

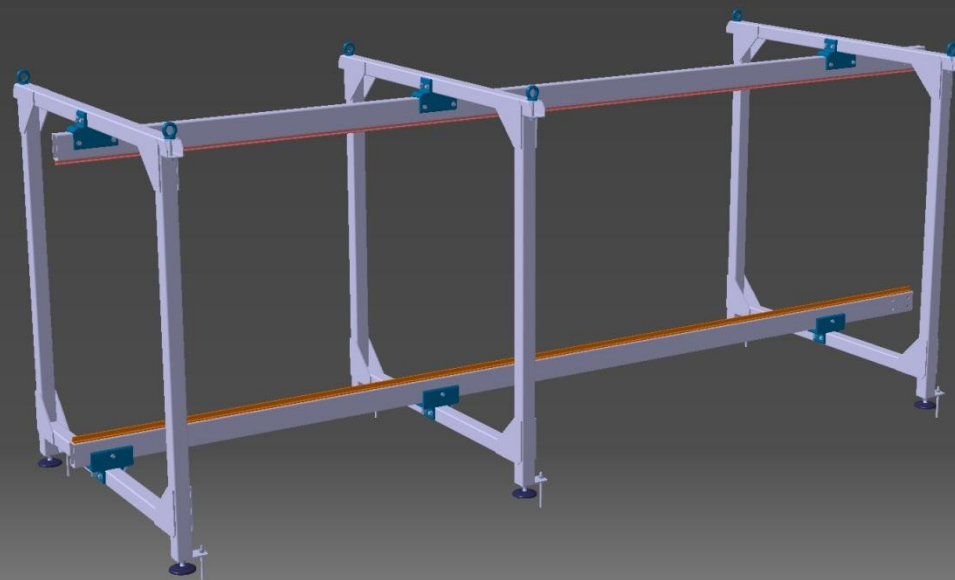
Central Trackers assembly sequence
and interface with cross-pipe
- draft proposal -

ASSEMBLY SEQUENCE



Preliminary work in a clean Dedicated area

- ❖ Auxiliary Support Structure + Dummy Rails Aligned (Survey Service Assistance)

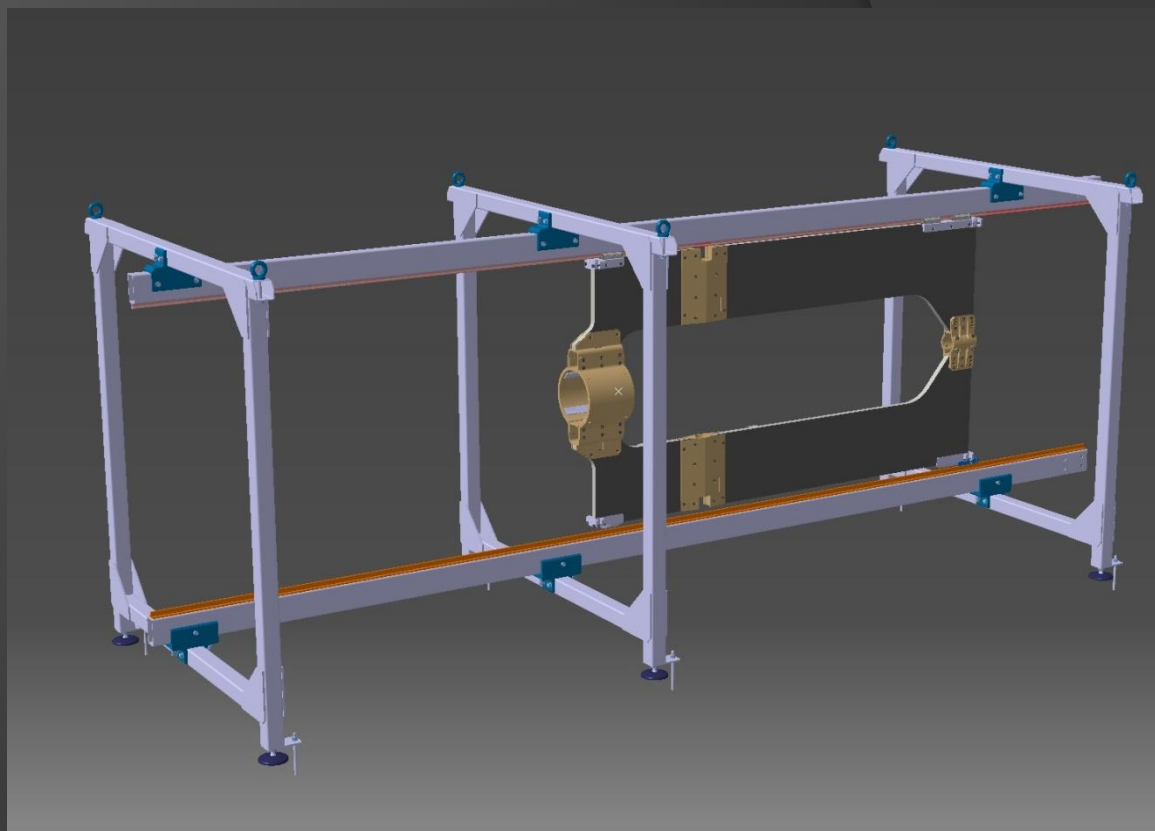


ASSEMBLY SEQUENCE



Preliminary work in a clean Dedicated area

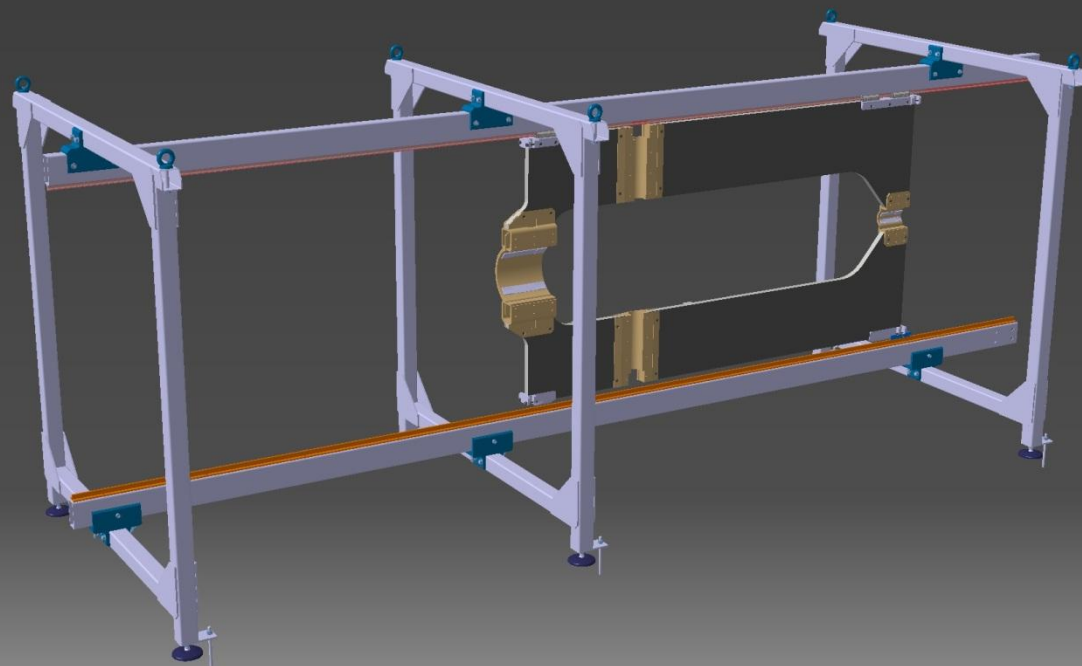
- ❖ Auxiliary Support Structure + Dummy Rails Aligned (Survey Service Assistance)
- ❖ Central Frame on Rails





Preliminary work in a clean Dedicated area

- ❖ Auxiliary Support Structure + Dummy Rails Aligned (Survey Service Assistance)
- ❖ Central Frame on Rails
- ❖ Clamps Open

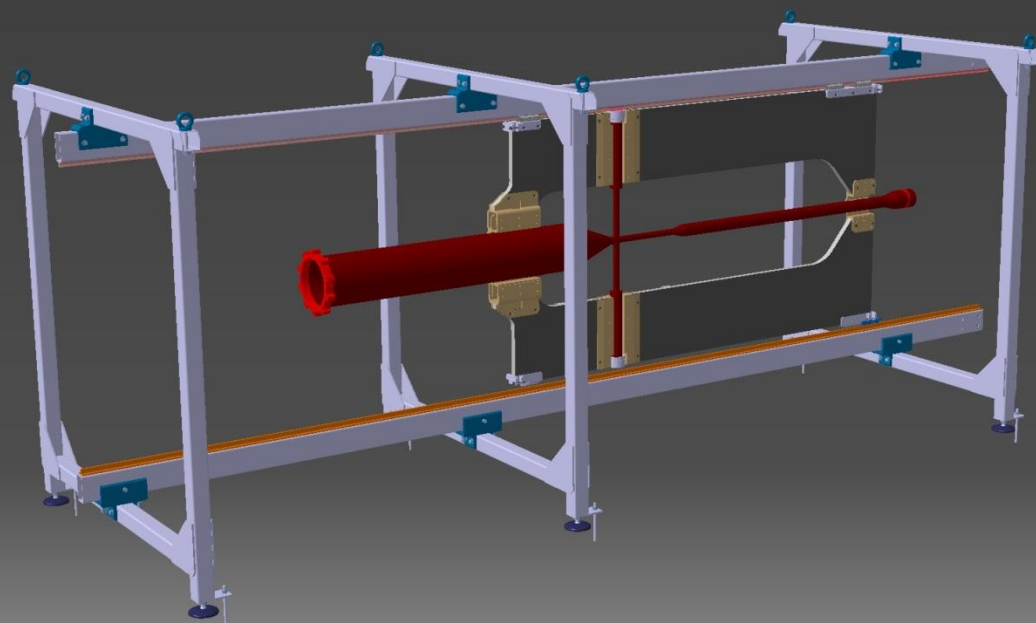


ASSEMBLY SEQUENCE



Preliminary work in a clean Dedicated area

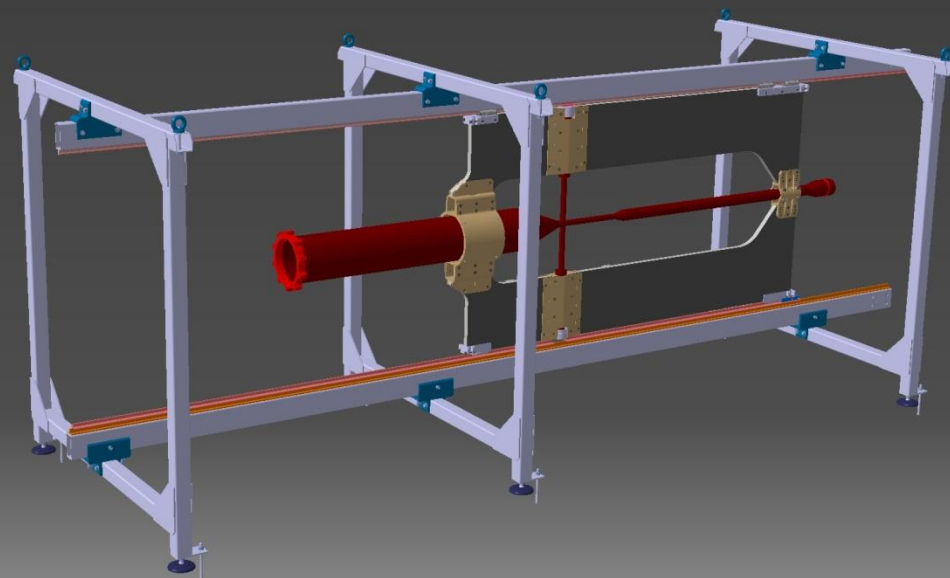
- ❖ Auxiliary Support Structure + Dummy Rails Aligned (Survey Service Assistance)
- ❖ Central Frame on Rails
- ❖ Clamps Open
- ❖ Cross Pipe Mounting and Alignments





Preliminary work in a clean Dedicated area

- ❖ Auxiliary Support Structure + Dummy Rails Aligned (Survey Service Assistance)
- ❖ Central Frame on Rails
- ❖ Clamps Open
- ❖ Cross Pipe Mounting and Alignments
- ❖ Clamps Close



ASSEMBLY SEQUENCE

Cross Pipe – CF Interfaces

Clamping Sleeve must be integrated with the Target Arm

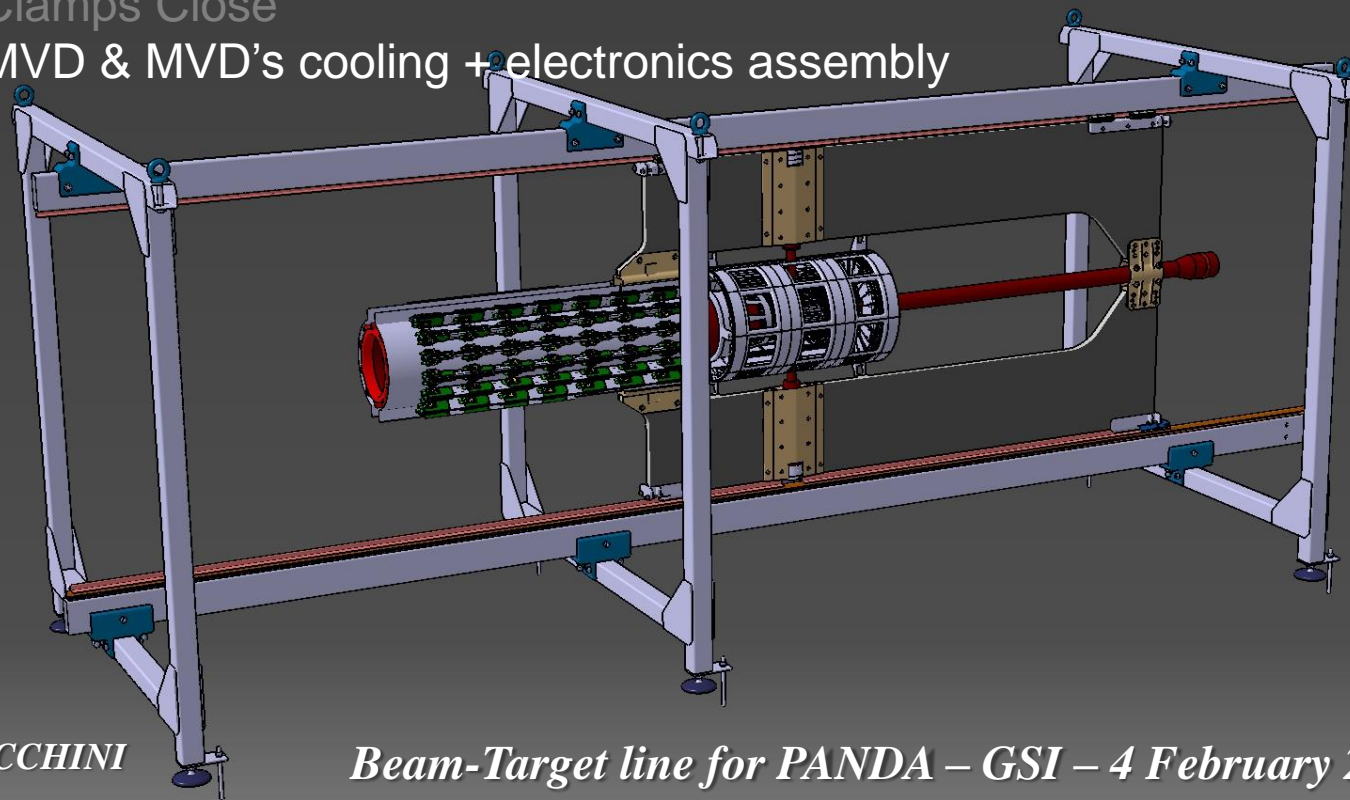
Clearance Sleeve/CF → **CRITICAL**
Relative Orientation, Coaxiality → **CRITICAL**
Position of the horizontal pipe → **CRITICAL**

New Solution must be evaluated



Preliminary work in a clean Dedicated area

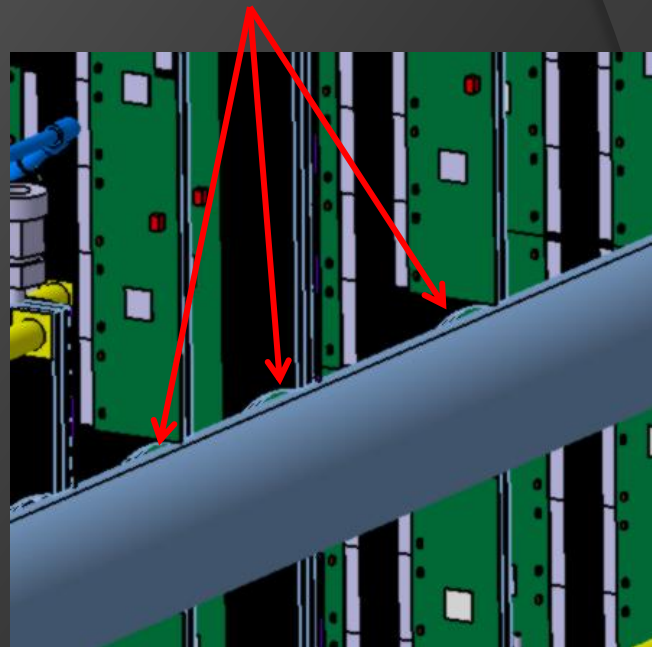
- ❖ Auxiliary Support Structure + Dummy Rails Aligned (Survey Service Assistance)
- ❖ Central Frame on Rails
- ❖ Clamps Open
- ❖ Cross Pipe Mounting and Alignments
- ❖ Clamps Close
- ❖ MVD & MVD's cooling + electronics assembly



ASSEMBLY SEQUENCE

- Manufacturing tolerances
- Assembly tolerances

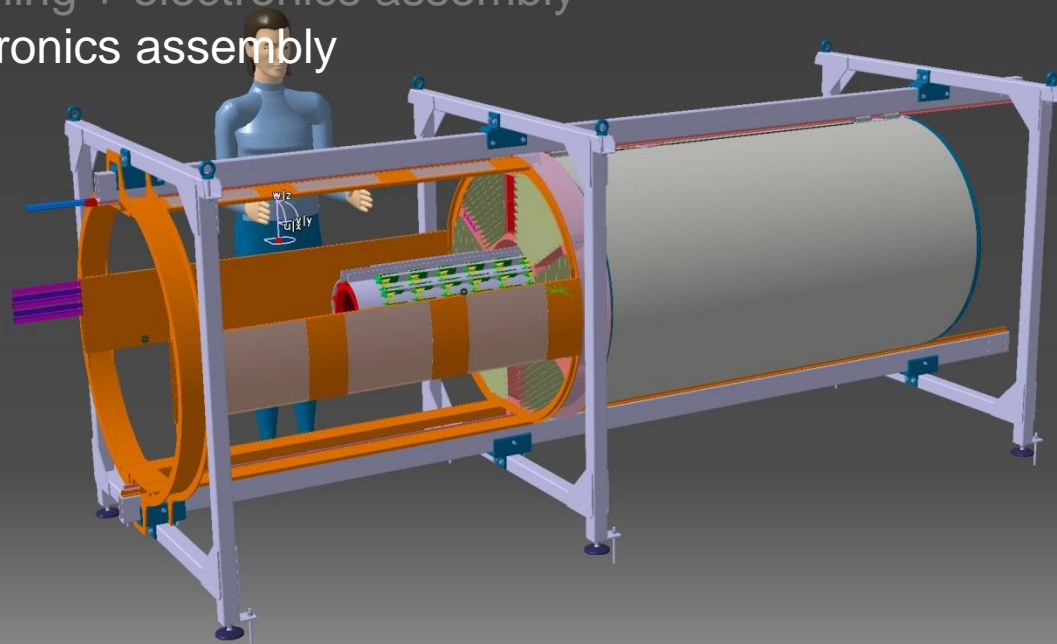
❖ 0.8 mm clearance between beam pipe and disks





Preliminary work in a clean Dedicated area

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- ❖ Clamps Open
- ❖ Cross Pipe Mounting and Alignments
- ❖ Clamps Close
- ❖ MVD & MVD's cooling + electronics assembly
- ❖ STT & STT's electronics assembly

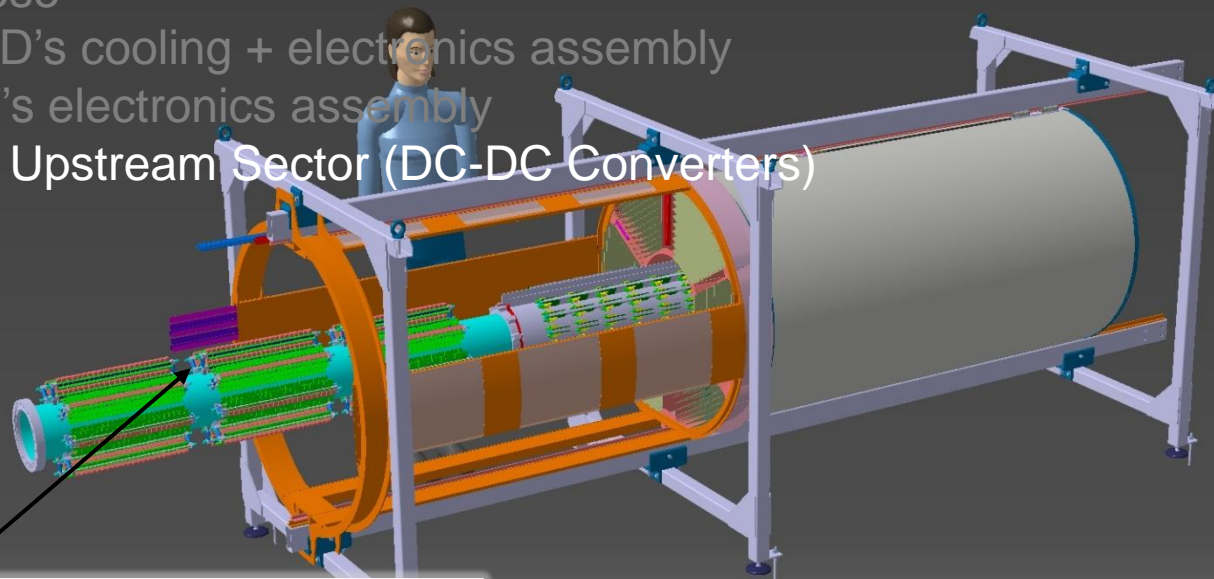


ASSEMBLY SEQUENCE



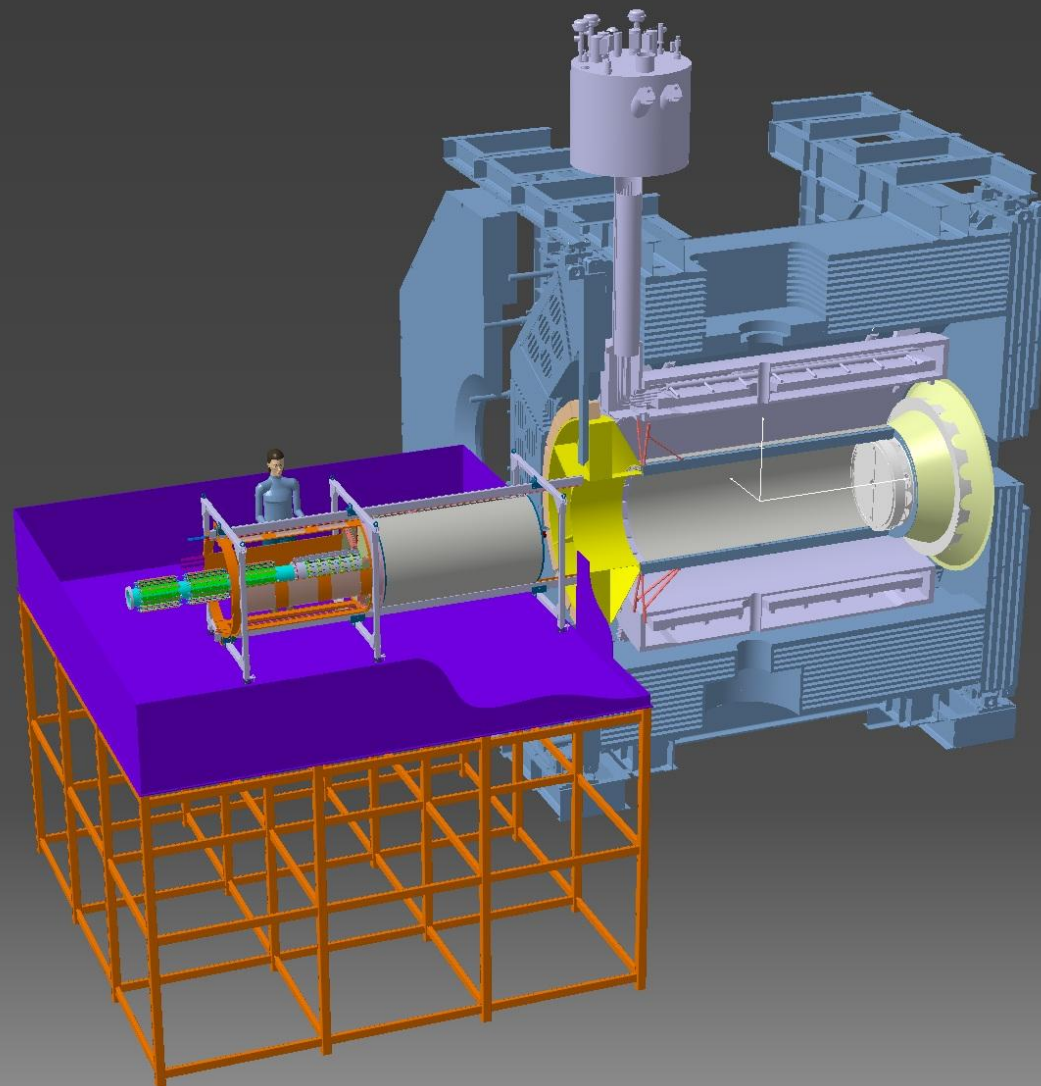
Preliminary work in a clean Dedicated area

- ❖ Auxiliary Support Structure + Dummy Rails Aligned (Survey Service Assistance)
- ❖ Central Frame on Rails
- ❖ Clamps Open
- ❖ Cross Pipe Mounting and Alignments
- ❖ Clamps Close
- ❖ MVD & MVD's cooling + electronics assembly
- ❖ STT & STT's electronics assembly
- ❖ Beam Pipe Upstream Sector (DC-DC Converters)

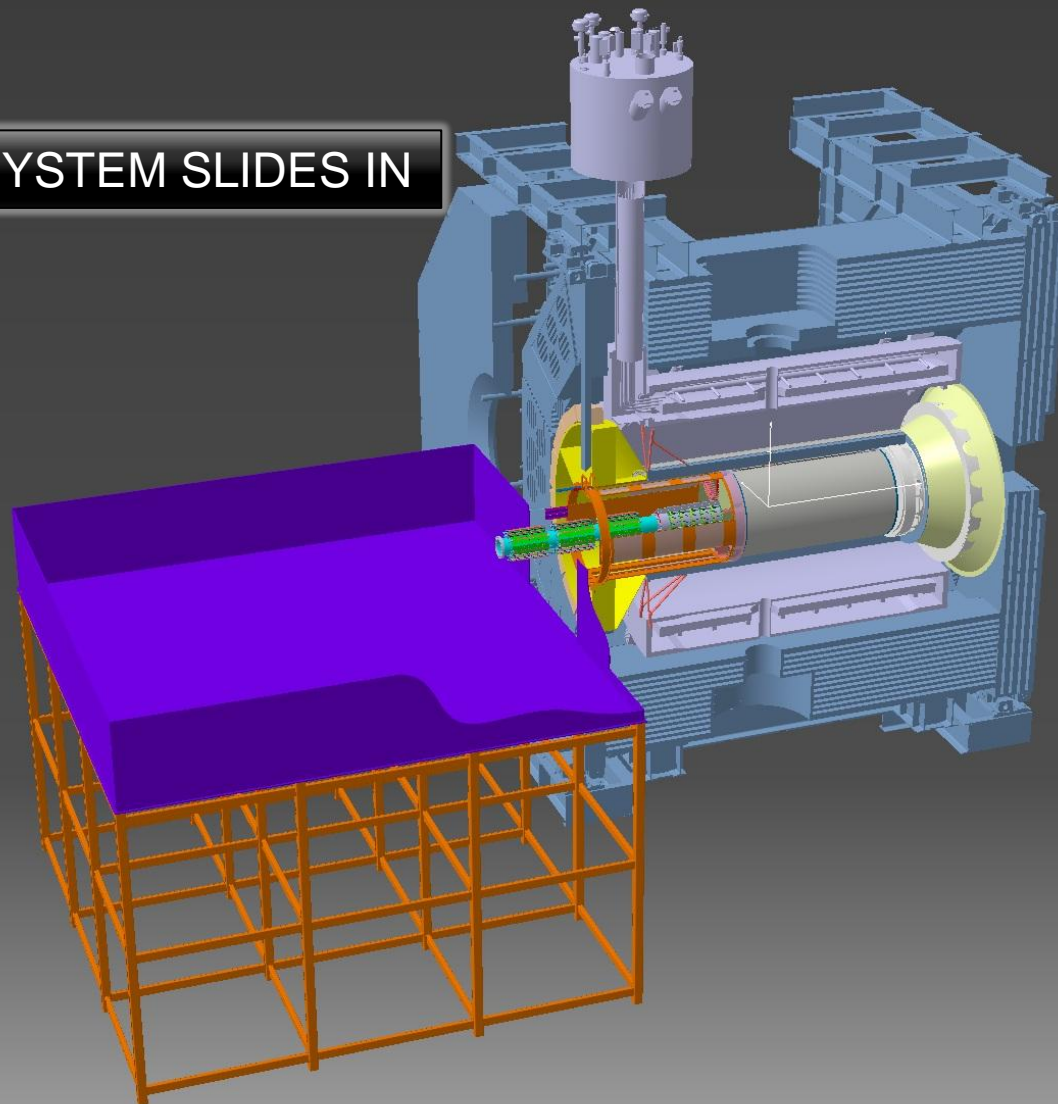


ADDITIONAL SUSPENSION MUST BE ADDED

READY TO MOVE TO THE
SERVICE PLATFORM



CENTRAL TRACKING SYSTEM SLIDES IN



SUMMARY

- ✓ The clamping sleeves must be integrated with the Target Arms
 - Tolerances (geometry, manufacturing & assembly)
- ✓ MVD assembly – Possible problem with Beam Arm
 - Tolerances (geometry, manufacturing & assembly)
- ✓ Beam Pipe Upstream Sector act as DC-DC Converters holder
- ✓ Beam Pipe Upstream Sector (DC-DC Converters) must be suspended during assembly and handling
 - Possible problem with End-Cap EMC

