

Planning for the OPERA experiment installation in LNGS Hall C

Jean Dupraz and Salvatore Buontempo

Hall C:

- Working hypothesis
- Main installation sequence
- Gantt chart
- Resource distributions

Conclusions

VETO and **Changeable Sheets**
are **NOT** included in the plannings here in the following

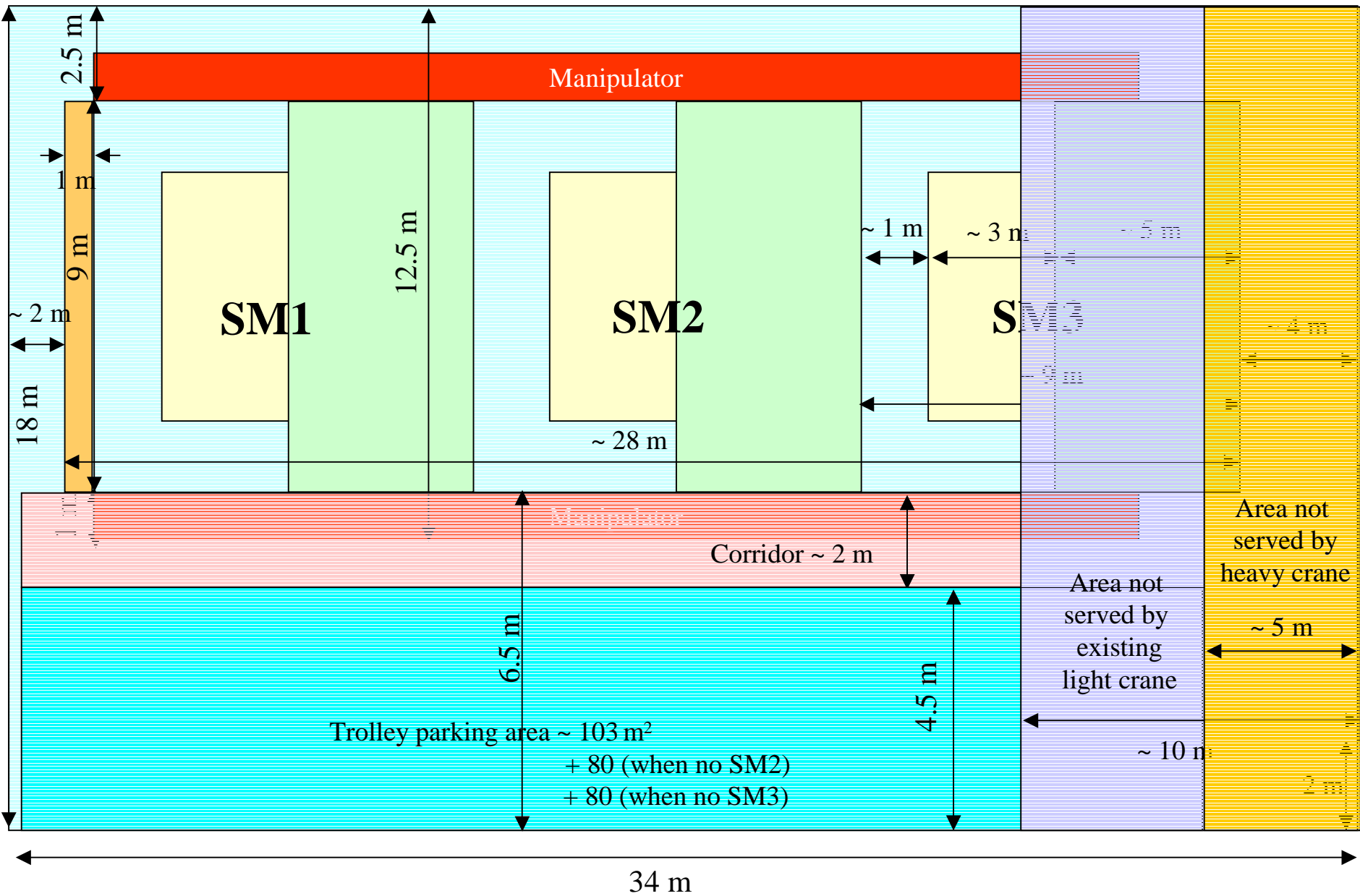
Installation in Hall C (scenario #1)

REQUIREMENTS

- Two Light cranes (5 tons) + one heavy crane (40 tons) available since the beginning
- Side elevator trolleys (to replace passerelles of Hall B case)
- “Trolley parking area” fully devoted to OPERA during installation phase (no camion passing trough) (100m²) available close to detector in Hall C (see Hall C map)
- Limitation in useful area for cranes up to 5 m from the entrance for Heavy one and 10 m for one of two Light (see Hall C map slide)
- ~700 m² space available in Hall B (48 m length) for unloading and preparation of sub-detector modules
- 1.5 crane available for OPERA in Hall B for unloading and module preparation operations

Hall C map

NOT TO SCALE



Hall C (scenario #1)

Main installation sequence

For SM=1 to 3 then

- Magnet + Inner trackers
- XPC + PT (see PT slide)
- Upper beams
- Wall + TT
- Pre-Cabling (from Detector to Upper beams)

next

- Control Room
- Cabling (from upper beams to Control Rooms)
- Manipulator
- Filling with brick + Electronic Detector Commissioning

Installation in Hall C (scenario #2)

REQUIREMENTS

scenario #1 +...

- Control Room available since the beginning of the installation phase
- Larger “Trolley parking area” fully devoted to OPERA during installation phase (no camion passing trough) available close to detector in Hall C (150 m²)
- BAM location closer to Hall C (not in corridor between Hall A and B)

Hall C (scenario #2)

Main installation sequence

For SM=1 to 3 then

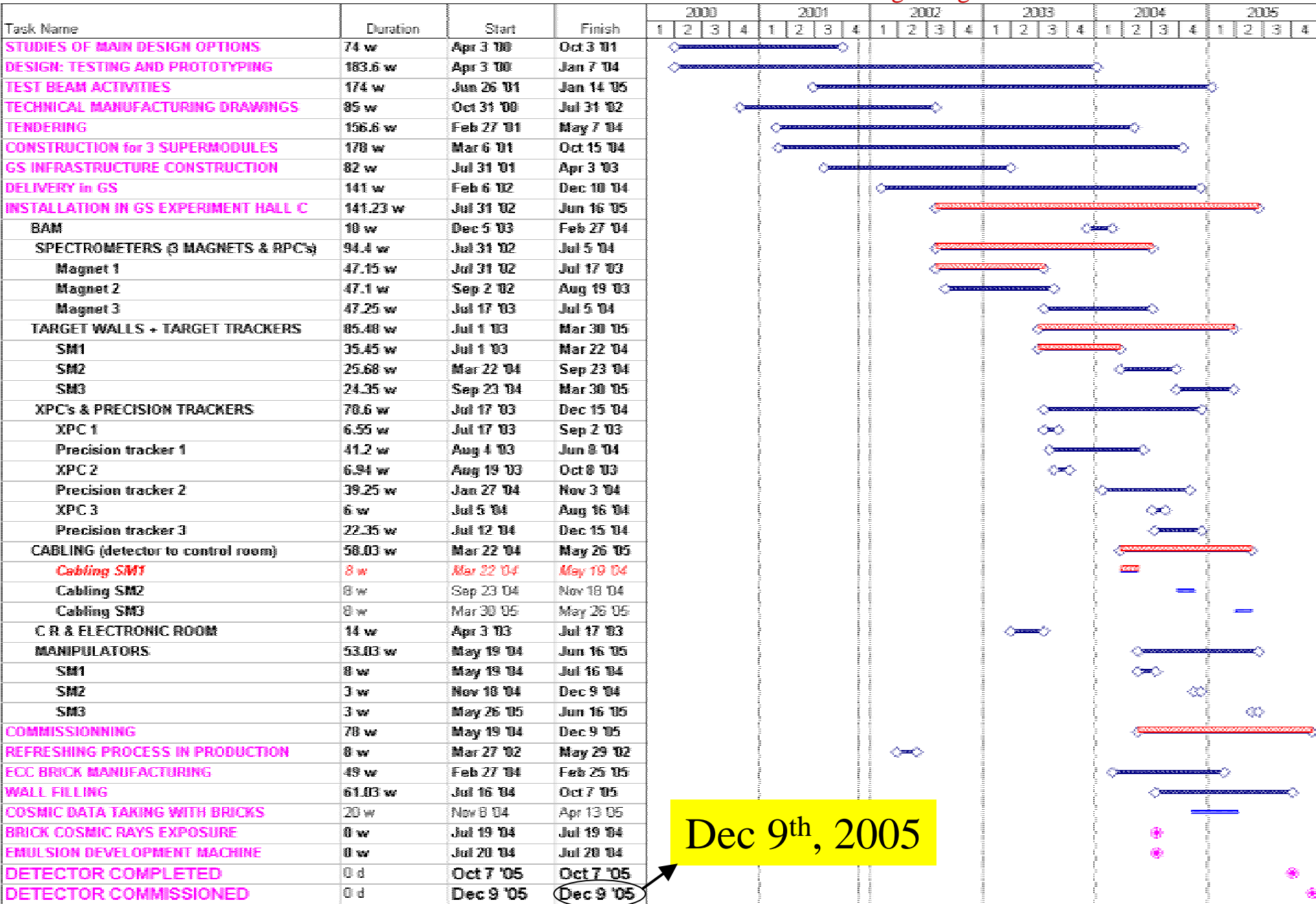
- Magnet + Inner trackers
- XPC + PT (see PT slide)
- Upper beams
- Wall + TT
- Cabling (from Detector to Control Rooms)
- Manipulator
- Filling with brick + Electronic Detector Commissioning

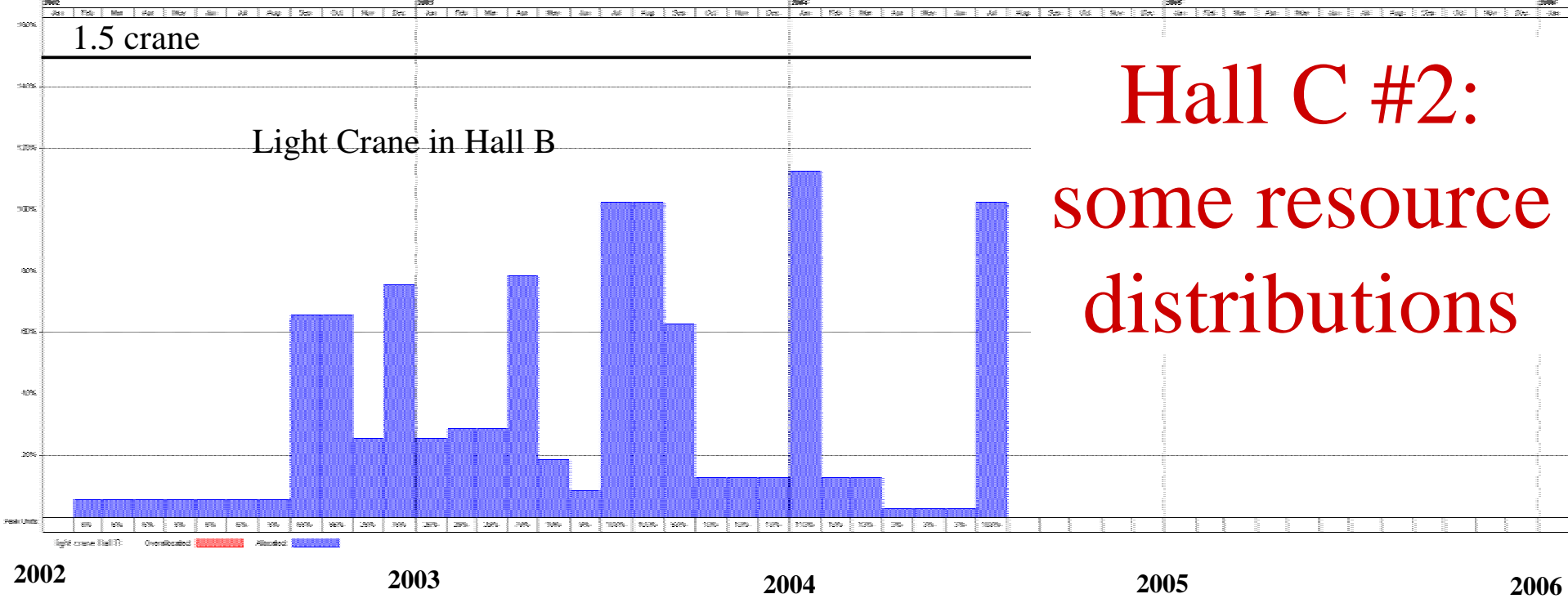
next

planning levelled on L&H cranes with 150m2 Trolley Parking area

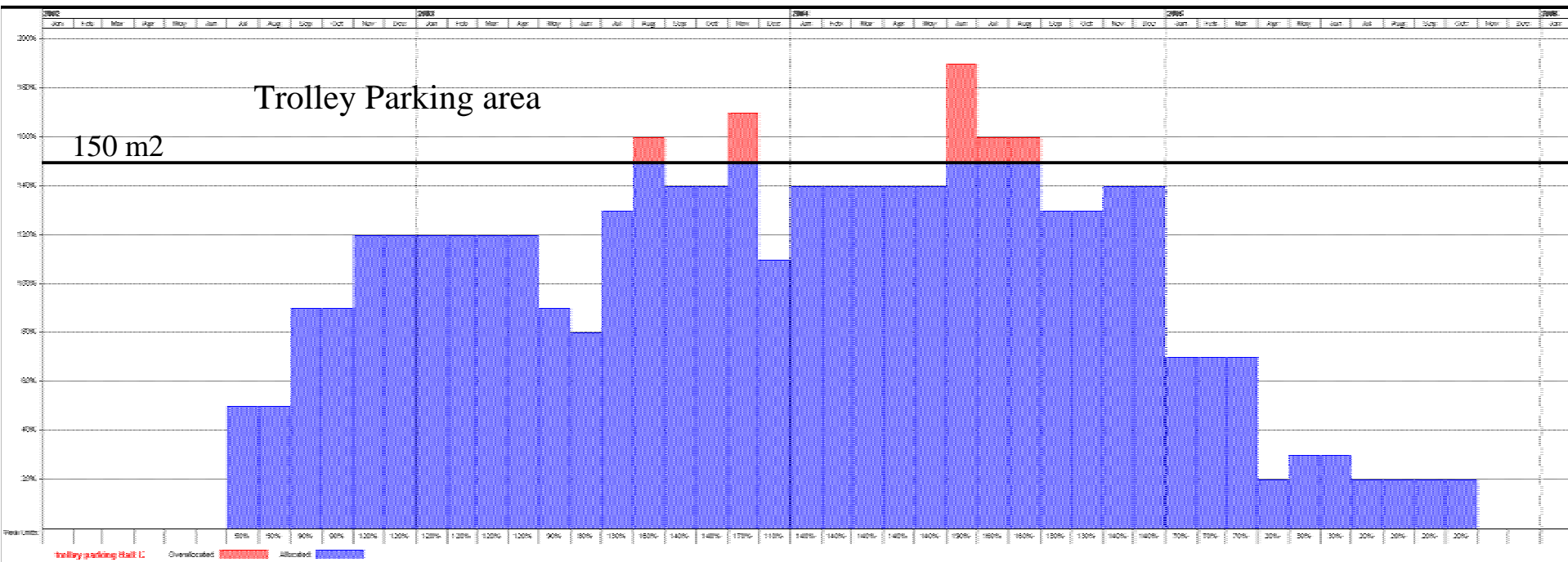
CR available since the beginning and BAM near the detector

Hall C #2: Gantt chart





Hall C #2:
some resource
distributions



Conclusions (Nov'01)

In Hall C (scenario #1): detector fully installed by **July 2006**

...because:

- **Control Room available only at the end of installation**
- limited “trolley parking area” (100 m²)

In Hall C (scenario #2): detector fully installed by **Dec 2005**

...because:

- **Control Room available since the beginning of installation**
- larger “trolley parking area” (150 m²)

Conclusions (Nov'01)

In Hall C (scenario #1): detector fully installed by **July 2006**

...because:

- **Control Room available only at the end of installation**
- limited “trolley parking area” (100 m²)

In Hall C (scenario #2): detector fully installed by **Dec 2005**

...because:

- **Control Room available since the beginning of installation**
- larger “trolley parking area” (150 m²) meaning ~10 m of corridor in Borexino area.

**All this documentation has been given to
LNGS Space Committee at the end of Nov 2001**

Decision on Hall allocation expected on next LNGSC meeting (march 21st 2002)

Present situation (March '02)

Due to CERN financial situation we have **6 months** delay up to now on:

Orders: Magnets, RPC, TT

Tenders: BAM, Lead, TT

Consequently all previous schedule have to be shifted to:

HallC scenario#1 : **Jan 2007**

HallC scenario#2 : **Jun 2006**

Warnings:

We have to check the availability of Boliden lead with this delay.

To apply scenario #2 we have still to find a solution for Control room available since the beginning, validated by DAQ group.