

## HIE ISOLDE





Status of the works at the ISOLDE hall

(and service buildings)

70th ISCC meeting, CERN, 24 June 2014

Erwin Siesling for the HIE ISOLDE integration team



#### **Outline**



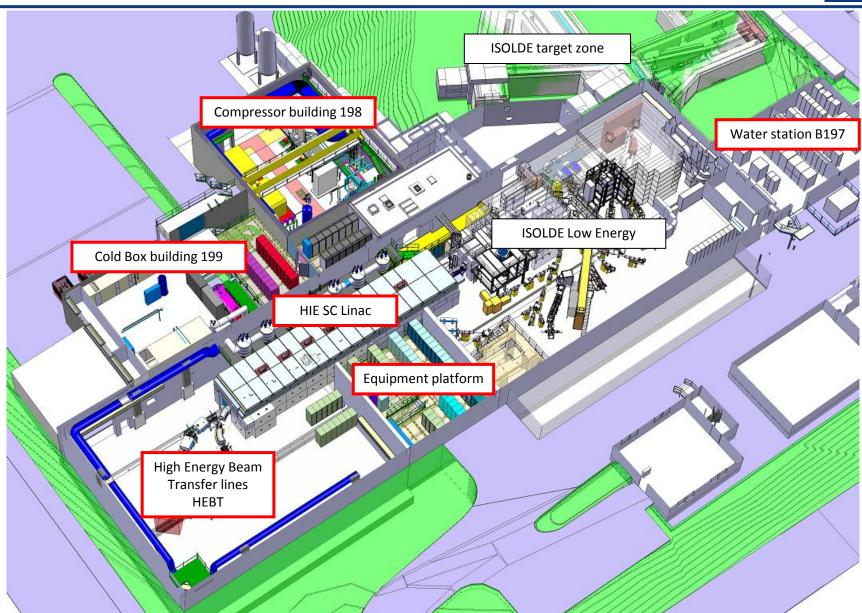
#### Status Report HIE Installation June 2014:

- Progress since the last ISCC meeting in March '14
- What to expect for this year
- Have there been or are there any (new) delays
- Are we on track with regard to the planning



# HIE ISOLDE installation progress

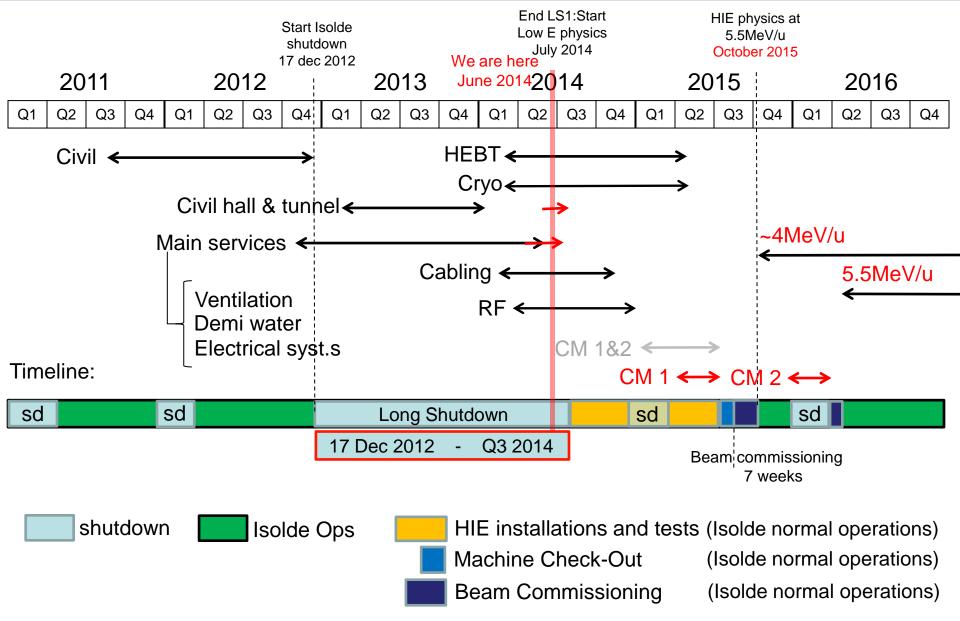






#### **▶L≥€** HIE Simplified Installation Planning

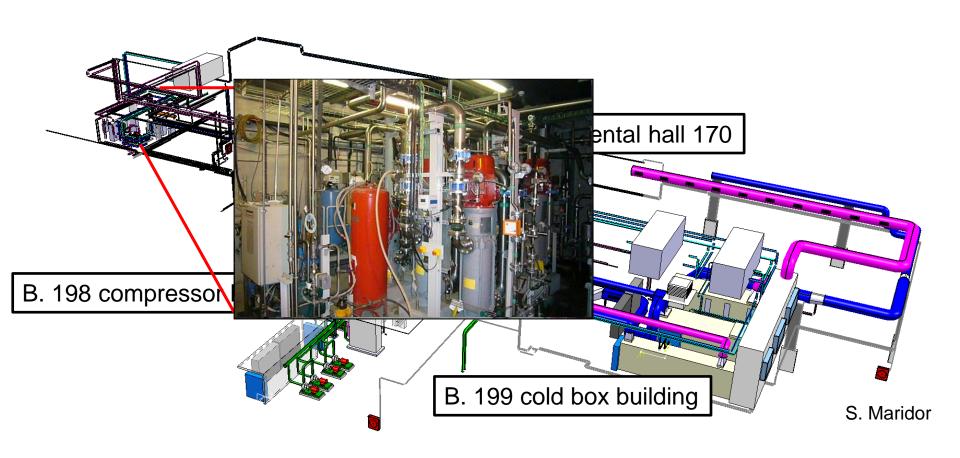






## Hall 170 Cooling system





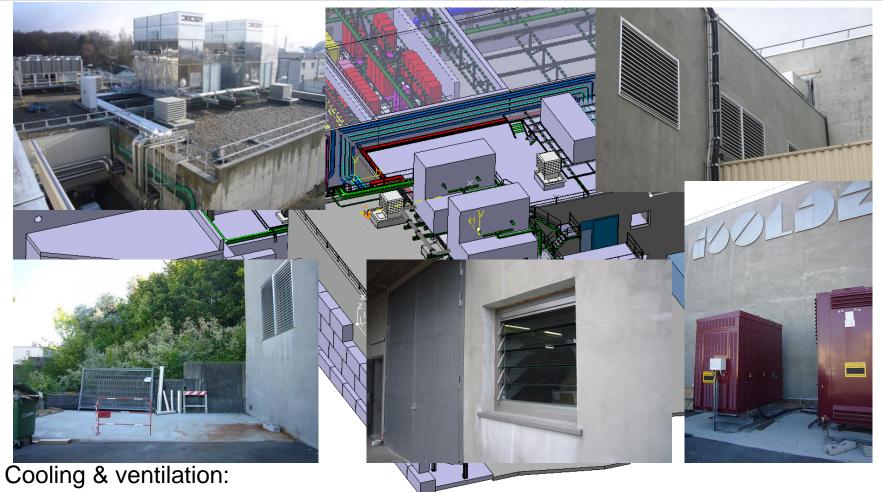
#### **ISOLDE** water station:

Tests and commissioning for 27C demi water finished – water cooling system operational since April. In time for ISOLDE Low Energy cold check-out (ongoing) and start-up.



# **Outdoor progress**





Tubing finished. Isolation of demineralized and chilled water tubes is finished. Air duct and ventilation covers installed. Cooling towers test done.

Cryo: concrete base equalized and smoothened, ready for He tanks (this week).

EL systems: 3.3kV transfo arrived and mounted, cabling ongoing.



# Compressor building 198





#### Cooling & Ventilation:

CV water and HVAC installation finished. Ethernet connections done. Tests demi water done. Water treatment cabin done. Tubes isolation finished. Piping outer wall passages closed and isolated (acoustics).

Cryo System: Compressor skit/frame in place. Adsorber in place. Piping ongoing.



## **Cold Box building 199**





EL and CV systems:

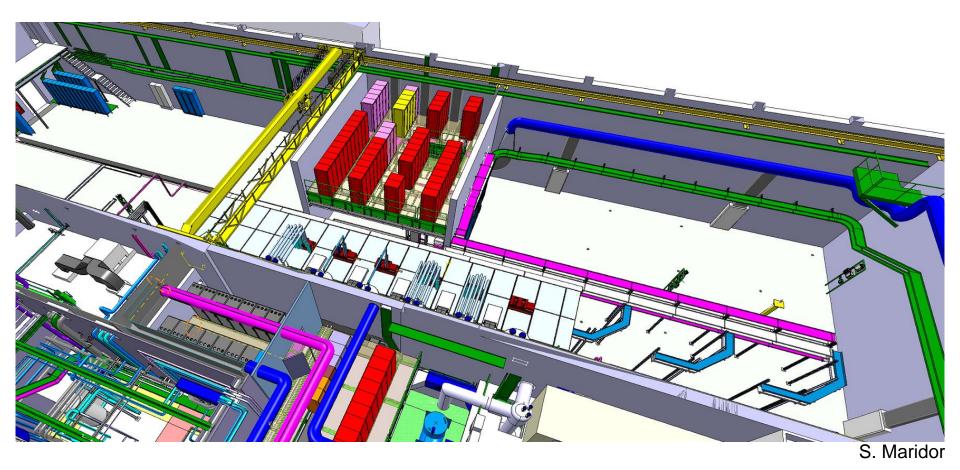
Cabling ongoing. HVAC instrumentation cabling finishing. HVAC tubing and isolation done. Final tests to be carried out.

RF amplifier cooling circuit: Tubes in place. LLRF airducts correction done (contractor). RF systems and racks: LLRF racks in place. Metal structure for the amplifier racks in place. Amplifier racks, Cryo racks and Ethernet racks in place. Cabling ongoing.



## **ISOLDE** hall 170





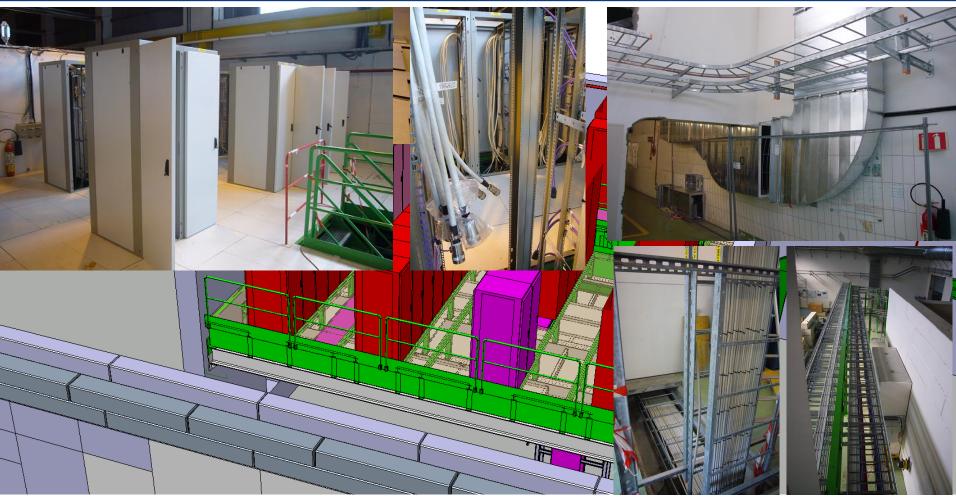
ISOLDE hall 170:

Civil engineering, metal structures, cooling and ventilation, cabling and equipment installation



#### Metal structures Hall 170





Rack platform:

Racks WIC, VAC installed. Cable trays all in place. Controls, vacuum and interlock cabling to HEBT lines done.

Rack platform specific ventilation air ducts being installed.

Equipment (EPC, BI, WIC) to arrive as of September.



## **HEBT** infrastructure





HEBT cable trays all installed, cabling ongoing (controls and vacuum cabling done) Alu and concrete elements supports in place and shimmed (bolts to be changed) Water cooling and vacuum infrastructure to be in place before end Sept (supposed to start early June. Contractor issue followed up. Extended contract in place.)



## Metal structures HIE tunnel





REX existing tubing adapted.

Walls painted, end shielding closed with lead wall in place, elements supports in tunnel ready for mounting (when infrastructure is finished).

Inside metal structure in place including cable trays. Cabling advancing.



#### Infrastructure HIE tunnel



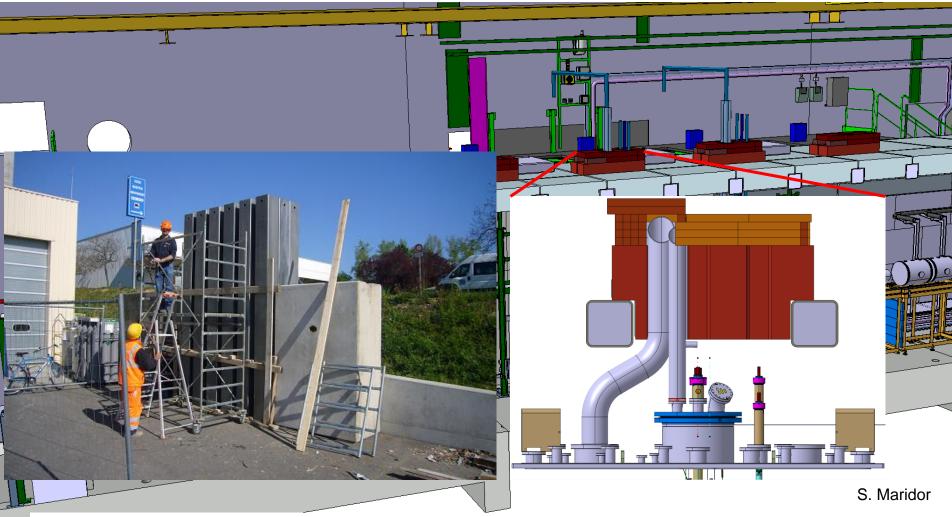


Jumper boxes platform installed. Cable trays underneeth in place. Tunnel vacuum and water infrastructure to be in place before end Sept (supposed to start early June. Contractor issue followed up. Extended contract in place.)



### **Roof HIE tunnel**





Chimney design validated (welding then pouring with concrete). Ready for production (workshop/contractor).

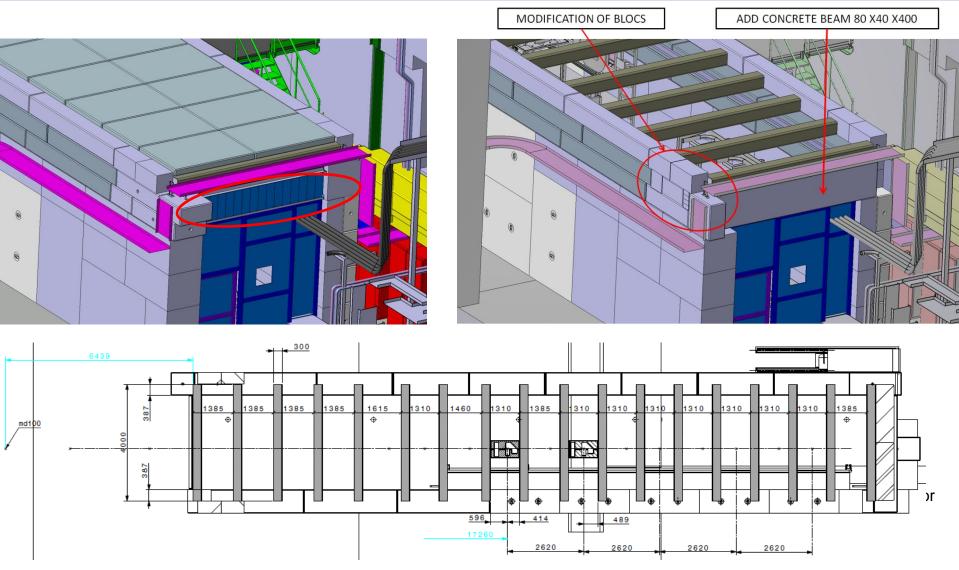
Roof beams filled with concrete.

Awaiting concrete roof parts for fitting tests (end June)



#### **Roof HIE tunnel**





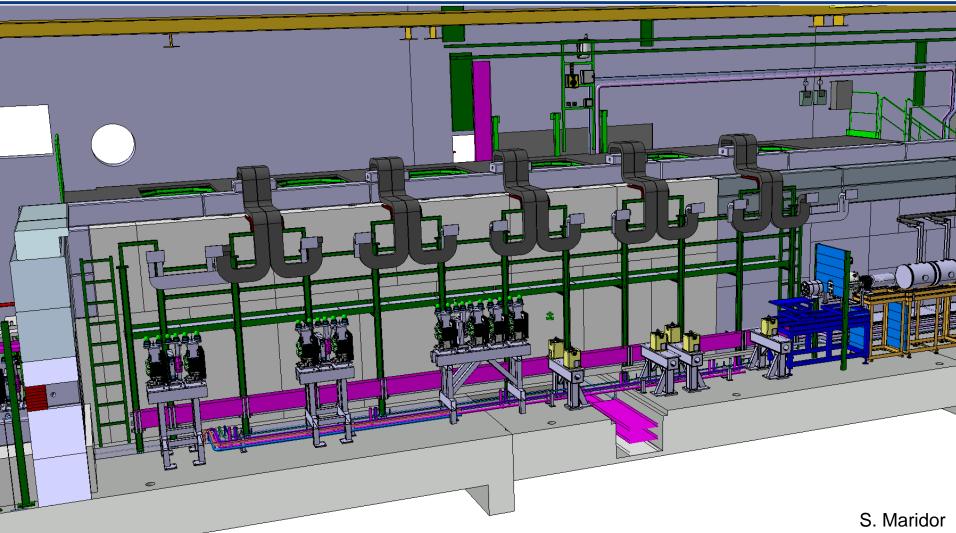
Simplified solution for upstream shielding wall being validated.

Tracing of the carrying beams and adjustment of downstream tunnel wall end of June. 15



## Infrastructure HIE tunnel





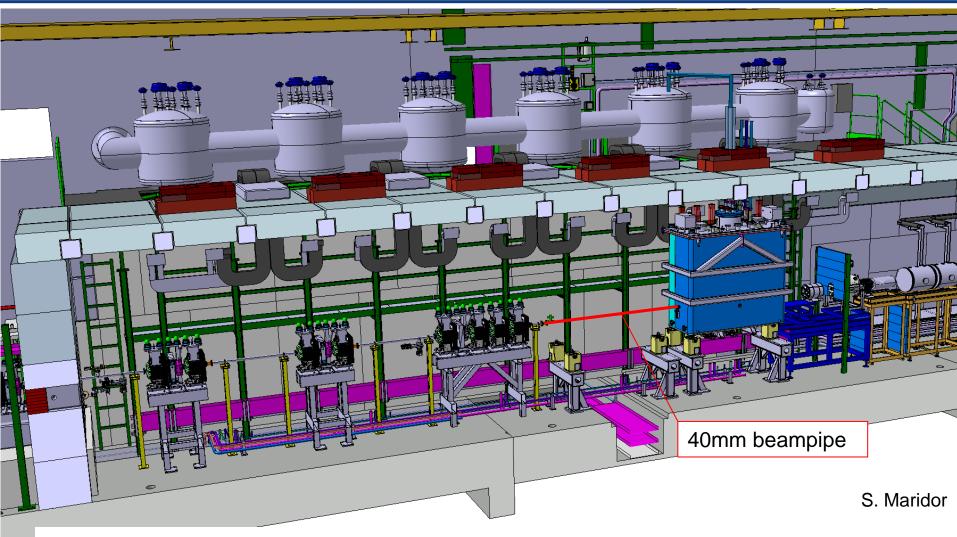
Linac elements & CM supports in tunnel in place – by September (as soon as cabling and tubing infrastructure is in place)

RF flexwell cabling: Oct/Nov



#### **HIE LINAC** elements





Cryo Cold Line & Jumper Boxes installation: Sept 2014 – Jan 2015 Cryo Module 1 installation: April – June 2015

Scenario: Physics at ~4MeV/u with 1 CM as of October 2015



#### **Conclusions**



#### Status Report HIE Installation June 2014:

- Progress since the last IAP meeting in April 2014
  Installation has continued according to plan and there is a steady progress
- What to expect for this year
  High activity in the hall and service buildings will continue
  Challenge: Having ISOLDE low energy physics in parallel
  Access: Separated experiments (users) and construction zones (talk A.P. Bernardes)
- Have there been or are there any delays
  Yes. There are some delays on several co-activities that are not critical.
  For for the tubing infrastructure (water and vacuum) in the tunnel and along the HEBT lines the work is starting later than foreseen but will be ready within margin.
  Infrastructure needs to be in place by the end of September.
- Are we on track with regard to the planning
  Yes, we are on track
  and the start of the ISOLDE low energy physics foreseen for 2014 will not be hampered by the HIE ISOLDE installation works



### **Acknowledgement**



GS/SE : DANIEL PARCHET, ELISEO PERES-DUENAZ, ROLAND ARNOUL

• EN/MEF : STEPHANE MARIDOR, ELEFTHERIOS ZOGRAFOS, GUILLAUME

KAUTZMANN, JEAN-CHRISTOPHE GAYDE

BE/ABP / OP : FREDERIK WENANDER, DIDIER VOULOT

PH/SME : MARIA BORGE, MAGDA KOWALSKA

EN / TE/HDO : YACINE KADI, FABIO FORMENTI, VOLKER MERTENS

BE/RF : DANIEL VALUCH, WALTER VENTURINI, LUCA ARNAUDON, ERIC

**MONTESINOS** 

EN/CV : PAUL PEPINSTER, FREDERIC BORRALHO

• EN/EL : RENE NECCA, JEAN-CLAUDE GUILLAUME, GEORGI GEORGIEV, JEAN-

PIERRE BILLON-GRAND, MICHELE MARTINO, CHRISTOPHE COUPAT

TE/CRG : NICOLAS DELRUELLE, JOS METSELAAR

EN/STI : RICHARD CATHERALL, ANA-PAULA BERNARDES

• GS/DI : CYRILLE BEDEL, YANNICK BERAUD (EN/MEF)

• TE/MSC : YANN LECLERCQ, LLOYD WILLIAMS, VITTORIO PARMA, JEREMIE BAUCHE

• DSG/RP : JOACHIM VOLLAIRE, SANDRA GIRON, ALEXANDRE

**DORSIVAL** 

TE/ABT : BRENNAN GODDARD, MATTHEW FRASER

TE/VSC : GIOVANNA VANDONI

• BE/BI : ENRICO BRAVIN, WILLIAM ANDREAZZA, ESTEBAN CANTERO

EN/MME : ANTTI KOLEHMAINEN, MARC TIMMINS

TE/MPE : RICHARD MOMPO



