

Hie-Isolde

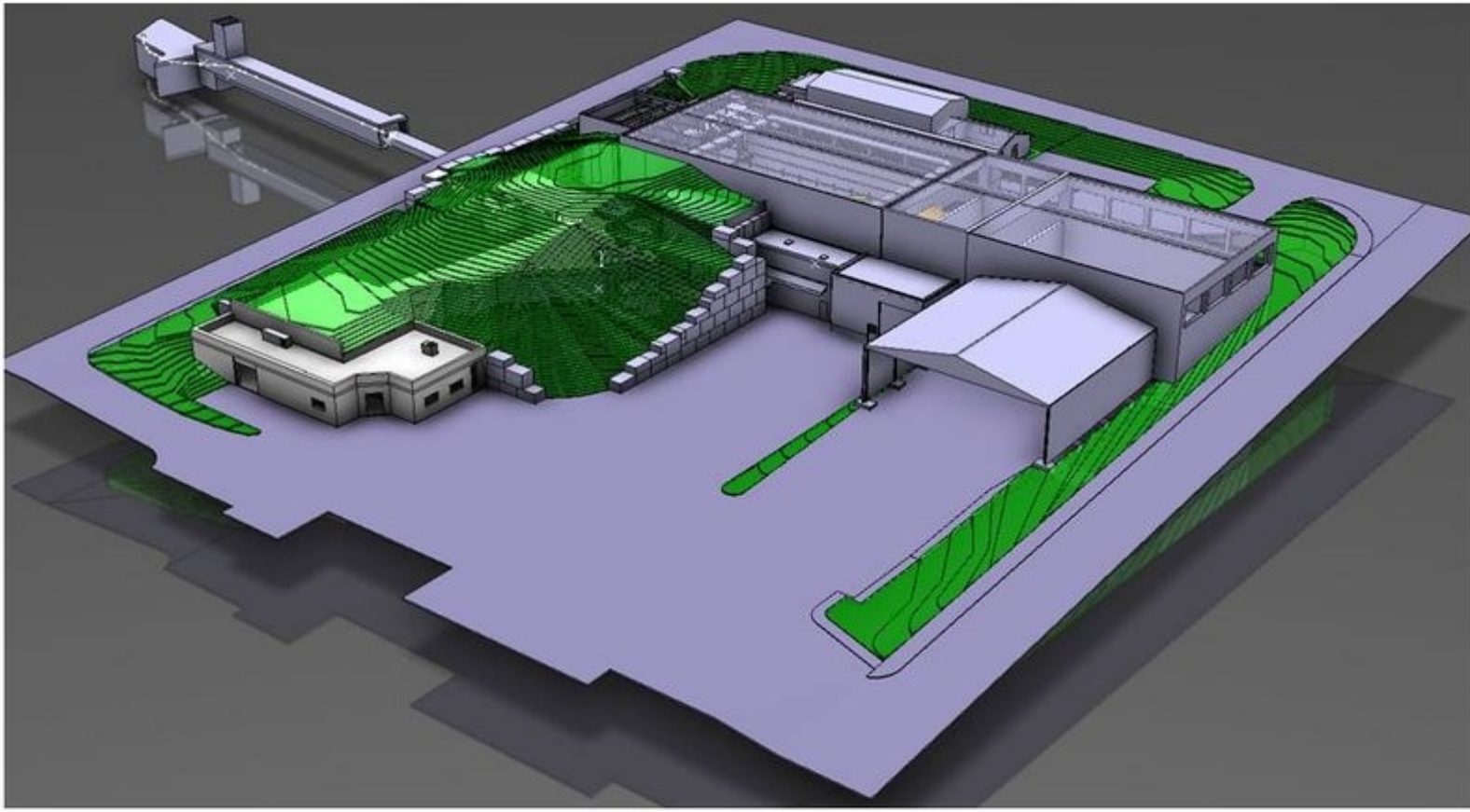
Floor plans, Infrastructure & Logistics

Hie-Isolde Spectrometer Workshop
Physics Department, Lund University

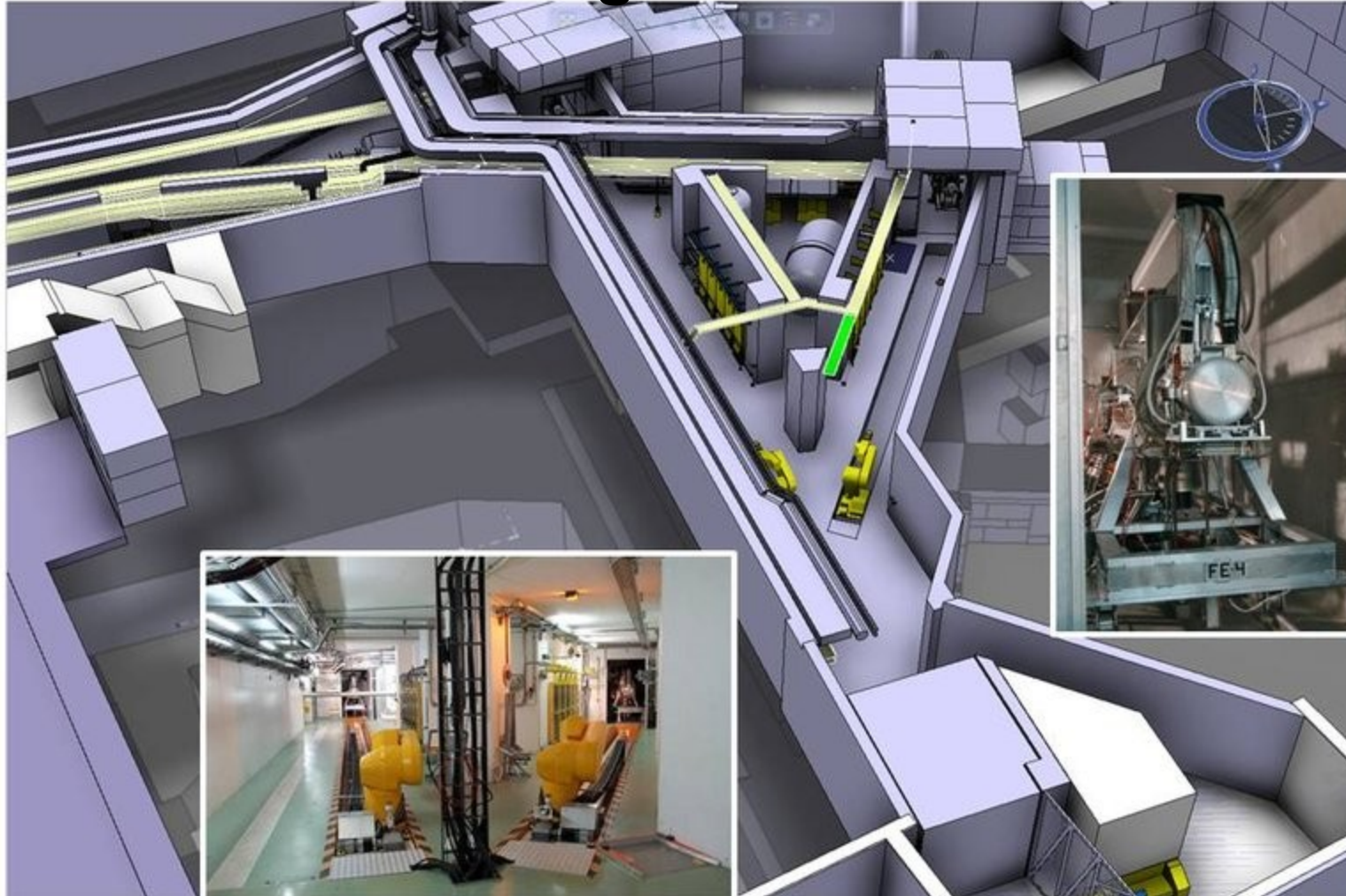
10 March, 2011

Erwin Siesling

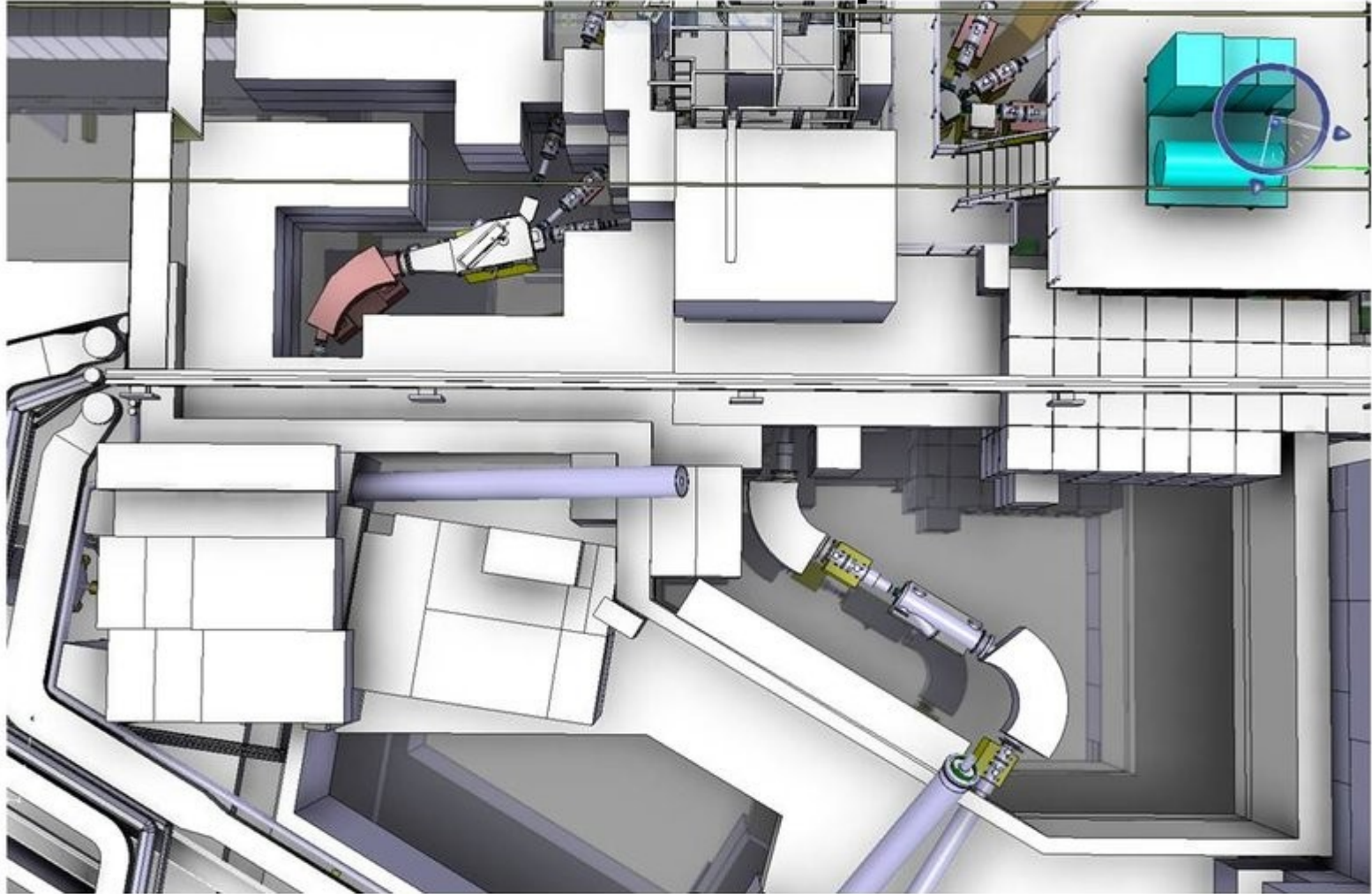
- **Isolde today**
- **Hie-Isolde – The Energy upgrade**
 - **Planning**
 - **Civil Engineering, Cryogenics and Ventilation**
 - **Superconducting Linac and Beam Transfer Line**
- **User requirements?**
- **Impact on Isolde & REX operation**
- **User facilities (under discussion)**
- **Future projects**



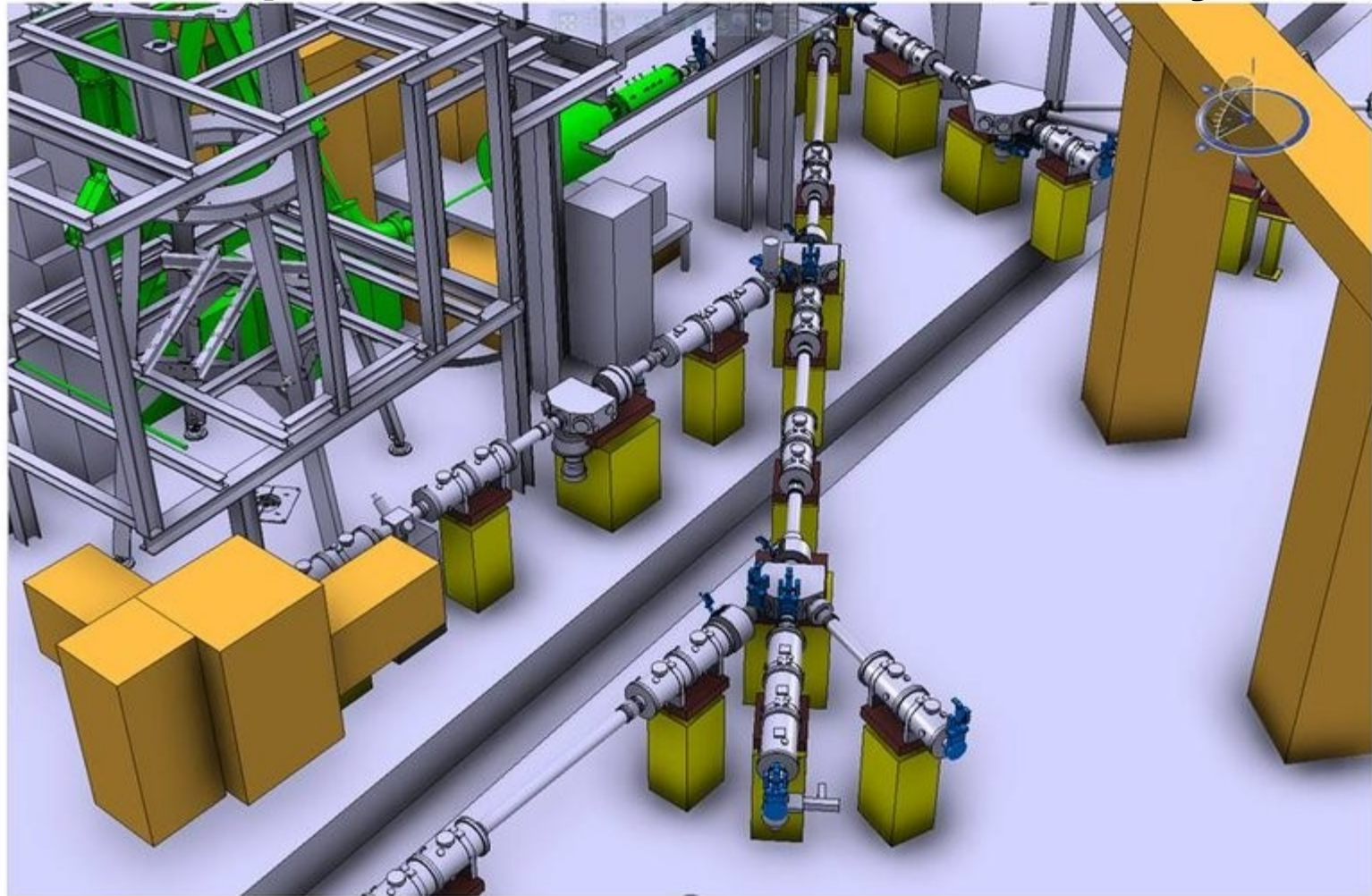
Target Zone



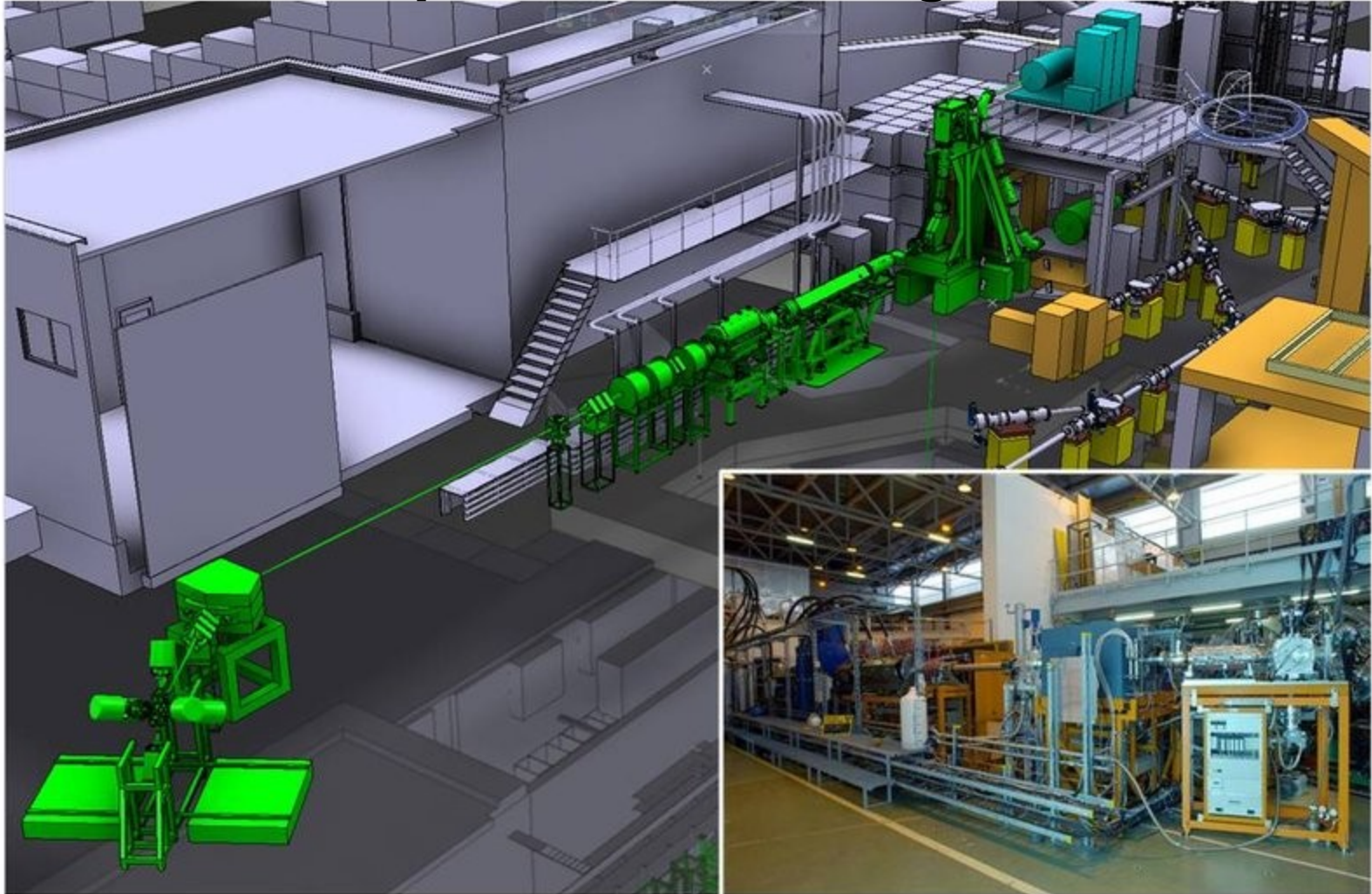
GPS and HRS Separator



Experimental hall: Beam delivery

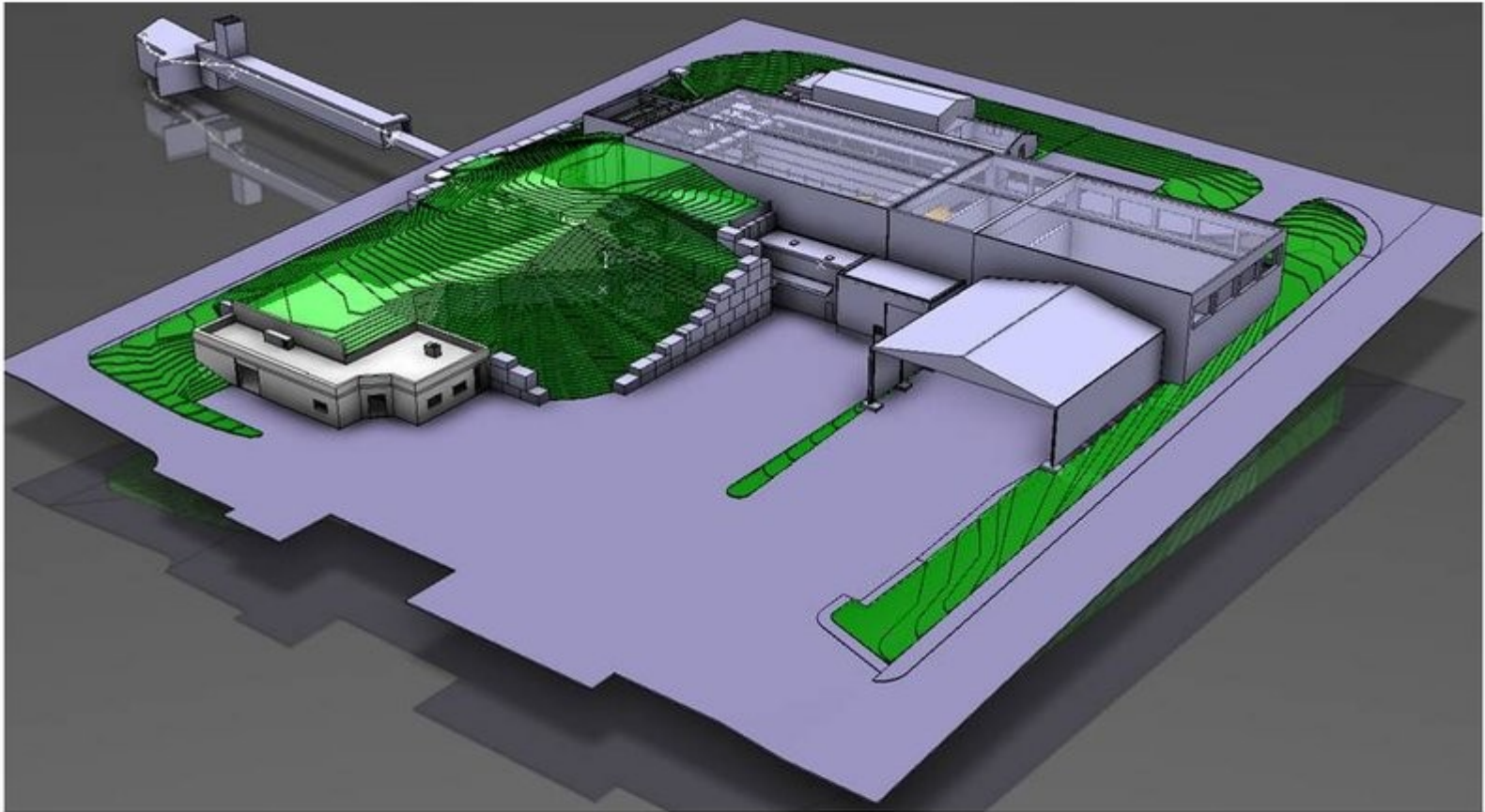


REX post-accelerating Linac

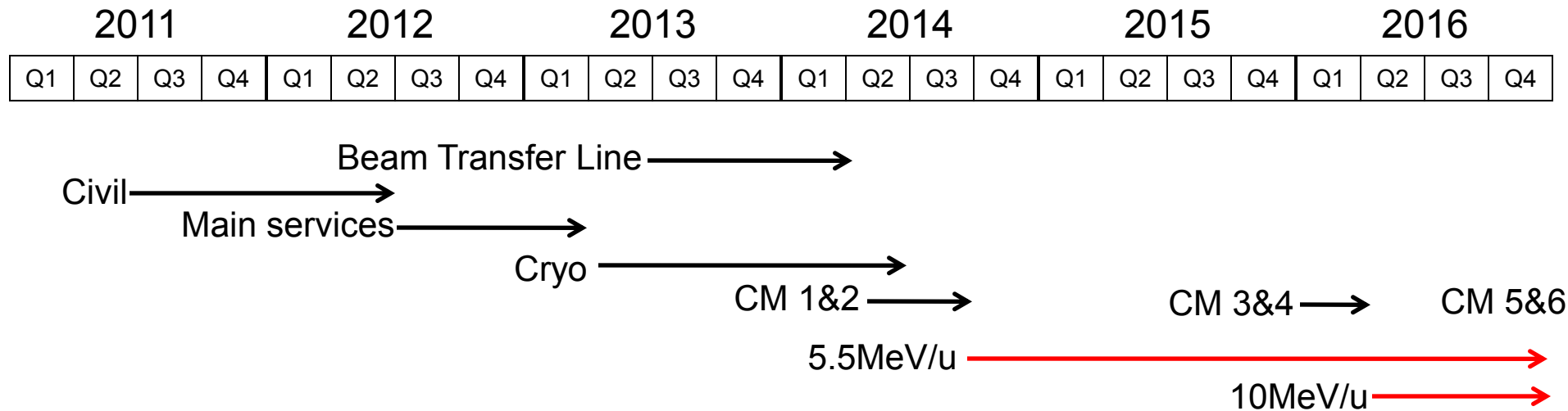


Miniball experiment

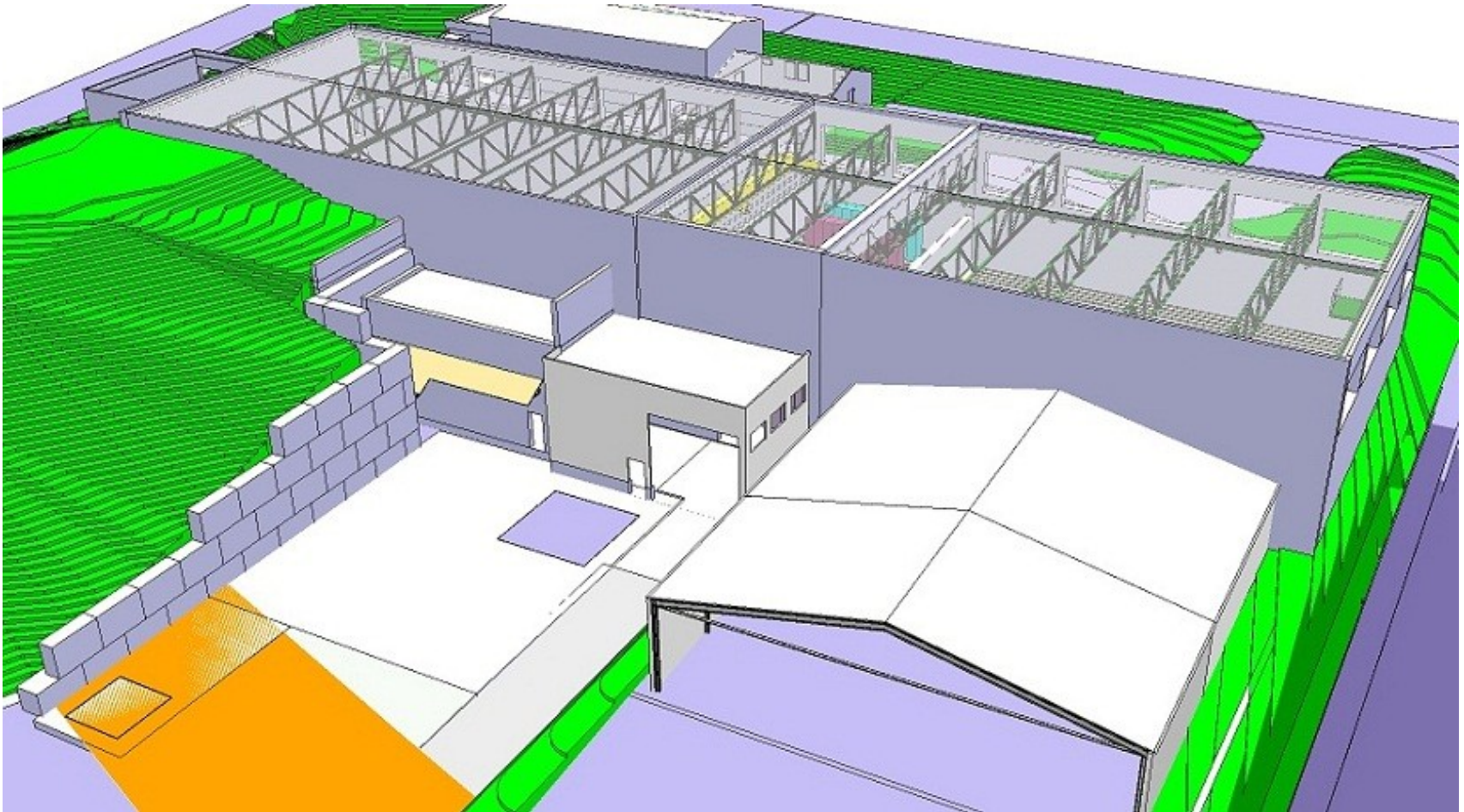
From Isolde to Hie-Isolde Step by Step



A simplified presentation of the different stages:

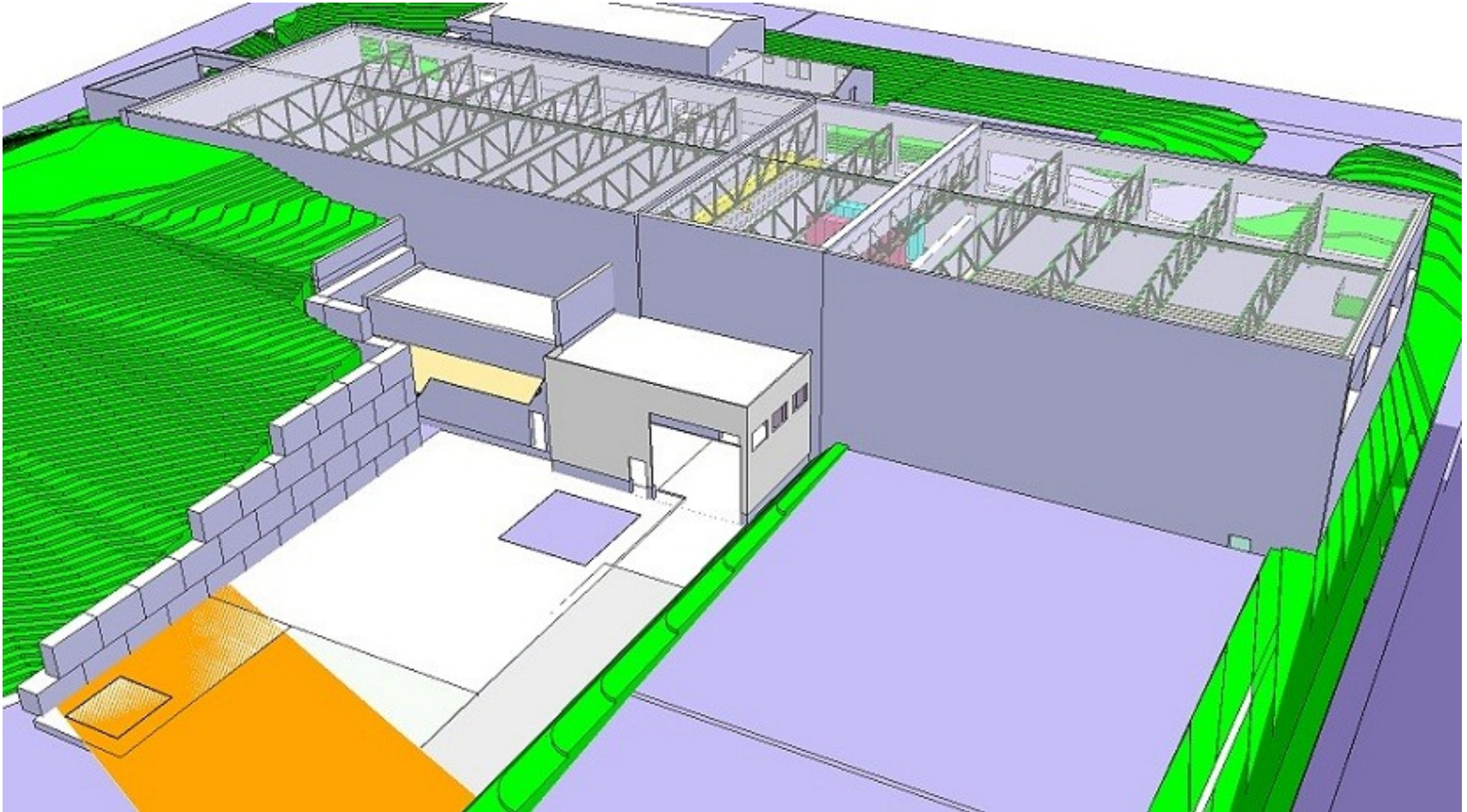


-What is the impact on operations?



Construction starting date: June 2011

Removal of the transport hangar



Terrain flattening



New SAS



September 2011

Move of the controlled access



September 2011

Compressor Building



Start end September 2011

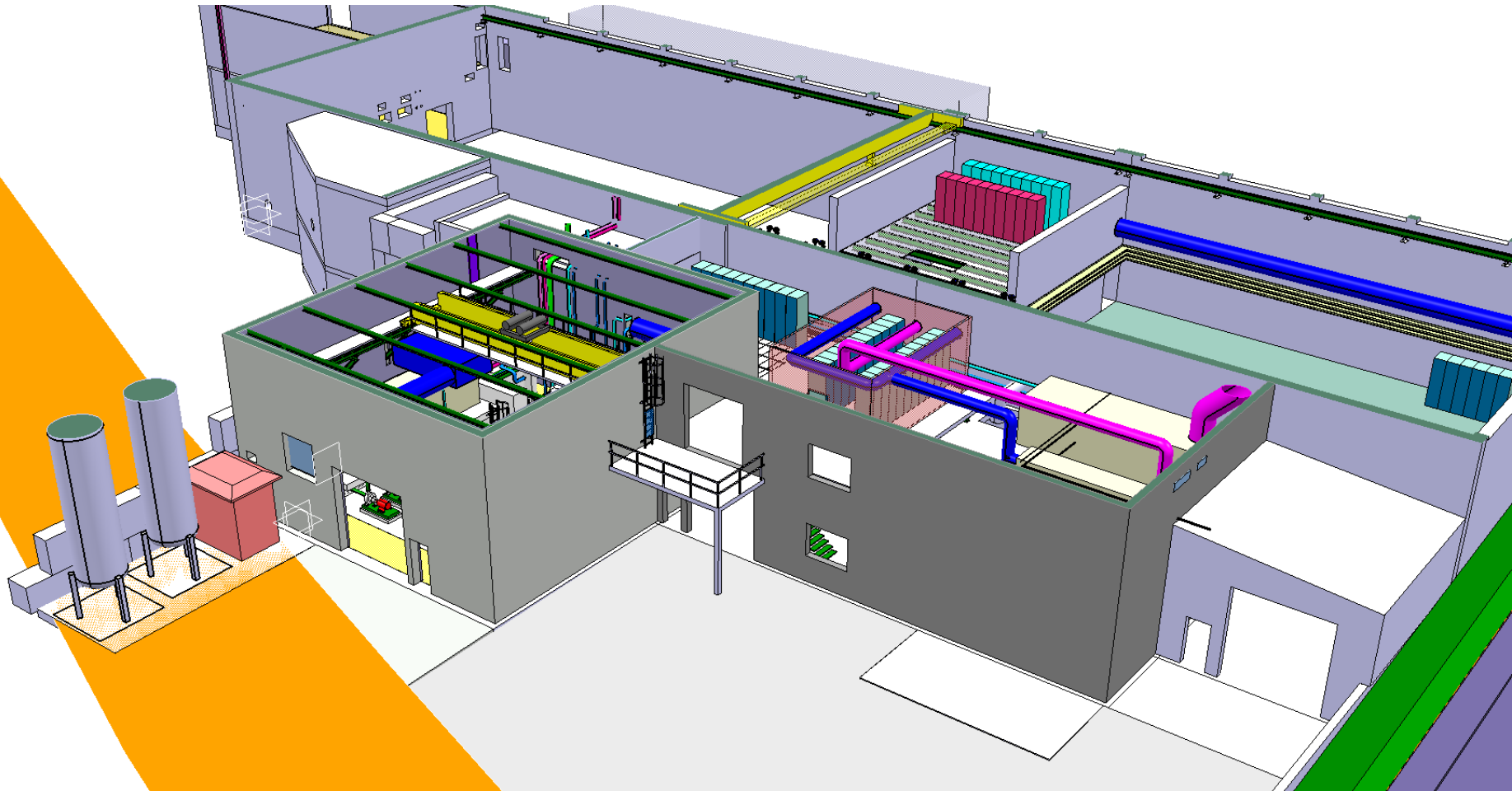
Cold Box Building



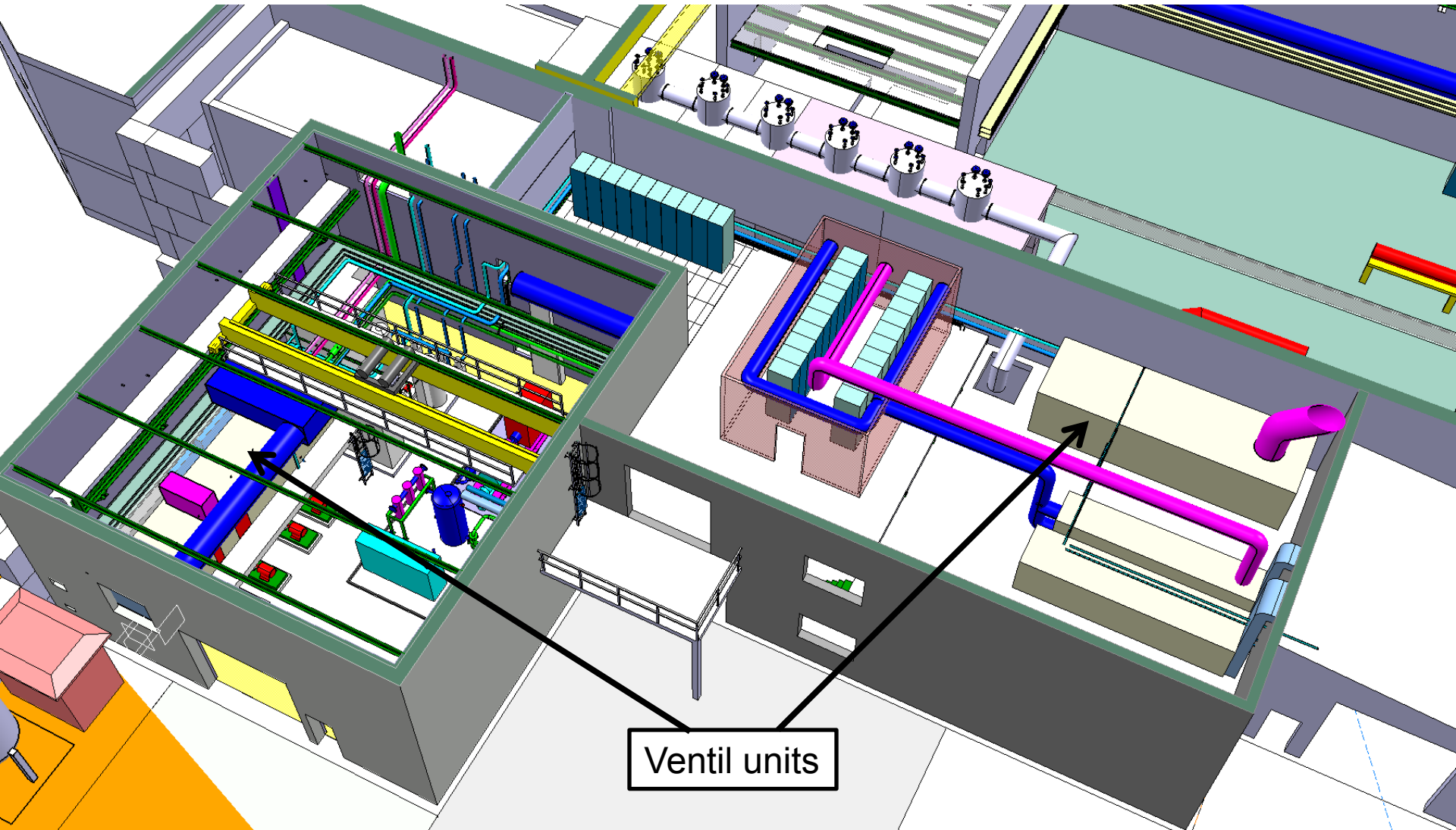
Civil Engineering finished by July 2012

Electrical systems, Cooling & Ventilation

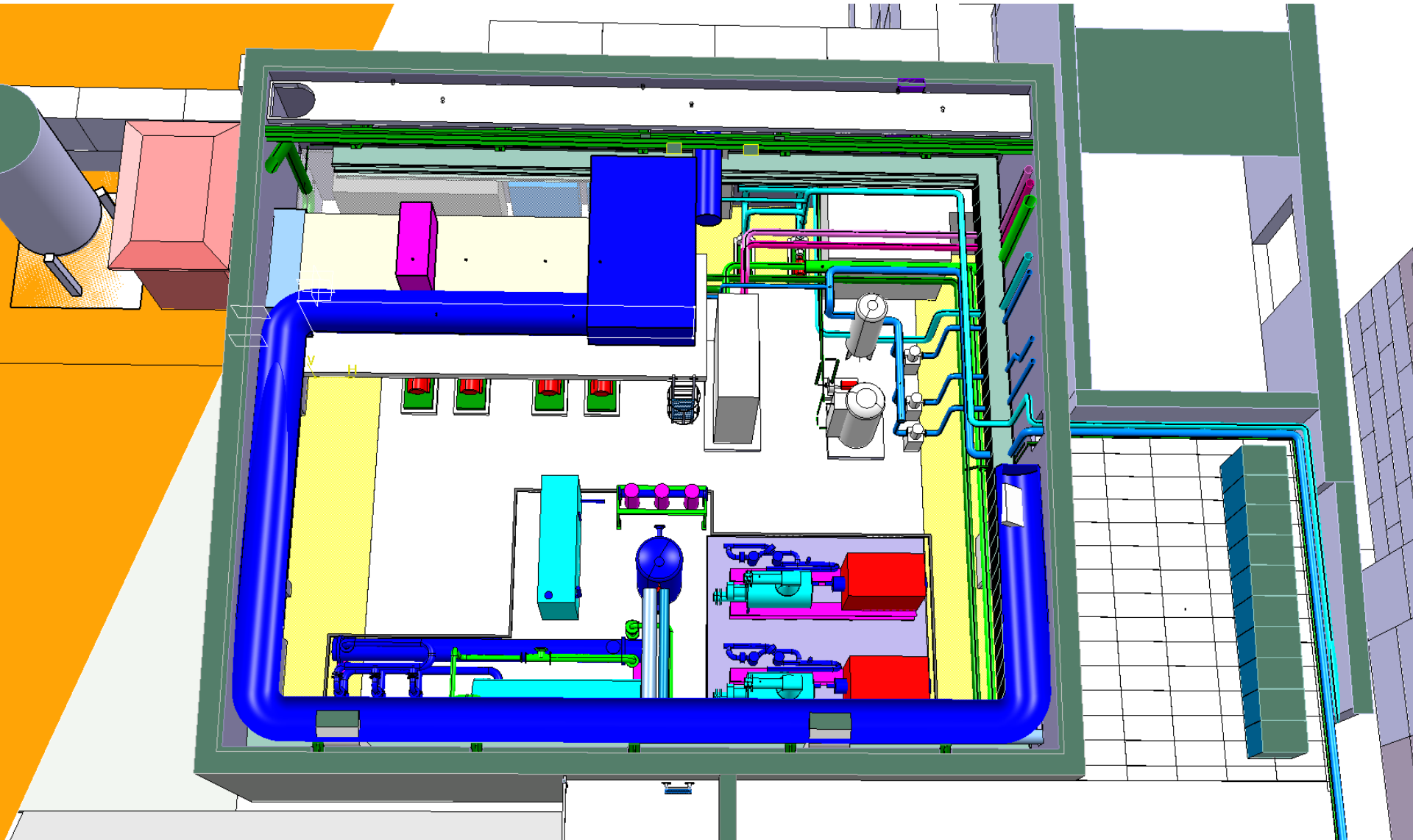


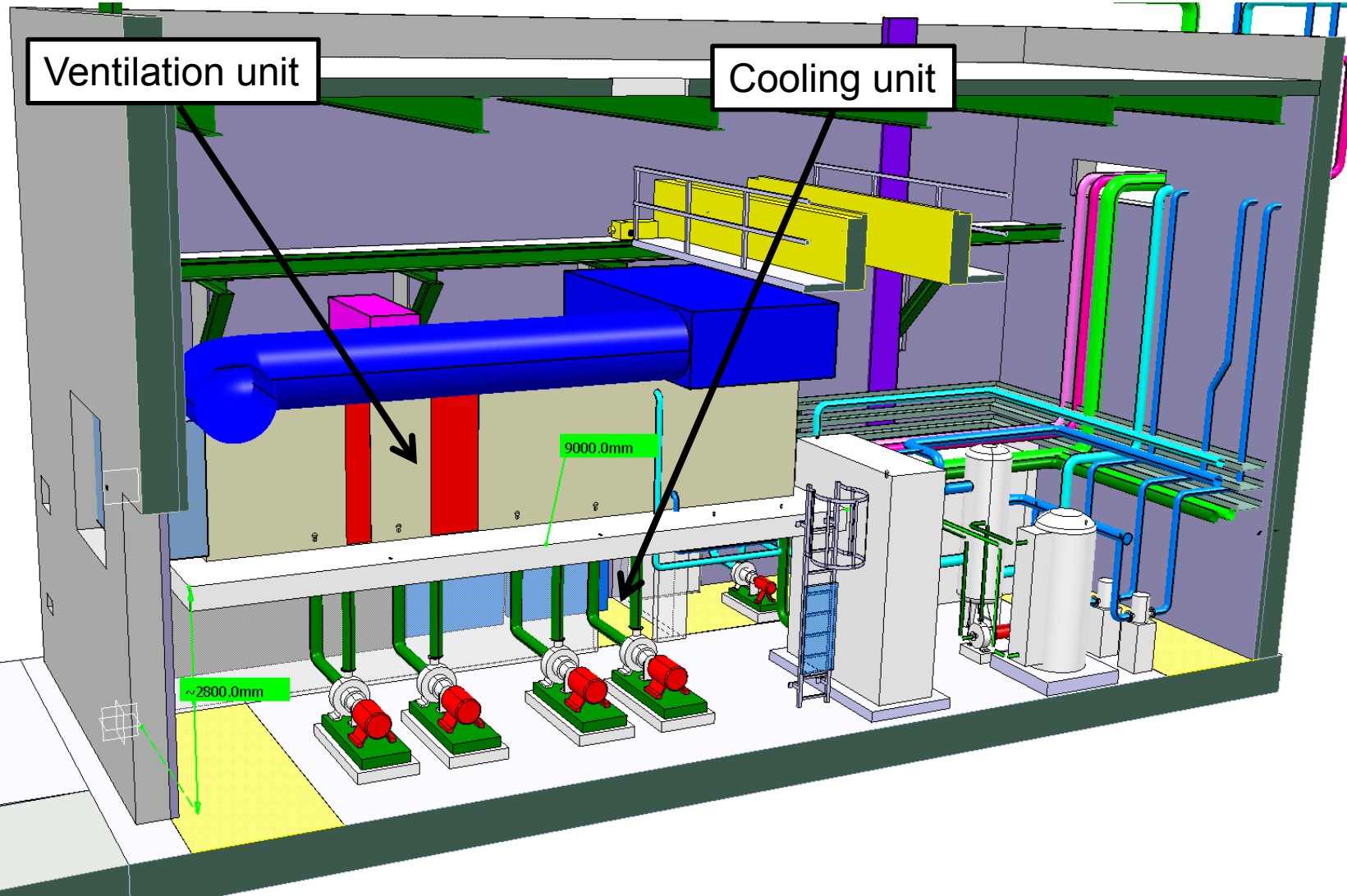


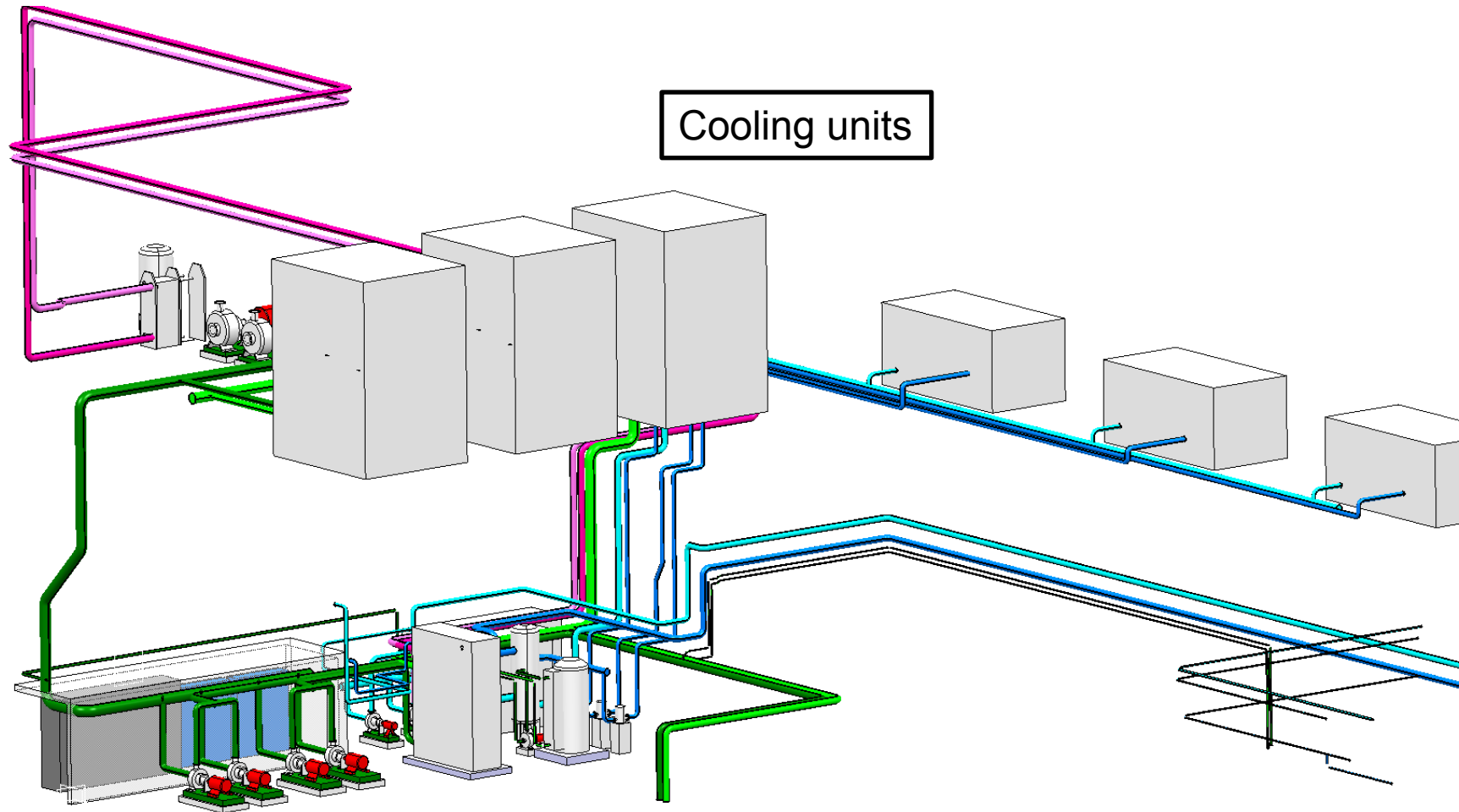
Electrical systems: July 2012 – March 2013
Cooling & Ventilation: Aug 2012 – March 2013

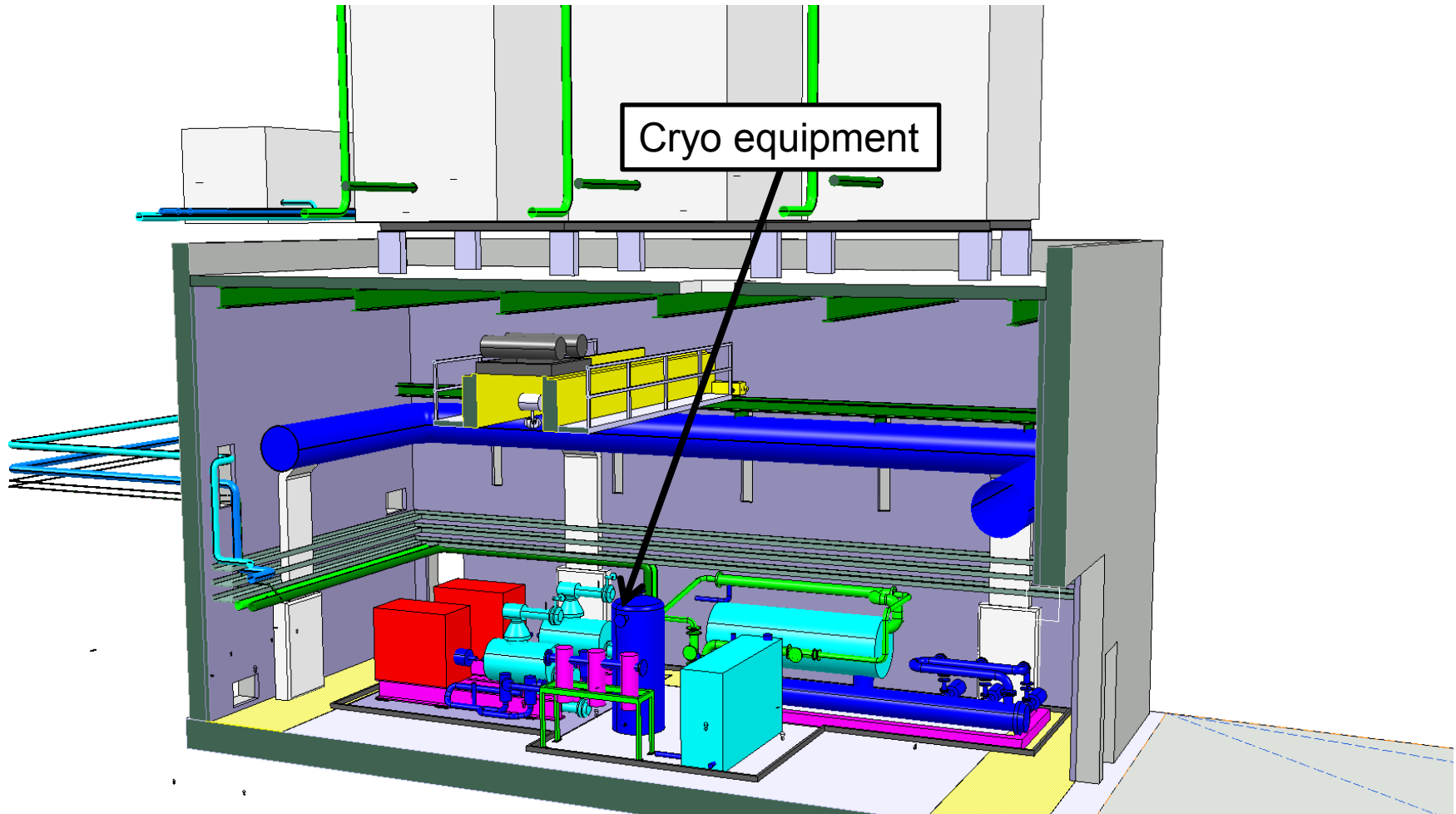


Ventil units



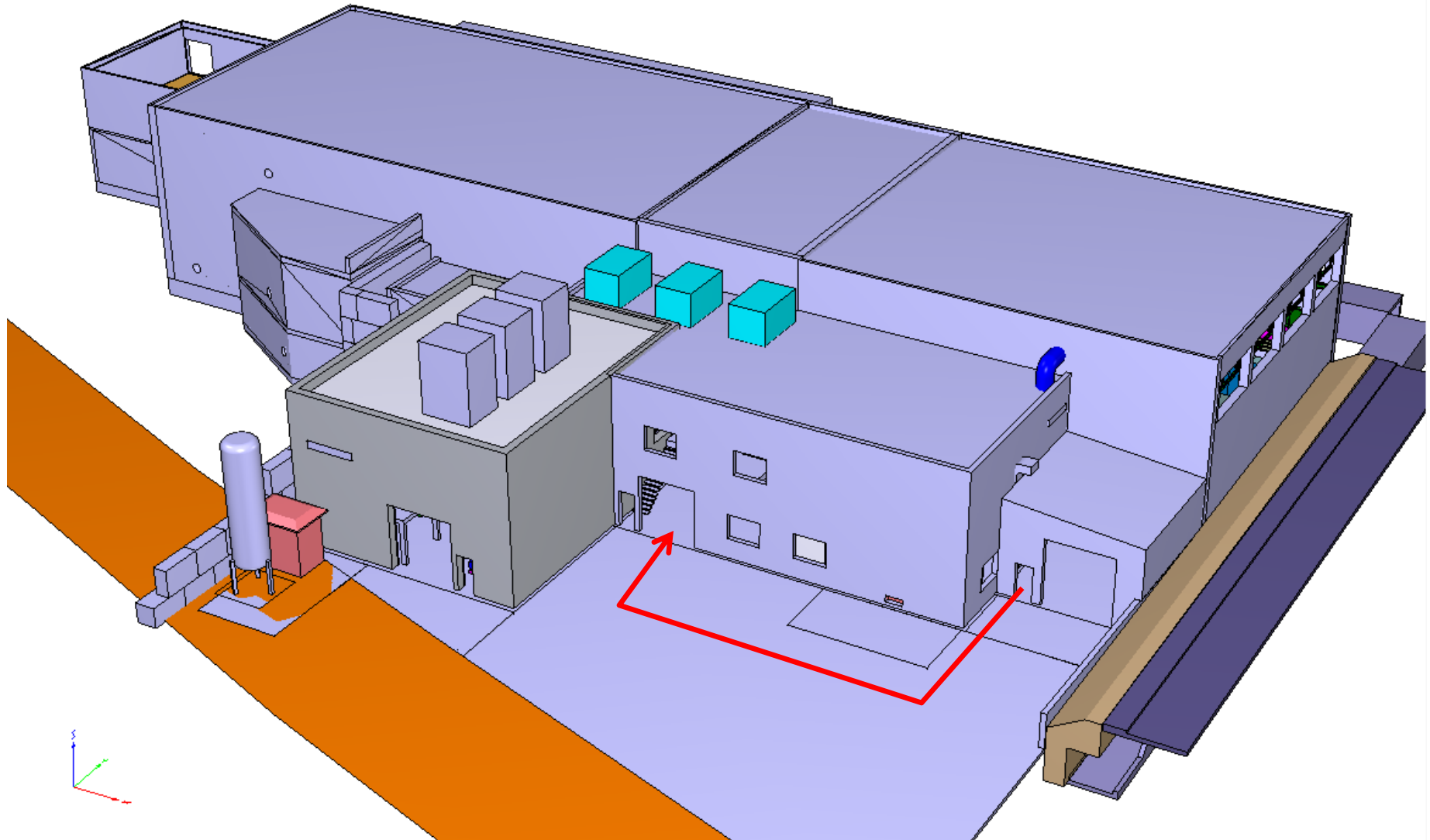


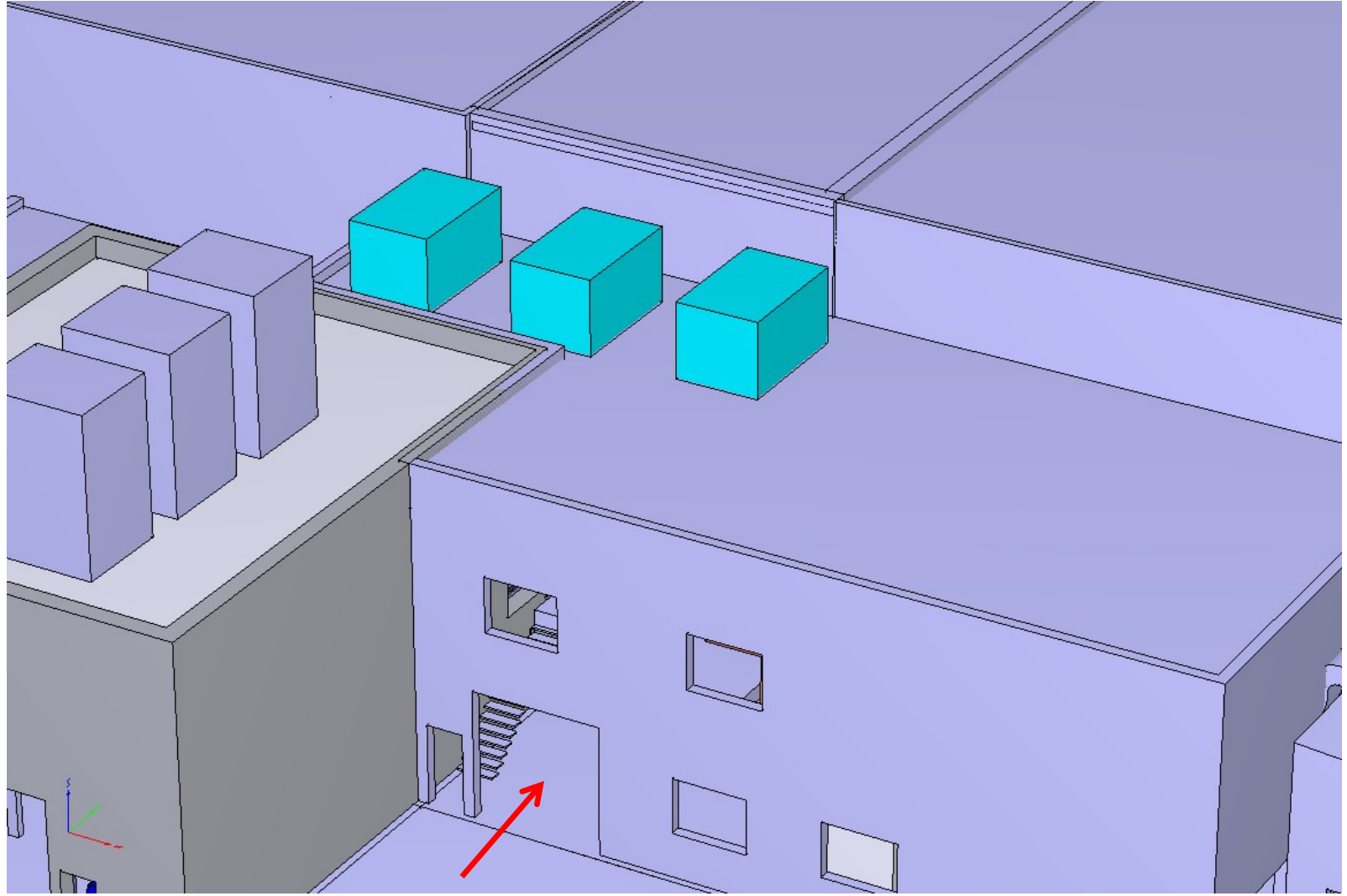


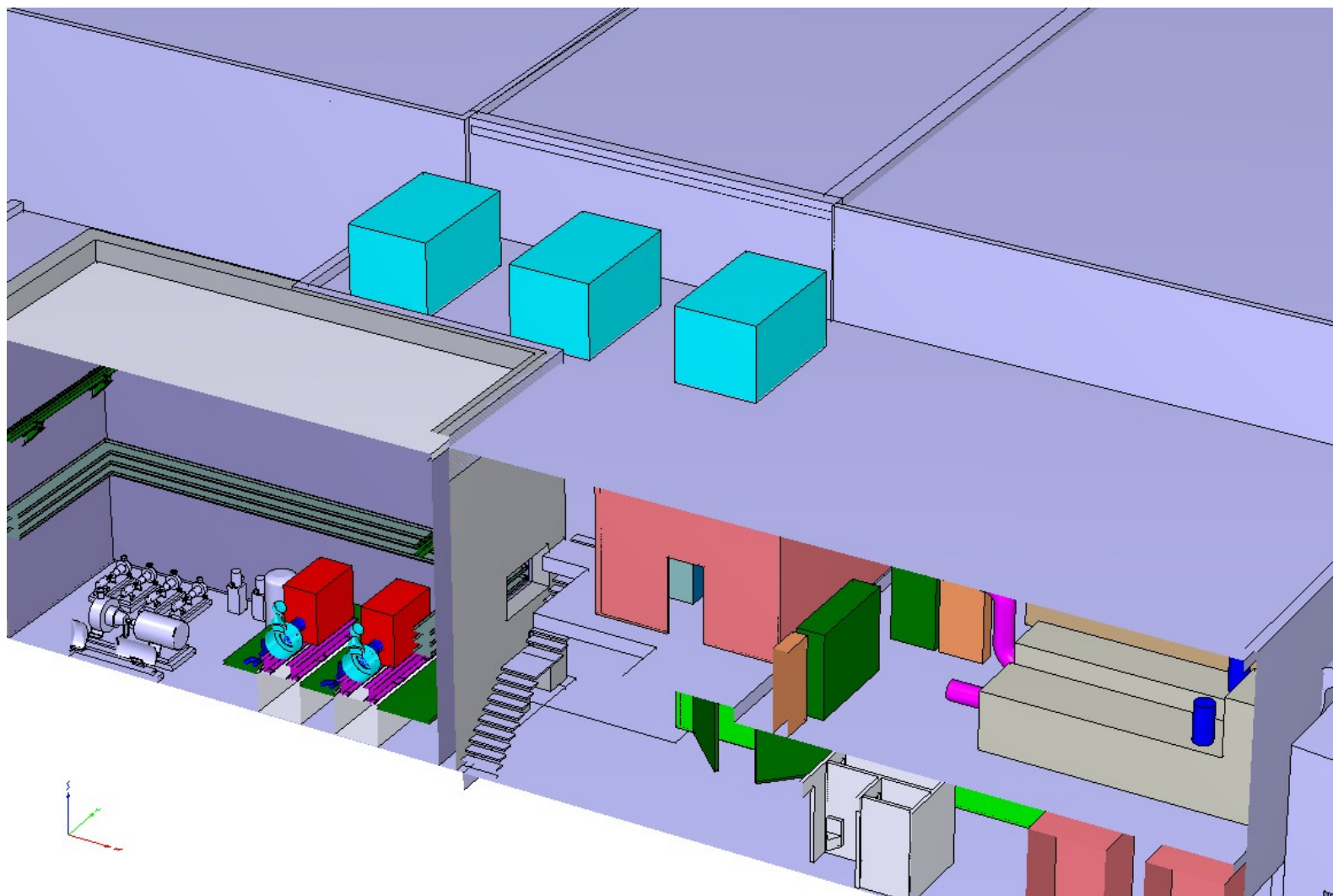


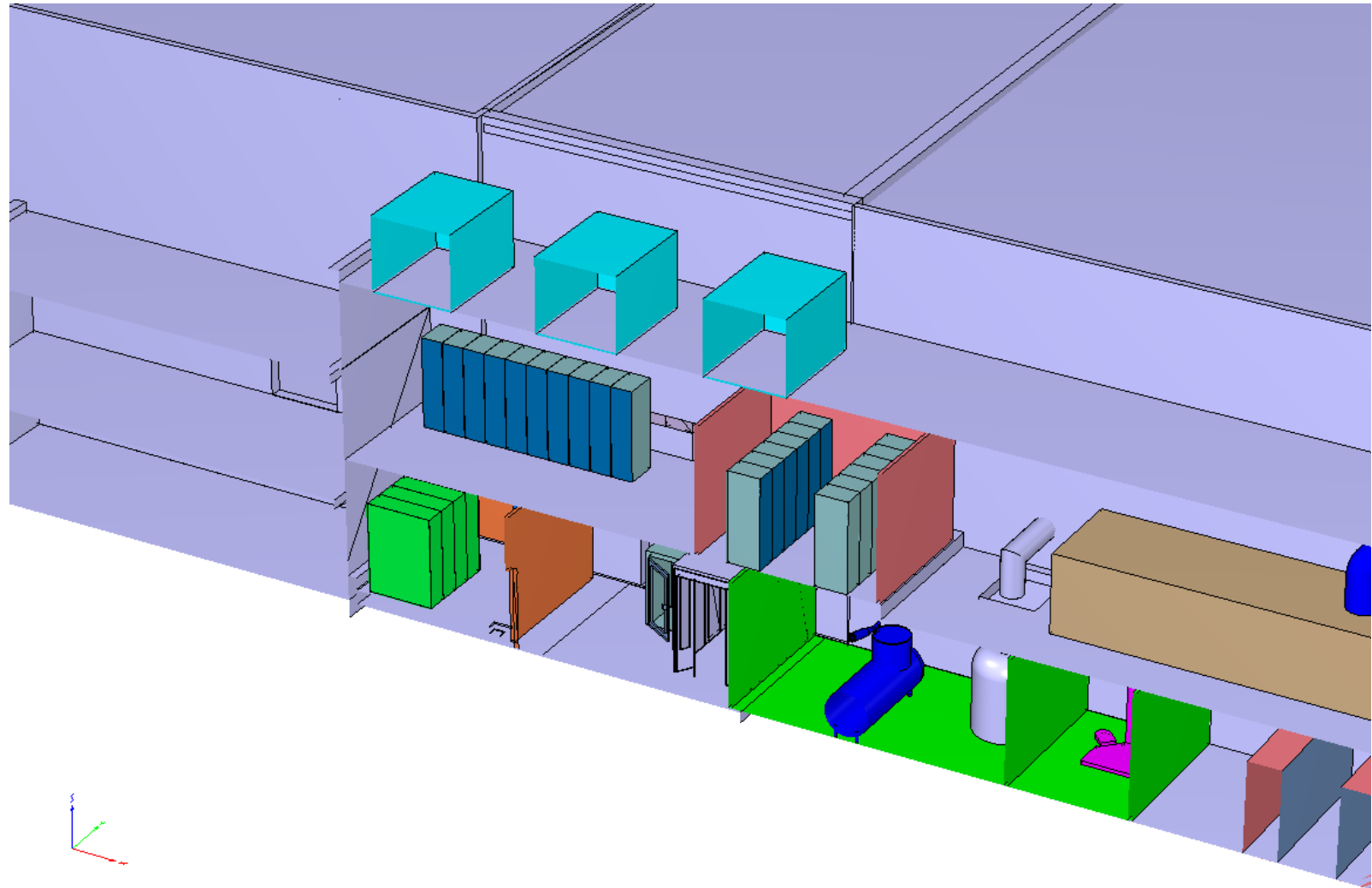
Compressors: April 2013 – October 2013
Cold Box & Cryo-line: Jan 2014 – June 2014

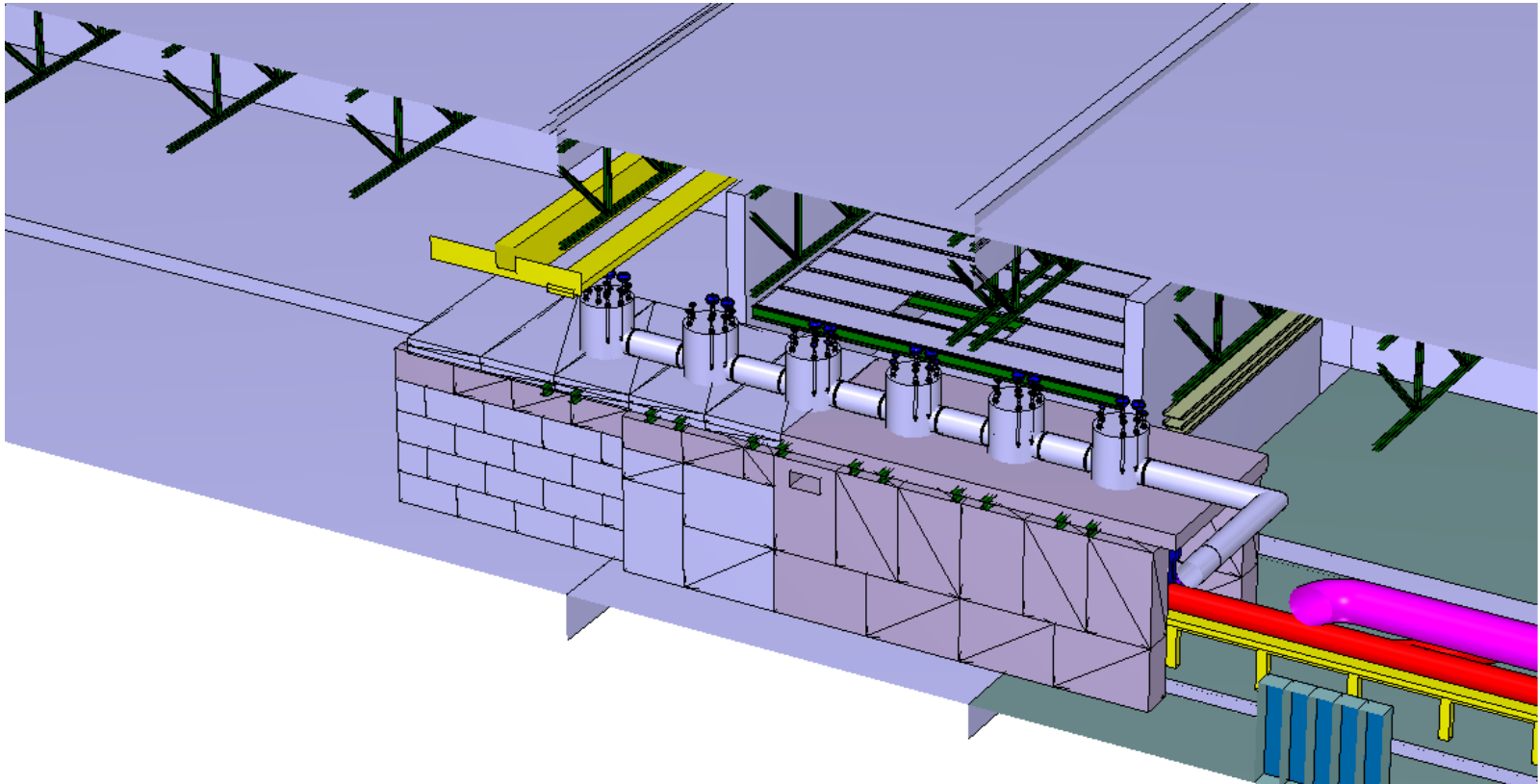
New controlled access point



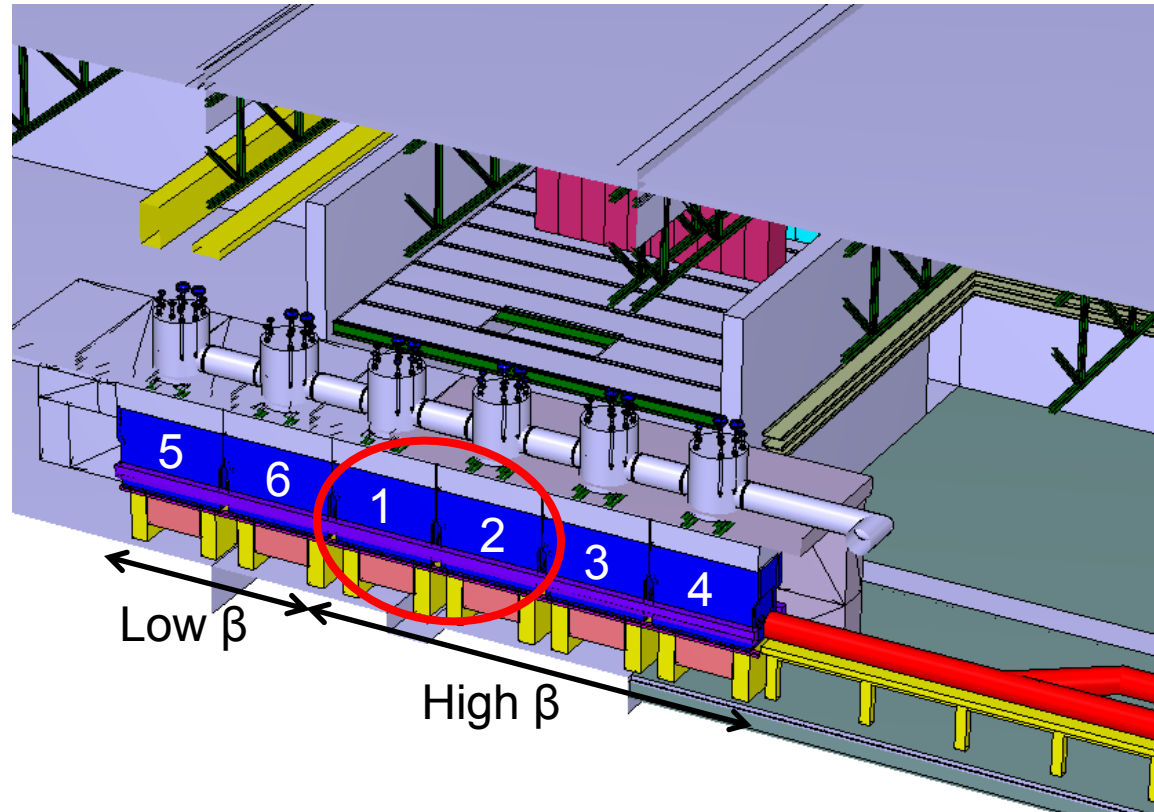
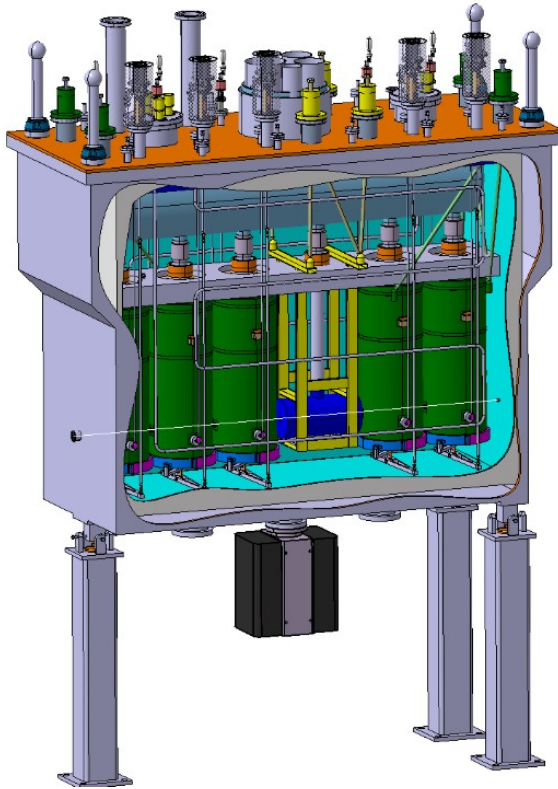








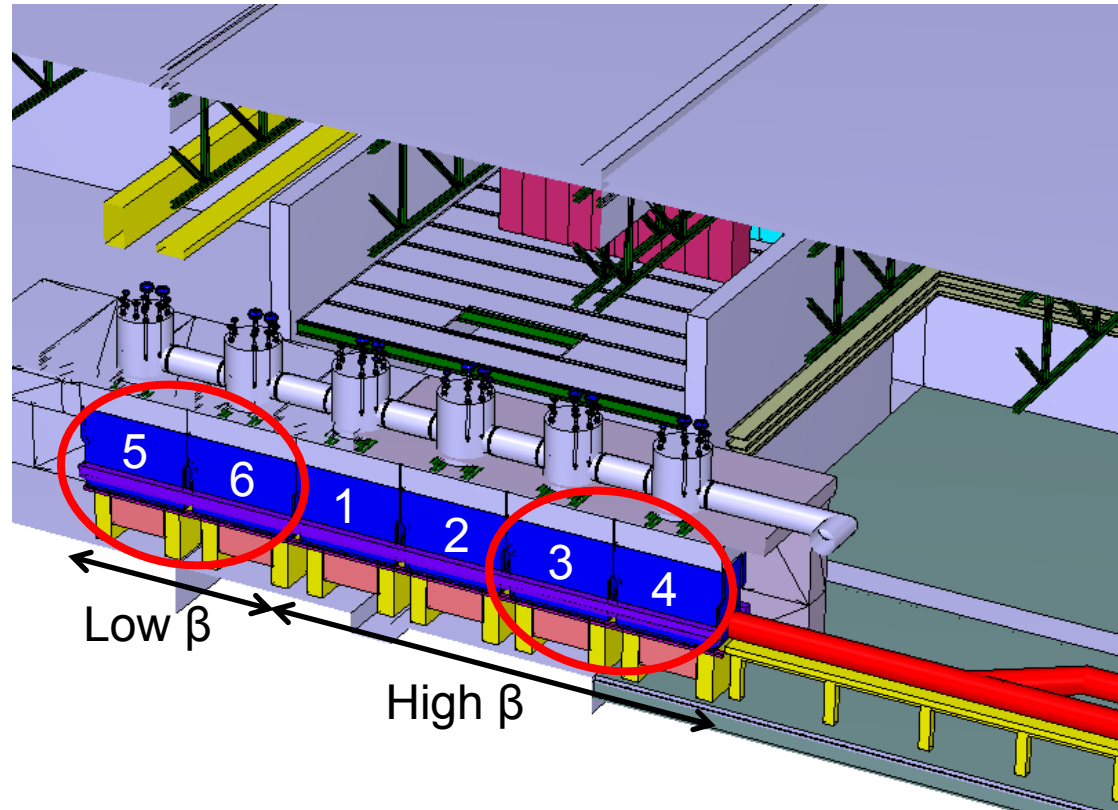
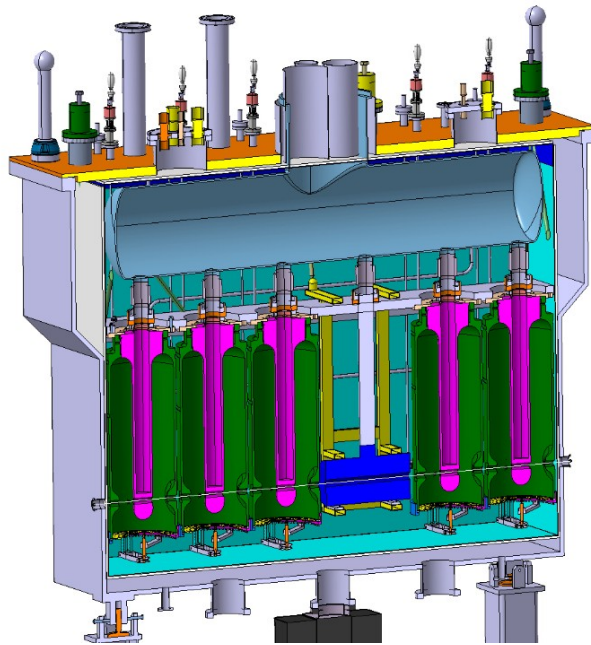
Cutting walls & install tunnel: long 2013 shutdown
Allowing a normal 2012 REX / Miniball run
Cold Line: January 2014 – June 2014



Cryo Modules 1 & 2: July 2014 – Oct 2014

First beam at 5.5MeV/u autumn 2014

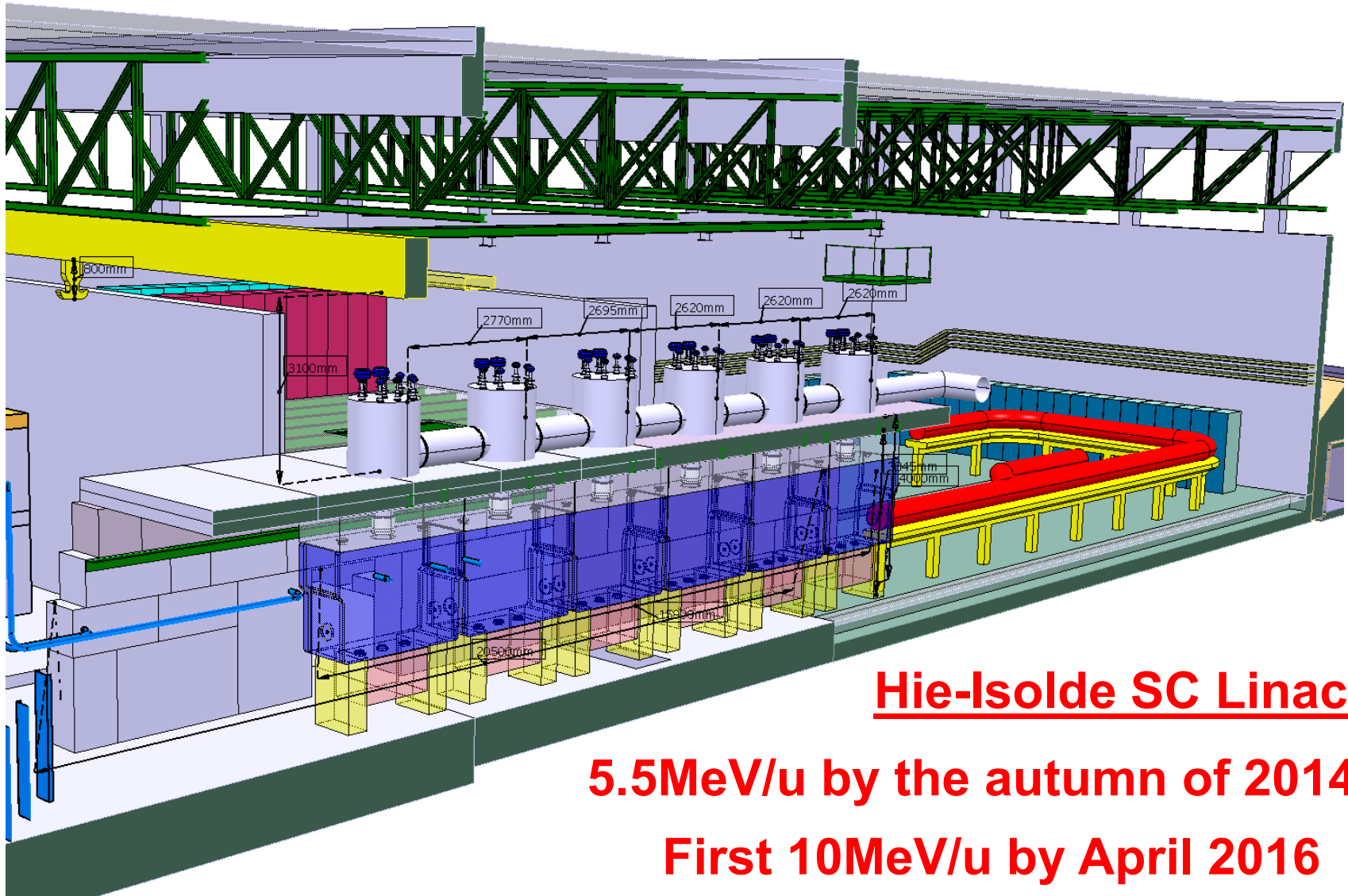
REX physics at 5.5MeV/u for 2015



Cryo Modules 3 & 4: January - April 2016

Cryo Modules 5 & 6: January - April 2017

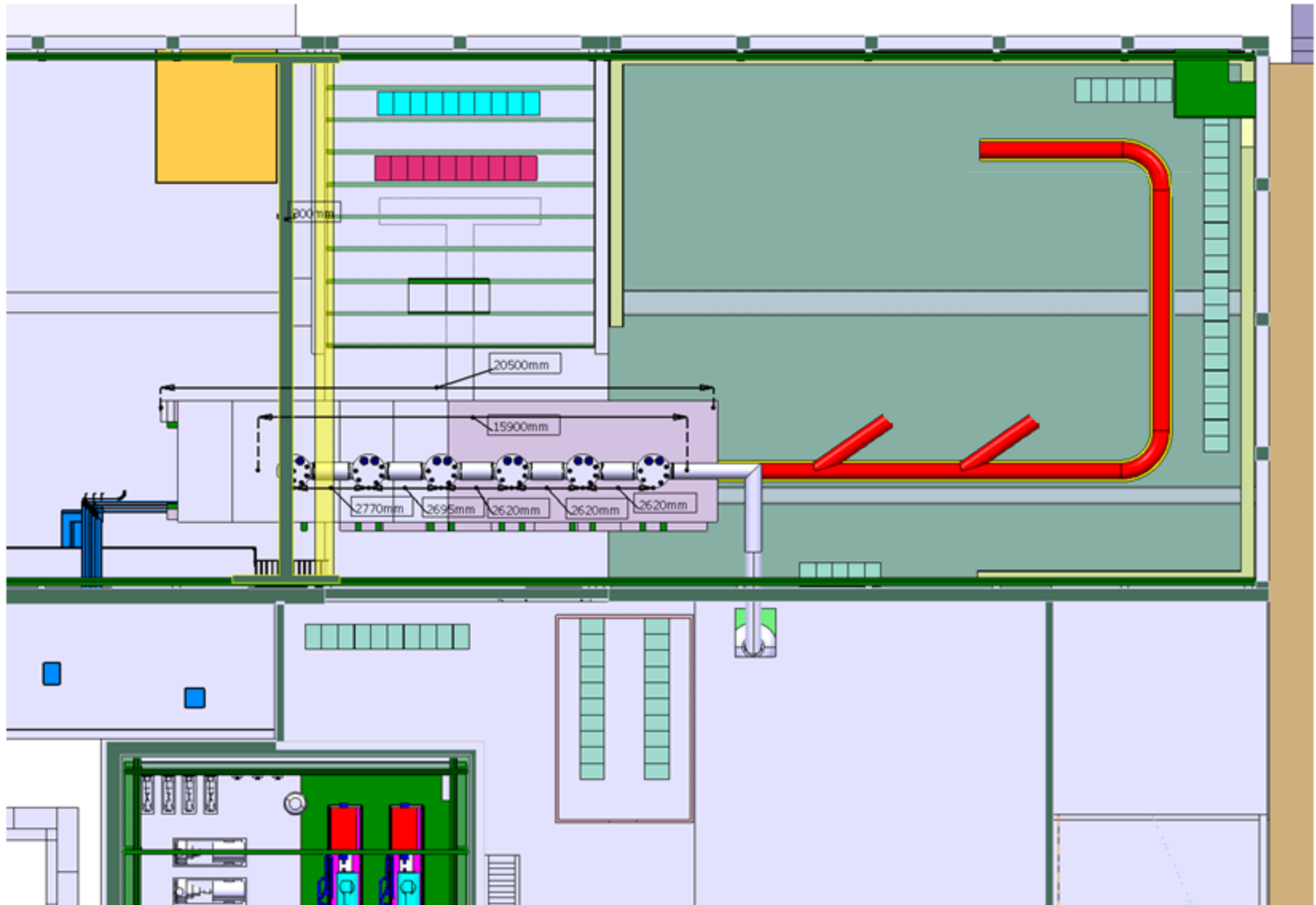
Final Energy 10MeV/u

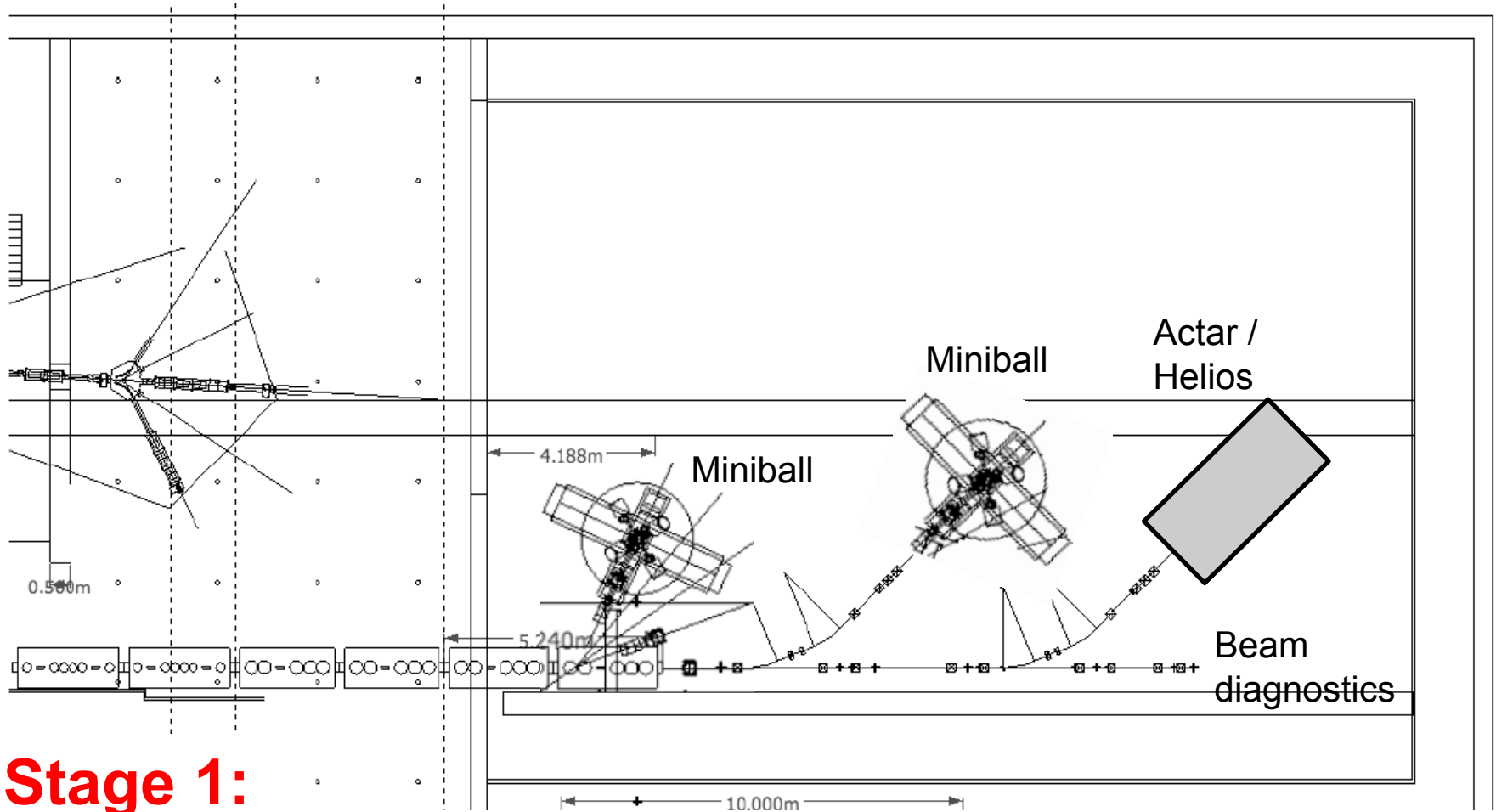


Hie-Isolde SC Linac:

5.5MeV/u by the autumn of 2014

First 10MeV/u by April 2016

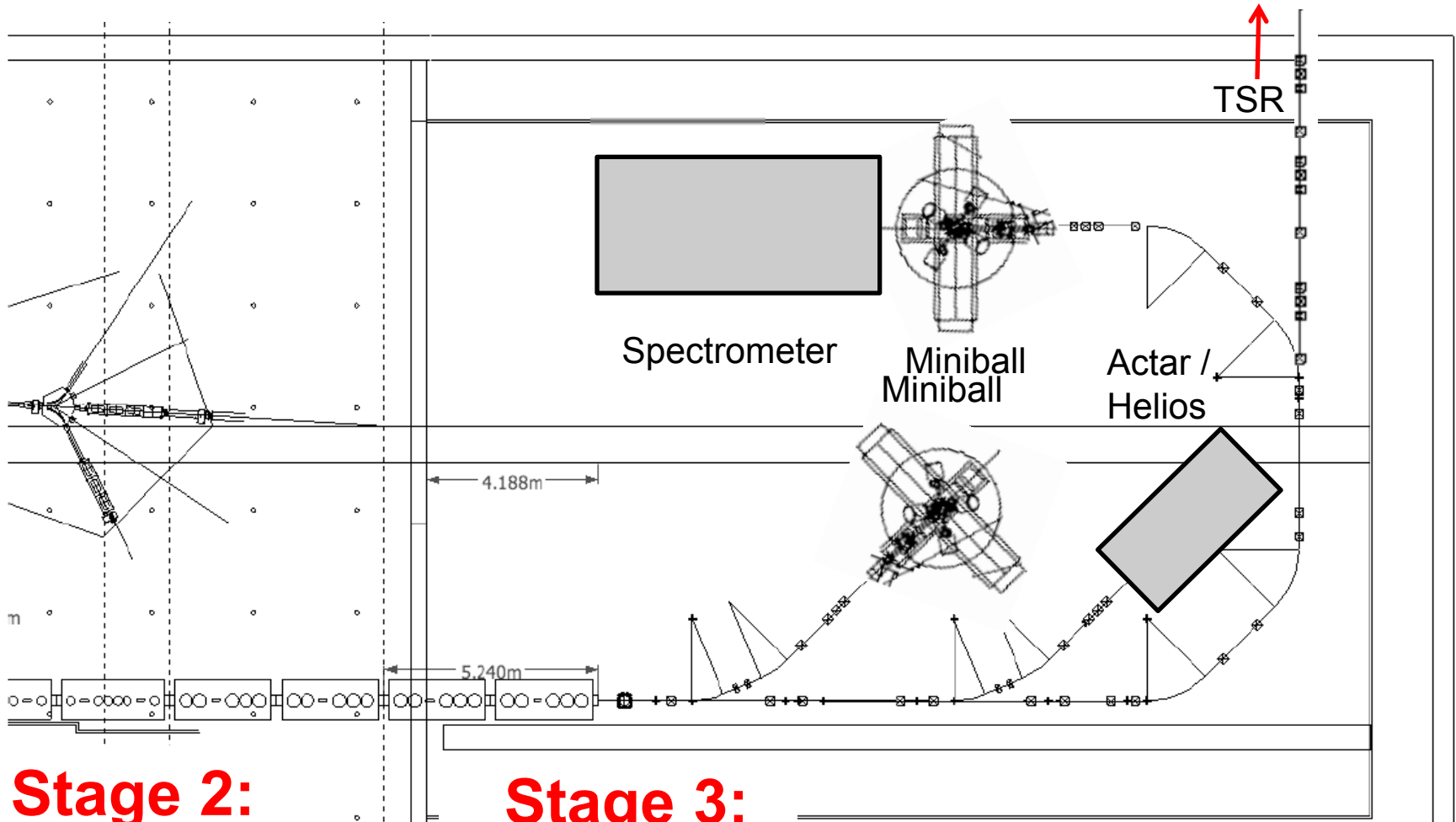




Stage 1:

Straight line with 2 branches – July 2013 - April 2014

Miniball move: Oct 2013 – April 2014



**Stage 2:
The bend**

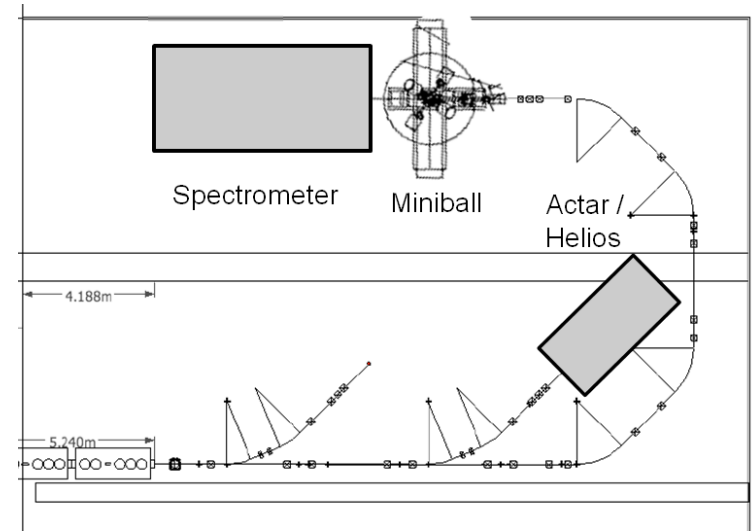
**Stage 3:
TSR and beyond..**

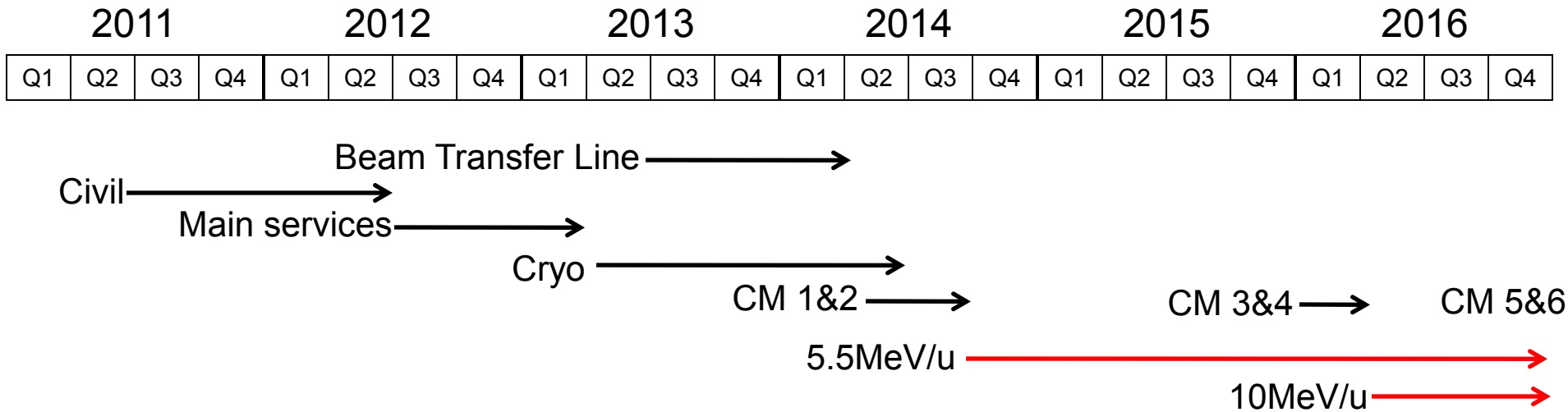
Spectrometer installation and 2nd Miniball move

Requirements for the experiments

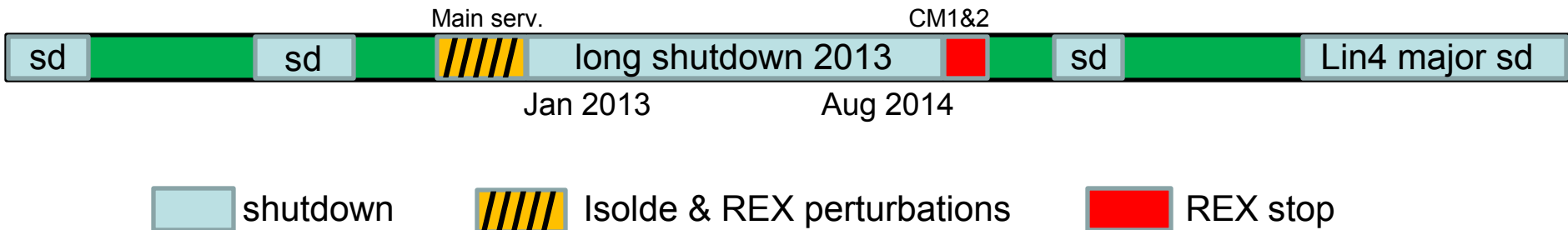
Info needed on:

- **Power consumption**
- **Cooling & ventilation**
- **Cryogenics**
- **Alignment & spacing (nr of racks)**
- **Sensitivity to radiation, temp & vibrations**
- **Transport requirements**





Isolde & REX Operations:



under discussion

1. Increasing the surface of the Solid State Lab in building B.115:

For RP safety reasons all solid state activities will be moved from B.275 to B.115
This will suppress the existing workshop in B.115 and courtyard between B.115 and B.601

2. Replace the existing building 507 by a new full concrete building :

Ground floor (only accessible from within the surveyed area):

- Labs and workshop

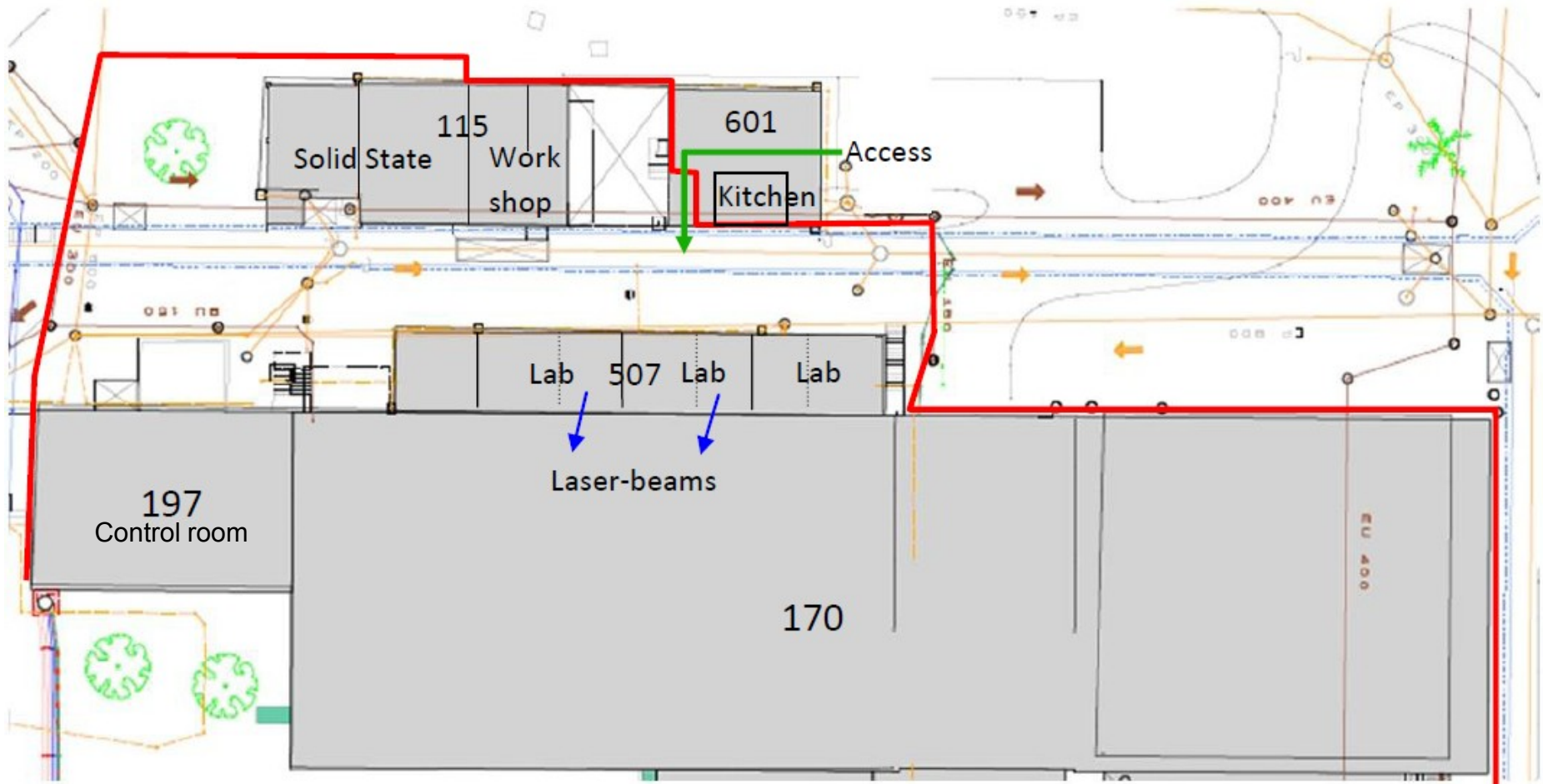
First floor (accessible from outside the surveyed area):

- Data Acquisition rooms
- Visitor Centre
- Kitchen

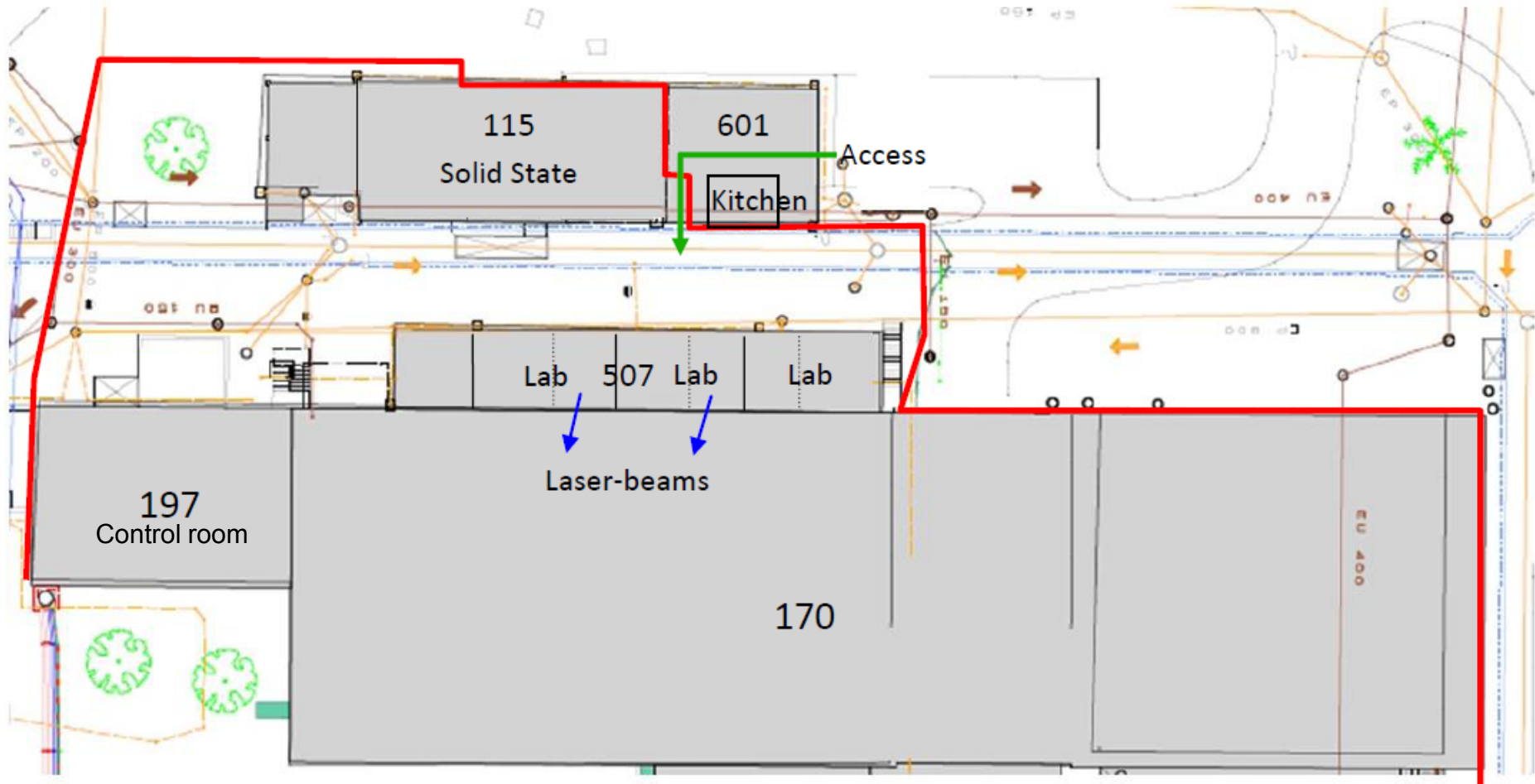
Long shutdown 2013?



Present situation (ground floor Jura side):

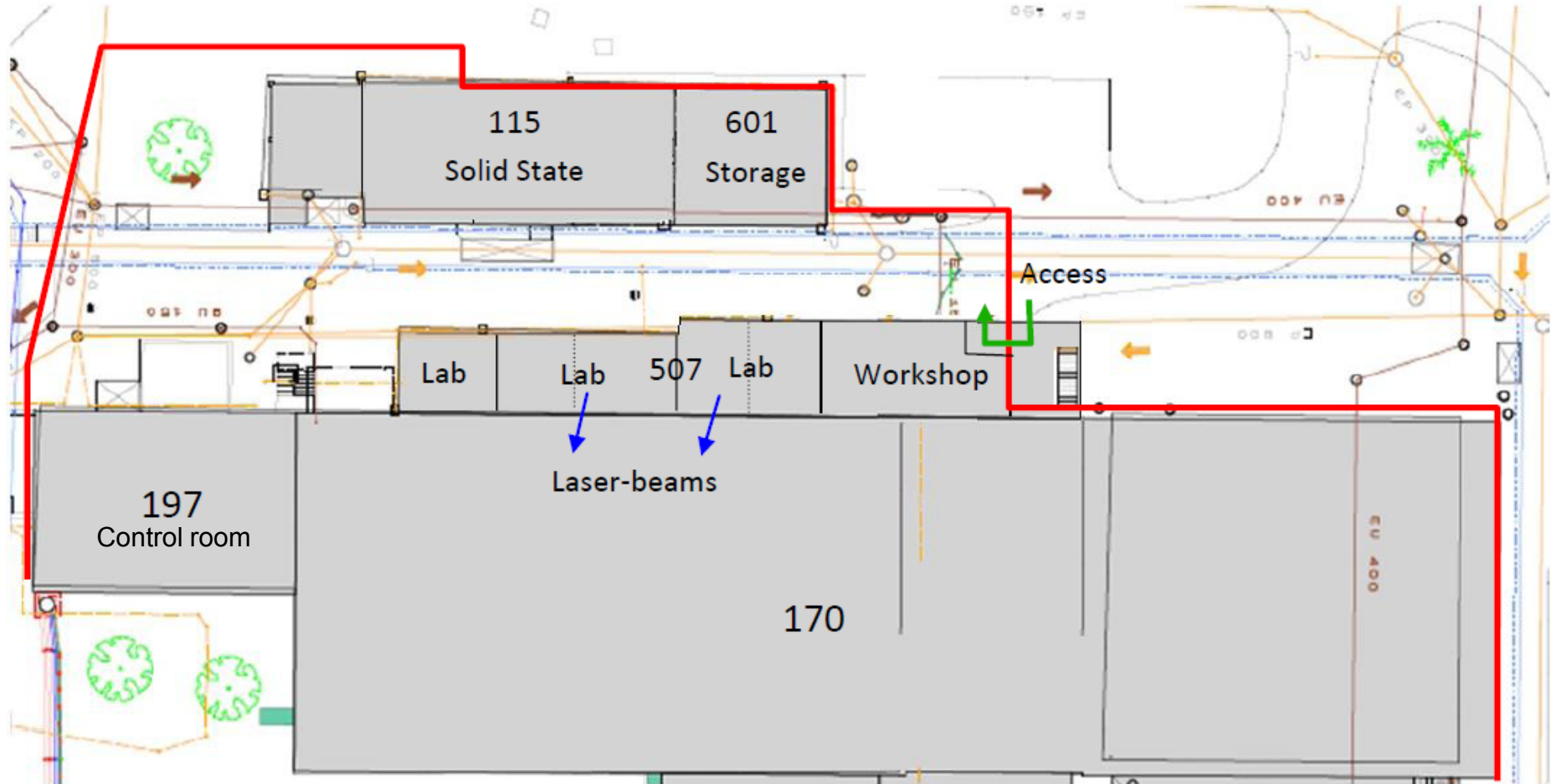


1. Increasing the surface of the Solid State Lab in B.115:

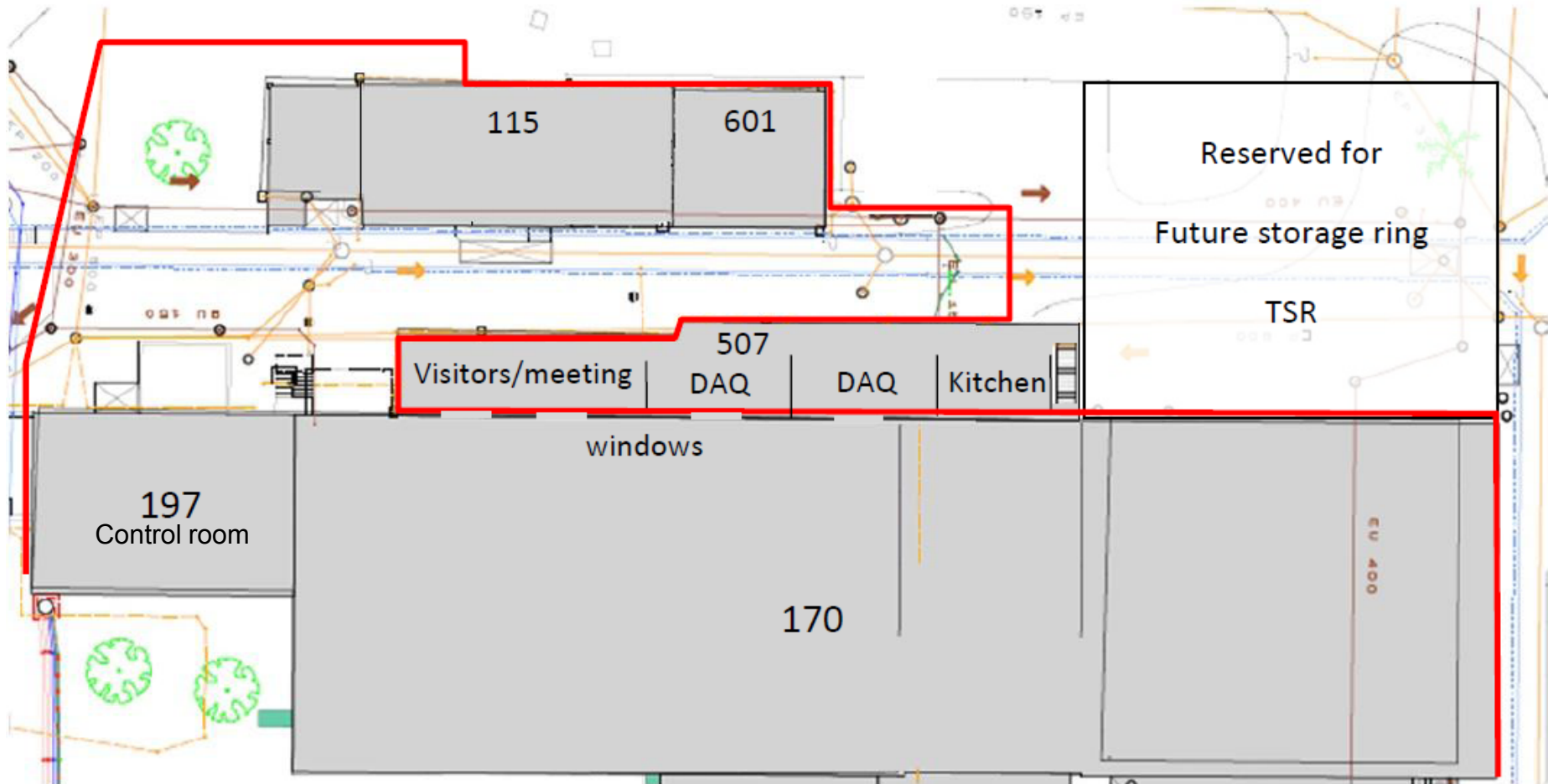


2. Replacing the existing building 507 by a new building

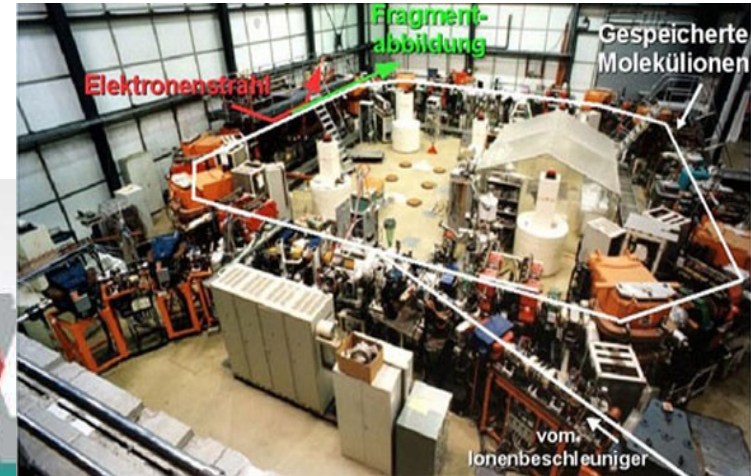
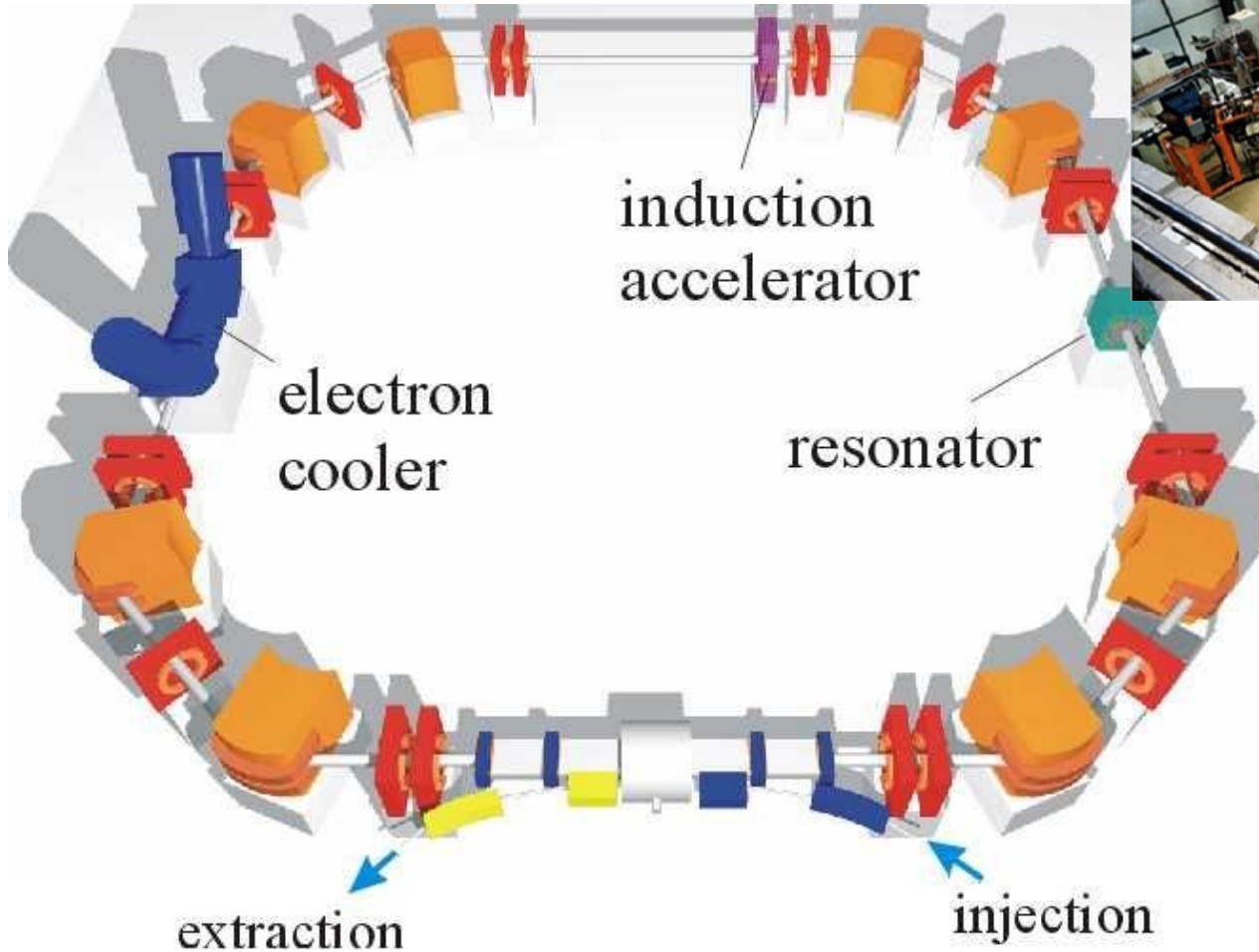
- Ground floor (only accessible from within the surveyed area):



2. Replacing the existing building 507 by a new building - First floor (accessible from outside the surveyed area):

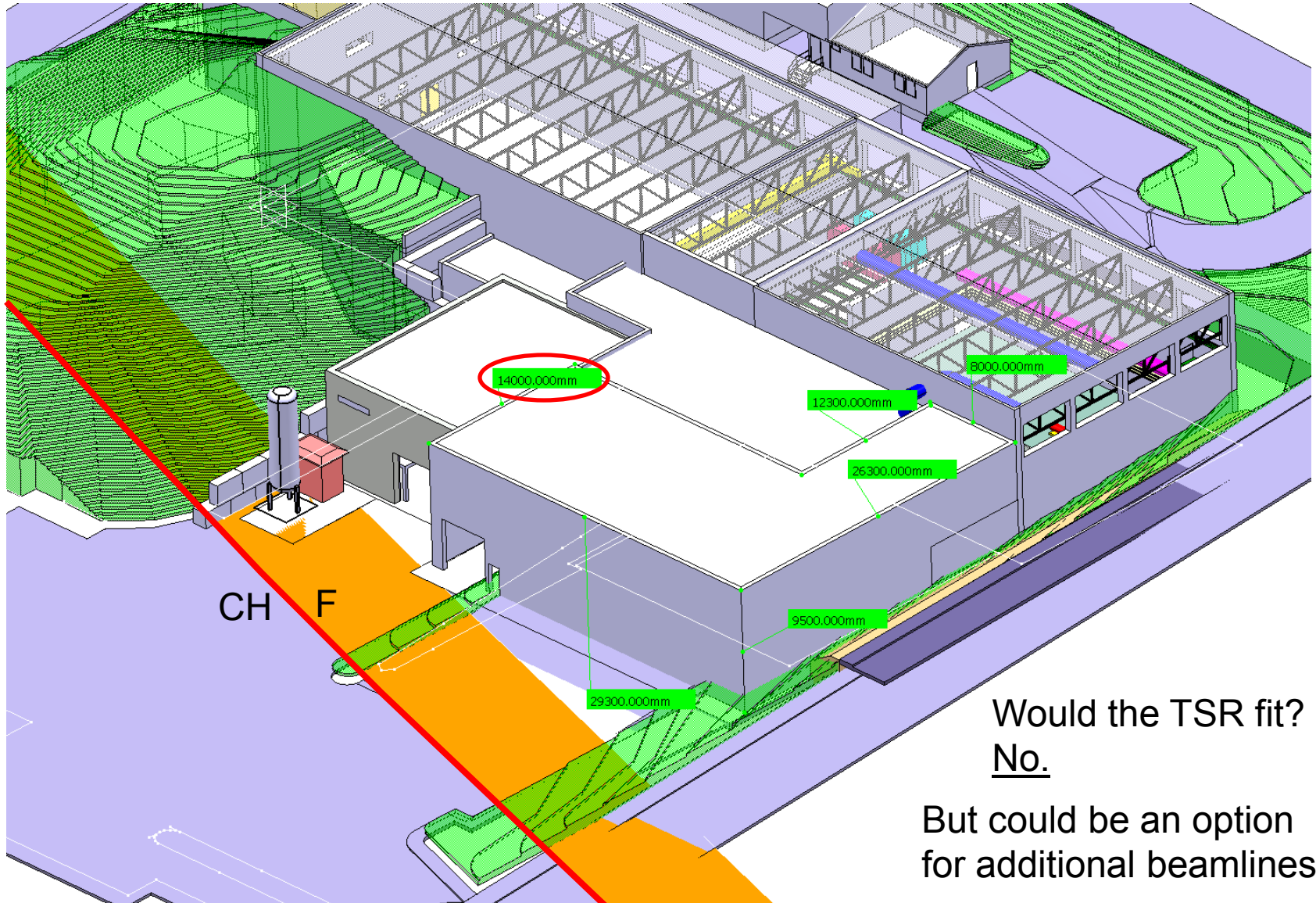


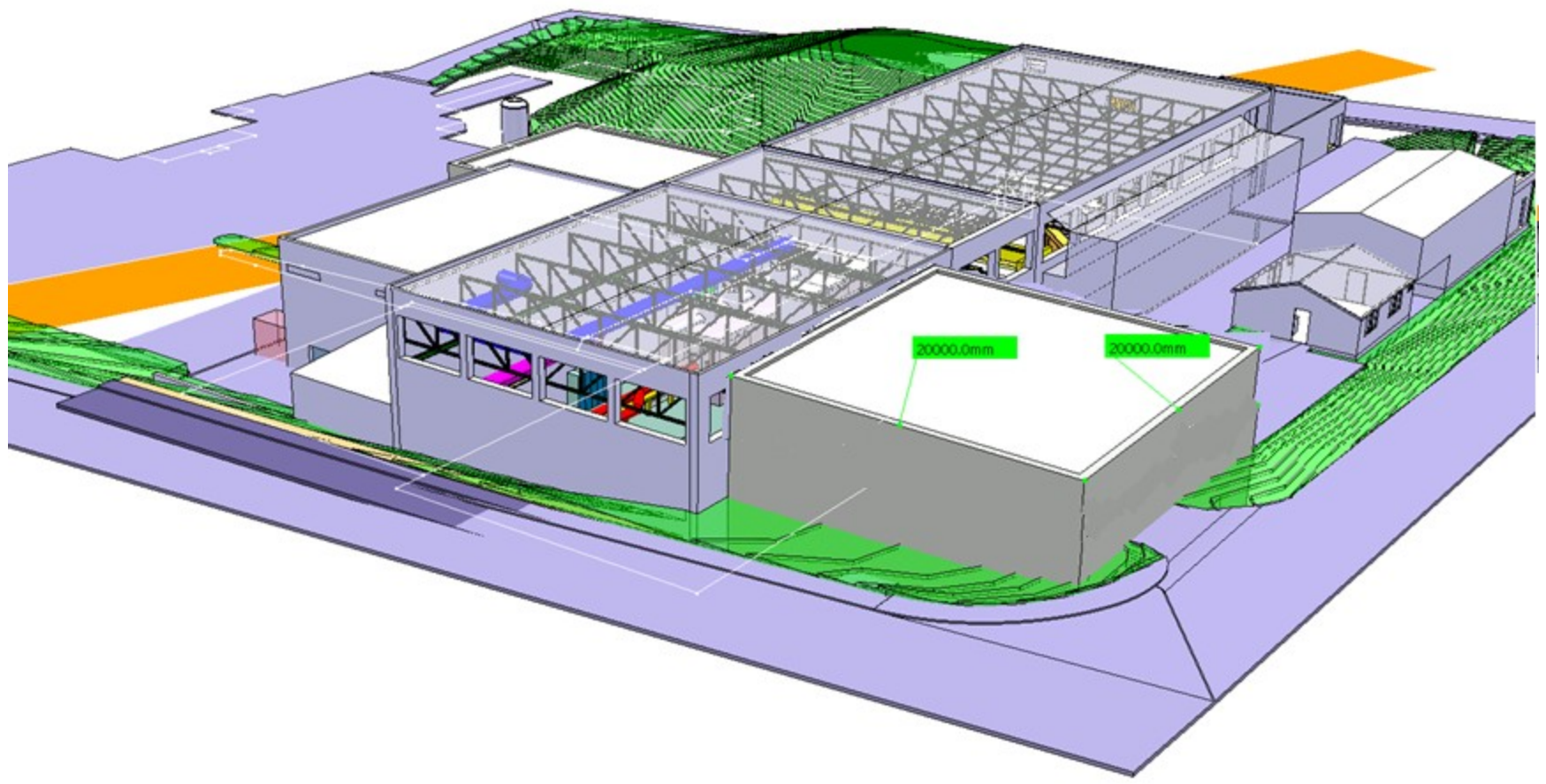
TSR @ Hie-Isolde

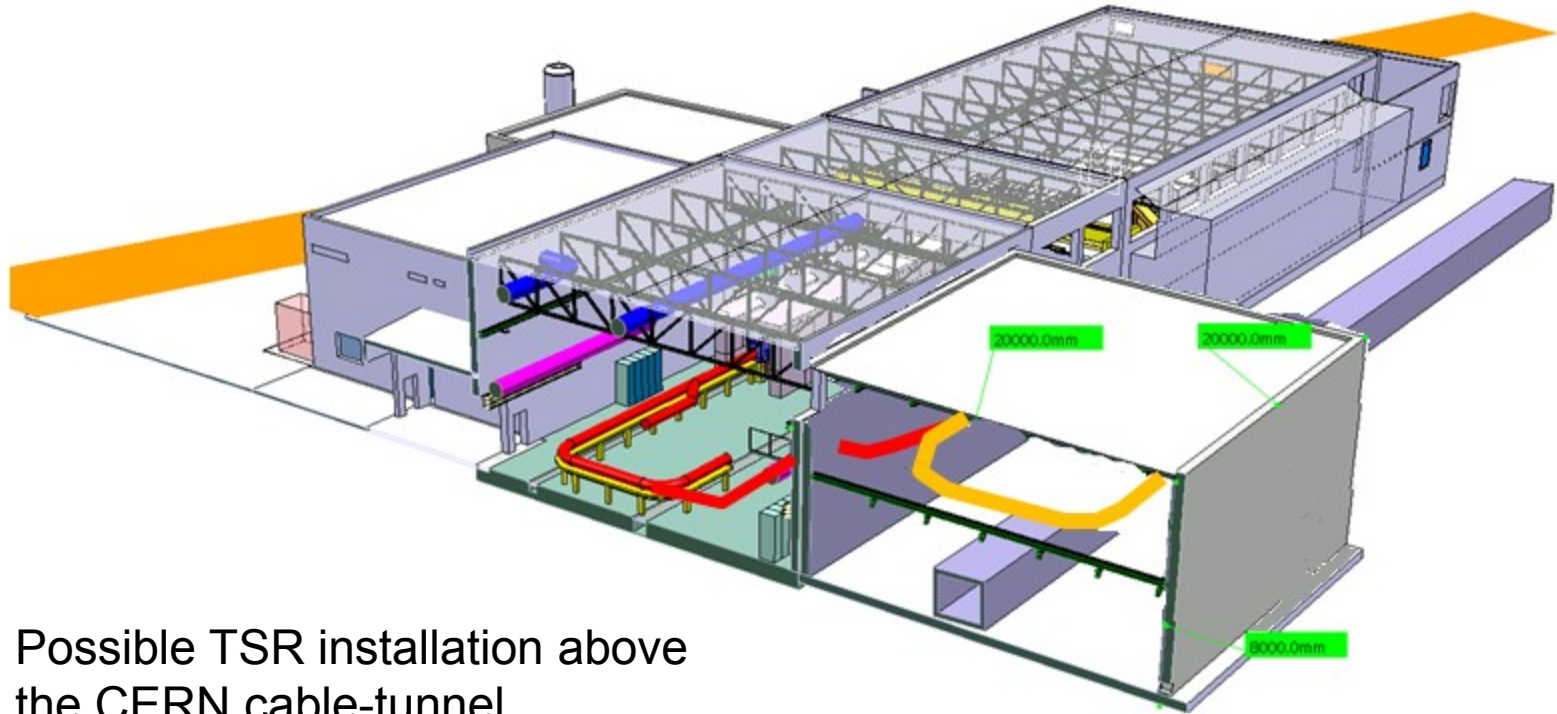


TSR Max
Planck Institute
Heidelberg

TSR@HIE-ISOLDE
LOI submitted Jan 2011
(K. Blaum, Y. Litvinov)







Possible TSR installation above the CERN cable-tunnel. Tilted beamline coming up from the machine.

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- EN/EL : RENE NECCA
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