

ThomX General meeting
13 december 2016, LAL Orsay

Status of the ThomX X-line



The X line

Table 1 (igloo)

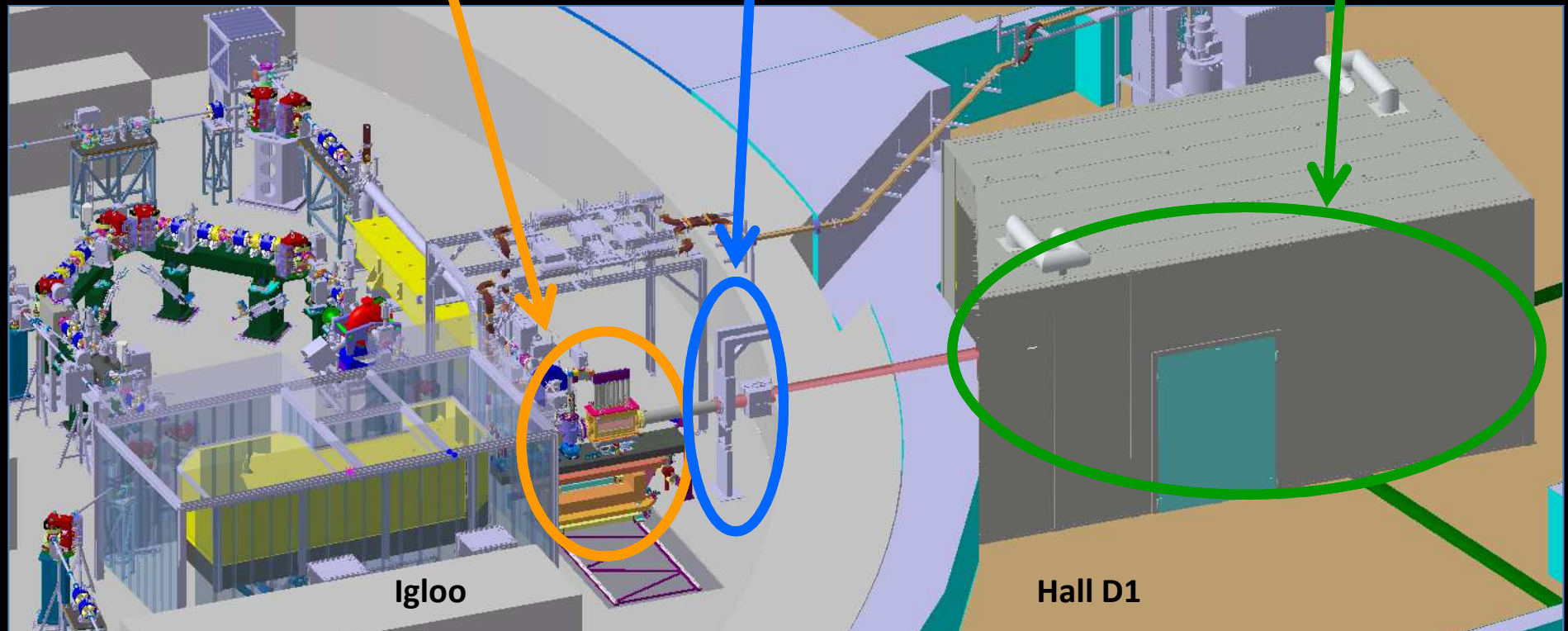
Continuous beam monitoring
Focus device

Beam transfer

Security beam shutter
Connection pipe

"Table 2" (hall D1)

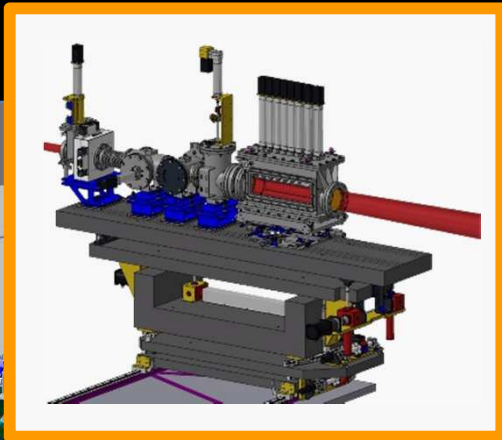
Beam characterisation
X-user experiments



The X line

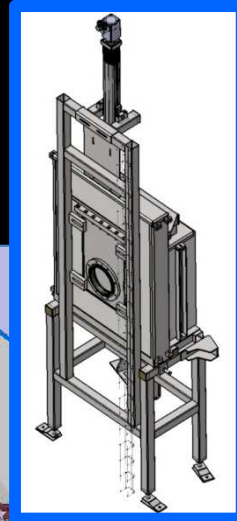
Table 1 (igloo)

Continuous beam monitoring
Focus device



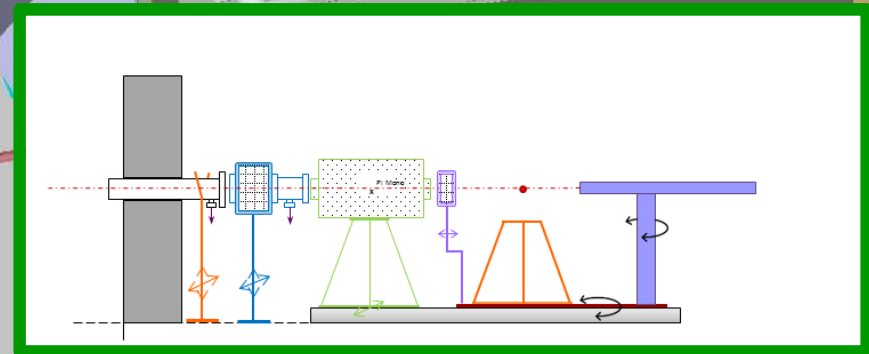
Beam transfer

Security beam shutter
Connection pipe

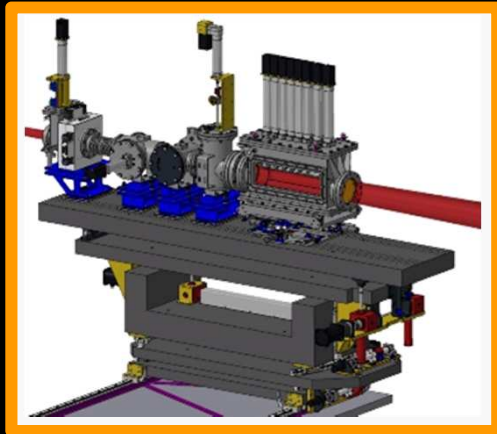


"Table 2" (hall D1)

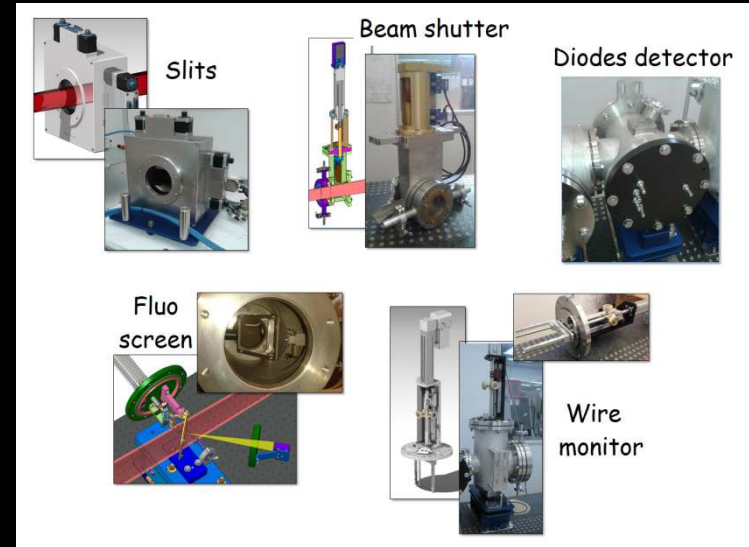
Beam characterisation
X-user experiments



X-line inside Igloo Beam monitoring
Focus device



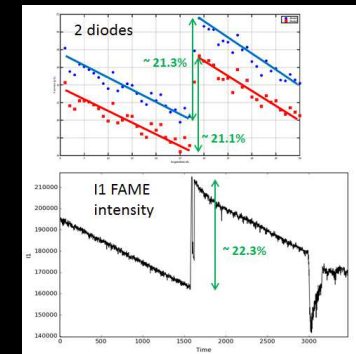
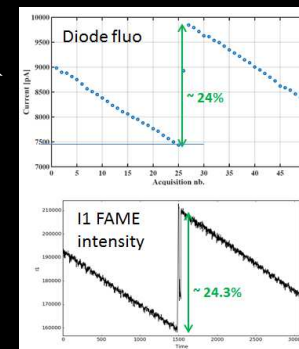
- Beam shutter
- Det. Diodes
- Det. Fluo screen
- Wire monitor
- Slits



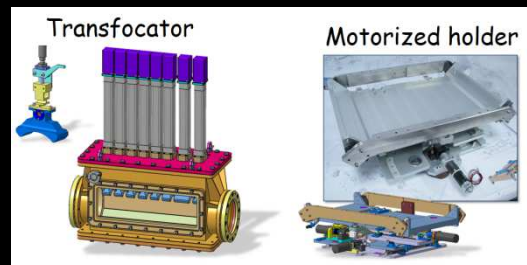
Motorized Table
→ Assembly Ok
→ Mvt qualification
in progress



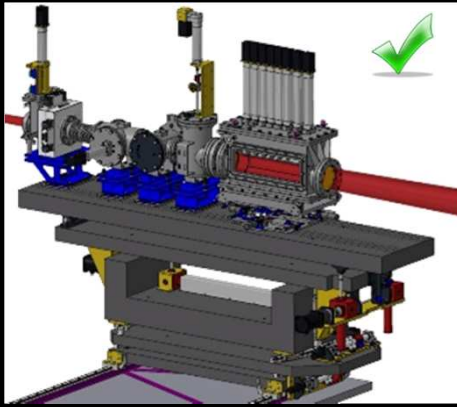
→ Ok
→ ESRF beam tests
almost all ok



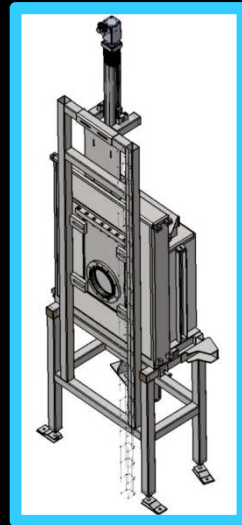
**Transfocator (focus device)
+ its holder**
→ Last call for tender submitted (lenses)
→ Mechanics ok



Security shutter + shieldings (X-ray hole igloo-hall D1)

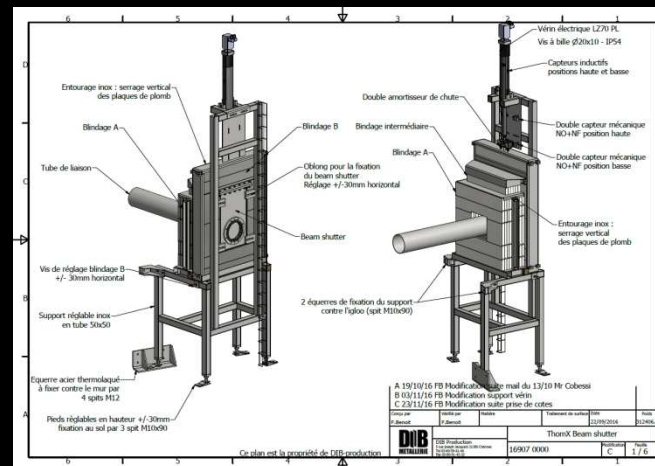


Beam monitoring
Focus device

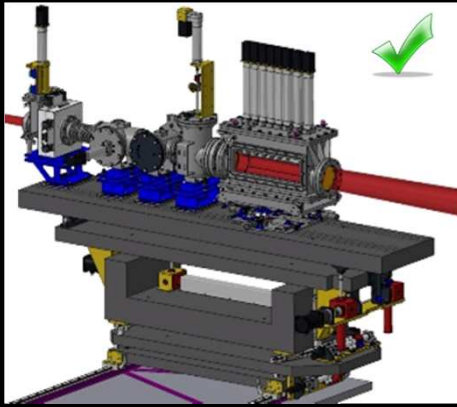


Security beam shutter + shieldings

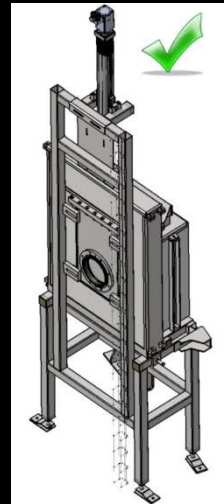
- Specifications: Radioprotection + Security + X-line
- Call for tender ok
- The realization began



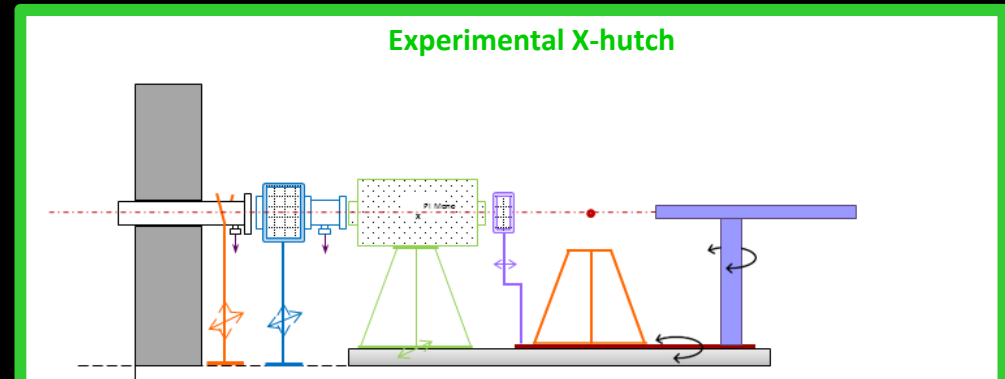
Inside the experimental X-hutch (hall D1)



**Beam monitoring
Focus device**



**Security beam shutter
Connection pipe**



Experimental X-hutch

Highly versatile equipment

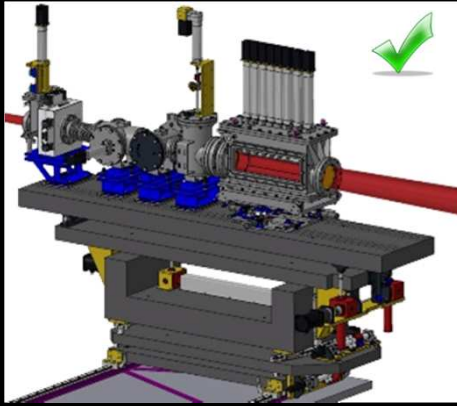
Hexapodes, Goniometer, Monochromator, Detectors

(each one adapted to a particular analysis technique)

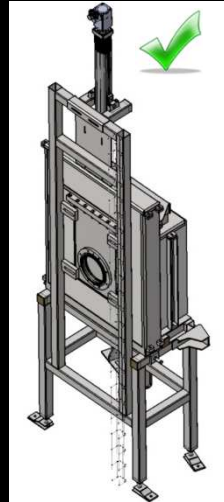


- Dosimetry - Beam characterisation
- Medical Imaging - Researches for radiotherapy
- Fluorescence - Diffraction

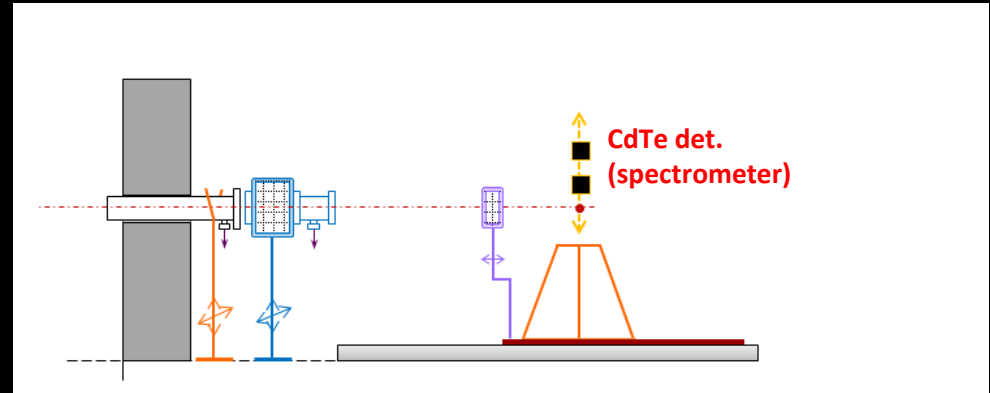
Inside the experimental X-hutch



**Beam monitoring
Focus device**



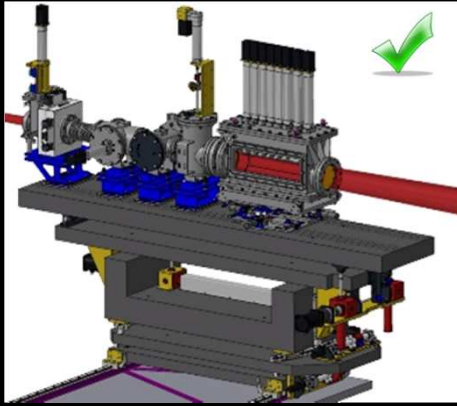
**Security beam shutter
Connection pipe**



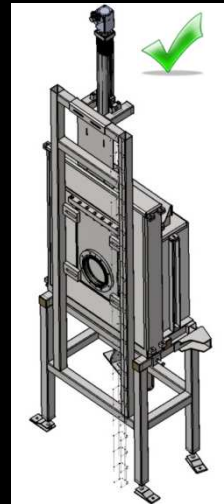
➔ Dosimetry - Beam characterisation

- Medical Imaging - Researches for radiotherapy
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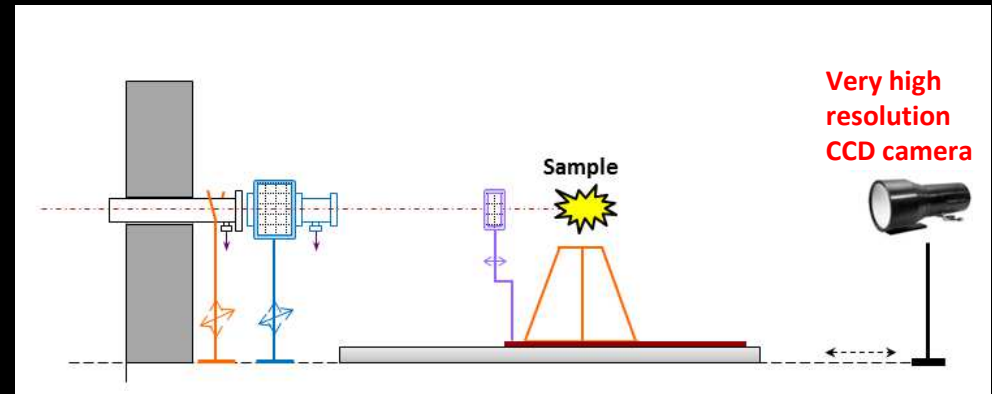
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**Beam monitoring
Focus device**



**Security beam shutter
Connection pipe**

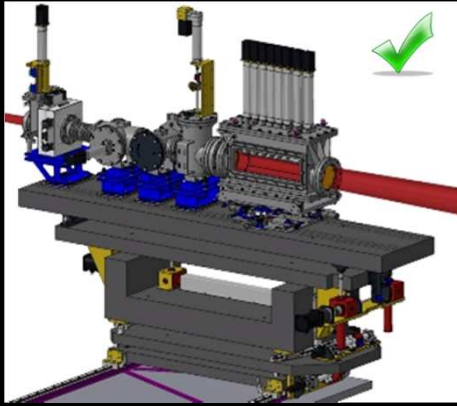


→ Dosimetry - Beam characterisation

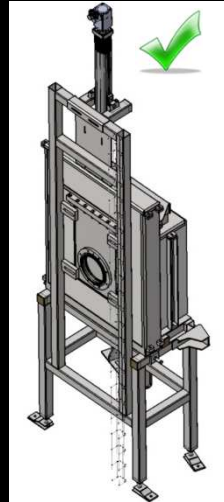
➔ **Medical Imaging - Researches for radiotherapy**

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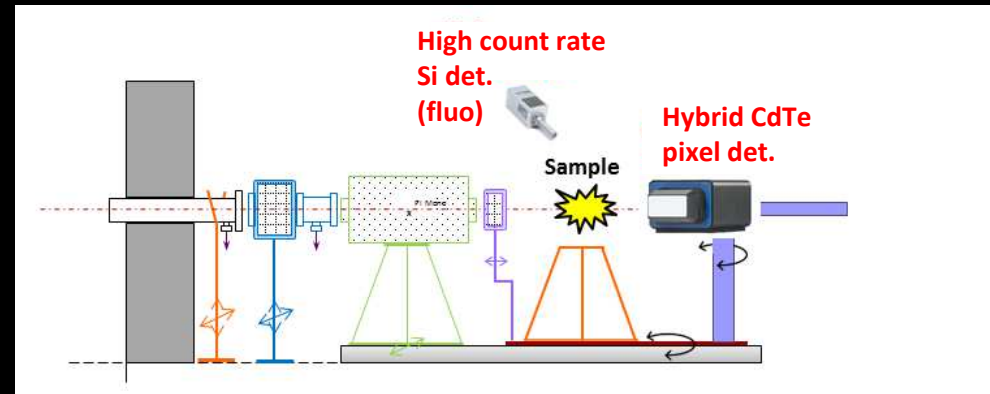
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Focus device**



**Security beam shutter
Connection pipe**

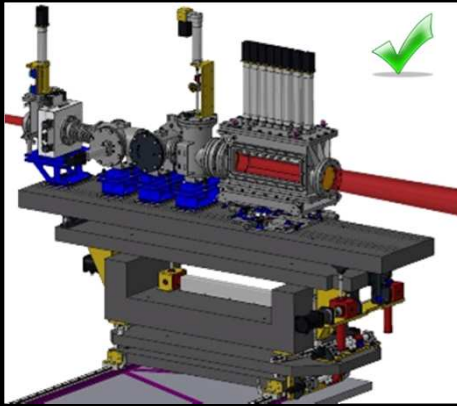


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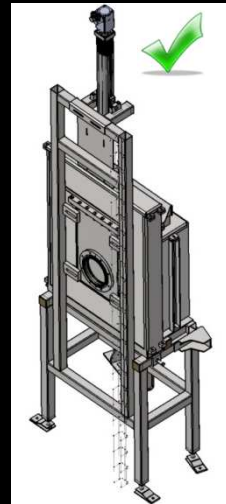
→ Medical Imaging - Researches for radiotherapy

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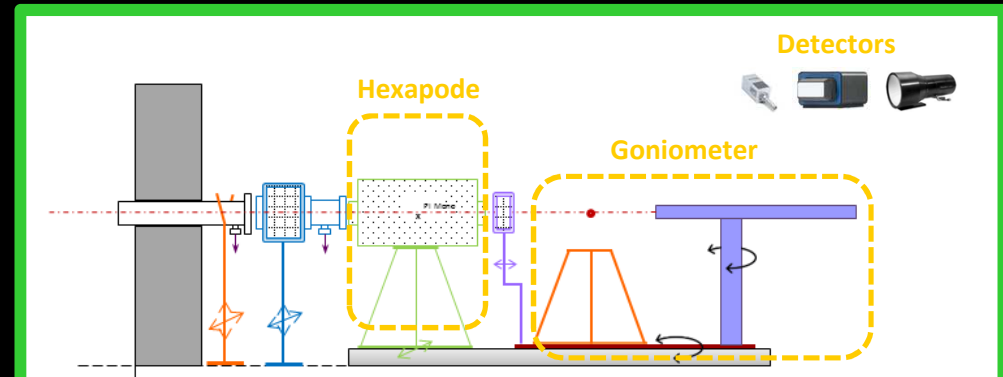
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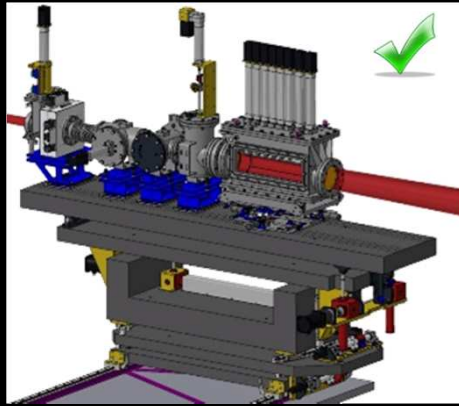
Hexapode, Goniometer, Monochromator, Detectors

Very complex (and expensive) devices

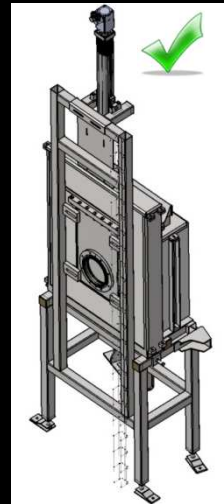
(detectors, optics, mechanics)

- **Must be tested in situ** under X-beam by the manufacturer itself before final acceptance
- It is **unthinkable** to leave these devices **for several months in cartons** while awaiting the first X-beam

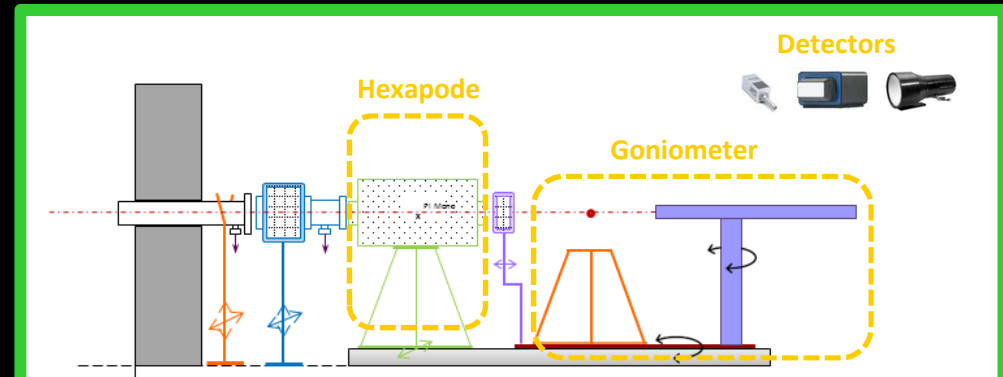
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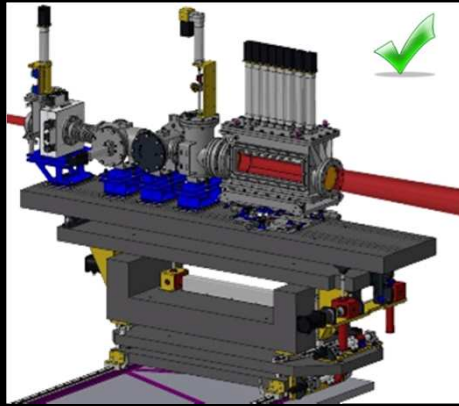
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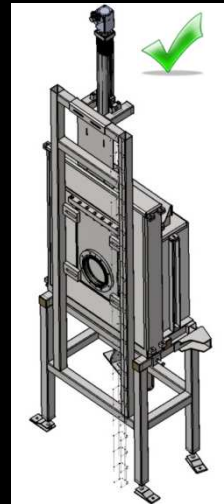
Reminder of the ThomX schedule

- 2016 : Start of infrastructure works
- 2017 : Installation & Commissioning
- **End 2017**: First X-beam available for X-users foreseen

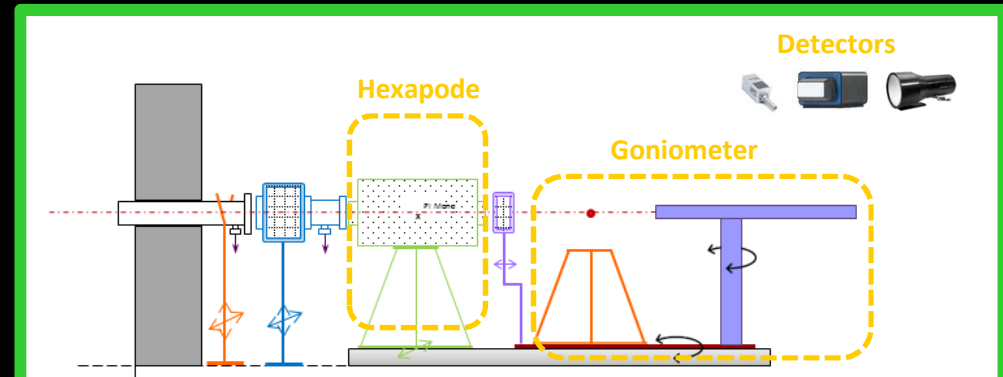
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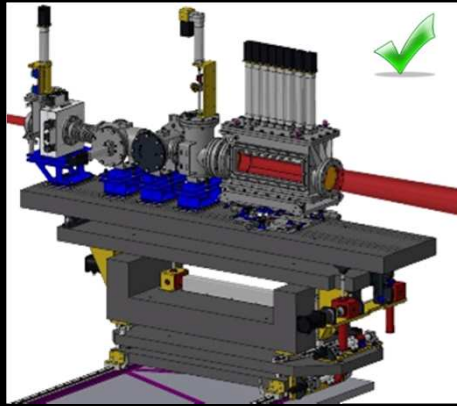
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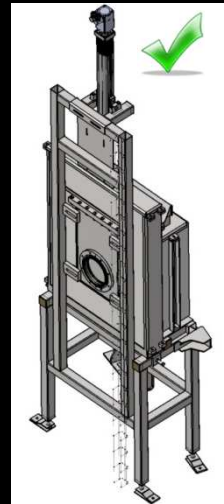
2016 : Define and draft specifications for all devices
2017 : Calls for tender + Realizations

→ **To receive the devices not before the end of 2017**

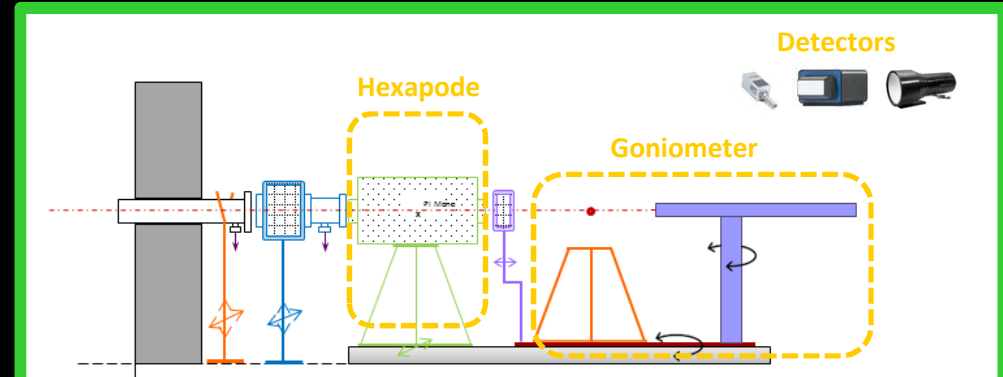
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**The extension by the ANR
of the spend limit date
of the step 1 money is
absolutely necessary !**