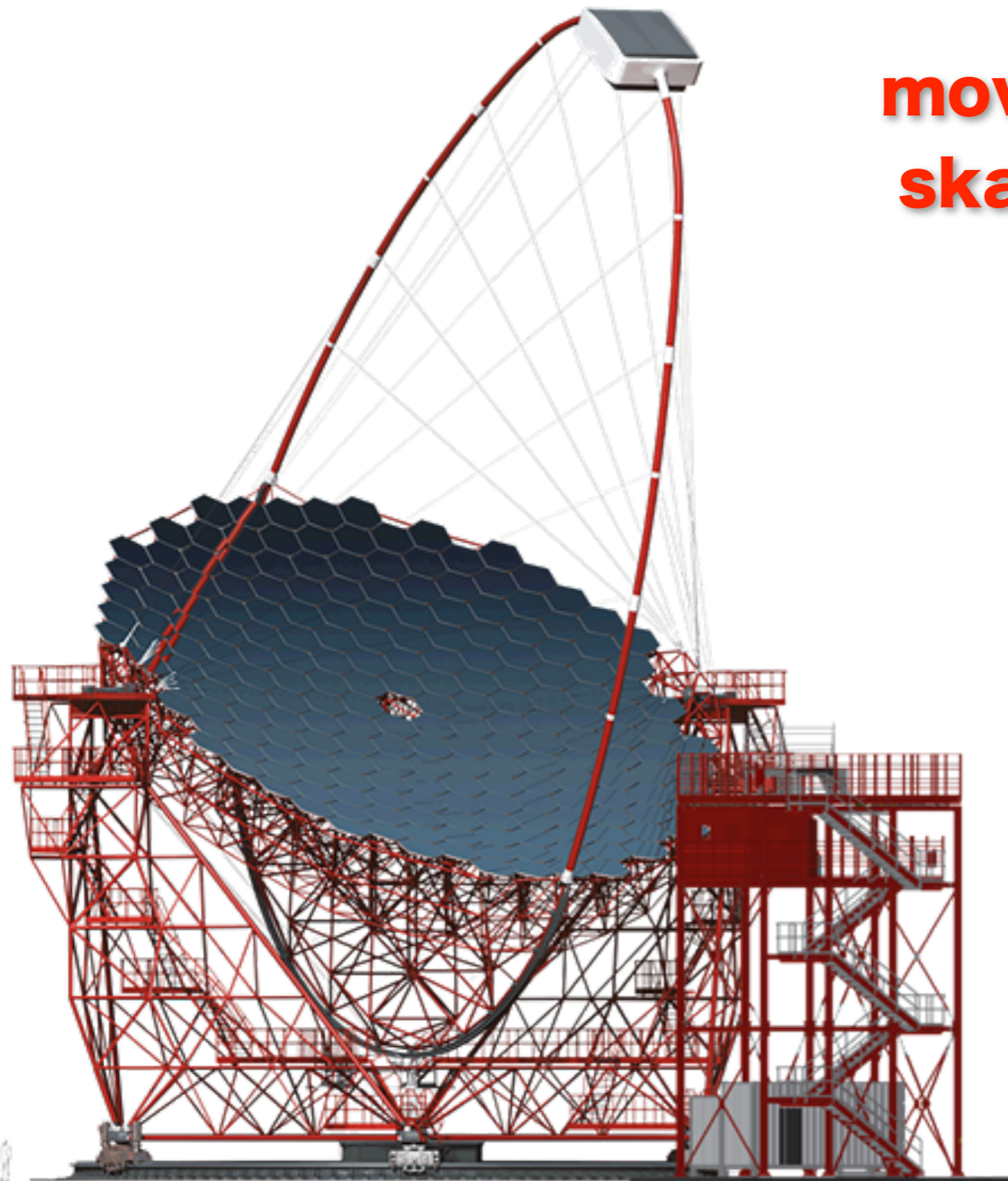


Lifting of CSS

LST is safe &
ready for crane release

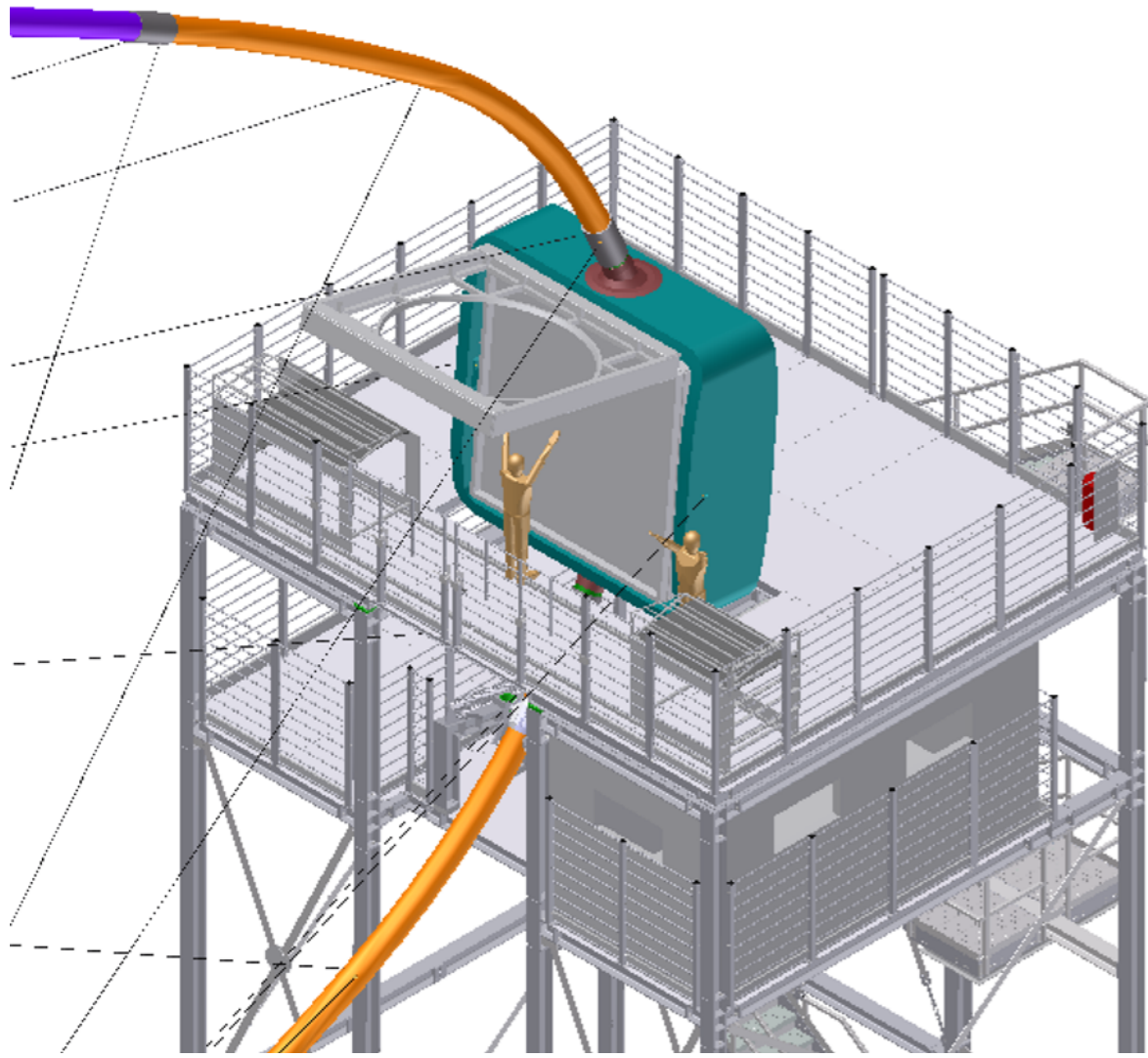


Access tower installation

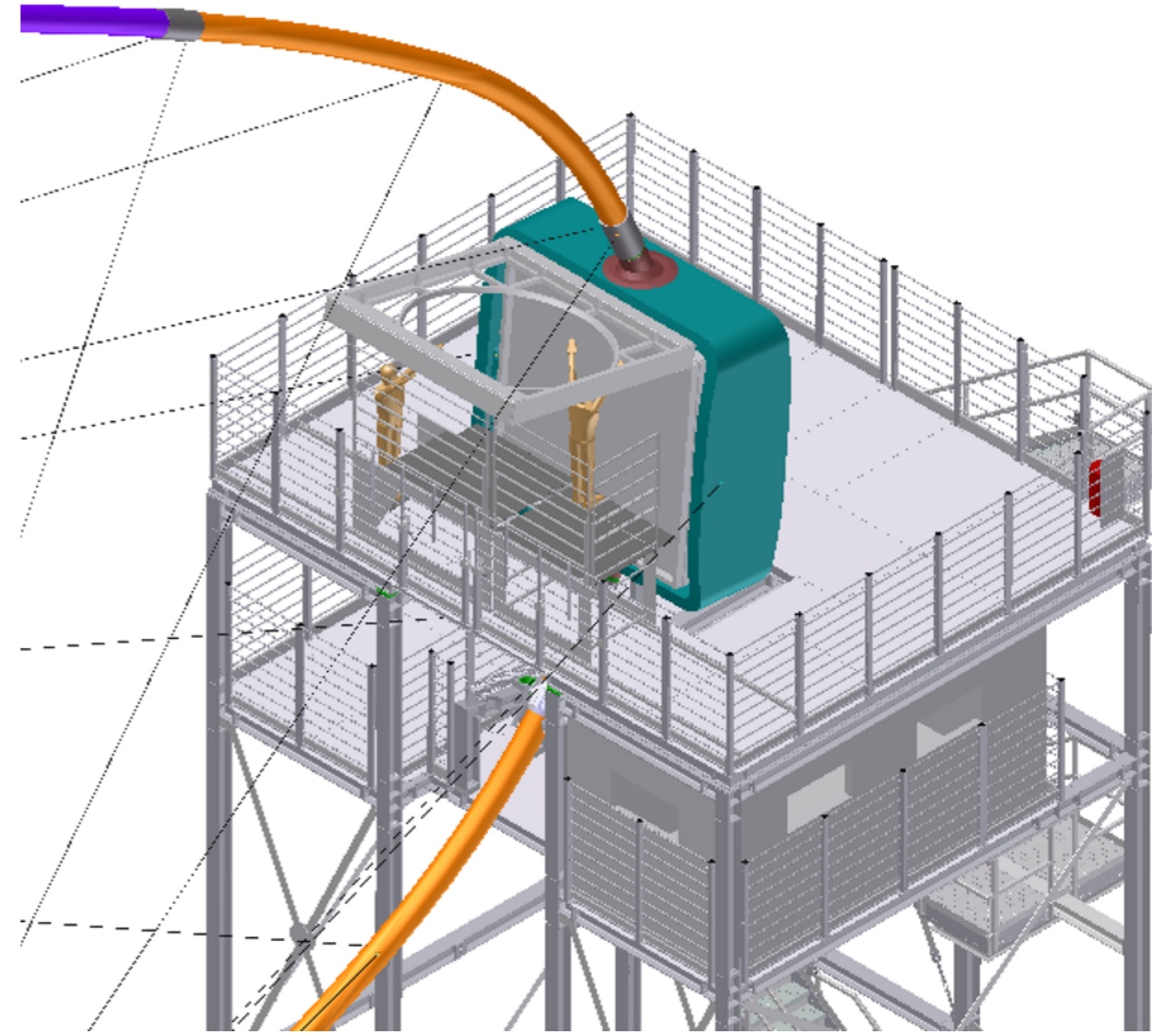


Access tower installation

Maintenance of camera front bottom

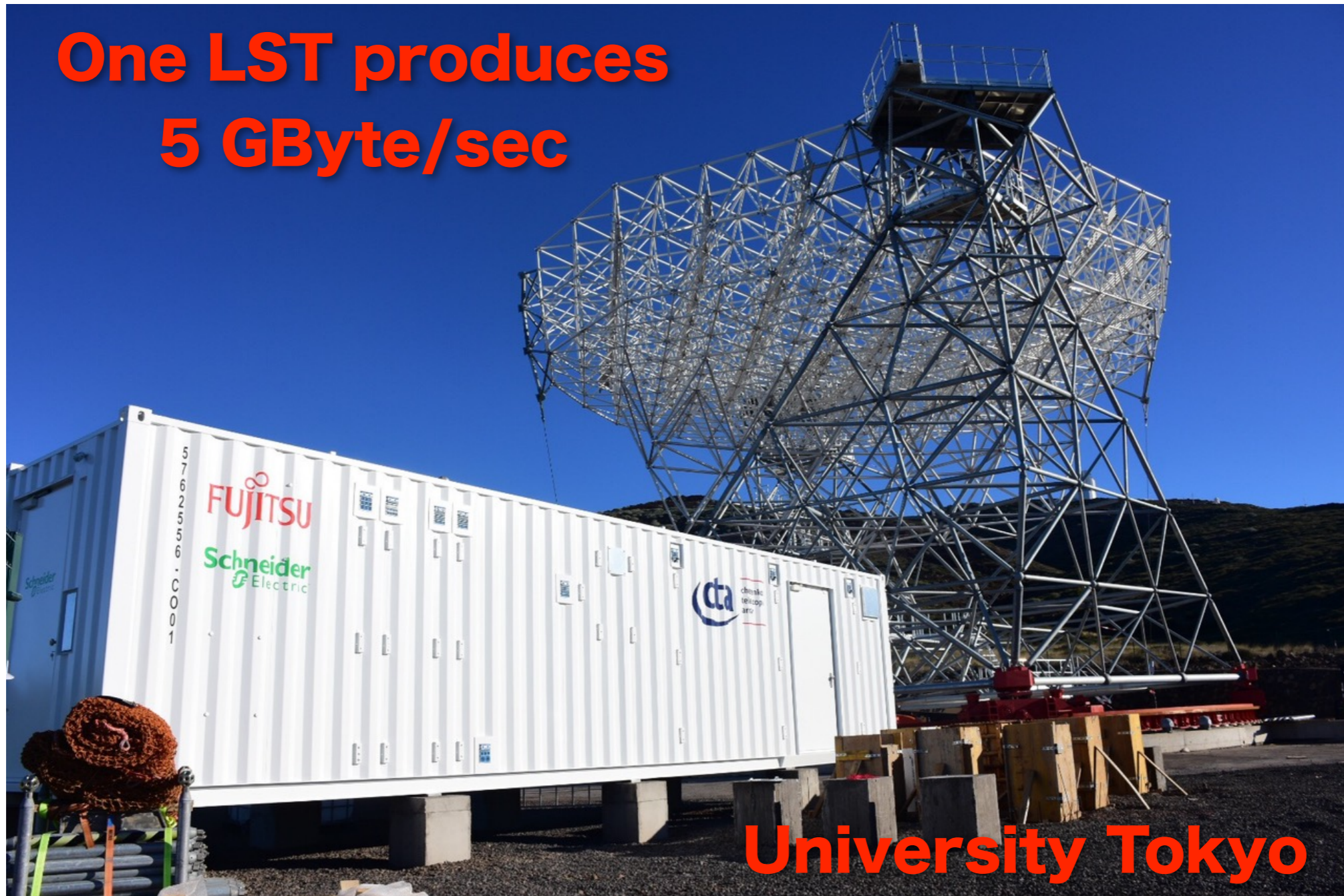


Maintenance of camera front top



IT container installed: 2000 cores, 3 PByte

One LST produces
5 GByte/sec



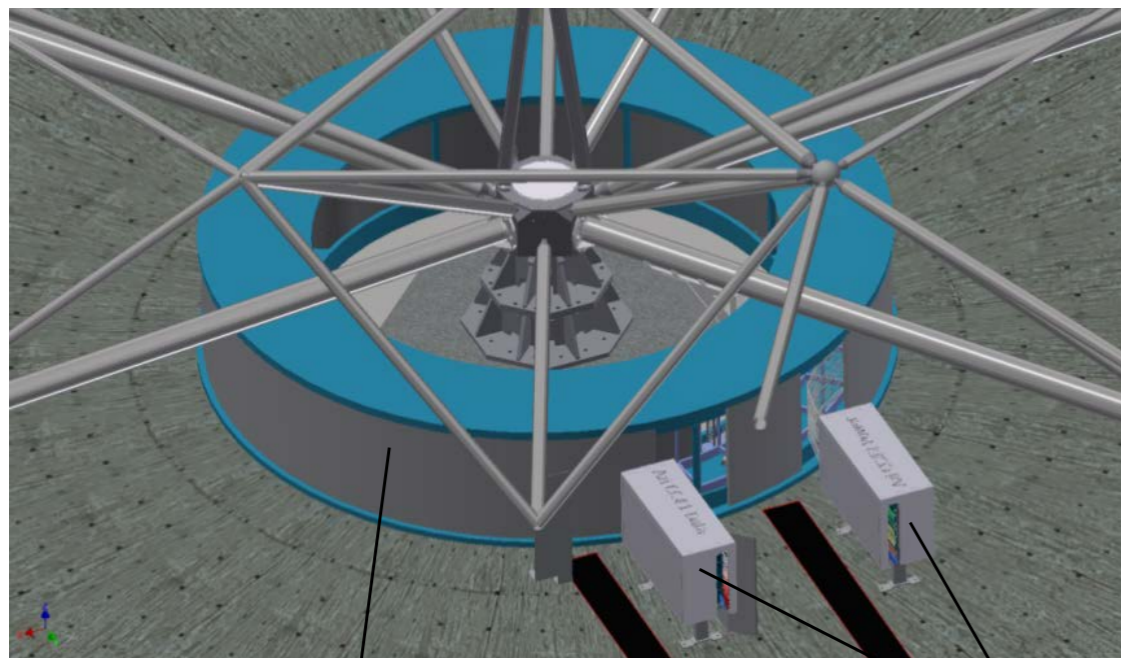
University Tokyo

Azimuthal cable chain

Has arrived in La Palma



11/09/2017 10:21



cable carousel

patch panels



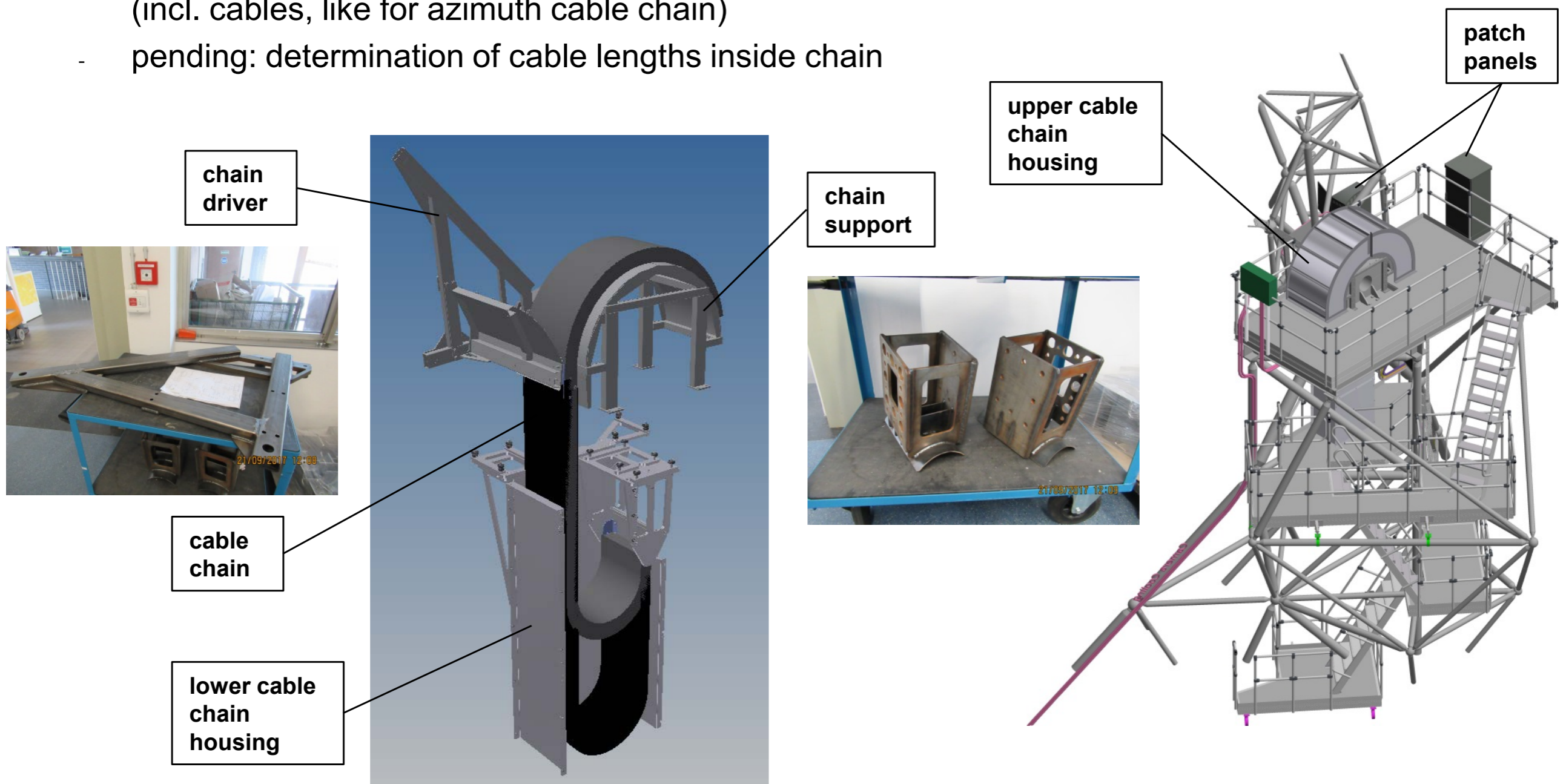
12/09/2017 11:30

Acceptance
Check at
Brevetti

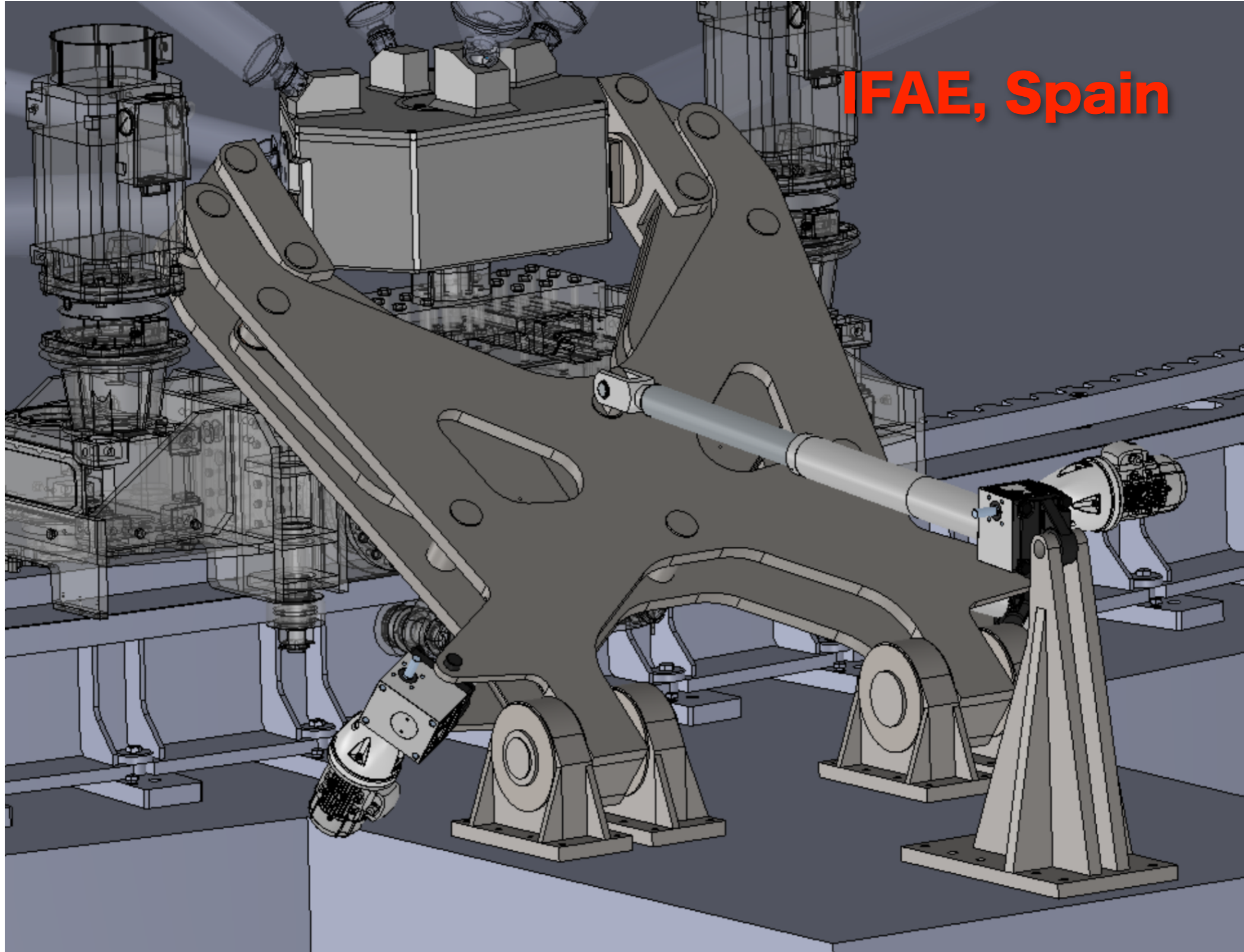
Elevation cable chain, in production

Elevation Cable Chain:

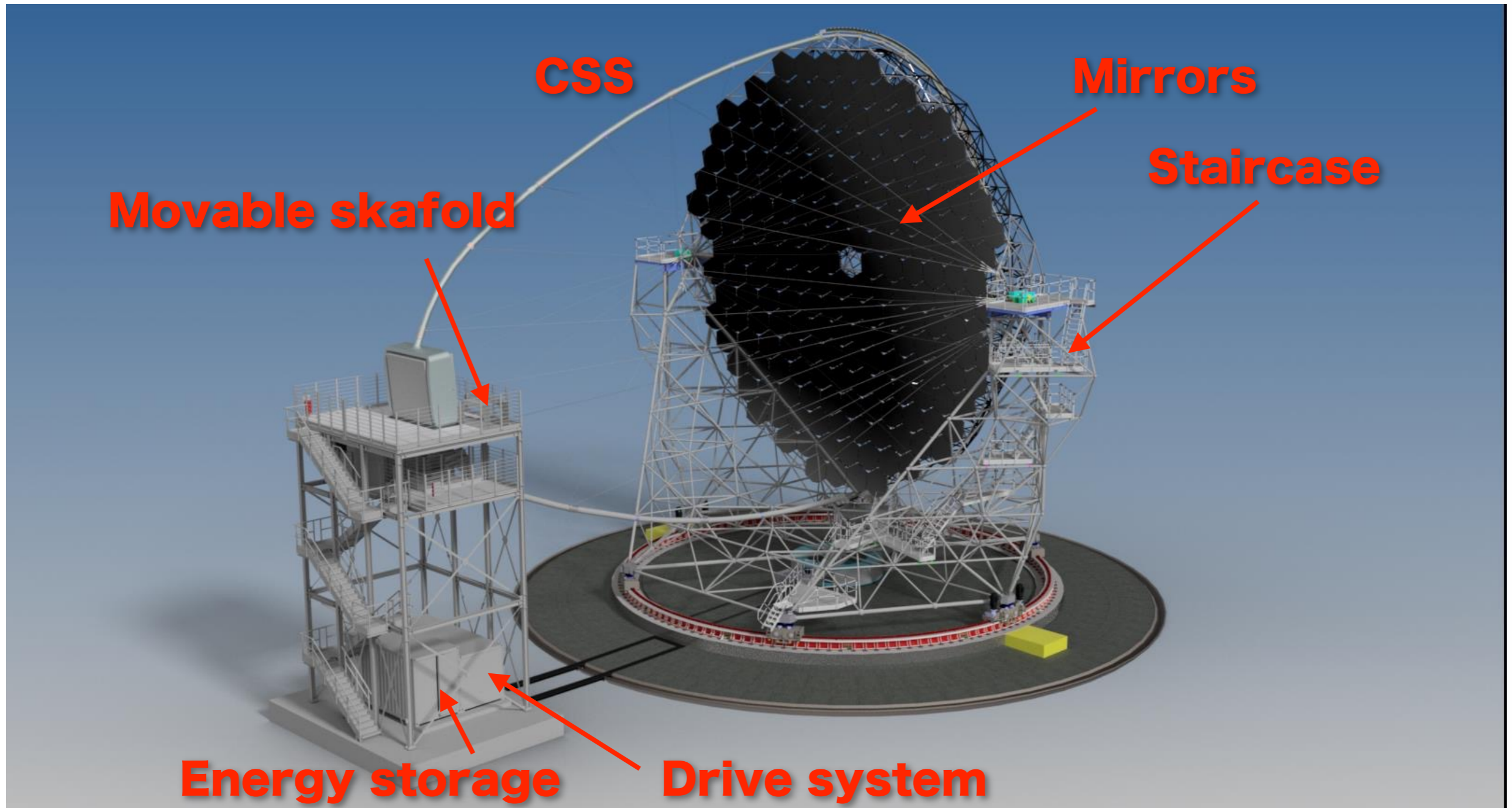
- detailed design ready → structural parts produced at MPP, cable chain produced at Brevetti (incl. cables, like for azimuth cable chain)
- pending: determination of cable lengths inside chain



Azimuthal locking system



Final goal: End April 2018



**A lot of thanks to the MPI engineer
and the installation team !!**

**Holger, Christopher, Robert, Josef, Jens,
Andreas, Alex, Richard, Toni
All people from MPI workshop**

**And to our
administration,
especially:**

**Robert Braun, Marlen Kotenko
Mr. Hartmann, Mrs Fleischer**

The end