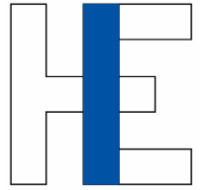


Status of HIE-ISOLDE Project

Yacine Kadi on behalf of the HIE-ISOLDE project team
ISOLDE Workshop and Users Meeting, 8-10 December 2010



Outline

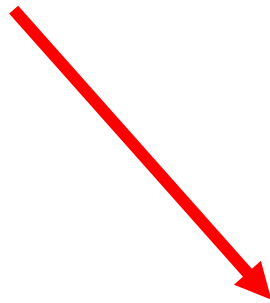
- + Project Status
- + M&P Budgets
- + New Planning
- + Summary

Upgrade of the present ISOLDE Facility

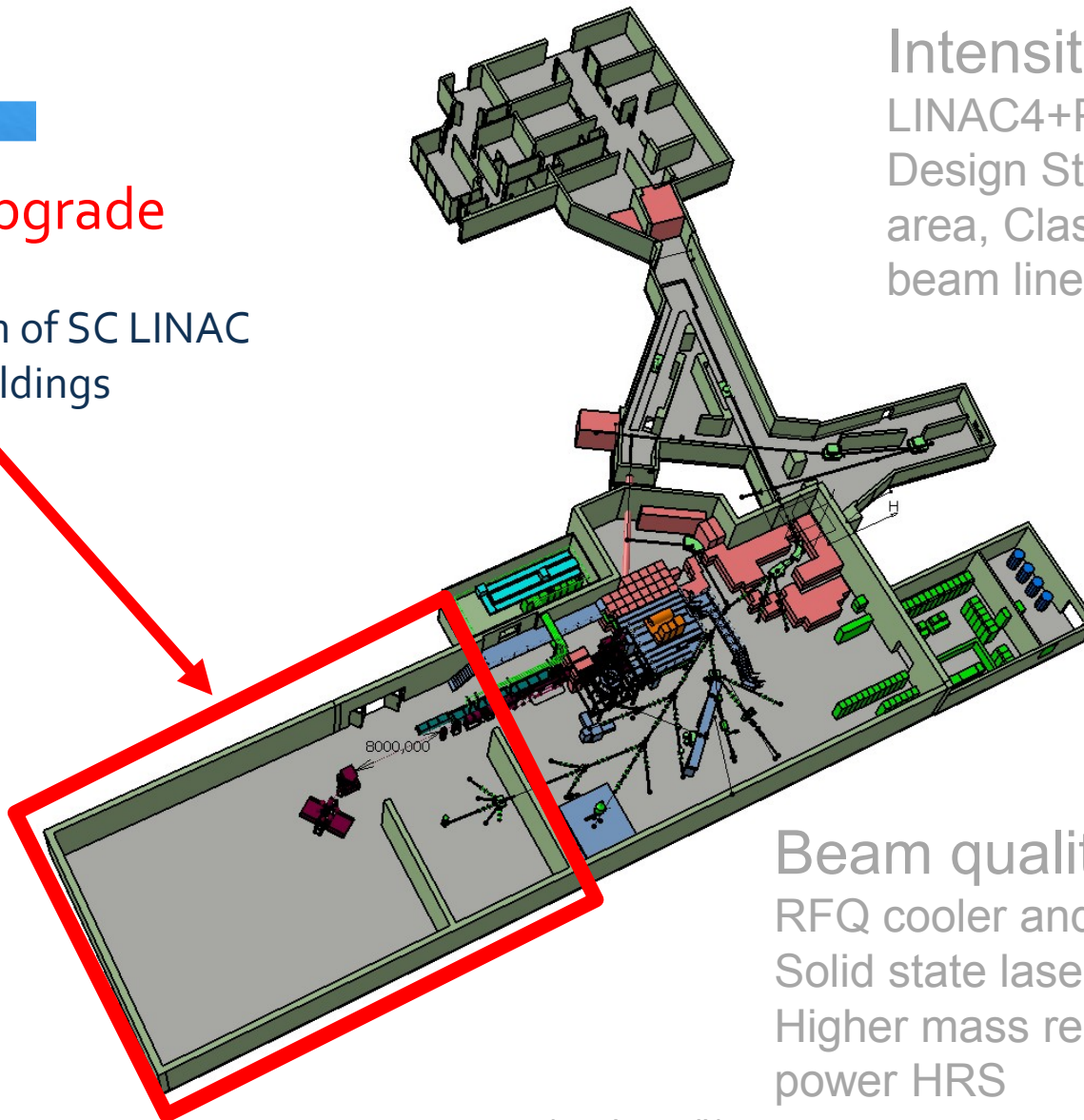
Energy upgrade

10 MeV/u

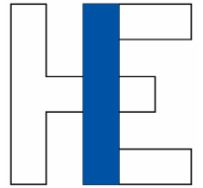
Construction of SC LINAC
+ service buildings



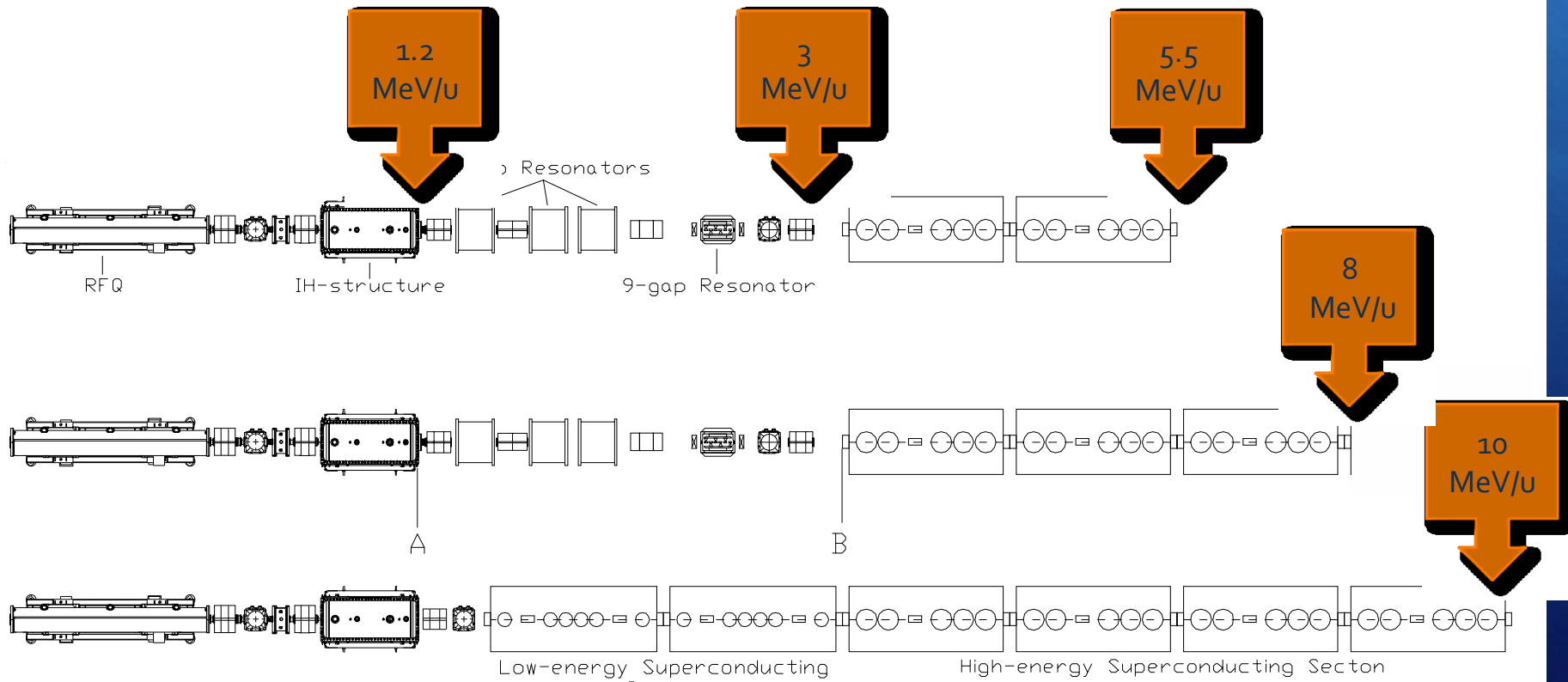
Intensity upgrade
LINAC4+PSB
Design Study of target
area, Class-A lab and
beam lines



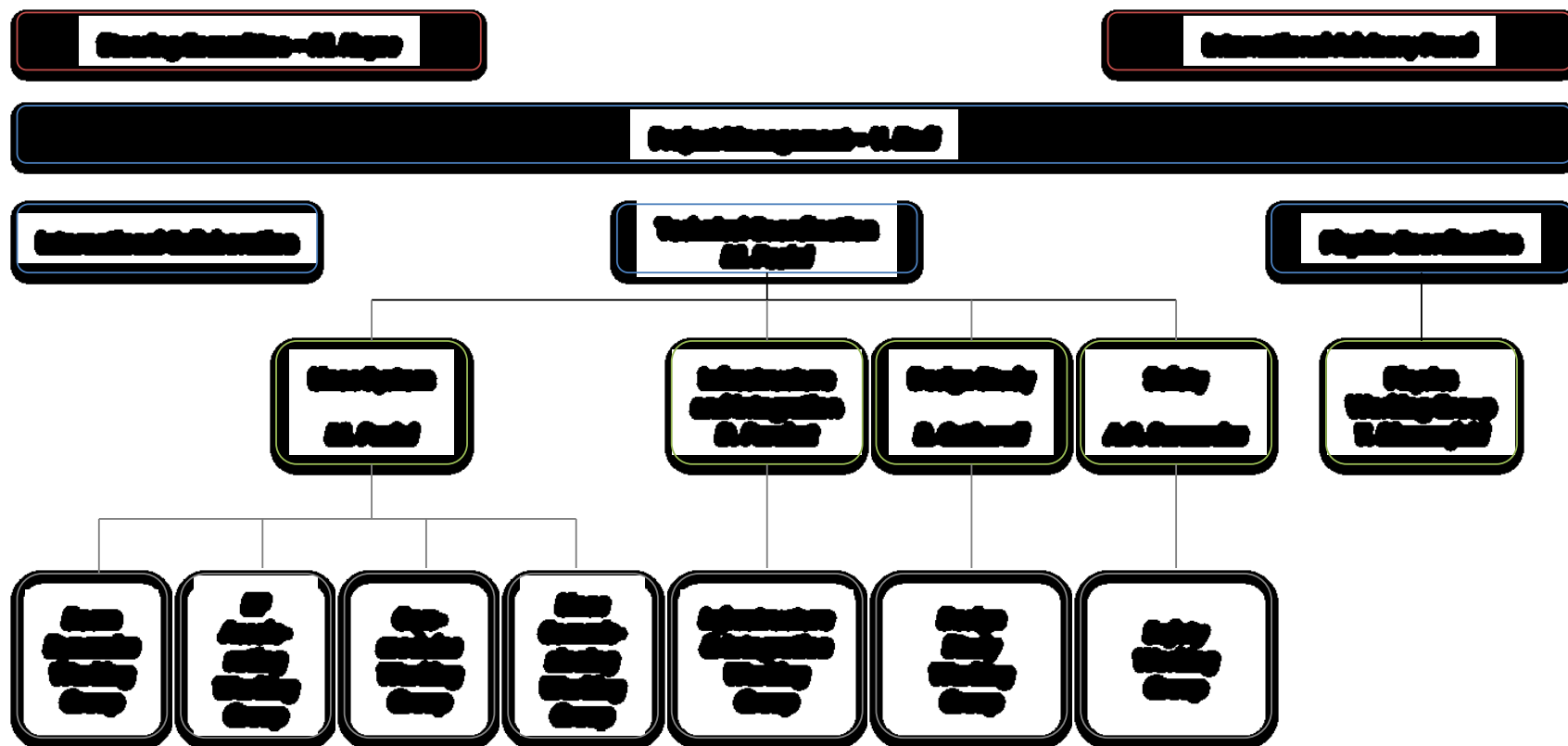
Beam quality upgrade
RFQ cooler and buncher
Solid state lasers for RILIS
Higher mass resolving
power HRS

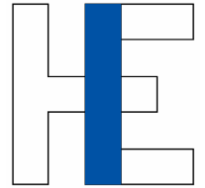


HIE-ISOLDE LINAC – Modular Installation



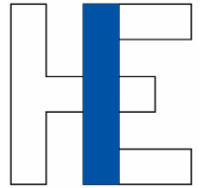
Project Structure





Project Status

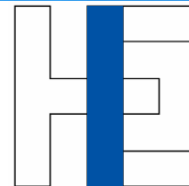
- + New website in place <http://hie-isolde.web.cern.ch>
- + Project included in MTP 2010 – **Approved** by Council -> Sep. 2010
 - + Planning shift
 - + Revised budget/resources
- + CATHI Project signed
 - + Start Nov.1 2010
 - + Fellows by Feb. 2011
- + Submission of Spanish Grant proposal
 - + 2 projects within “Industry for Science Program” => 250 k€, 4FTE => **APPROVED**
 - + MiCINN project => 998 k€, 1FTE => **not retained**
- + Interregional Program IV A of the European Union
 - + Construction of a fully equipped low-beta cryomodule prototype => 600 k€ => **APPROVED**
- + New Cavity RF tests taking place @ SM18
- + 2nd prototype cavity (slightly modified) in preparation
- + New layout of the facility almost frozen (new buildings)



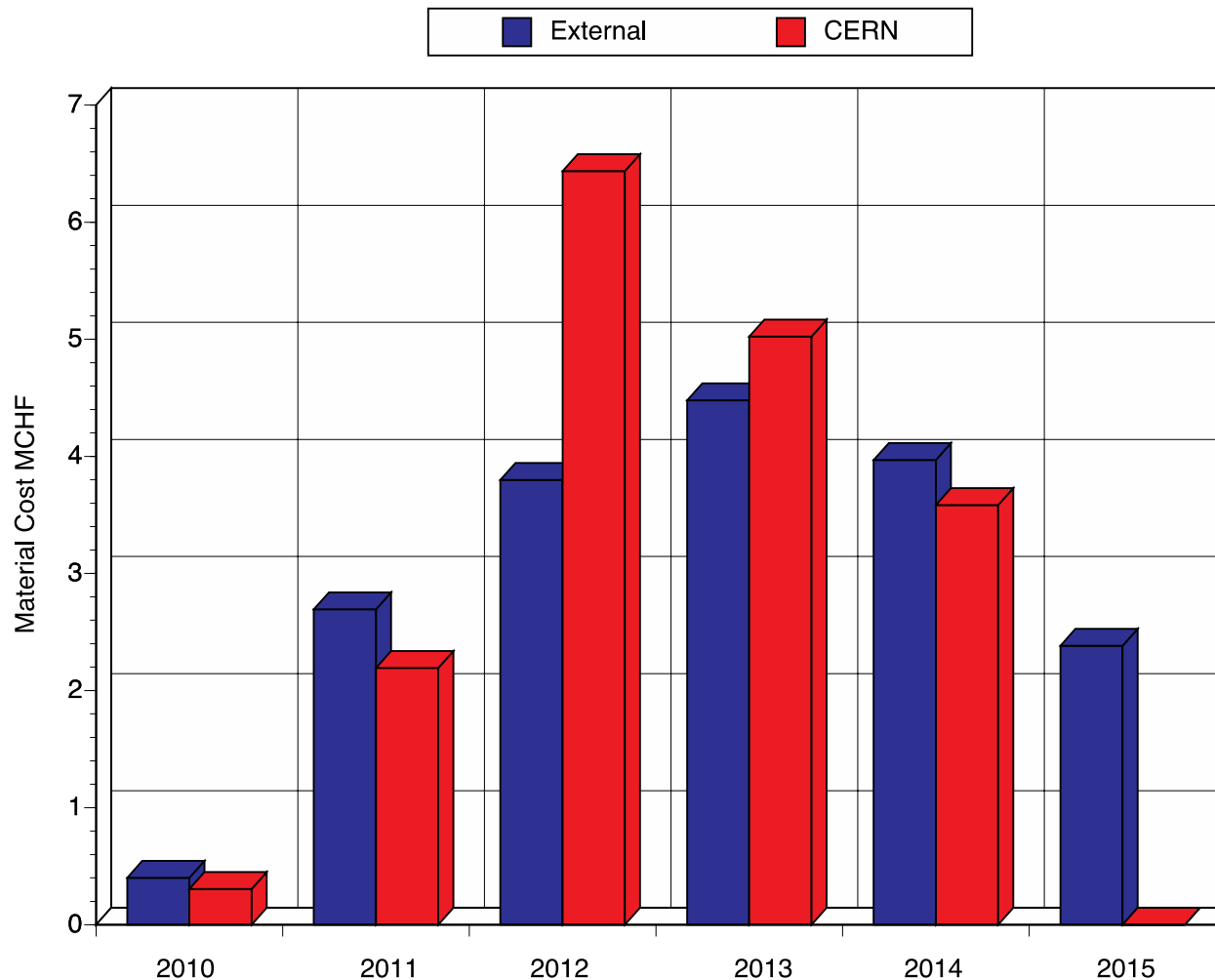
Material Budget

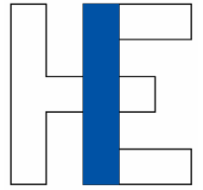
Total remaining material budget of 35.3 MCHF shared between(2010 – 2016):

- + External funding
 - + LINAC (17.7 MCHF)
- + CERN budget
 - + Infrastructure (14.7 MCHF)
 - + Design studies for intensity upgrade (2.1 MCHF)
 - + Safety (0.8 MCHF)



Material Budget

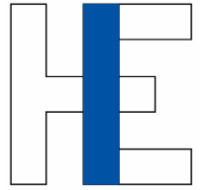




Personnel budget

- + CERN Staff
 - ✓ Resources defined by group leaders (105 FTE over 5 years)

- + Fellows (70 FTE)
 - ✓ 5 FTE paid on departmental budget
 - ✓ 9 FTE paid by Isolde Collaboration
 - ✓ 56 FTE paid by ITN₃ Marie Curie Contract (20 fellows)



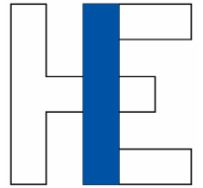
Fellow/PhD funded by IS Coll.

- + **Mathew FRASER** (PhD, BE/RF) : beam dynamics
- + **Francesca ZOCCA** (fellow, BE/BI): beam instrumentation
- + **Mathieu THERASSE** (fellow, BE/RF): SC cavity RF
- + **Yuriy ROMANETS** (UPAS from ITN Lisbon, EN/STI): RP studies
- + **Yann LECLERQ** (fellow, TE/MSD): cryomodule design



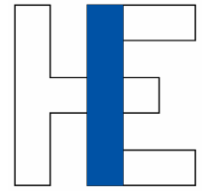
CATHI Open Positions (until Jan.4 2011)

- + ESR2:Cavity and Cryomodule tests
- + ESR4:New Magnet
- + ESR5:Development and participation to the integration studies
- + ESR6:Development and participation to the control, alignment and positioning metrology
- + ESR8:Target material studies
- + ESR13:Cooling and Ventilation Design Study
- + ESR14:Design study of the vacuum system for the Front End of the Isolde facility

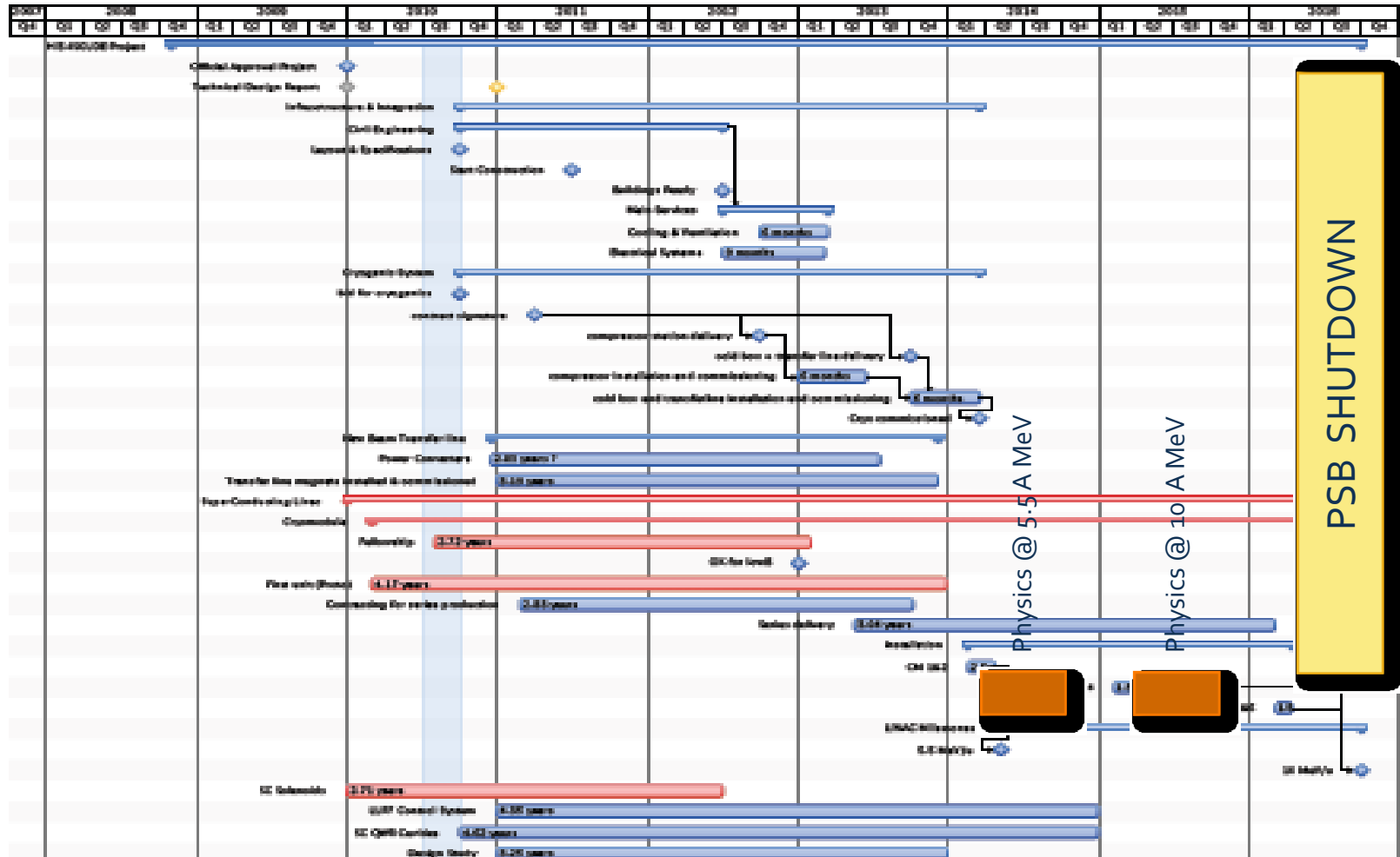


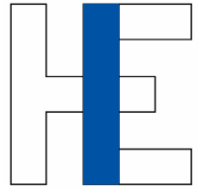
CATHI Positions to be opened Feb. 2011

- + ESR₃: R&D on solid state detectors
- + ESR₉: Target conceptual design#1
- + ESR₁₀: Target conceptual design#2
- + ESR₁₁: Extraction optics and front-end design
- + ESR₁₂: Low-level controls
- + ESR₁₅: Off-line separator and High-resolution separator magnet
- + ESR₁₆: RFQ cooler and pre-separator
- + ER₃: Design study of a replacement charge breeder for REXEBIS
- + ER₄: Safety and Radiation Protection



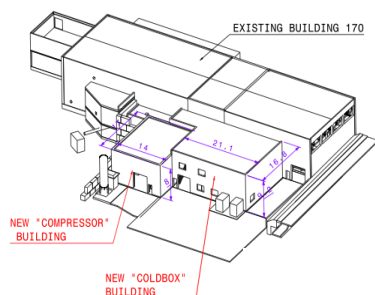
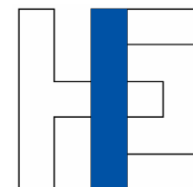
HIE-ISOLDE Schedule





Summary

- + SC Cavity prototype cold tests @ SM18
- + New SC cavity with modified design for sputtering tests
- + Cryostat design well underway
- + Radiation protection calculations ongoing
- + Tendering —> Civil Engineering (Mar. 2011 FC)
Cryogenics (Mar. 2011 FC)



Thank you very much for your
attention



CERN people involved with the HIE-ISOLDE project
ISOLDE Collaboration

