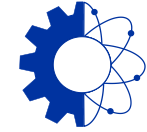


TECHNICAL GALLERIES
CONSOLIDATION

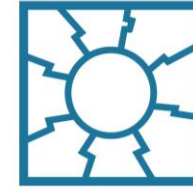


ENGINEERING
DEPARTMENT

Technical Galleries Consolidation Program

TG-CONS Schedule

Agenda



TECHNICAL GALLERIES
CONSOLIDATION

- 1. Program status**
- 2. PLAN**
- 3. Review of works by Group**
- 4. Key-take aways**

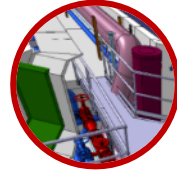
Program Status - DASHBOARD

LS3 activities

Gallery	Drinking water	Firefighting network	Compressed air	Heating pipes	Decabling	Doors, metal frames, roofs, ladders, false floors	Asbestos , led diagnostics	Drain check	Scans	3D model Integration
835 north	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done
835 south	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done
825 part 4.1	Done	Done	Done	Done	Done	Partially	Done	Done	Done	Done
825 part 4.2	Done	Done	Done	Ongoing	Done	Partially	Done	Done	Done	Done
825 part 3	Ongoing	Ongoing	Ongoing	2025 + 2026	Done	Partially	Partially, 2025 + 2026	TBC	Done	Done
825 part 2	2025 - 2027	2025 - 2027	2025 - 2027	2028	Done	TBC	2025 - 2028	TBC	Done	2024
825 part 1	2026	2026	2026	2029	Done	TBC	2026 + 2029	TBC	Done	TBC
833	2026	2026	2026	TBC	2025	TBC	2026	TBC	2024	2025
826	Done	N/A	Done	Ongoing	Done	TBC	Done	Done	Done	Done
827	Done	N/A	Done	TBC	Done	TBC	Partially	Done	Done	Done
830	Done	N/A	Done	TBC	Partially, 2024	TBC	Partially	Done	Done	Partially
836	Done	N/A	Done	Done	Done	TBC	Done	Done	Done	Done
180	Done	Done	Done	TBC	Partially, 2024	TBC	TBC	Done	Done	Partially
183	Done	Done	Done	N/A	Partially, 2024	TBC	TBC	Done	Done	Partially
829	Done	Done	Done	TBC	TBC	TBC	Partially	Done	Done	TBC
831 + 832	TBC	TBC	TBC	N/A	Done	TBC	TBC	Done	Done	TBC
837	2027	2027	2027	Done	Done	Partially	TBC	TBC	Done	TBC
821	2027	2027	2027	2027 (TL4A)	Done	Partially	2027	TBC	Done	Ongoing



Program Status



Scanning, 3D models and integration of 5 km of galleries



276 tons of old piping and material removed



4.7 km of old piping replaced by 3.5 km of new piping



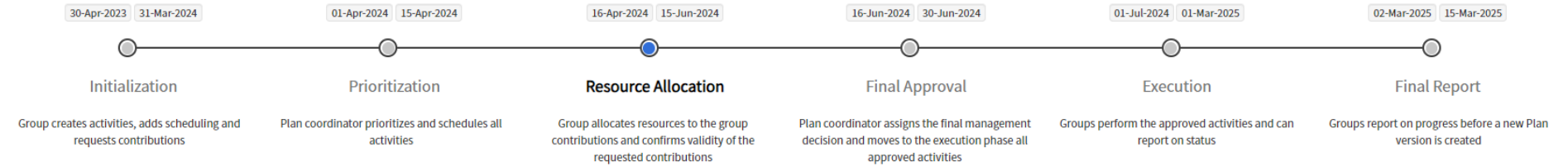
343 km of cables removed, 422 m³ of waste



2200 welds and 215 non-destructive tests

PLAN TOOL

Plan Lifecycle of RUN3-LS3 - Version 3



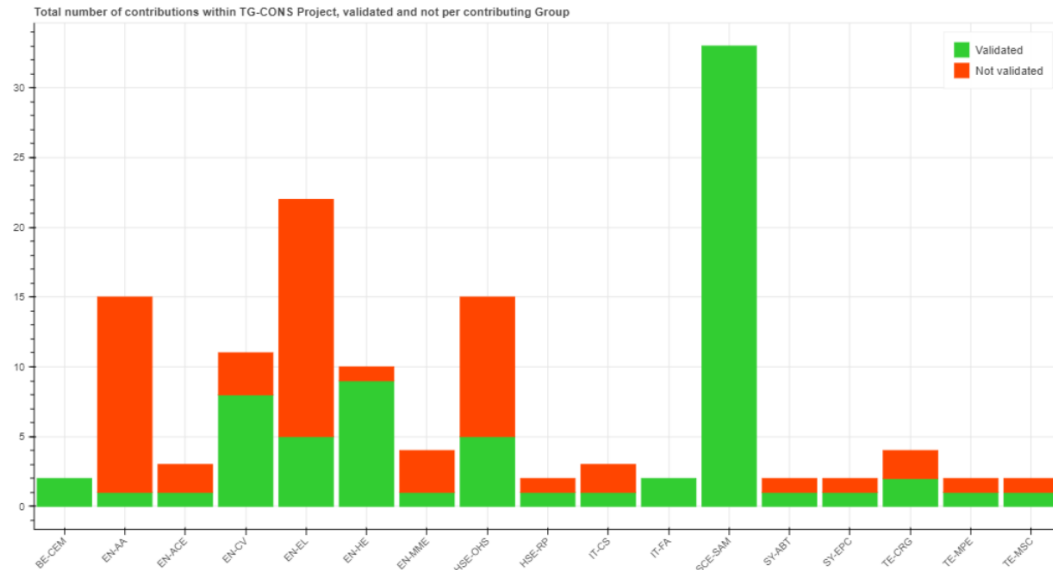
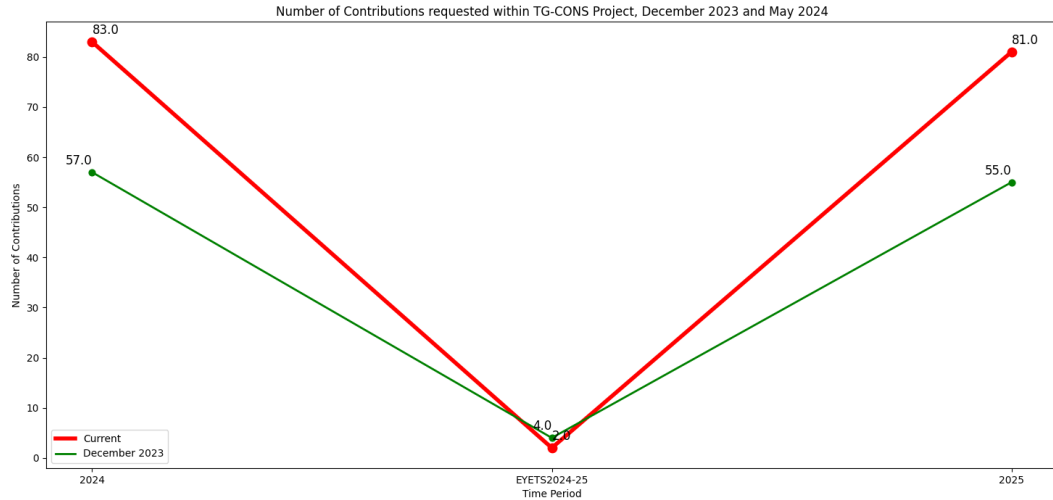
RUN3

List of activities											5/26/2024	
ID	Title	Group	Responsible	Type	Priority	Project/Study	Facilities	Group contribution	Contribution resources available	Validated contributions		
13578	Hydrants replacement	EN-CV	MARIA ESTHER AMARILLA GARCIA	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM, SCE-SAM	100.00%	100.00%		
13173	IT cables	IT-FA	WAYNE SALTER	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	IT-FA, IT-FA	100.00%	100.00%		
13167	Consolidation of cooling circuits,	EN-CV	MARIA ESTHER AMARILLA GARCIA	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-CV, HSE-OHS, EN-HE-HH, EN-ACE-COS, EN-CV, HSE-OHS	88.89%	75.00%		
13016	Consolidation of cryogenic lines	TE-CRG	OLIVIER PIROTTE	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-CV-WMC, TE-CRG, EN-HE-HH, EN-CV-WMC, TE-CRG	100.00%	100.00%		
13014	Consolidation/Installation of acc	EN-AA	RUI NUNES	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-EL, EN-AA-AS, EN-AA-AS, EN-EL, EN-AA-AS	16.67%	0.00%		
13013	Decabling campaign of cables	EN-CV	SEBASTIEN EVRARD	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-EL, IT-CS, BE-CEM-IN, EN-EL, TE-MPE, EN-EL-FO,	92.31%	91.67%		
13011	Drain check	SCE-SAM	DENIS JEAN GEORGES PAZEM	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM-CE, SCE-SAM-CE	100.00%	100.00%		
13004	Consolidation of heating network	SCE-SAM	CHRISTOPHE MARTEL	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	HSE-OHS, SCE-SAM-IN, SCE-SAM-IN, HSE-OHS, EN-H	100.00%	100.00%		
13003	Consolidation of doors, metal fra	SCE-SAM	DENIS JEAN GEORGES PAZEM	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-HE-HH, SCE-SAM-CE, SCE-SAM-CE, HSE-OHS	100.00%	100.00%		
13002	Asbestos removal	SCE-SAM	DENIS JEAN GEORGES PAZEM	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM-CE, SCE-SAM-CE	100.00%	100.00%		
12997	Consolidation of Galleries structu	SCE-SAM	DENIS JEAN GEORGES PAZEM	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM-CE, SCE-SAM-CE, SCE-SAM-CE	100.00%	100.00%		

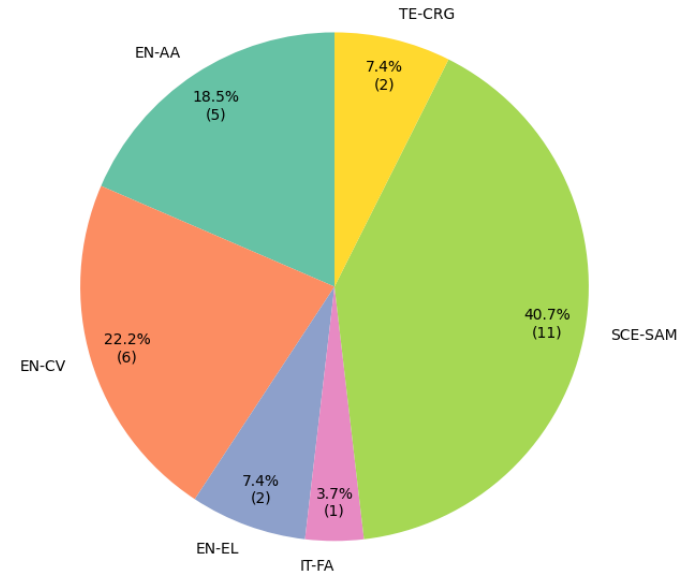
LS3

List of activities											5/26/2024	
ID	Title	Group	Responsible	Type	Priority	Project/Study	Facilities	Group contribution	Contribution resources available	Validated contributions		
14064	Hydrants replacement: LS3	EN-CV	MARIA ESTHER AMARILLA GARCIA	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM, SCE-SAM	100.00%	100.00%		
14063	Consolidation of cooling circuits,	EN-CV	MARIA ESTHER AMARILLA GARCIA	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-CV, HSE-OHS, EN-CV, SCE-SAM, EN-HE-HH, HSE-OHS	55.56%	50.00%		
14062	Consolidation of cryogenic lines:	TE-CRG	OLIVIER PIROTTE	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-HE, EN-CV-WMC, TE-CRG, EN-CV-WMC, EN-CV-WMC,	28.57%	16.67%		
14059	Consolidation/Installation of acc	EN-AA	GREGORY ANDRE YVES GODINEA	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-AA-AC, EN-EL, EN-AA-AC, EN-EL, EN-AA	16.67%	0.00%		
14058	Decabling campaign: LS3	EN-EL	GEORGI MINCHEV GEORGIEV	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-EL-FO, BE-CEM-IN, HSE-RP, EN-EL, EN-EL, EN-EL	15.38%	8.33%		
14055	Drain system consolidation: LS3	SCE-SAM	DENIS JEAN GEORGES PAZEM	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM-CE, SCE-SAM-CE	100.00%	100.00%		
14036	Consolidation of heating network	SCE-SAM	GUILLAUME FERNAND ROUGE	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-HE-HH, EN-MME, HSE-OHS, SCE-SAM-IN, HSE-OHS	50.00%	42.86%		
14035	Consolidation of doors, metal fra	SCE-SAM	DENIS JEAN GEORGES PAZEM	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM-CE, HSE-OHS, EN-HE-HH, SCE-SAM-CE	80.00%	75.00%		
14033	Asbestos removal: LS3	SCE-SAM	DENIS JEAN GEORGES PAZEM	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM-CE, SCE-SAM-CE	100.00%	100.00%		
14031	Consolidation of galleries' structu	SCE-SAM	DENIS JEAN GEORGES PAZEM	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM-CE, SCE-SAM-CE, SCE-SAM-CE	100.00%	100.00%		
14025	Consolidation and dismantling of	EN-CV	NICOLAS ROGET	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	SCE-SAM, SCE-SAM, EN-EL, SCE-SAM, EN-CV, EN-CV	66.67%	62.50%		
14024	Fire detection system survey and	EN-AA	SILVIA GRAU	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-AA-AS, EN-EL, EN-EL, EN-AA-AS, HSE-OHS	16.67%	0.00%		
14022	TG-CONS: Emergency lighting inst	EN-EL	GEORGI MINCHEV GEORGIEV	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	HSE-OHS, EN-EL, EN-EL	25.00%	0.00%		
14021	TG-CONS: Installation and commi	EN-AA	EVA MARIA SANCHEZ-CORRAL MI	Consolidation & upgrade/4	Approved pi	TG-CONS	Buildings And Other Facilities	EN-AA, EN-EL, EN-CV-WMC, IT-CS, EN-ACE, HSE-FRS	9.09%	0.00%		

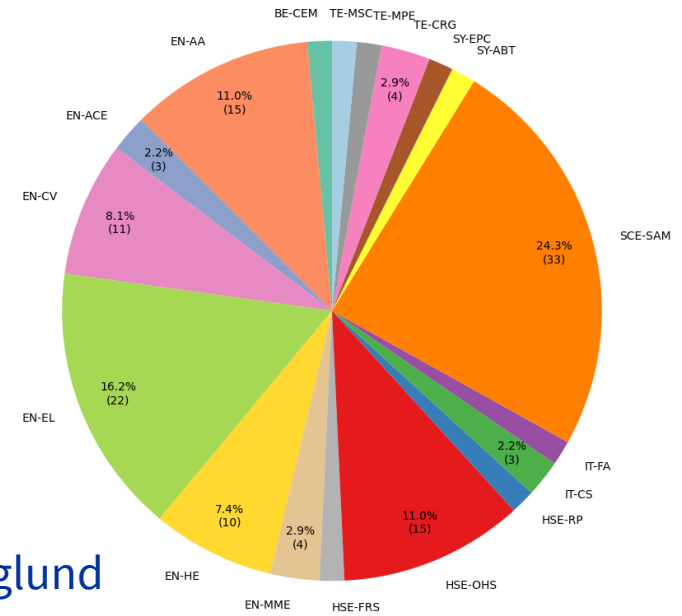
PLAN TOOL



Number of activities within TG-CONS project, per Group

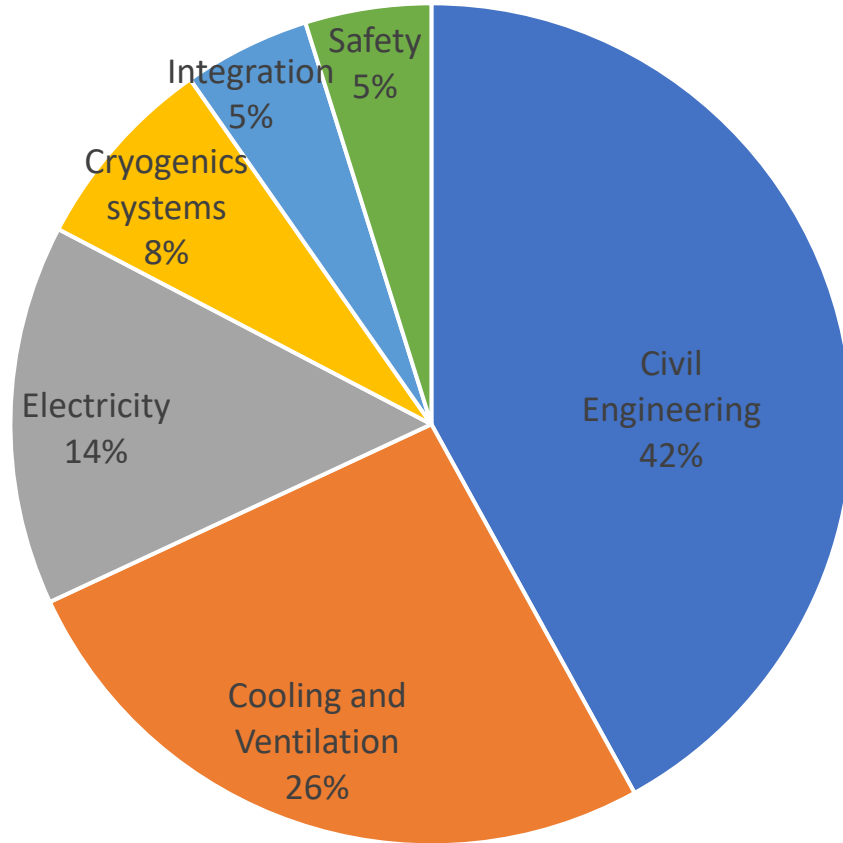


Number of contributions within TG-CONS project, per Group



Courtesy A. Borglund

Foreseen collaborations with other Groups



Forecast expenditures by system/service

SCE-SAM

- Civil engineering
- Heating network
- Drain systems
- Normal/ emergency lighting

EN-CV

- Water circuits: drinking, raw, firefighting, demineralised, chilled
- Compressed air
- Gas pipes (incl. He lines)

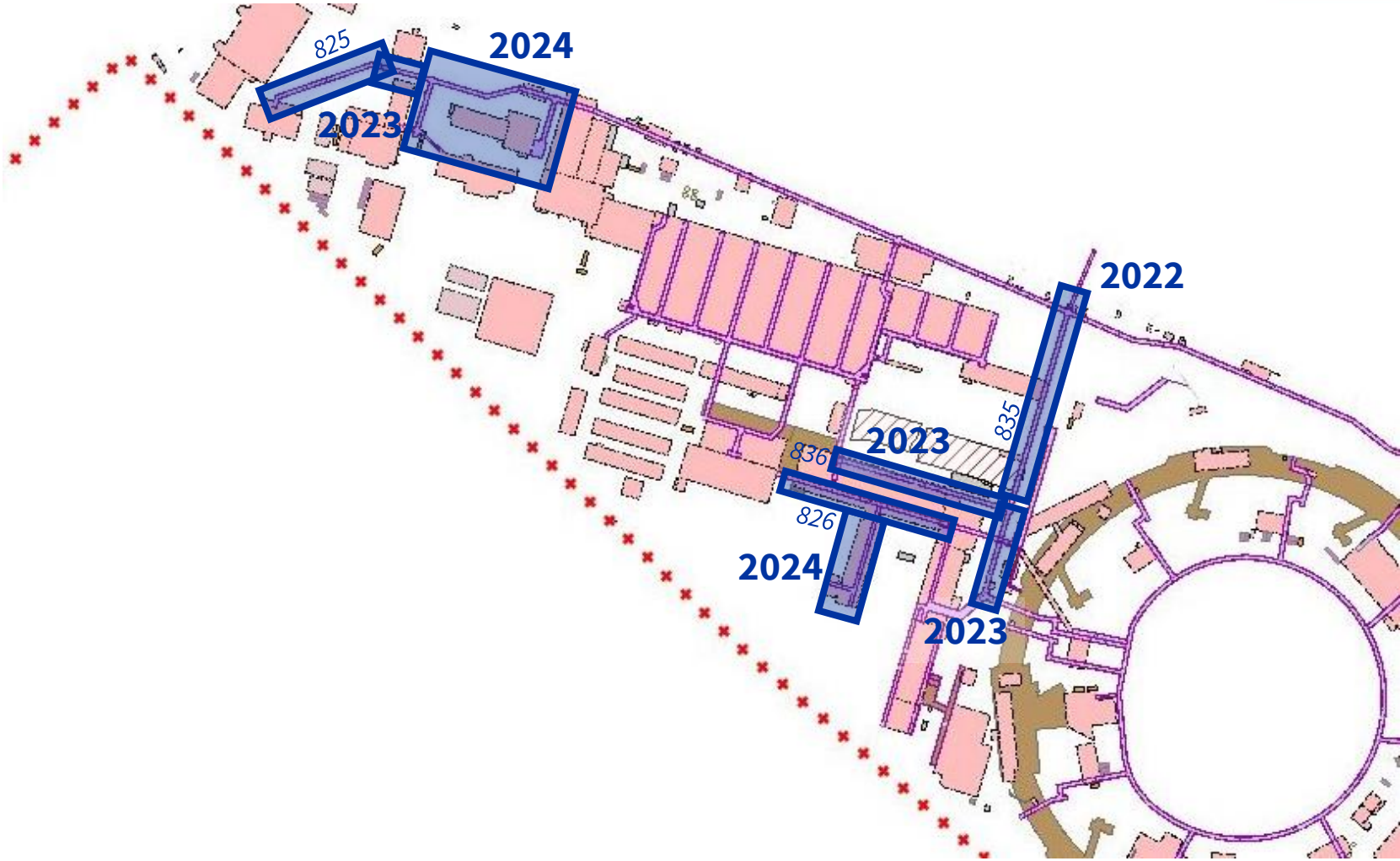
EN-EL

- Cables: HV, LV, optical fibres, controls
- Cable trays
- Power supplies

Heating pipes – accomplished & ongoing



TECHNICAL GALLERIES
CONSOLIDATION



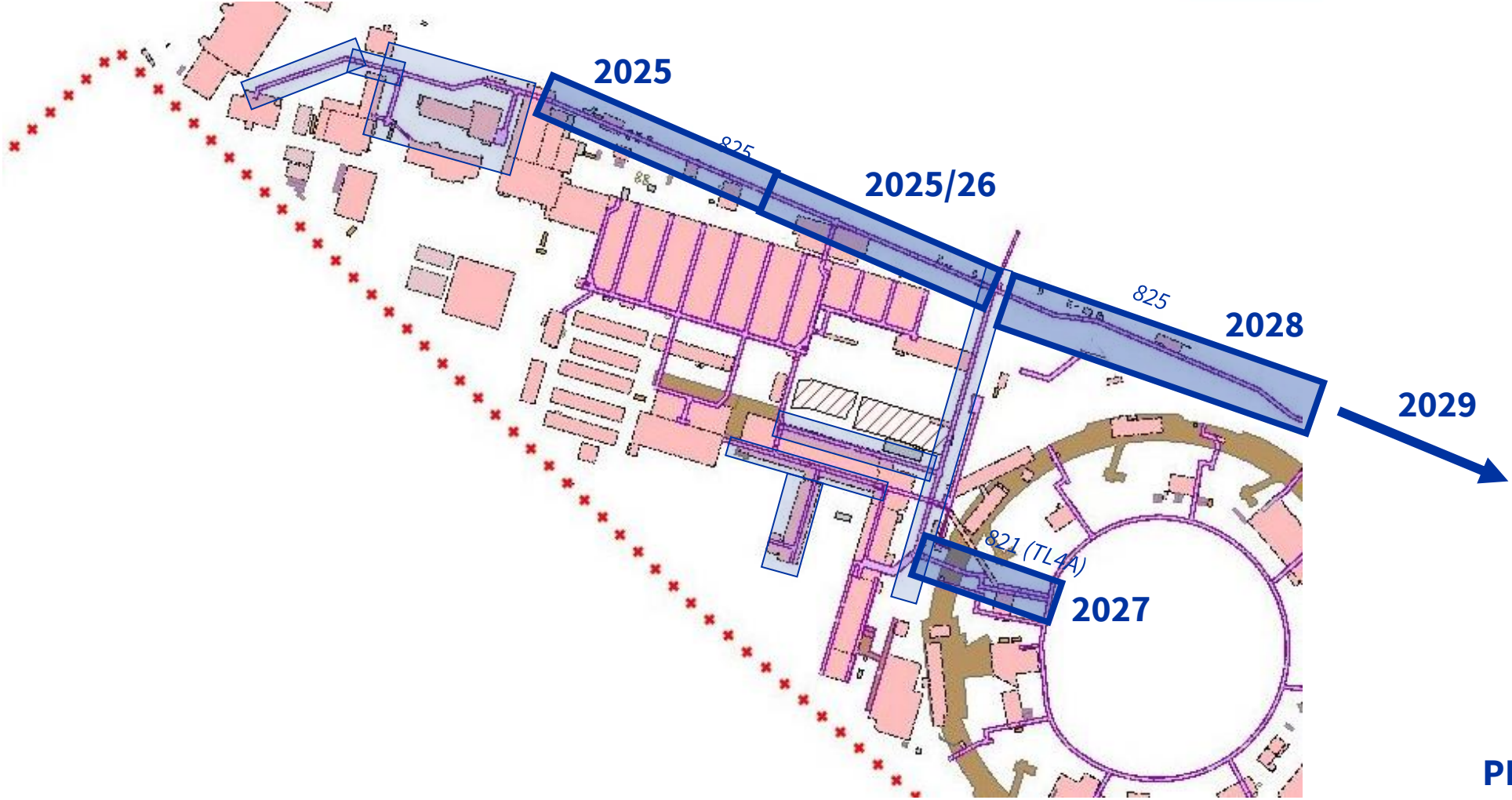
 Heating pipes

Status:
**DONE/
ONGOING**

Heating pipes – future works



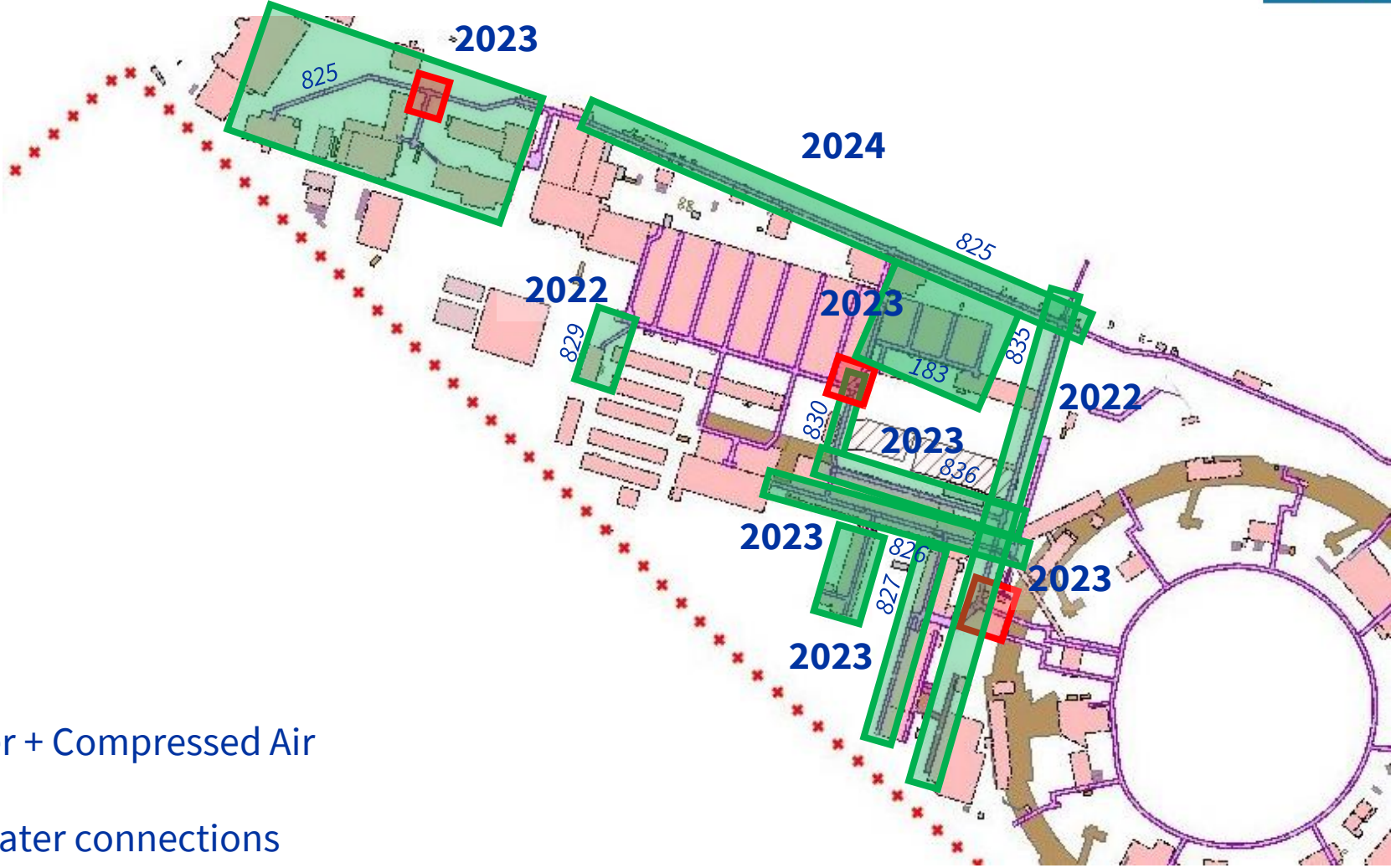
TECHNICAL GALLERIES
CONSOLIDATION



CA, EP, EInc – accomplished & ongoing



TECHNICAL GALLERIES
CONSOLIDATION

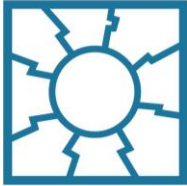


 Drinking Water + Compressed Air

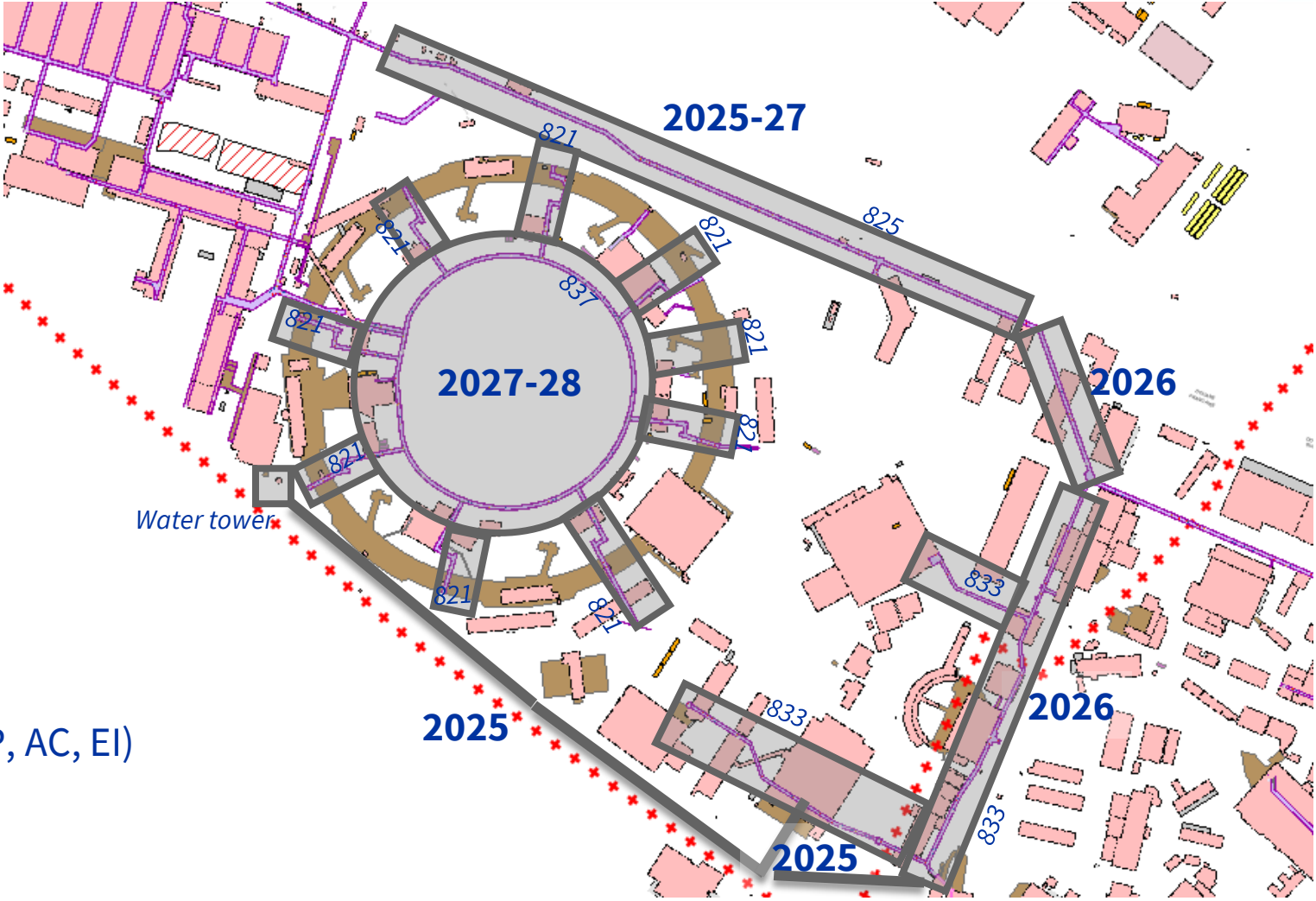
 Firefighting Water connections

Status:
**DONE/
ONGOING**

Future possibilities for EN-CV works



TECHNICAL GALLERIES
CONSOLIDATION

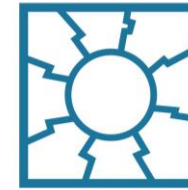


CV Networks (EP, AC, EI)

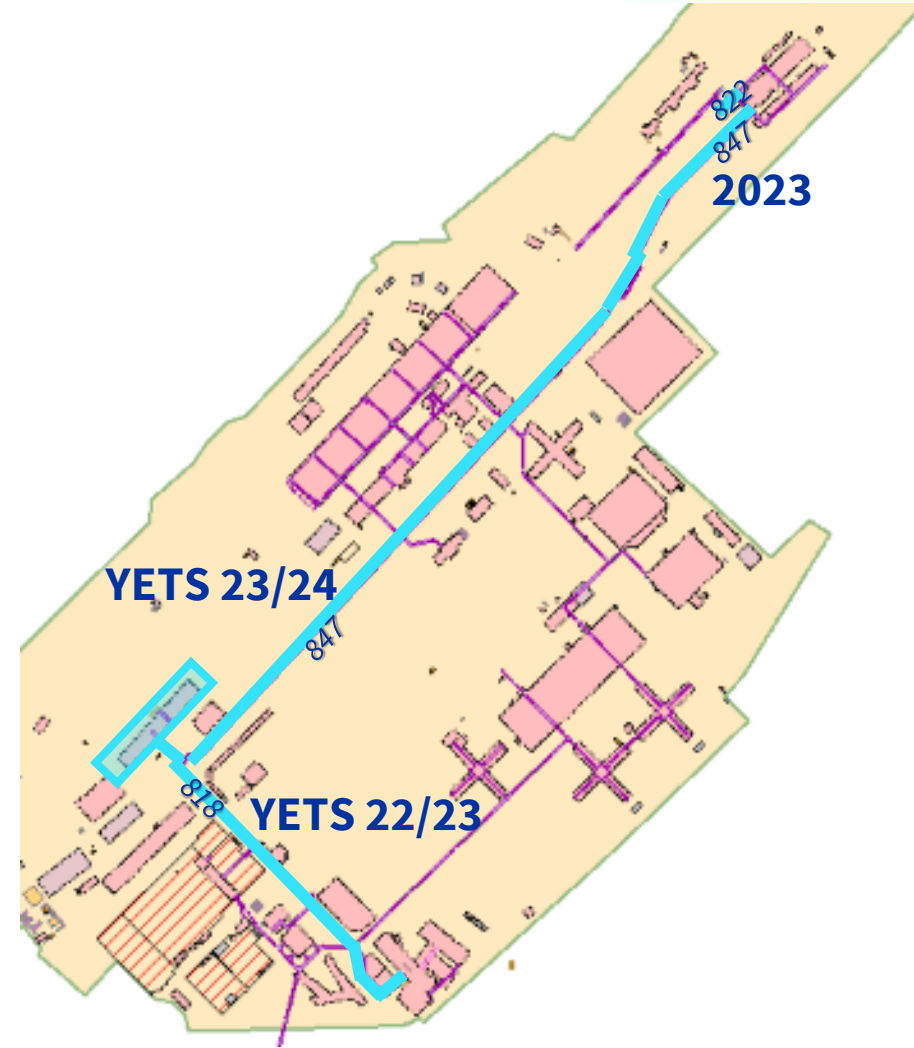
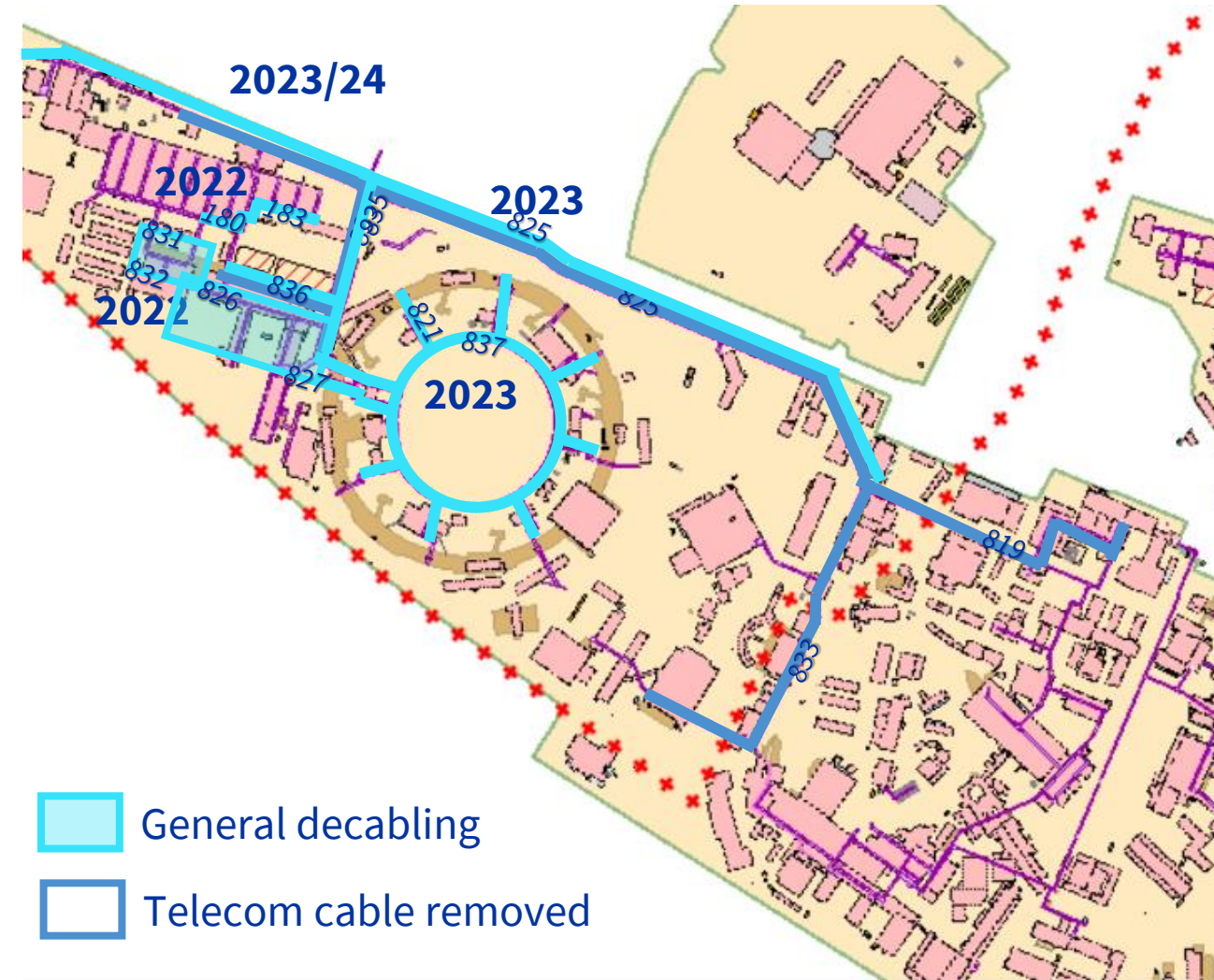
Buried pipes

Status:
**PLANNED/
ONGOING STUDY**

Decabling - accomplished

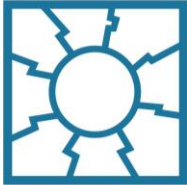


TECHNICAL GALLERIES
CONSOLIDATION

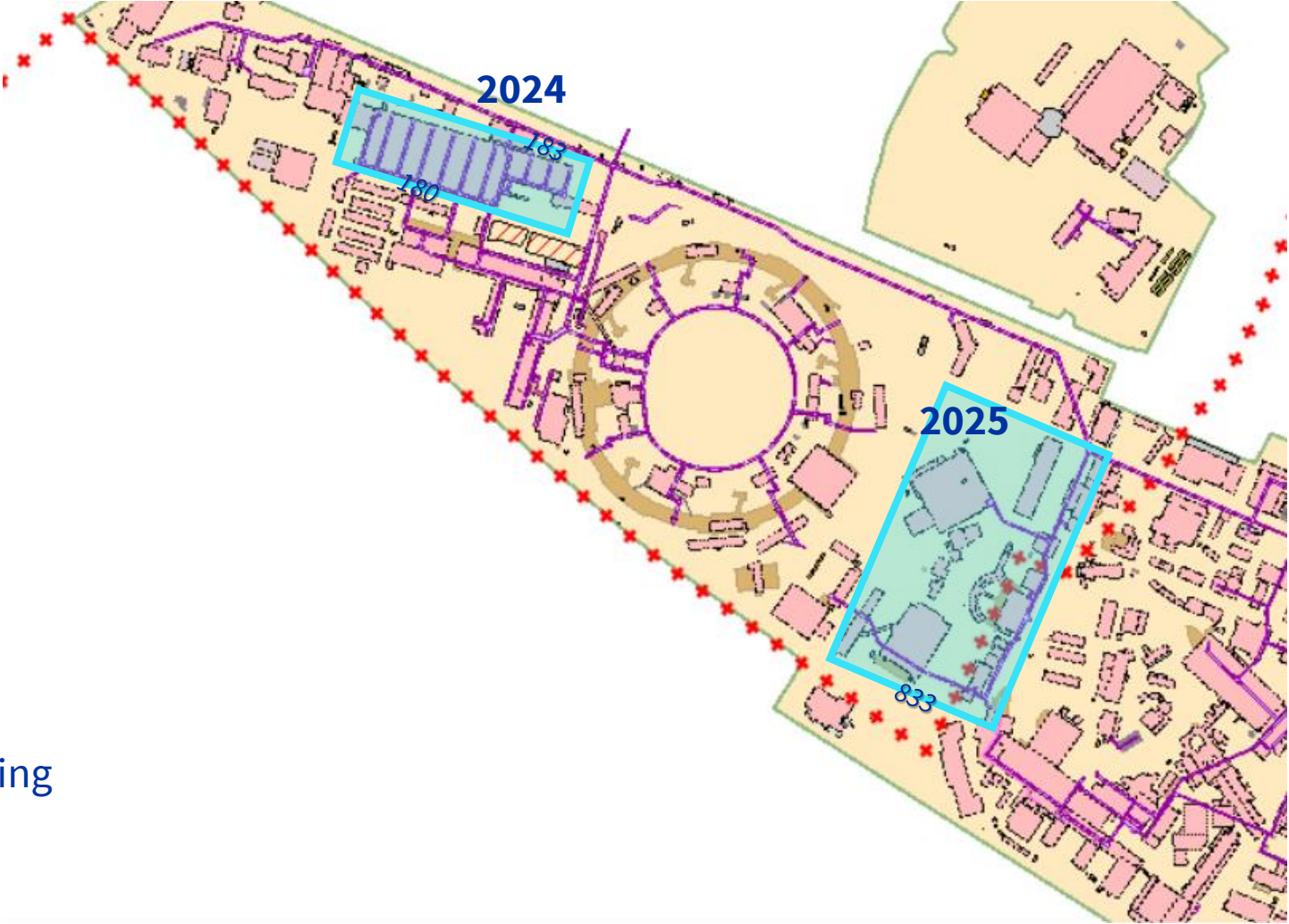


Status:
DONE

Decabling - future works



TECHNICAL GALLERIES
CONSOLIDATION

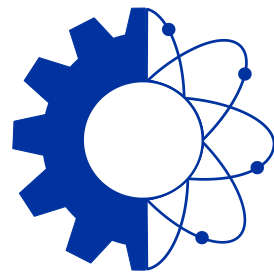


 General decabling

Status:
PLANNED

Take Aways

- **TG-CONS is a long-term Program running until LS5, planned in 4 phases**
- **Three main contributing groups: SCE-SAM, EN-CV and EN-EL**
- **Re-engineering / Optimisation/ Priorization / Iso-functional replacement to some extent**
- **LS3 activities will take place on the Meyrin site – central part (ISR up to gallery 833)**
- **EN-EL has anticipated the cabling/decabling activities of phase 2 and will be free during LS3.**
- **During LS3, all TG-CONS activities can be carried out in the shadow of higher priority activities and are not overly invasive**
- **TG-CONS is a backup option for certain groups in the event of unforeseen circumstances/work stopped or blocked on other facilities**



**ENGINEERING
DEPARTMENT**

Schedule planning and monitoring

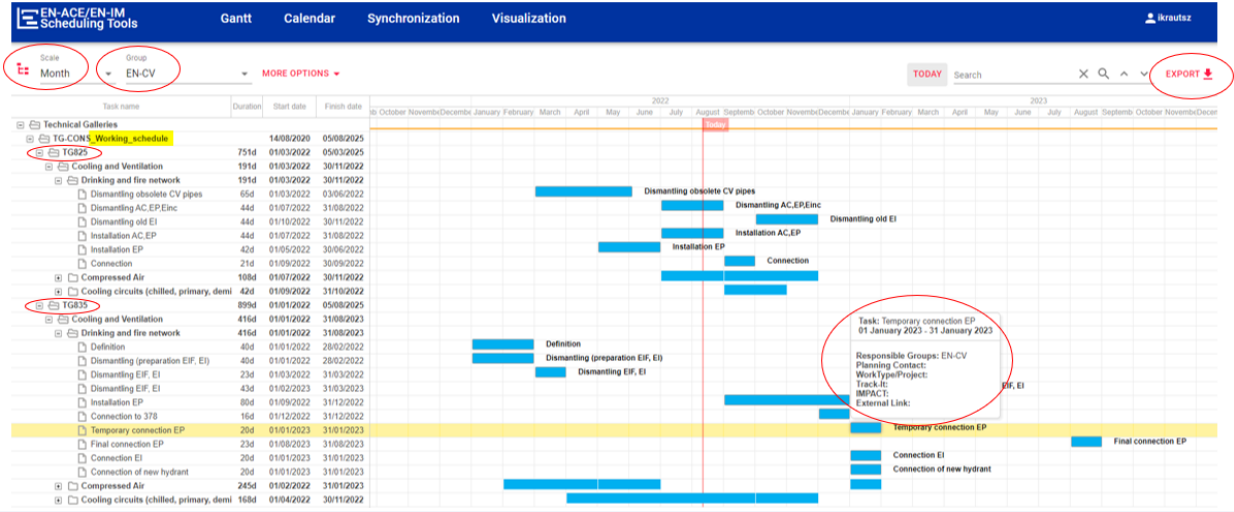


TECHNICAL GALLERIES
CONSOLIDATION

Detailed schedule

WP	WBS	Activity	Main Co	Contact person	Start	End	Duration	Location	Inside gallery	Comments	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
GT835 (TP1A)																
TGC2																
Civil Engineering																
TGC 2.1	Galleries structure	SCE	P.Cardon													
	Drilling hole in 311 to room with valves	SCE	P.Cardon		1/04/2023	19/05/2023		b.311	no	finish of ceiling by 19/5/23						
TGC 2.2	Asbestos removal	SCE	D.Pazem													
	Removal	SCE	D.Pazem		22/05/2023	2/06/2023		south		Before heating network dismantling, 1w						
	Lead diagnostics	HSE	M. Lemetayer		16/05/2023	26/05/2023		south								
TGC 2.3	Doors, metal frames, roofs, ladders, false floors	SCE	P.Cardon													
	Fireproof doors and partitions	SCE	P.Cardon					south								
	Finishing works	SCE	P.Cardon					south		2 months (Nov/Dec) to avoid coactivity with GT836 EN-CV works						
	Painting	SCE	P.Cardon					whole								
	Portes coupe-feu	SCE	P.Cardon					whole		same as partitions and fire doors						
	Material delivery	SCE	C.Martel		30/01/2023	7/04/2023	10w	south	no	done						
	Heating network installation	SCE	C.Martel		27/03/2023	28/04/2023	7w	south	yes	New hot water line, anticipated						
	Lockout	SCE	C.Martel		15/05/2023	19/05/2023	1w	south	no							
	Heating network dismantling	SCE	C.Martel		5/06/2023	9/06/2023	1w	south	yes	Dismantling old hot water pipe						
	Heating network installation	SCE	C.Martel		12/06/2023	23/06/2023	2w	south	yes							
	Test and Commissioning	SCE	C.Martel		26/06/2023	30/06/2023	3w	south	yes							
	Installation isolation	SCE	C.Martel		3/07/2023	14/07/2023	2w	south	yes							
TGC3																
Cooling and Ventilation																
TGC 3.1	Drinking and fire network	EN/CV	M.E.A.Garcia													
	Connection of new hydrant	EN/CV	M.E.A.Garcia		12/05/2023			cross south	yes	New hydrant in GT835 cross south, ongoing, expected end 12/5						
	Installation EP line b.311-GT835 (trench)	EN/CV	M.E.A.Garcia		15/05/2023	5/06/2023		trench		including pressure and potability tests and insulation installation						
TGC 3.2	Pumps	EN/CV	M.E.A.Garcia													
TGC 3.3	Compressed Air	EN/CV	M.E.A.Garcia													
	Dismantling works	SCE	M.E.A.Garcia		5/06/2023	9/06/2023		south		Dismantling during Heating water pipes dismantling; done together, no co-activity						
TGC4																
Electrical systems																
TGC 4.3	Optical Fibre	EN/EL	S.Meroli													
	Disconnection	EN/EL	S.Meroli							no coactivity						
	Decabling	EN/EL	S.Meroli		25/09/2023	29/09/2023	1w		yes							
TGC 5																
Alarms and Access																
TGC 5.1	Alarm Systems	EN-AA	J. Ramos													
	Emergency Call Points							whole		2nd sem 23, when exactly?						
TGC 5.2	Access Control	EN-AA	J. Ramos													
	Access Control	EN-AA	J. Ramos							Proposal; to be confirmed when UR is released and study on alarms is done						
TGC19																
CP - 5 - Decabling/Cabling																
TGC 19.4	Decabling	EN/EL	G.Georgiev													
	Removal of telecom cable	EN/EL	G.Georgiev		10/04/23	14/04/23	3w	north	yes	Phone cable; done						
	Decabling	EN/EL	G.Georgiev							YETS 23/24 together with 836						

Gantt chart viewer



Link: [EDMS 2705555](https://edms.cern.ch/EDMS2705555)

Link: [EN-ACE scheduling tools online](https://en-ace.cern.ch/scheduling-tools)

