



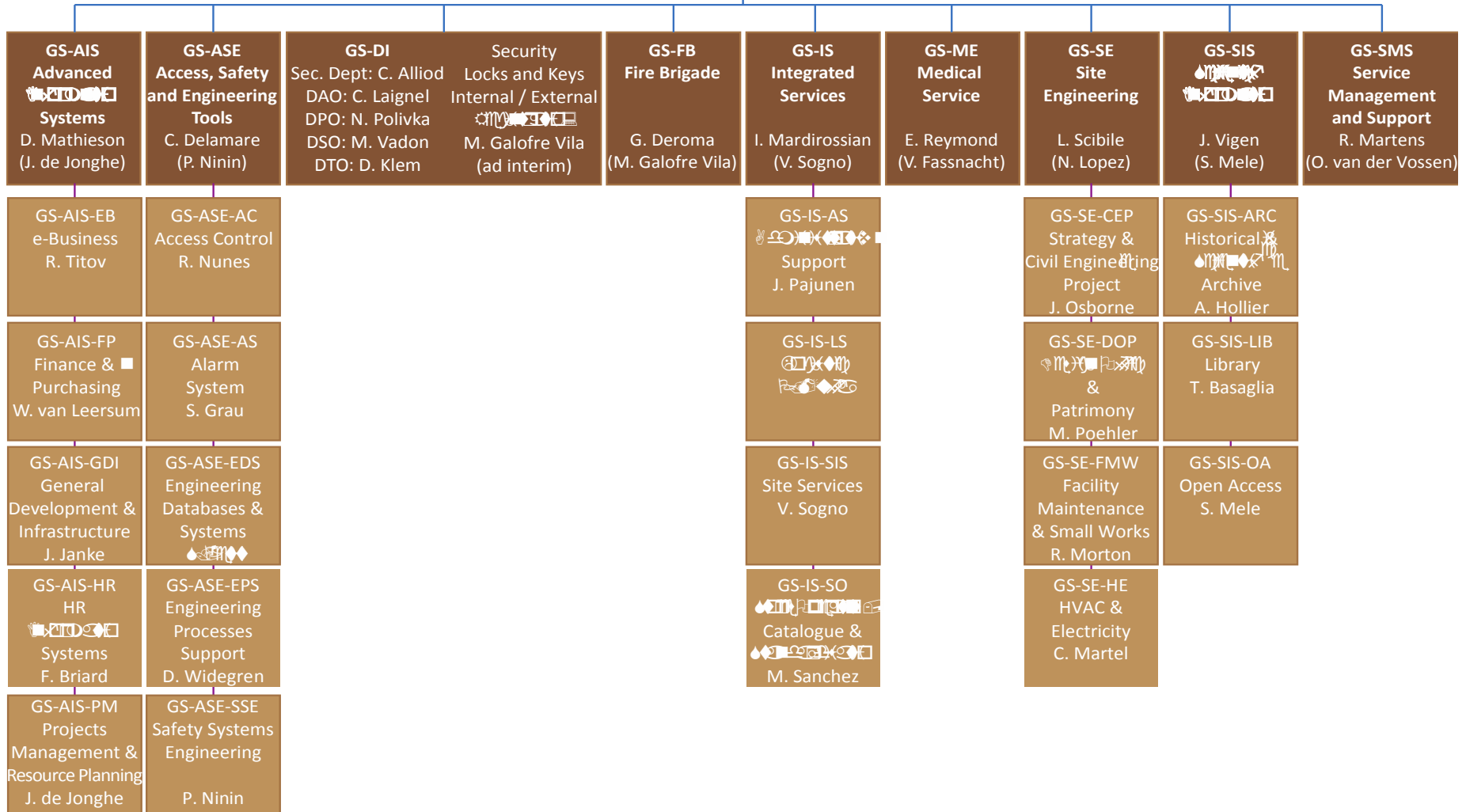
# GS Department

**LI. Miralles**



L. Miralles  
Head of GS

DDH: C. Delamare



# 2013 material budget

• Initial operation budget	34.2 MCHF
• Carry forward (2012 budget)	2.0 MCHF
• LS1	1.1 MCHF
• Services + licences	0.6 MCHF
• Revenues	<u>0.1 MCHF</u>
• Autumn operation budget	38.0 MCHF
• Projects budget (autumn)	57.7 MCHF (47 MCHF)

# 2013 personnel

- Staff
- Fellows

39.8 MCHF

2.0 MCHF

41.8 MCHF



GS Department

# Advanced Information Systems

- HR:

- Reminders for User's Office
- New HRT reports
- Validation Engine
- Budget tracking for Training Service
- Summer Student Selection Tool
- Contract terminations tool
- e-Recruitment integration to Drupal
- Home Leave extension to the world

- EVM

- 4 new projects
- EN-CV: "Small Projects"
- New Dashboard

- CERN Single Sign On

- EDH:

- New EDH Forms
- New Workflow Engine

- CERN Hostel

- IMPACT

- Safety documents: VIC, lockouts
- Integration with Infor EAM & Dosiserv
- Radiation Dose Reports

- Activity Planning Tool

- New Staff Monitoring Tool
- LD2IC Forecast

- **Public Outreach**
  - New application for Visits Service
- **OpenDays:**
  - Ticketing and flow monitoring applications
- **E-Groups & Roles**
  - New management features
  - Improved performance
  - New Safety Roles
- **Phonebook v2**
  - Much improved search facility
- **Locations**
  - New project started
  - Consolidation of locations data
- **Knowledge & Technology Transfer**
  - Events & Patents tools
- **Finance:**
  - Qualiac RIA migration
  - Automatic car rental invoicing
  - Contract management improvements
- **Logistics**
  - Waste Management support
  - Inventory check list
  - Car pool support

# AIS 2013 in Numbers

- EDH:
  - 17'000 users
  - 360'000 document created
  - 760'000 electronic signatures
- HR:
  - 454'700 HRT reports run
  - 8'391 contracts created
  - 40'000 reminder emails sent
  - 28'500 job applications received
  - 39'439 SiR Trainings passed
  - 46'159 payslips calculated
- Finance & Purchasing:
  - 90'000 purchase orders
  - 100'000 payments made
  - 16'000 Imports/Exports
  - 700'000 transport documents prepared
- IMPACT:
  - 11'150 coordinated LS1 activities
- CERN Hostel:
  - 27'371 Online reservations
- OpenDays:
  - 20'000 tickets issues
- Public Outreach:
  - 3'453 visits organized (84'700 visitors)
- Phonebook:
  - 29'000 entries
  - 2.1 million searches
- Reporting Service:
  - 351'000 report executions





# PS Access Project

- Major change in the PS Complex and in the LHC Injection Chain !
- 10/14 zones fully renovated
  - Buildings; buffer zones
  - Access points (21/22); doors
  - Interlocks
- Integration of new experimental areas
  - EAR2; EAR2
- Control system in CCC fully operational



# Alarm Systems

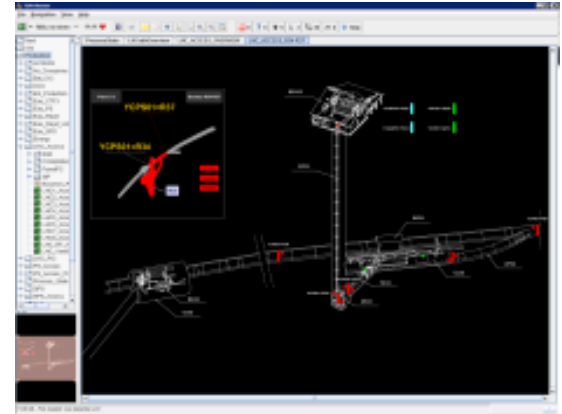
Fire detection  
Flammable gas detection  
Oxygen Deficiency Hazard  
Evacuation  
Red telephones  
Alarm transmission

- Fire Detection and Evacuation 2014
  - Bld 107, 774, HIE-Isolde, ISR Radiation Waste Project
  - PS Beam Imminent Warning/Evac - Commissioning
  - Numerous LS1 activities
    - R2E activities LHC4 & LHC5
    - PS Fire doors
    - Triggering of the LHC evacuation by the Fire detection
  - Technical galleries after the LS1
  - ...
- Flammable Gas and ODH Detection 2014
  - Centrals Point 1 & 5
  - HIE-Isolde
  - Flammable gas detection by air sampling in UX15
  - ODH sensors non accessible – solutions to be deployed
  - ...



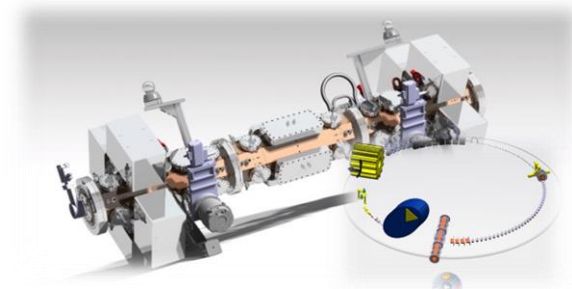
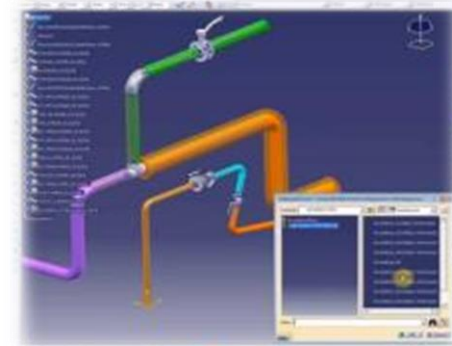
# Infrastructure Monitoring

- New clients
  - GS/SE control systems
  - FB for accelerator complex
  - Access Zones monitoring
- Further integration with LASER and DIAMON (BE/CO)
- PVSS monitored data back into TIM (EN/ICE)
- Enhancements of TIM's synoptic web features



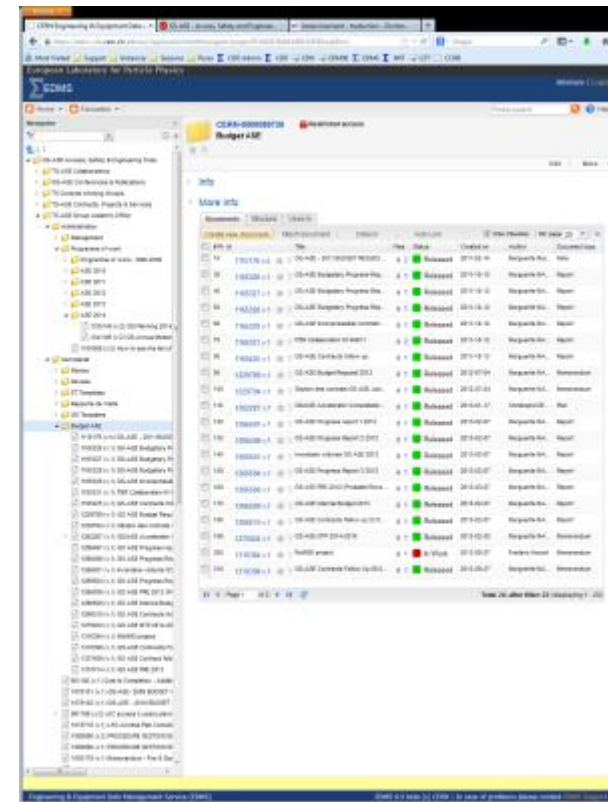
# CAD Support 2013

- Continuous and significant support effort
  - ~130 support requests per month
  - 16 design offices visited each week (>160 designers)
  - 94 new users (huge turnover!)
  - 65 people trained (45 new)
  - CATIA users forums & many FAQs
- Major CATIA/Smarteam upgrade (R23) Nov. 2013
  - Significant preparations and tests: ~12 man-months
- Piping solution provided for EN-CV with methodologies.
  - → Improved efficiency.
- Prepare the succession of CATIA V5 (V6 or not ?)
  - Update of user requirements
  - Benchmark of CATIA V6



# EDMS

- EDMS 2013 in numbers
  - 7'000 new documents/drawings per month
  - 124'000 file downloads per month
  - 2'800 support tickets
  - 12 courses: 95 participants in total
- Joint effort launched with BE, TE & EN
  - Import/digitalize all maintenance documentation
- EDMS 6
  - New more intuitive and user-friendly interface
  - New search engine
  - Beta version now available on production
  - Full production Q2 2014



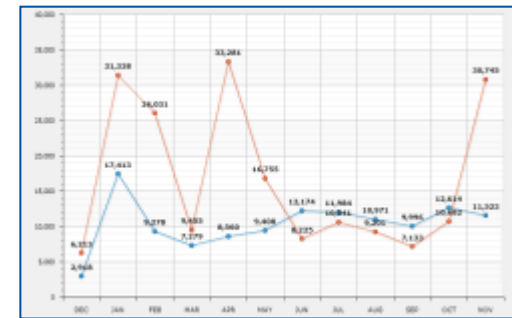
# Traceability of radioactive equipment - TREC

- Fruitful collaboration with DGS/RP
- Some numbers for 2013:
  - 18'800 RP measurements requested in buffer zones
  - Corresponding to 1'546 tons of material
- PS buffer zones fully equipped
  - In coordination with the PS Access Project
- Next Challenges
  - Fiches d'Identification des Déchets
  - Waste Management in the ISR

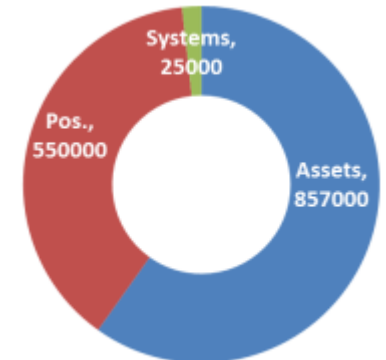


# Computerized Maintenance Mgt

- Increased use and interest in Infor EAM
  - ~200k Work Orders registered in 2013 (~75k in 2012)
- EAM Light: Web interface for basic tasks
  - Mobile friendly version available for all platforms
- Continuous improvement of the Integration with Service Desk and CCC-TI
  - Computing tools and processes
- Pursue the efforts with the A&T sector (Maintenance Management Project)
  - Asset tracking, Documentation, Spare parts
  - New equipment groups
- Profit from this momentum for GS (SE, FB, IS, ASE)
- In the 2014 pipeline
  - Infor EAM upgrade to version 10.1.2 (or 10x)
  - IMPACT & planbook integration
  - Better access rights management



Created: ~200.000 Completed: ~125.000







2013 GS-IS

# Exhibitions

In 2103 we had 5 visits from firms from Austria, Belgium, Greece, the UK and Sweden as well as Israel for an exhibition.



Israel at CERN



France at CERN

# STORES

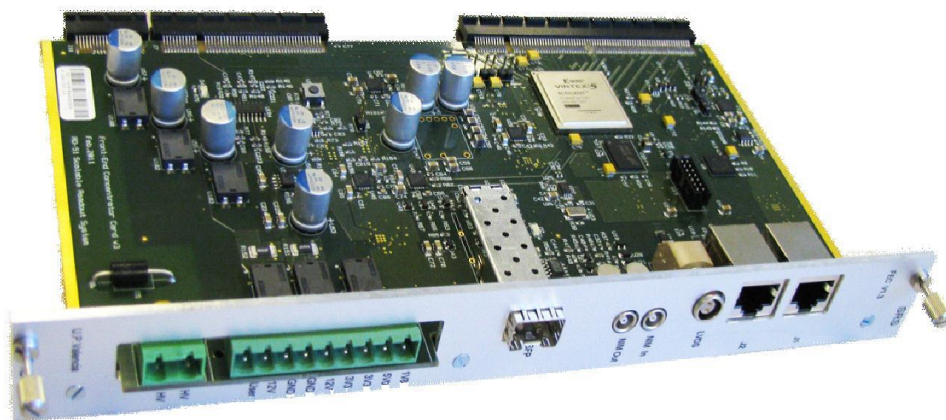
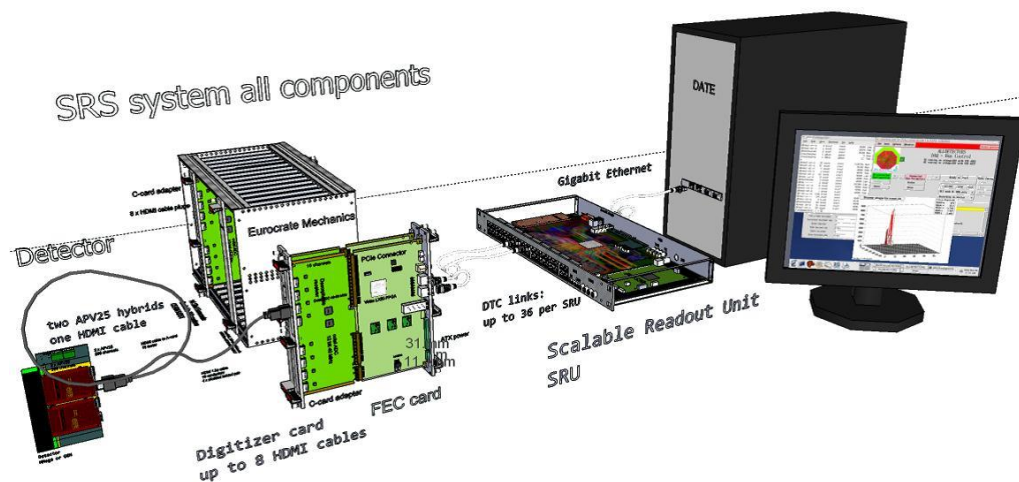
- Third phase in the renovation of the Central Stores  
(acquisition of two new storage towers)
- Supply of equipment for open days  
(264 000 items , Computers, Safety-Cloths, T-Shirts , Hoodies, Pens...)
- Modernization of equipment in Row materiel store ( Saw and hydraulic Shears )
- Management of module for SRS project , developed at CERN and manufactured in Greece

# STORES

## Evolution of turnover

	2009	2010	2011	2012	2013
Turnover(MCHF)	22.5	23.10	25.6	28.9	31
Direct Deliveries (MCHF)	6.9	7.4	8.4	8.3	10.5
Punch Out Direct Deliveries (MCHF)	2.2	2.5	3.0	3.8	4.6
Stock Value (MCHF)	6.8	7.0	7.45	7.9	8.1
Number of Pickings (in Thousands)	100	135	152	165	226

# SO - Stores

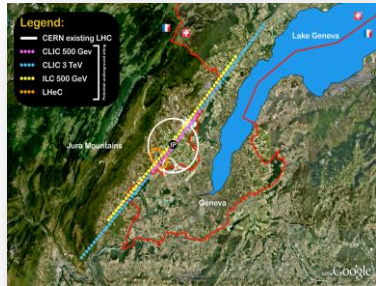


SRS project,  
developed at CERN  
and manufactured in  
Greece

# GS-SE Mandate

- The GS-SE Group is responsible to provide, to maintain in working conditions including their eventual operation and to renovate..... the civil engineering structures and infrastructures and the technical services for the tertiary and industrial part of the organization.
- The abovementioned responsibilities include all phases from preliminary design to construction management and hand-over of complete structures and infrastructures.

# GS-SE scope



to large projects

COMPLEXITY



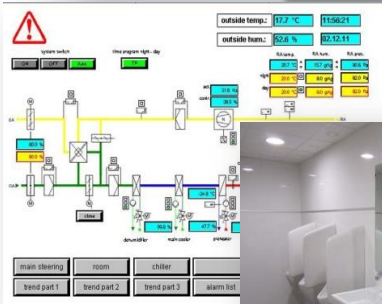
From Design

to construction

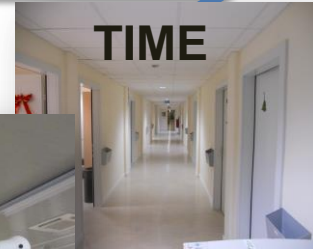
and Operation & Maintenance



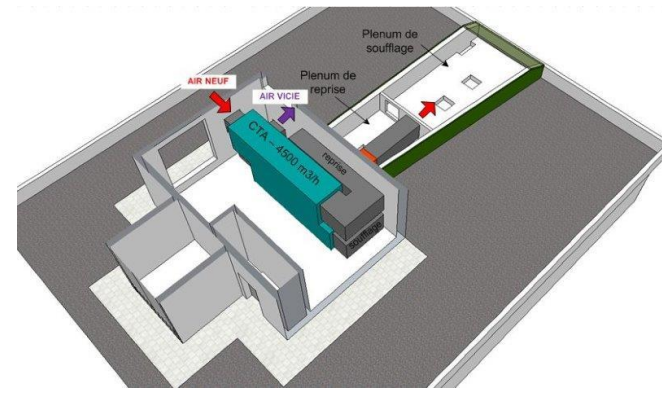
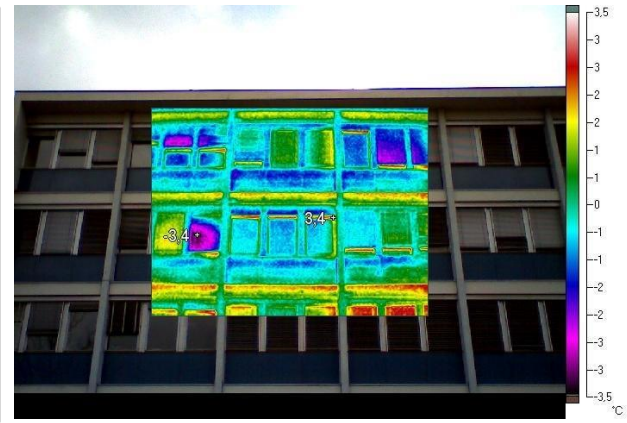
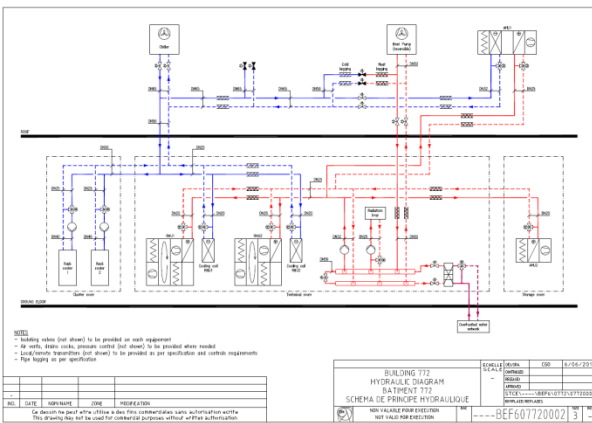
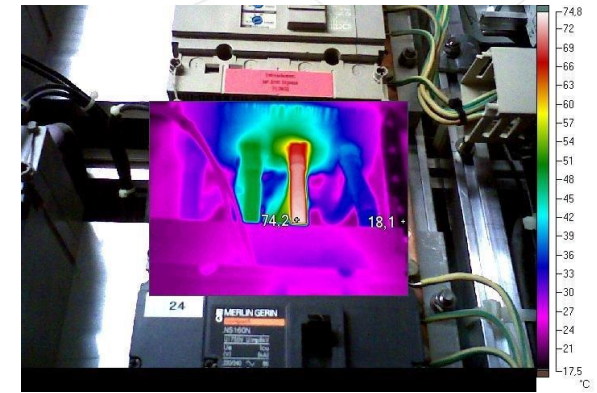
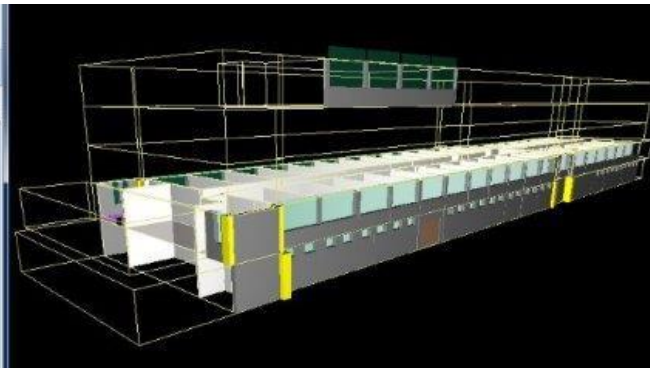
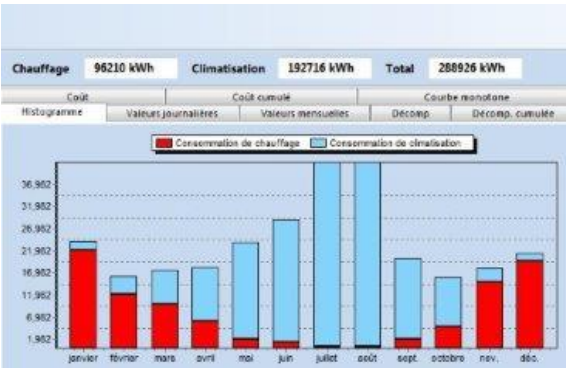
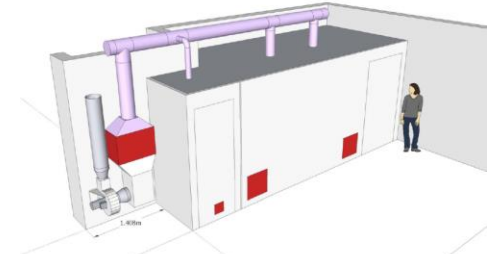
TIME



From minor works



# GS-SE - Design examples, ELEC and HVAC





# GS-SE works – Charpente metallique

Bat 513



ISR Bat 375



HIE-ISOLDE



BAT 3198



Bat 73



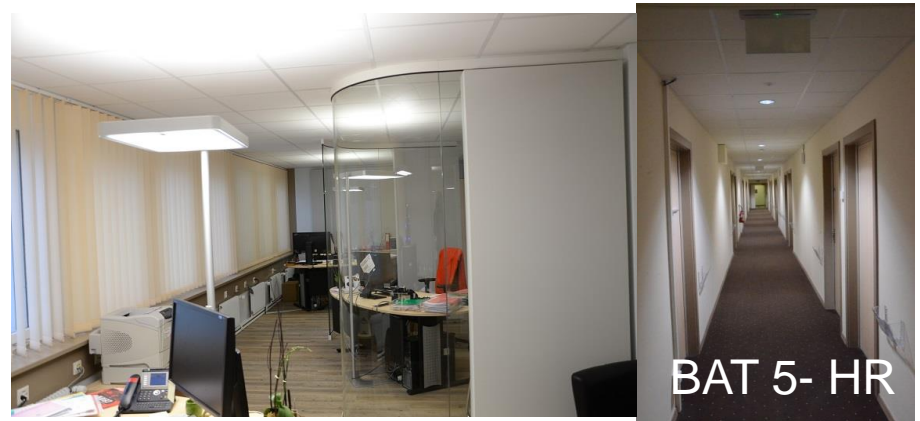
Bat 662



Bat 874CCC



# GS-SE works – renovations



# GS-SE works – ISR renovations



New technical room in the  
ISR



Resin floor for the ISR



Crane rail repairs in the ISR



Painting works for the ISR

# GS-SE LS1 works - Carbonation cooling tower PT1



# GS-SE LS1 works – PS complex

B151 PS BRIDGE AIR TIGHTNESS



154 CONCRETE SLABS REPLACEMENT



TT2/TT2A AIR TIGHTNESS



B151 PAINTING

# GS-SE project – Bld 107



New building 107 – workshops, laboratories and ancillary offices for the TE department.

THANK YOU FOR YOUR  
ATTENTION !!

