

Italy@CERN 2021

SCE Procurement challenges

Mar Capeans (SCE)

October 7th 2021

SCE MANDATE VISION

The Site and Civil Engineering (SCE) Department manages and develops CERN's real estate assets and infrastructures in agreement with CERN's scientific strategy, as well as all the services related to the caretaking and operation of the CERN site.



Create an inspiring and welcoming environment for CERN's scientific community now and in the future.

An extensive offer dedicated to CERN's Community

SCE Organization

Project Portfolio Management (PPM)

Site Asset Management (SAM)

Services and Supply Chain (SSC)

Service Management and Support (SMS)

Departmental Operation and Development (DOD)

Roads



Buildings



Housing



Catering



Mobility



Cleaning & Waste



Electricity



Shipping



Goods reception



Civil engineering projects



Storage



Service desk



Reporting solutions



HVAC & fluids



Internal distribution



Galleries



Metallic structures



Infrastructures



Energy management



Architectural



Building shell



Building technology



Landscaping



Installation



Maintenance



Raw materials



Keys



Accesses



Site security



Mail



and so many others ...

KEY FIGURES

- 590 ha (220 fenced)
- 2 main sites and 15 satellite sites
- 670 building from 10 m² to 20.000 m²
- 65% built before the 70s
- 70 km tunnels and 80 caverns
- 30 km roads
- 1000 km technical galleries and trenches
- 9000 persons/daily
- 490 hostel rooms
- 8500 working places
- 4300 parking places in Meyrin, 1400 in Preveessin
- 25000 daily movements to- and inter-sites
- Public transport links in CH, not in FR



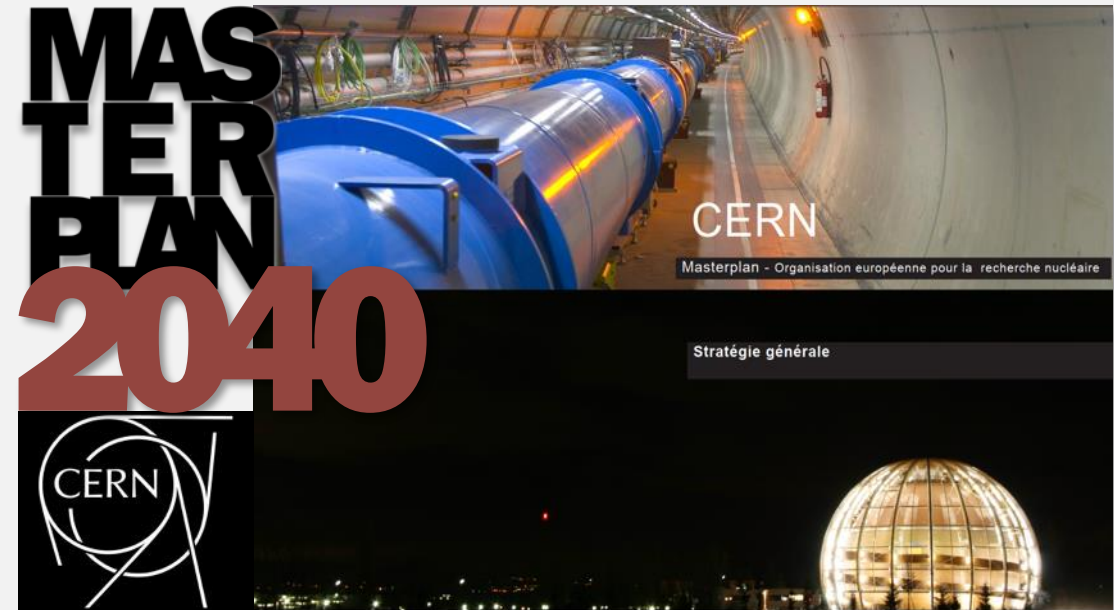
21-25 SITE DEVELOPMENT STRATEGY

Unique opportunity to shape the site




The 2022-2031 programme consists of the construction of new buildings, an increased programme for the renovation and maintenance of existing infrastructures, and a dedicated programme to renovate CERN's extensive network of technical galleries.

Strategic plan at long-term, regularly updating and aligning to evolutions in CERN's scientific program and future projects. And, protecting the site by a reflected interplay between preservation and modernization.

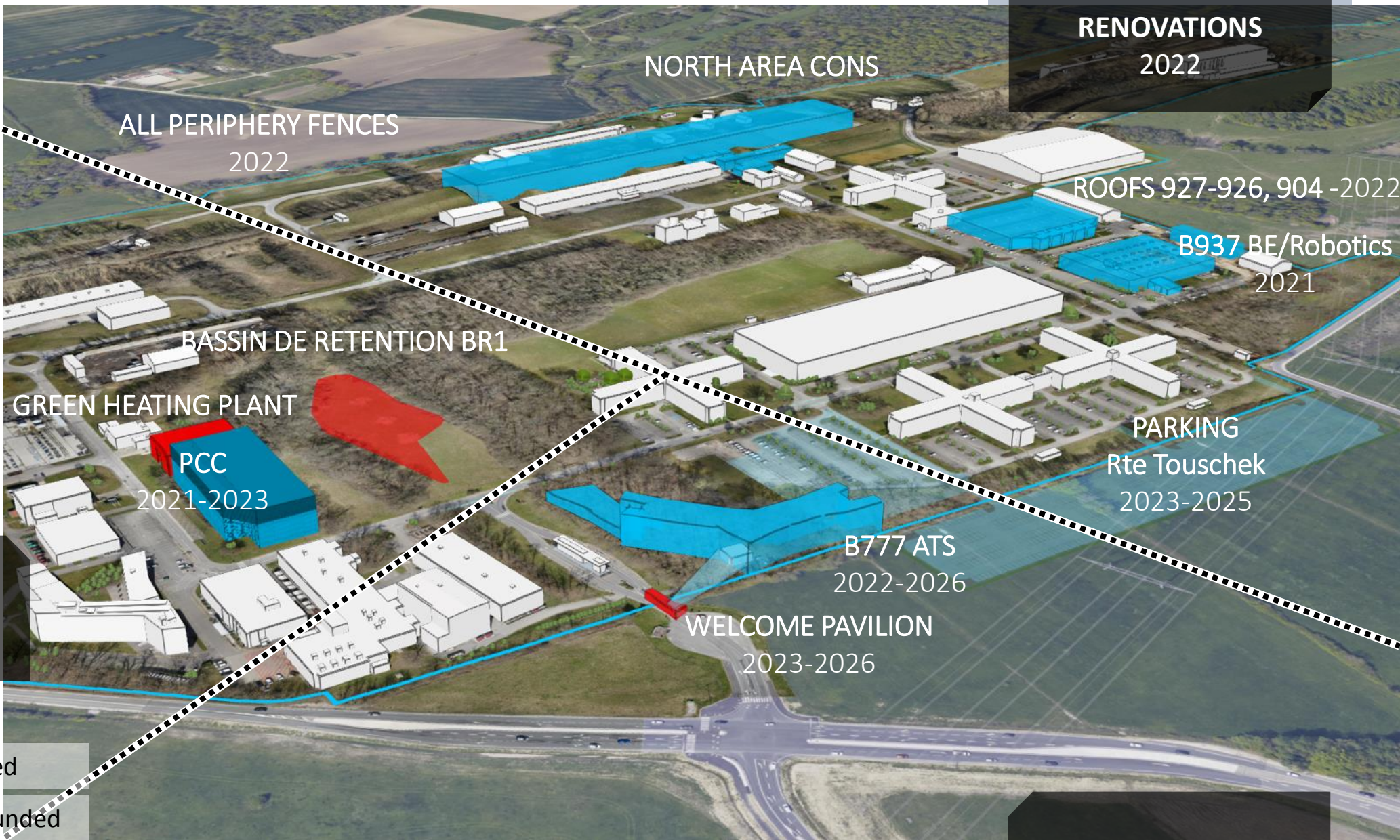
- Strategy based on 3 pillars:
 - Urbanism and Environment
 - Strategy for space/land management
 - Services adapted to CERN's diverse population





-  New construction
-  Renovation
-  Demolition

PREVESSIN



RENOVATIONS
2022

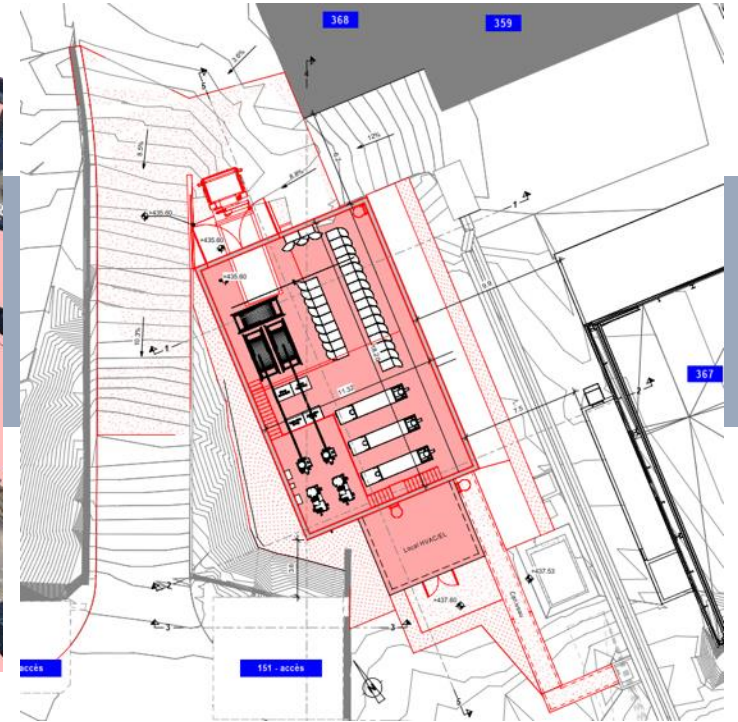
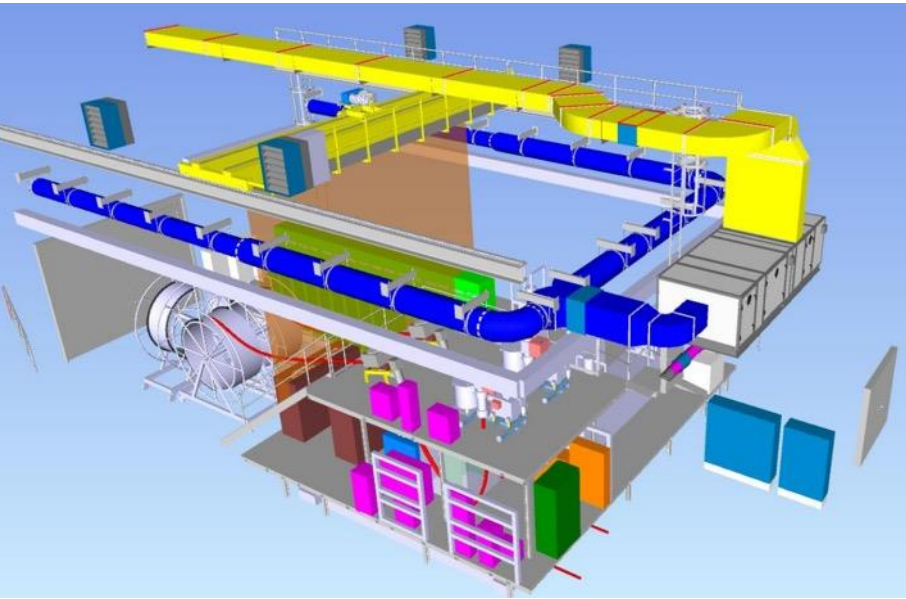
ENVIRONMENTAL INITIATIVES
2023-2024

- Planned and funded
- Planned, not yet funded

"OPEN LAB"
2025-2026

CHALLENGES STARTING ON **2022-2023**

B369 MTE KICKERS (MEYRIN)



Delivery: 2023

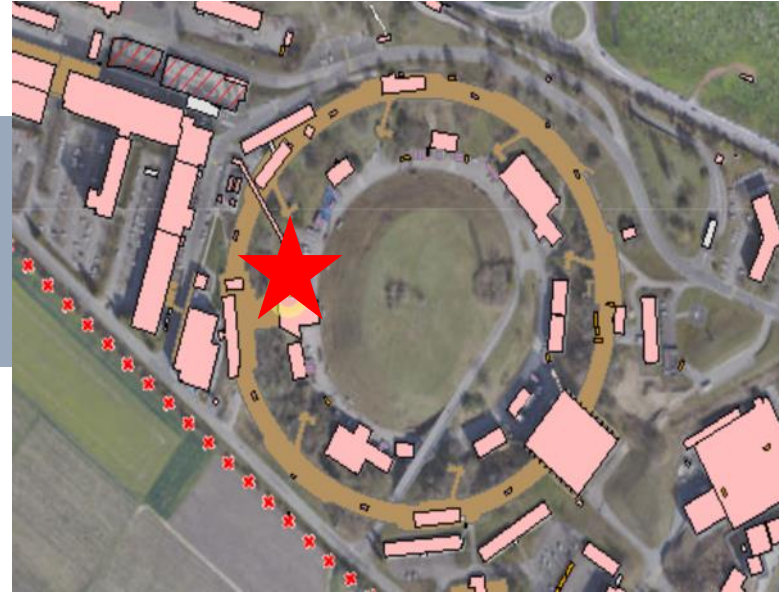
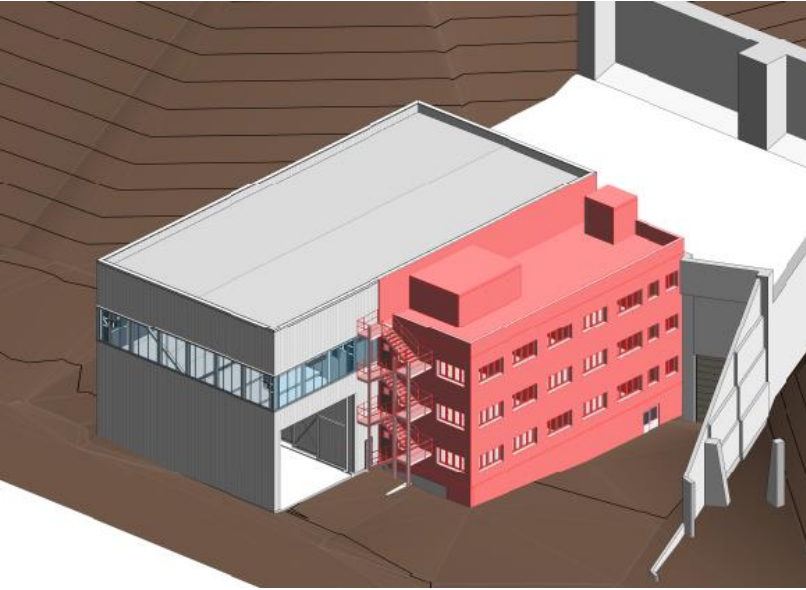
Base assumptions:

- 225 m²
- New technical building with associated technical infrastructures
- Emphasis on sustainable design & construction

Tendering

- Sending of the Contractor IT: July 2022
- Beginning of the works: October 2022
- Building must be delivered at the latest for: December 2023

B184 (MEYRIN)



Delivery: 2024

Base assumptions:

- 315 m²
- Extension and reconditioning of the Radioactive Waste Treatment Centre with offices and renovation of technical infrastructures
- Emphasis on sustainable design & construction

Tendering

- Sending of the Contractor IT: April 2022
- Beginning of the works: October 2022
- Building delivered at the latest: June 2024

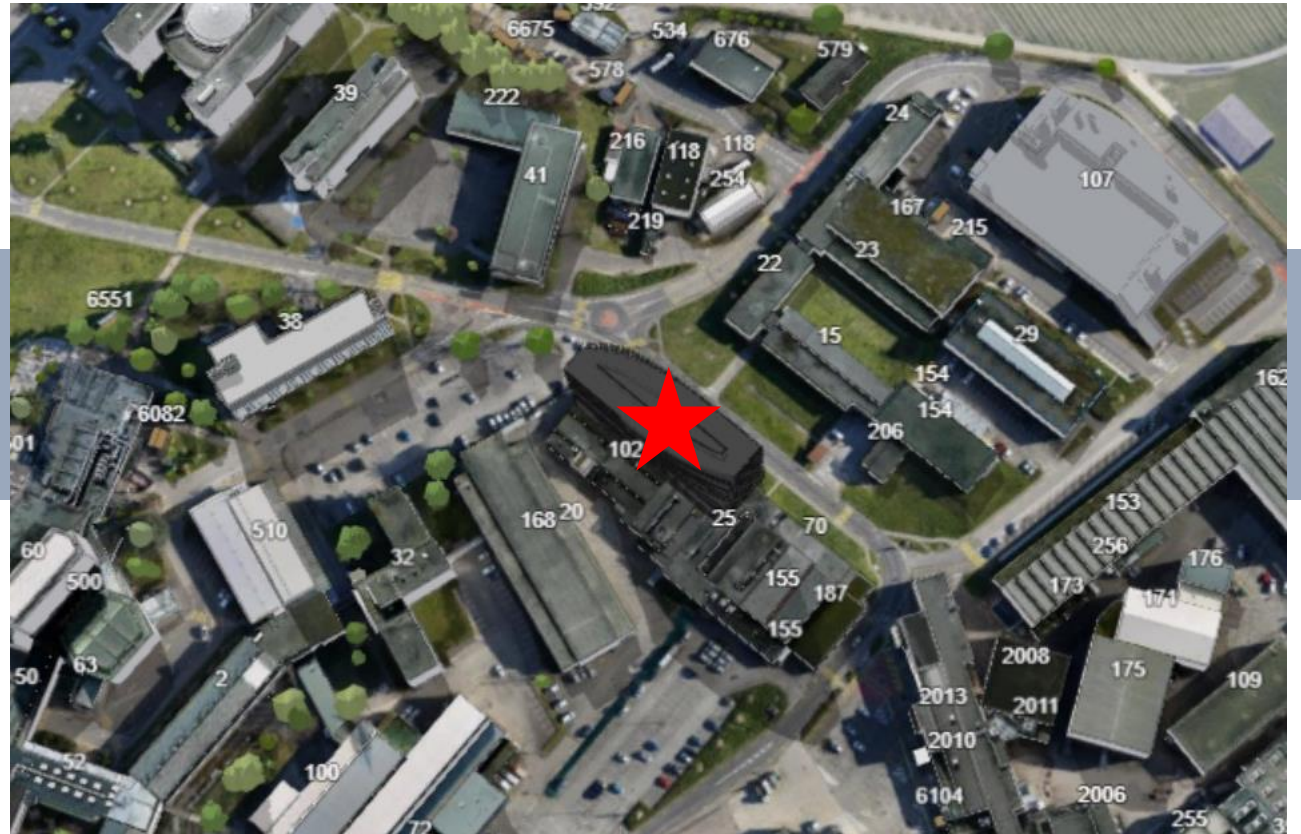
B140 (MEYRIN)



Delivery: 2026

Base assumptions:

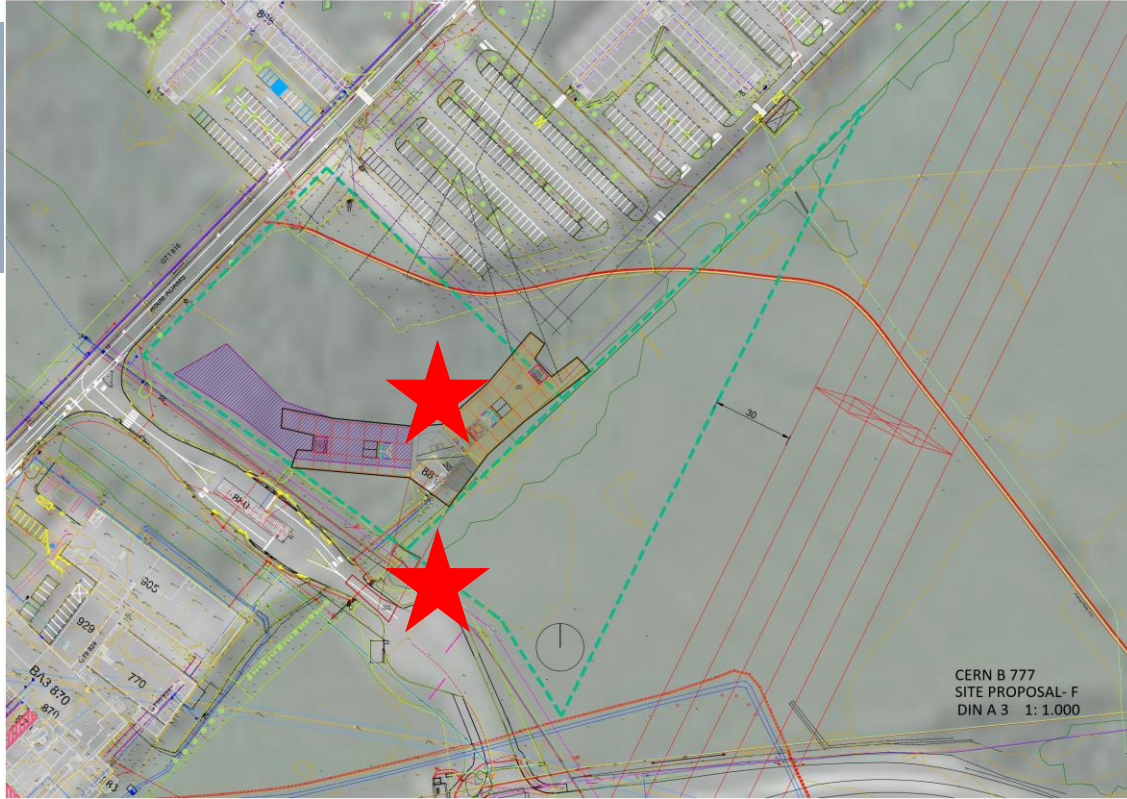
- 18000 m²
- Office building, training center, light laboratories, cafeteria & parking
- Emphasis on sustainable design & construction



Tendering

- Beginning of the works: October 2024
- Building delivered: 2026

B777 & WELCOME PAVILION (PRÉVESSIN)



Delivery: 2026

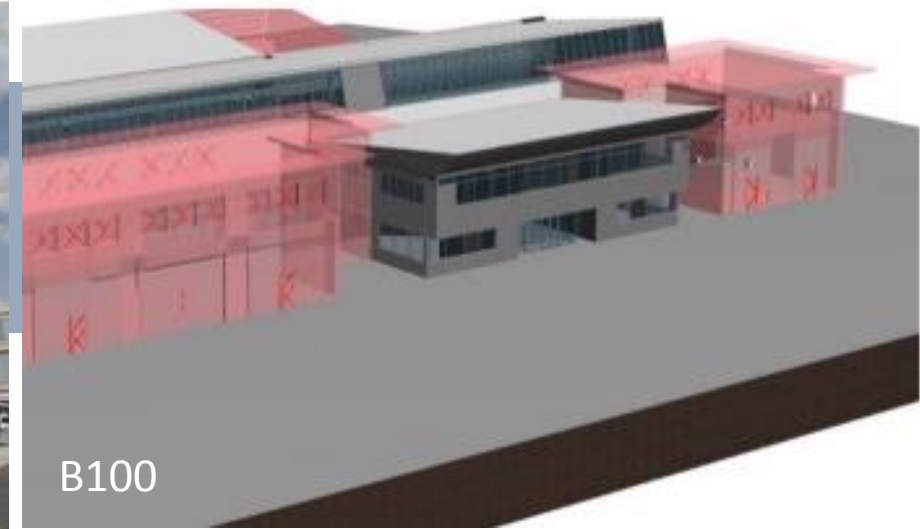
Base assumptions:

- 9000 m²
- Building, restaurant & parking
- Emphasis on sustainable design & construction

Tendering

- Sending of the Contractor IT: 2023
- Beginning of the works: December 2023
- Building delivered at the latest for: May 2026

RENOVATION WORKS



Plan from 2022 to 2028

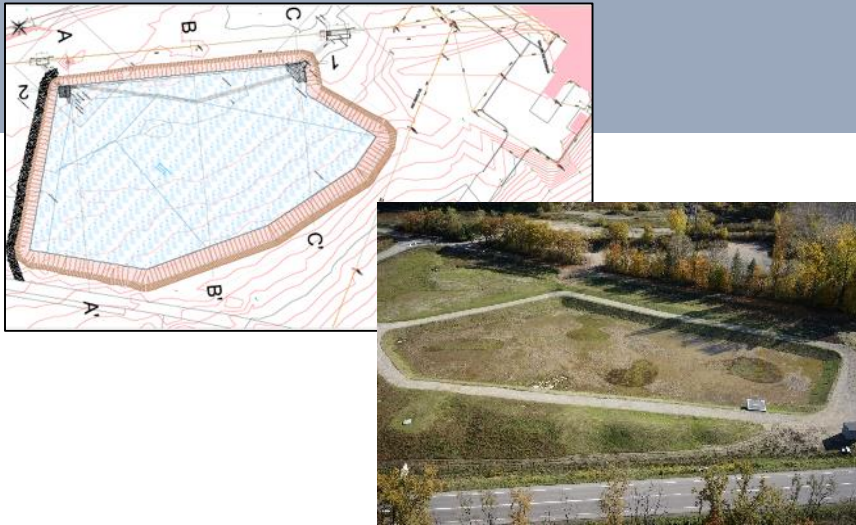
Base assumptions:

- Renovations of offices, roofs and facades for office and technical buildings. More than 15000 m² offices and their associated surfaces for roofs and surfaces
- Includes demolition of obsolete infrastructures
- Emphasis on sustainable design & construction

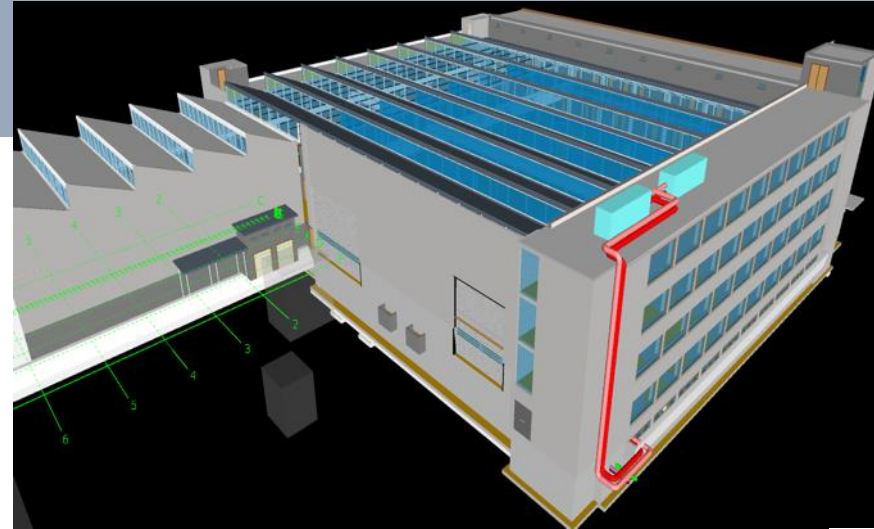
Ad hoc tendering for studies and construction works

ENVIROMENTAL INITIATIVES

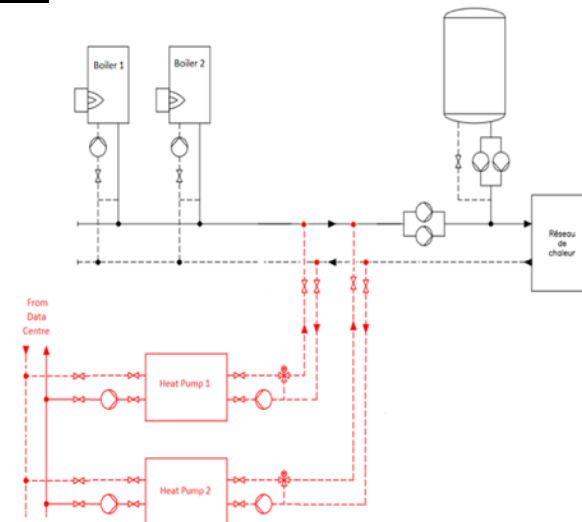
Bassin de Retention



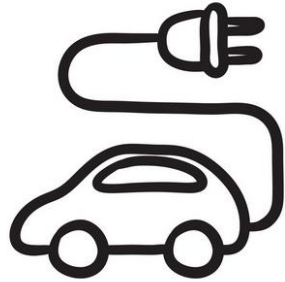
Upgrade of Cooling and Heating networks in buildings and sectors



*Projects under discussion
Ad hoc tendering for studies and construction works*



MOBILITY



Electric vehicles

- Small cars
- Without driving Licence
- Up to 2 passengers

Exploration phase: 2022-2023

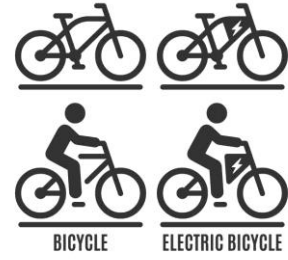
Car sharing

- Car sharing system satisfying CERN requirements
- Virtual key with cell phone
- 4G network cross border (FR/CH)
- Free floating scheme for approx. 400 cars



Delivery: 2022-2023

MOBILITY



Bike sharing

- Bike sharing system for various assets
- E-bikes
- Standard bikes
- E-scooters
- Station to station scheme

Delivery: 2022-2023



Autonomous shuttle

- Exploration of new way of moving from A to B on demand

Exploration phase: 2022-2023

MOBILITY



Charging station for electric bikes

- Studies in progress - first test end 21

Increase and improvement of bicycle parking spaces

Delivery: 2022-2023



Charging stations for electric/hydrogen vehicles

- Installation of terminals (Quick plug)

Exploration phase: 2022-2023

TOOLS

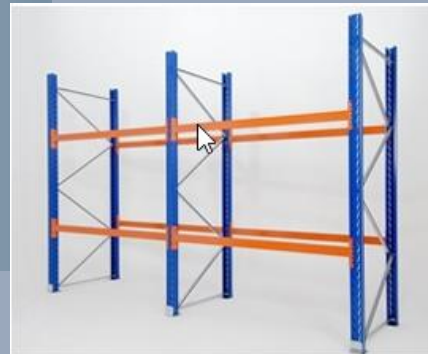
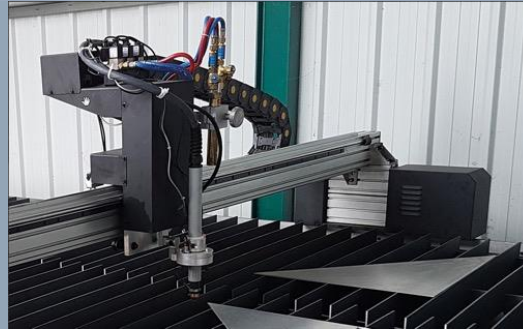
Raw Materials store

New cutting machines:

- Circular and band saw machine
- Hydraulic shears
- Flame cutting machine

New storage system:

- Pallet racks (W:50m, H:4m)
- Sheet metal/plastic storage (up to 200 references)



- New ecological mailbag machine (up to 7k/8h)
- Roller conveyor: 5x10m



Delivery: 2022-2023

SUPPLIES

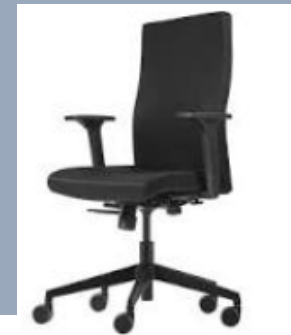


- Fluid handling process and control valves; pressure control valves, safety valves, pressure transmitter (190KCHF)
- Instrumentation fittings (500KCHF)
- Punchout Industrial supply and tools (1MCHF)
- 19 inch instrument rack & accessories (900KCHF)
- Metallic gaskets for UHV applications (3MCHF)
- Coaxial connectors (500KCHF)
- Copper Single cores cables (1MCHF)



Delivery: 2022-2023

- Ergonomic office and visitors chairs (400KCHF)
- Recycled cardboard boxes for distribution: 20k/year
- Safety signs and labels (170KCHF)



CONTRACTS

Frame contracts

- Painting
- Civil engineering works
- Green spaces
- Sewage and Drainage
- Cleaning
- ...

IT for New constructions

- MTE kickers, B184 RWTCS access building, B777, B140+
- Library reading room
- HL: Civil Engineering for Electrical Substation P5
- Civil engineering for new 66kV line LHC Point5
- Perimetric fences

IT for Renovations

- B251 envelope renovation
- B252 renovation
- B904/B926/B927 roof renovation
- B36 envelope renovation
- B100/72 renovation
- NA consolidation-BA80

*Non exhaustive list
Subject to change*

CONTACT

- Civil Engineering and infrastructures (mostly tertiary buildings)
- Environmental initiatives
- Campus Services
- Supplies (stores)

Contact: SCE-DH-Office@cern.ch