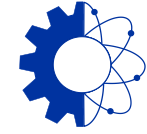


TECHNICAL GALLERIES  
CONSOLIDATION



ENGINEERING  
DEPARTMENT

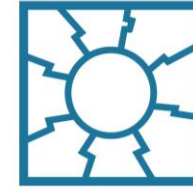
# Technical Galleries Consolidation Program

## EN-EL Status Report

S. FASEL, G. GEORGIEV, EN-EL

30/05/2024

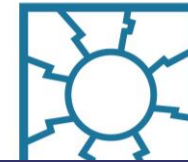
# Table of contents



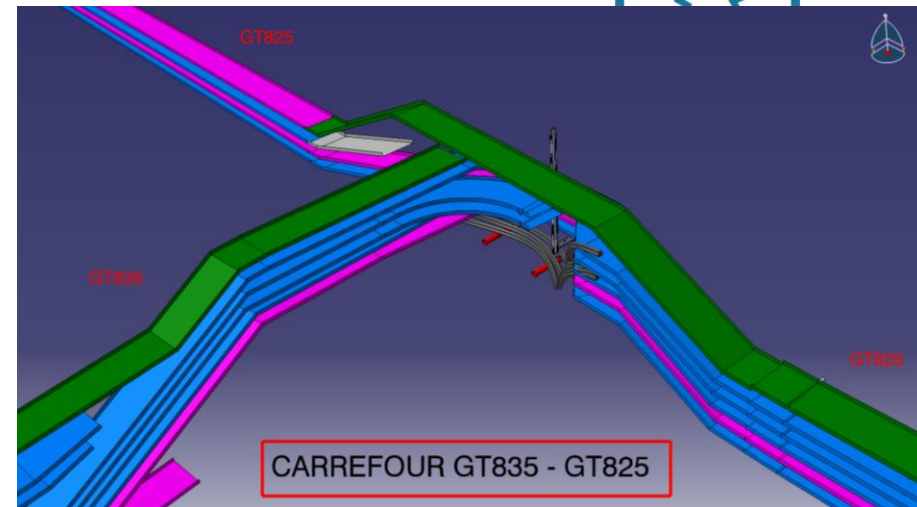
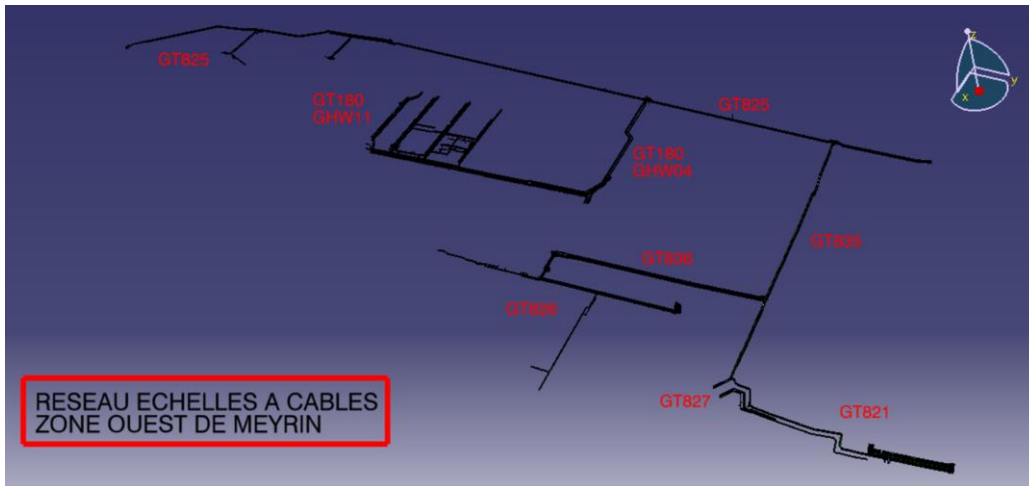
**TECHNICAL GALLERIES**  
CONSOLIDATION

- **EN-EL Integration**
- **EN-EL Surveys**
- **Copper & Fibre De-cabling**
- **De-cabling summary**
- **Current situation**
- **Conclusion & suggestions**

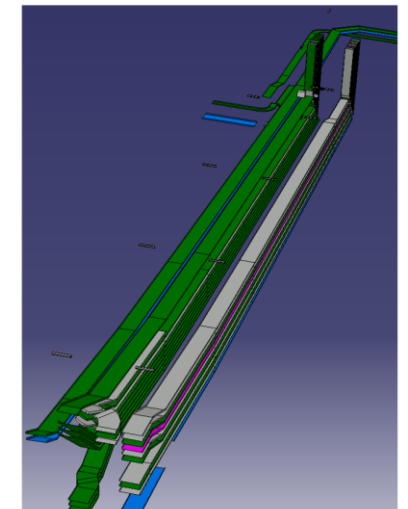
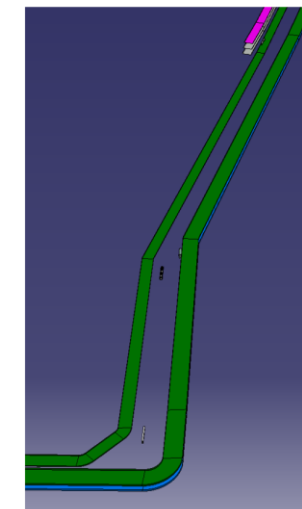
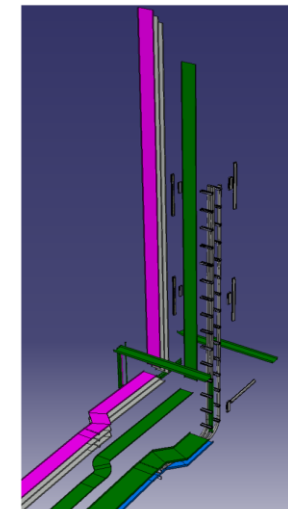
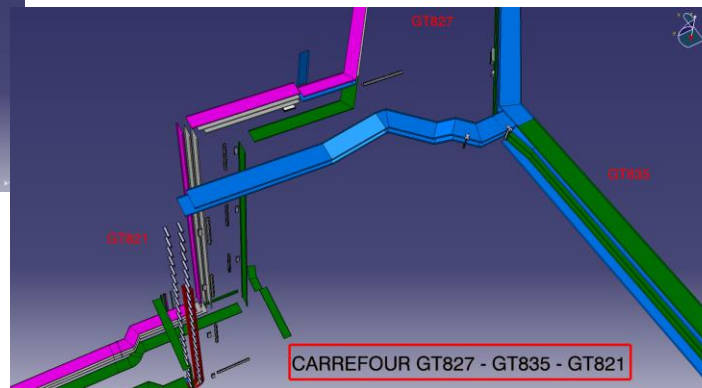
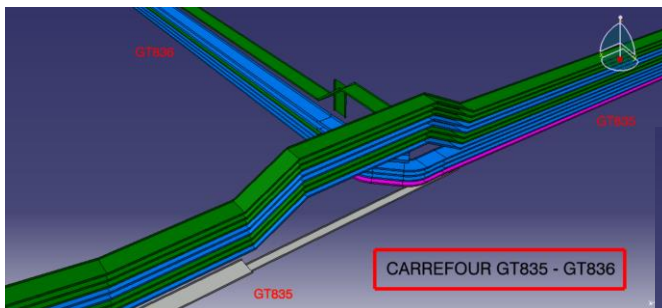
# EN-EL Integration



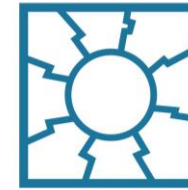
TECHNICAL GALLERIES  
CONSOLIDATION



Gallery GT821 TL4A

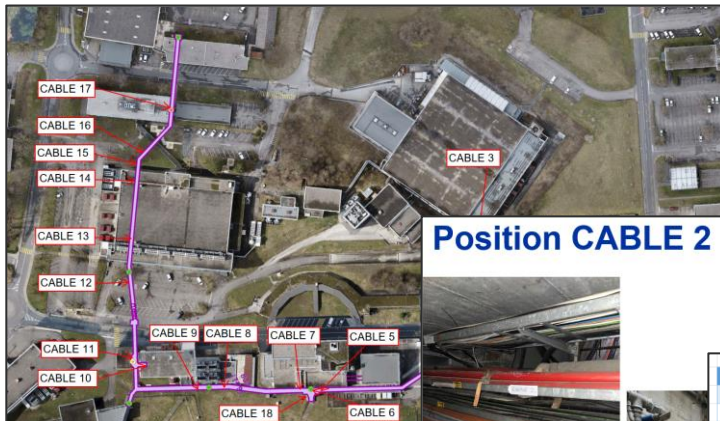


# EN-EL Surveys (1/2)



## New method for surveys

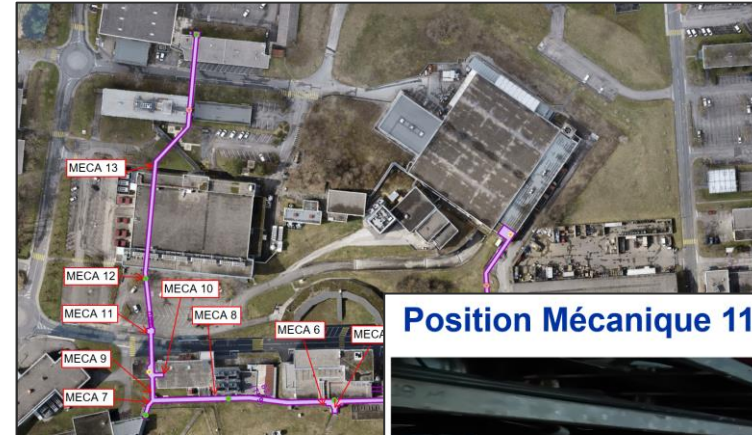
- Adding length for each cable (if possible)
- Adding mechanical repair works



Position CABLE 2



CABLE NUMBER	Type	TRONCON (IF KNOWN)	PF1 IN GALLERY	PF2 (IF KNOWN)	LENGTH
85444	NG4	A	CABLE 3		233
ADRTFL168	NG28	A	CABLE 3		233
ADRTFL223	NF18	A	CABLE 3		233
2716502	PH2J	A	CABLE 3		233
234834	NE12	A	CABLE 3		233
ADRTFL208	NG28	A	CABLE 3		233
ADRTFL209	NG28	A	CABLE 3		233
233545	NG28	A	CABLE 3		233
233541	NG28	A	CABLE 3		233
233543	NG28	A	CABLE 3		233
229991	CA75	A	CABLE 3		233
227060	CC75	A	CABLE 3		233
233418	CA75	A	CABLE 3		233
SN	CC50	A	CABLE 3		233
233624	CA75	A	CABLE 3		233
233622	CA75	A	CABLE 3		233
233626	CA75	A	CABLE 3		233
233621	CA75	A	CABLE 3		233
233625	CA75	A	CABLE 3		233
ADRTFL 7	CA75	A	CABLE 3		233
ADRTFL 226	CA75	A	CABLE 3		233
OTG833-002	NE12	A	CABLE 3		233



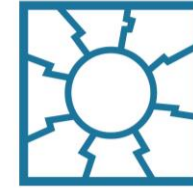
Position Mécanique 11



Redresser l'échelle à câble

MECA NUMBER	COMMENT/REMARK
MECA 2	Chemin de câble à remettre droit
MECA 3	Tube à déposer 2m
MECA 4	Tube à déposer 20m
MECA 5	Chemin de câble à redresser
MECA 6	Chemin de câble à remettre droit
MECA 7	Chemin de câble à redresser + Tube plafond 15m
MECA 8	Dépose gros tube derrière chemin de câble 6m
MECA 9	Refaire la jonction
MECA 10	Depose coffret à coté de l'amoire
MECA 11	Redresser Chemin de câble
MECA 12	Tube à enlever 15m
MECA 13	Tube à enlever 15m

# EN-EL Surveys (2/2)



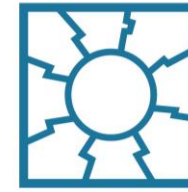
All EL surveys: <https://edms.cern.ch/document/2638484/1>

## All listed surveys completed

- ↑ [...]
- ELG-CABLING-EF-0152 (v.1) On-site surveys of technical galleries
  - ELG-CABLING-PR-0061 (v.1) Survey TP1A building 835
  - ELG-CABLING-PR-0062 (v.1) Survey GT2A building 818
  - ELG-CABLING-EG-0004 (v.1) Survey GT80 building 847
  - ELG-CABLING-PR-0069 (v.1) Survey TP1 building 825
  - ELG-CABLING-PR-0070 (v.1) Survey TP5 building 829
  - ELG-CABLING-PR-0071 (v.1) Survey TP2 building 826
  - ELG-CABLING-PR-0072 (v.1) Survey TP3 building 827
  - ELG-CABLING-PF-0123 (v.1) Survey TP9 building 833
  - ELG-CABLING-PF-0124 (v.1) Survey galleries of building 180 & 183

**Made according  
to new method** ←

# Copper de-cabling (1/2)



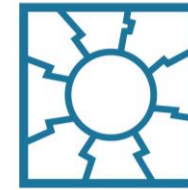
TECHNICAL GALLERIES  
CONSOLIDATION

## YETS23-24

- **GT80 decabling + cable tray repairs**
  - Removed 29km of cable, 28m<sup>3</sup> (8x 4m<sup>3</sup> skips)
- **GT2 cable tray consolidations**
  - Installed 35 new supports, 1 IPN replaced
- **Financial volume used: 82 kCHF**



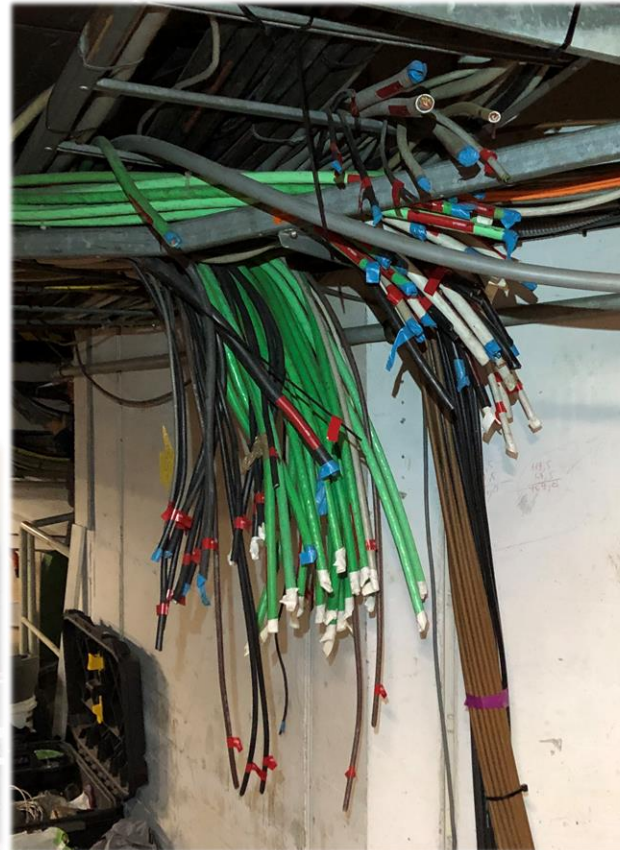
# Copper de-cabling (2/2)



TECHNICAL GALLERIES  
CONSOLIDATION

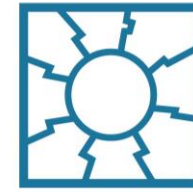
## RUN3-2024

- **Meyrin decabling + cable tray repairs**
  - Area of intervention: 825-835-836-827-826
  - Removed 111km of cable, 92m<sup>3</sup>
  - 6x 10m<sup>3</sup> & 11x 4m<sup>3</sup> skips
- **Financial volume used: 230 kCHF**

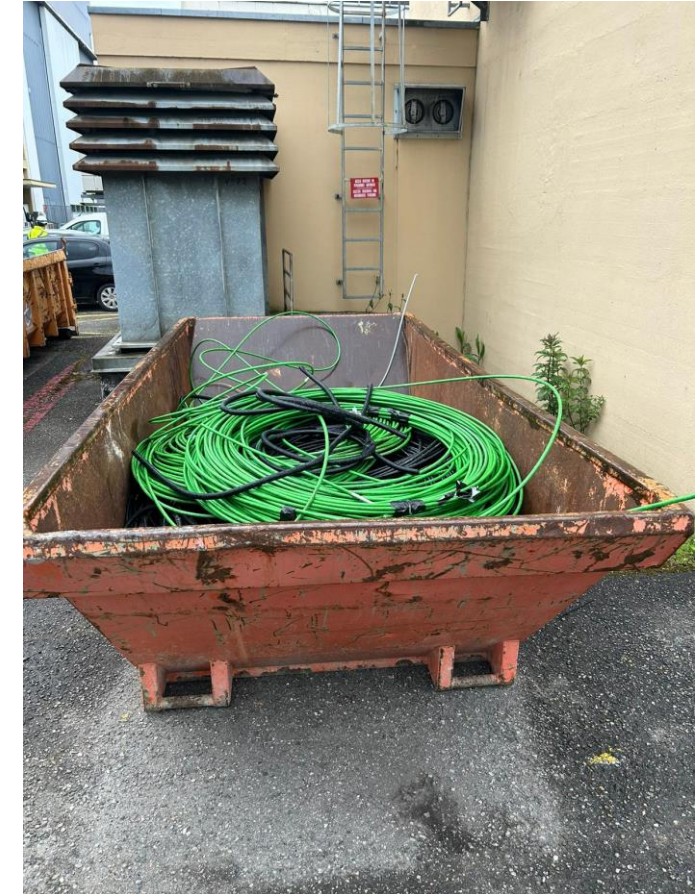
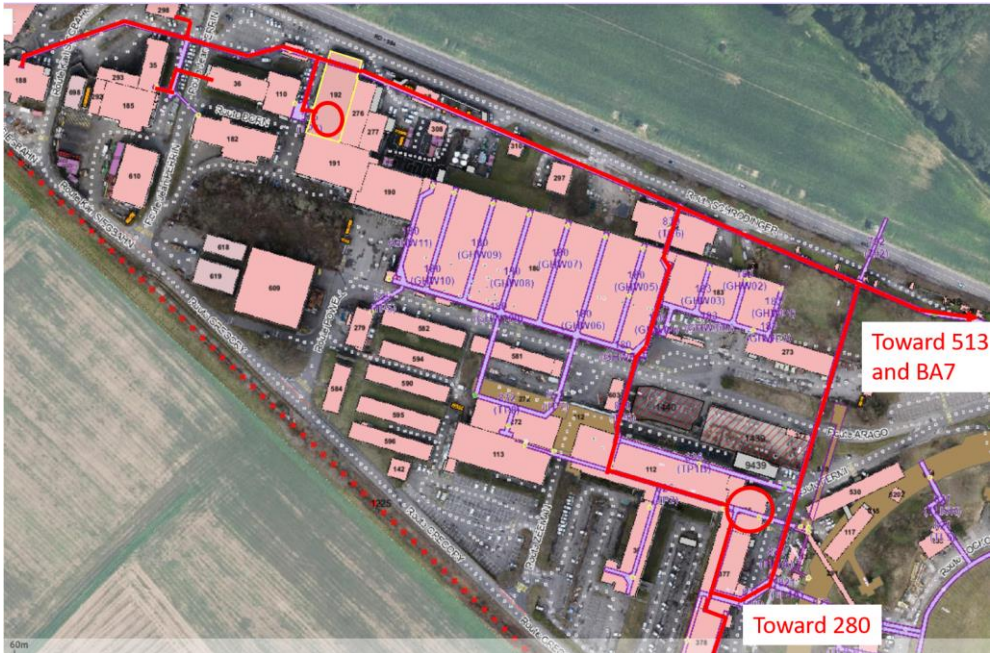




# Optic Fibre removal Meyrin

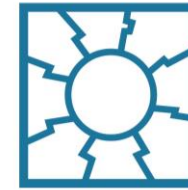


TECHNICAL GALLERIES  
CONSOLIDATION

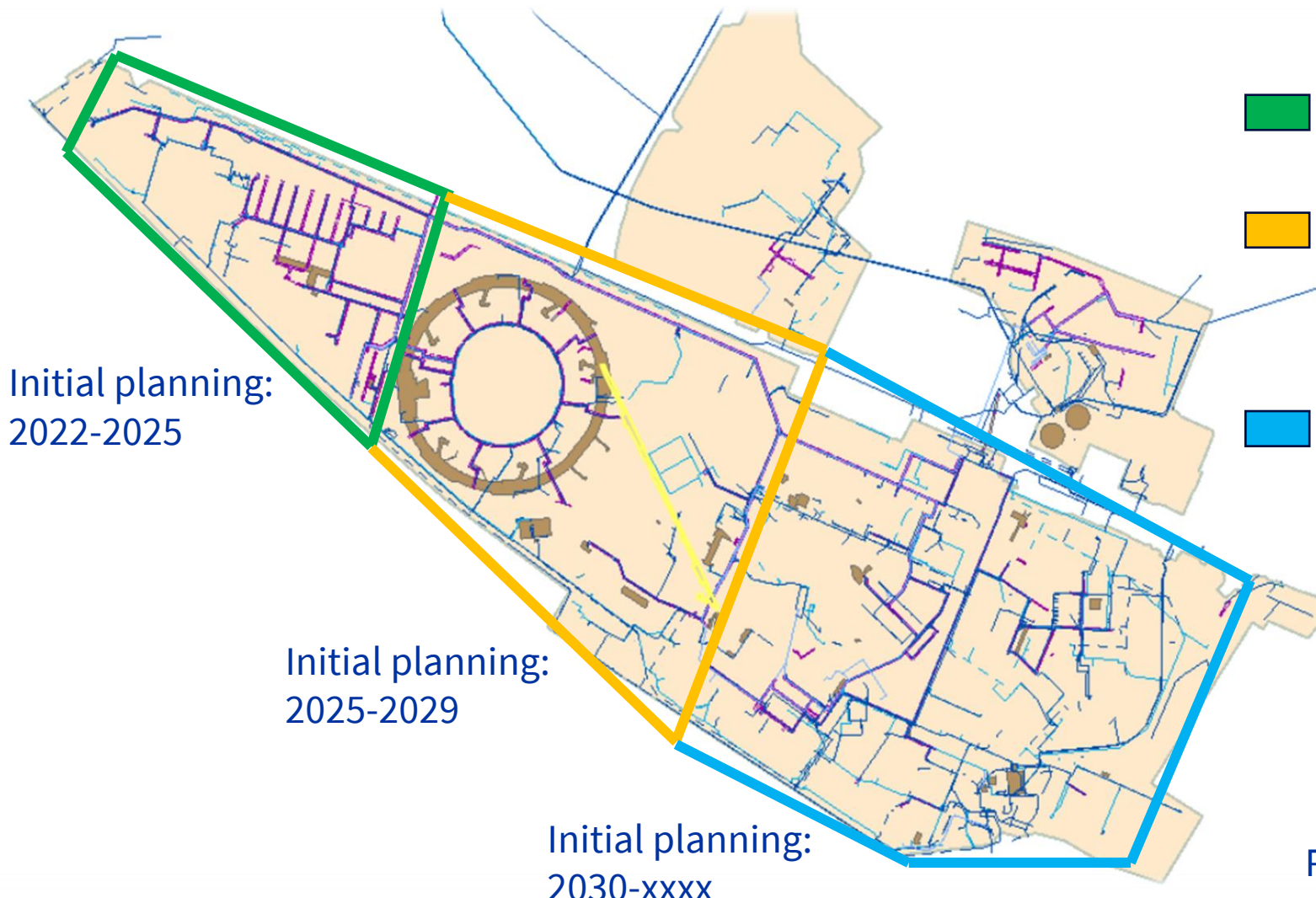





- 11.3 km of conventional optical fibre cable removed
- Removal of 75 terminal box
- Total waste volume 11m<sup>3</sup>
- Total budget of 30 kCHF

# Current situation



TECHNICAL GALLERIES  
CONSOLIDATION



-  All galleries completed except under bldg. 180/183 for Q3-24 (~15km)
-  825: Completed  
833 survey: Completed  
833 de-cabling: For RUN3-25 (~25km)  
ISR: Missing de-cabling in inaccessible sections
-  Eventual de-cabling around future bldg. 140

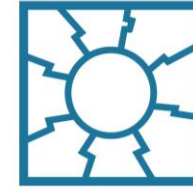
Initial planning:  
2022-2025

Initial planning:  
2025-2029

Initial planning:  
2030-xxxx

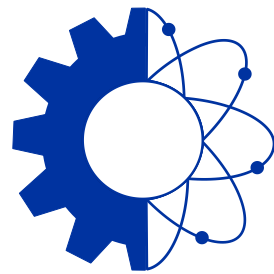
Prévessin: Galleries GT2 & GT80 completed.

# Conclusion & suggestions



TECHNICAL GALLERIES  
CONSOLIDATION

- **Due to the galleries' configuration:**
  - Impossible to identify the systems that the cables in the galleries belongs to
  - Survey crucial for preparation of works
  
- **Changing the survey method**
  - Aiming to prevent over and under-estimating financial volumes for future works
  - Better preview of actual volumes to be treated by the contractor
  - Better ability to plan and estimate work durations



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