

Building 771 - New Polymer lab

Project overview

Financial Review B771
23.01.2018

S. Tavares
Unit: TE/MSC-MDT
Location: Preveessin site

Project recap

CERN CH-1211 Geneva 23 Switzerland



EDMS NO.
1367739

REV.
4.0

Process step
STEP 5

REFERENCE

IPP-2014-11

Original EDMS No **1366037**

To be uploaded to: <https://espace.cern.ch/IPP-portal/default.aspx> Date: 2014-03-14

INFRASTRUCTURE PROJECT PROPOSAL

New Polymer Laboratory

CONSOLIDATION

NEW INFRASTRUCTURE

STEP 1: Proposal FORMULATION

Originator: G. De Rijk, L. Bottura (TE/MSC)

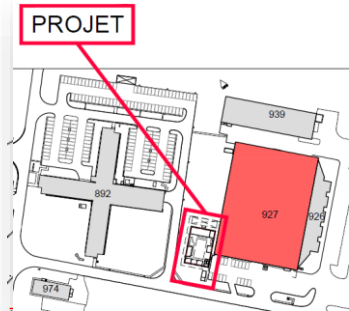
Motivation: Several safety inspections confirmed the need to proceed urgently with a structural refurbishment of the TE/MSC-MDT Polymer Laboratory, today located in the bld. 101 in the CERN PS area in Meyrin. **The refurbishment is highly critical to achieve safety standards and work conditions according to present norms and regulations.** cfr. the Safety_Request_Form_1216381 and the "Rapport de Verification" B11422401201R001 provided by Dekra inspection.

The first cost estimate for the works in bld. 101, provided by TE/MSC-MDT is valued at around 2'900 kCHF (ref. TE dept. memorandum EDMS no: 1280692). More than 50% of this amount (1.500 kCHF) is to be invested in the refurbishment and up-grade of the obsolete general services (electrical and HVAC). This amount justified the evaluation of a possible relocation of Polymer Laboratory in a more adequate area, in a new ca.400 m² bld. in the vicinity of the bld. 927

Brief description and scope: relocation of the Polymer Laboratory in a more adequate area, in a new ca.400 m² bld. in the vicinity of the bld. 927.

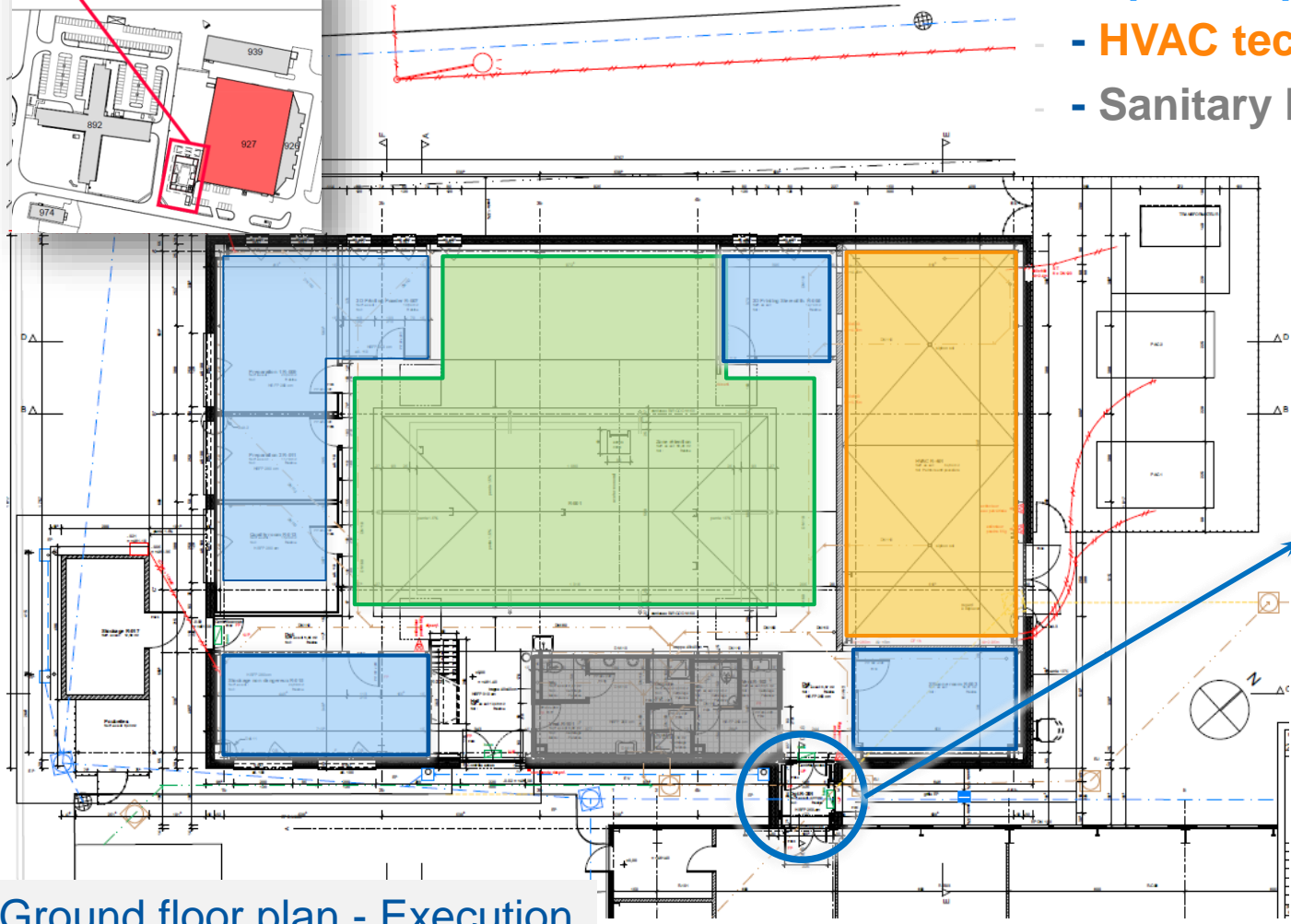


Project recap



Four distinct areas:

- Central workshop
- Specific process rooms
- HVAC technical room
- Sanitary block



Link between
B771 and B927

Ground floor plan - Execution

Project Launch Sheet



CERN GS

CH-1211
Genève 23
Suisse

EDMS No. **1450988**

Dept: GS

File name: Polymer Lab – Project launch sheet
28-11-2014

Project Launch Sheet

Project Name	Polymer Lab
Building nr.	TBD
Location:	Prevessin (next to bldg 927)
Budget code:	TBC
Project Description:	New 400m2 building including concrete slab foundation and metallic superstructure All HVAC and ELEC services
Kick-off meeting:	28-11-2014
Expected delivery date:	Q1 2016
Budget:	3 MCHF (+/-15%)

DEMANDEUR

	Nom	Dept/Groupe	Téléphone	GSM
Requester	G. De Rijk	TE/MSC	75261	160740
Requester deputy	R. Principe	TE/MSC	73239	160232
Resp. budget code	G. De Rijk	TE/MSC	75261	160740

EQUIPE DE PROJET

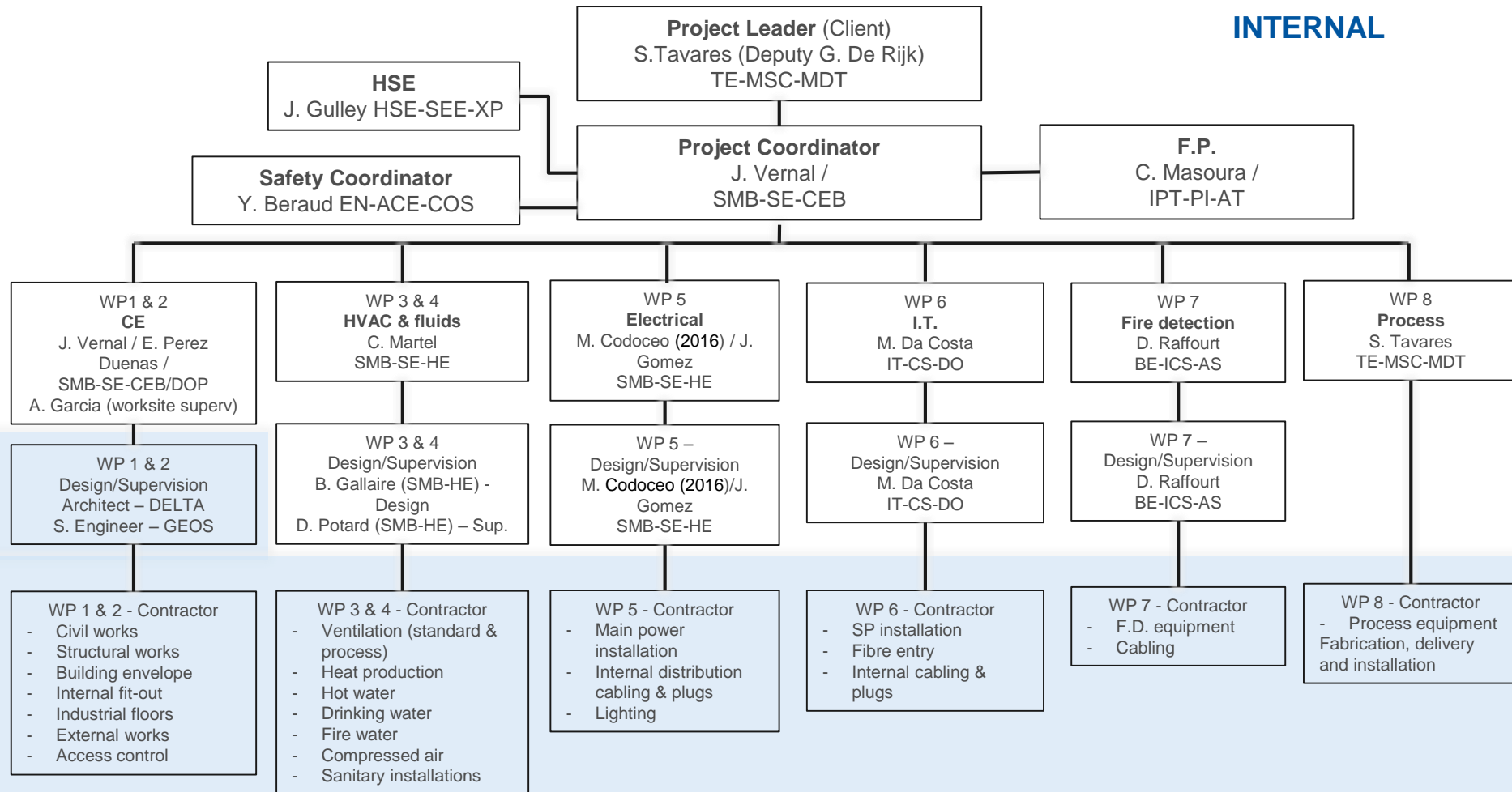
	Nom	Dept/Groupe	Téléphone	GSM
Project Leader	S. Tavares	TE/MSC	72184	167335
Deputy Project Leader	G. De Rijk	TE/MSC	75261	160740
Correspondants				
	Civil Engineering PM – J. Vernal	GS-SE	62047	169727
	Design Office – E. Perez	GS-SE	72602	163749
	Electricité – Ch. Martel	GS-SE	79078	168728
	HVAC – Ch. Martel	GS-SE	74761	169427
	IT – L. Borakiewicz	IT	70776	169195
	Fire detection – D. Raffourt	GS-ASE	72896	163219
	Safety – J. Gully	DGS-SEE	78526	160890
	Safety Coordination – Y. Beraud / J. Etheridge	EN-MEF		166346/164647
	Finance & Procurement – Ch. Masoura	FP-PI	63033	

Version du template: 2011-03-30

Delivery by March 2016

Budget: 3 MCHF ± 450 KCHF

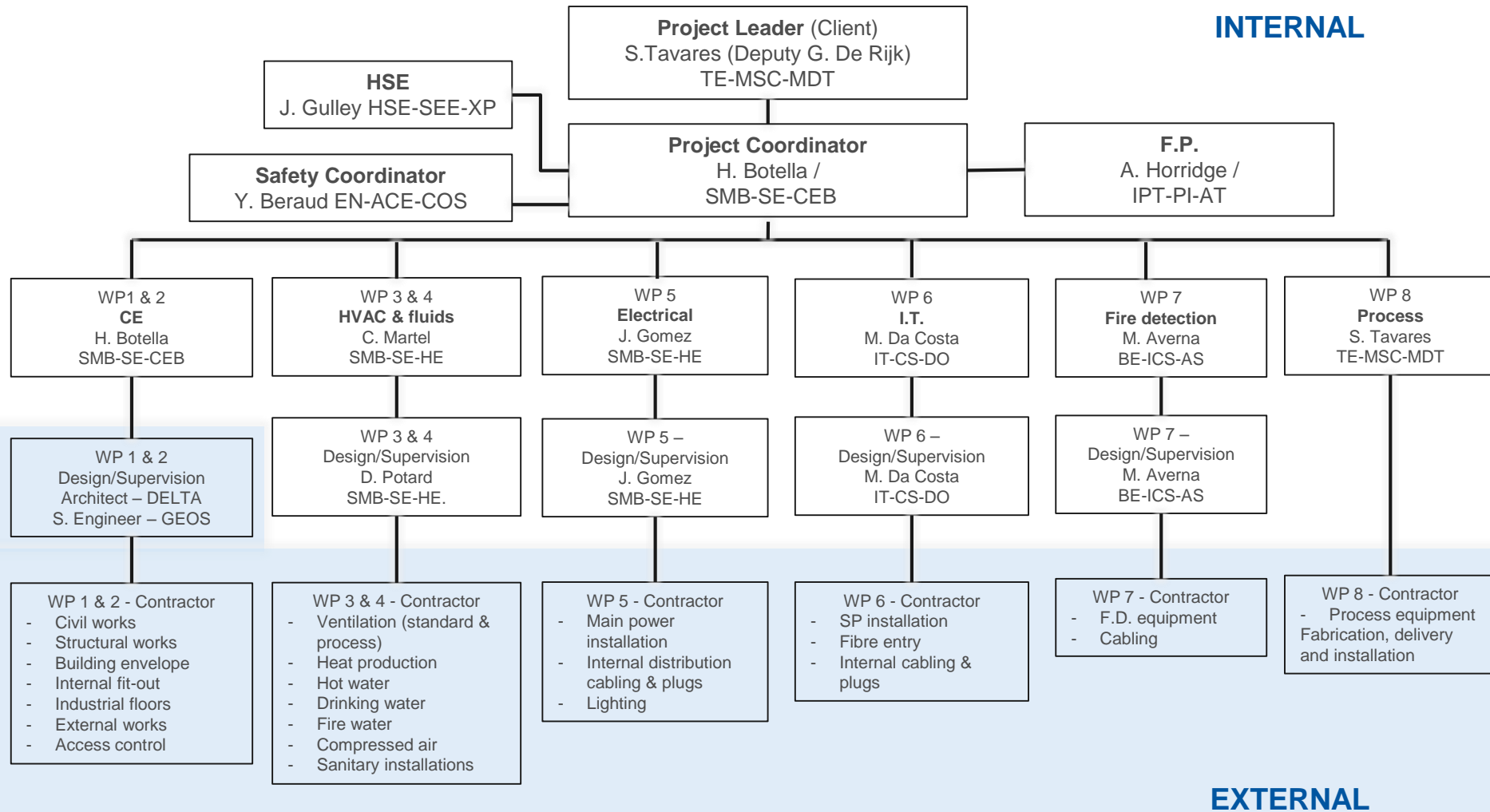
Project structure up to May 2017



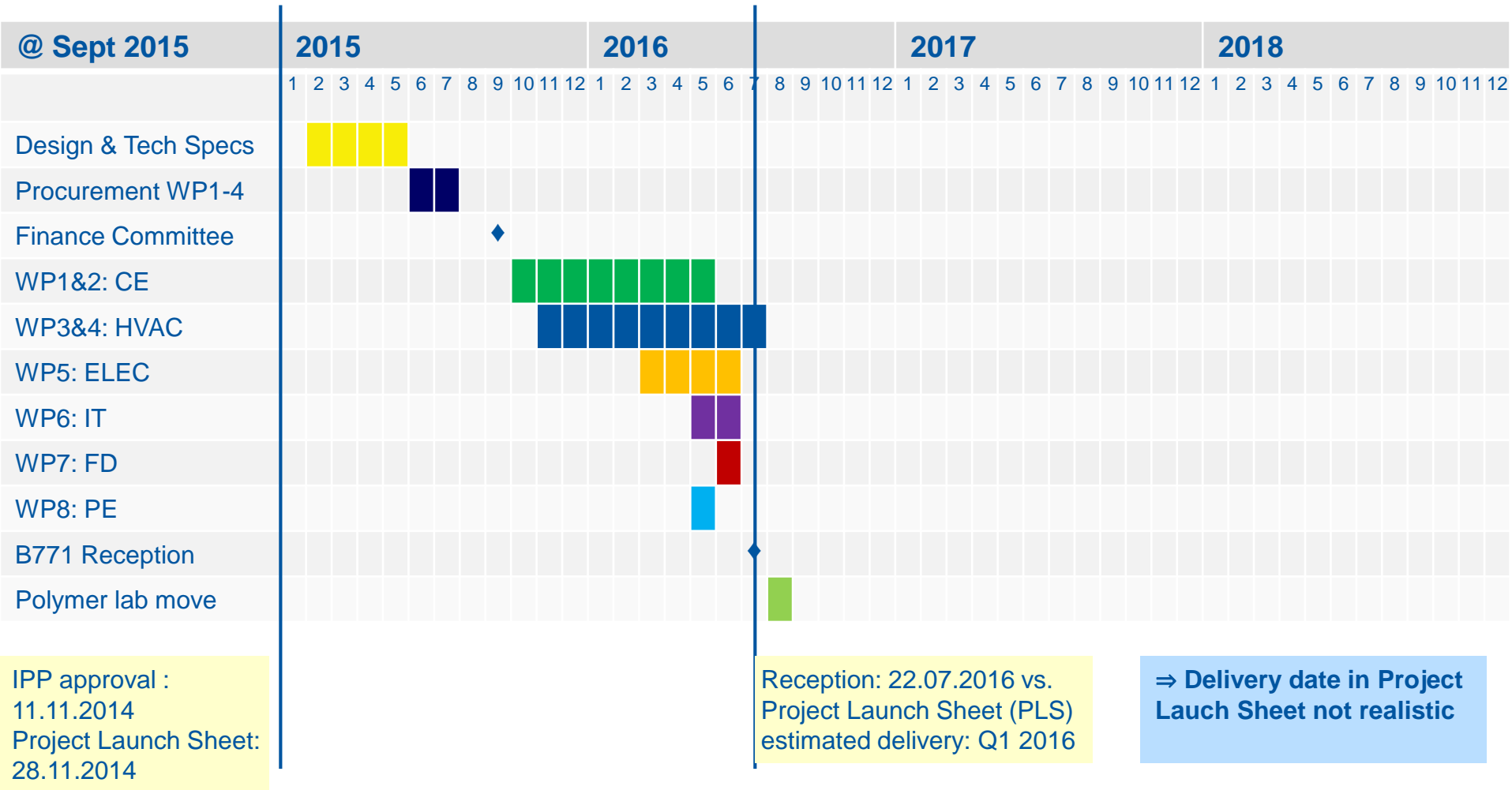
INTERNAL

EXTERNAL

Project structure from June 2017



Project Schedule – September 2015

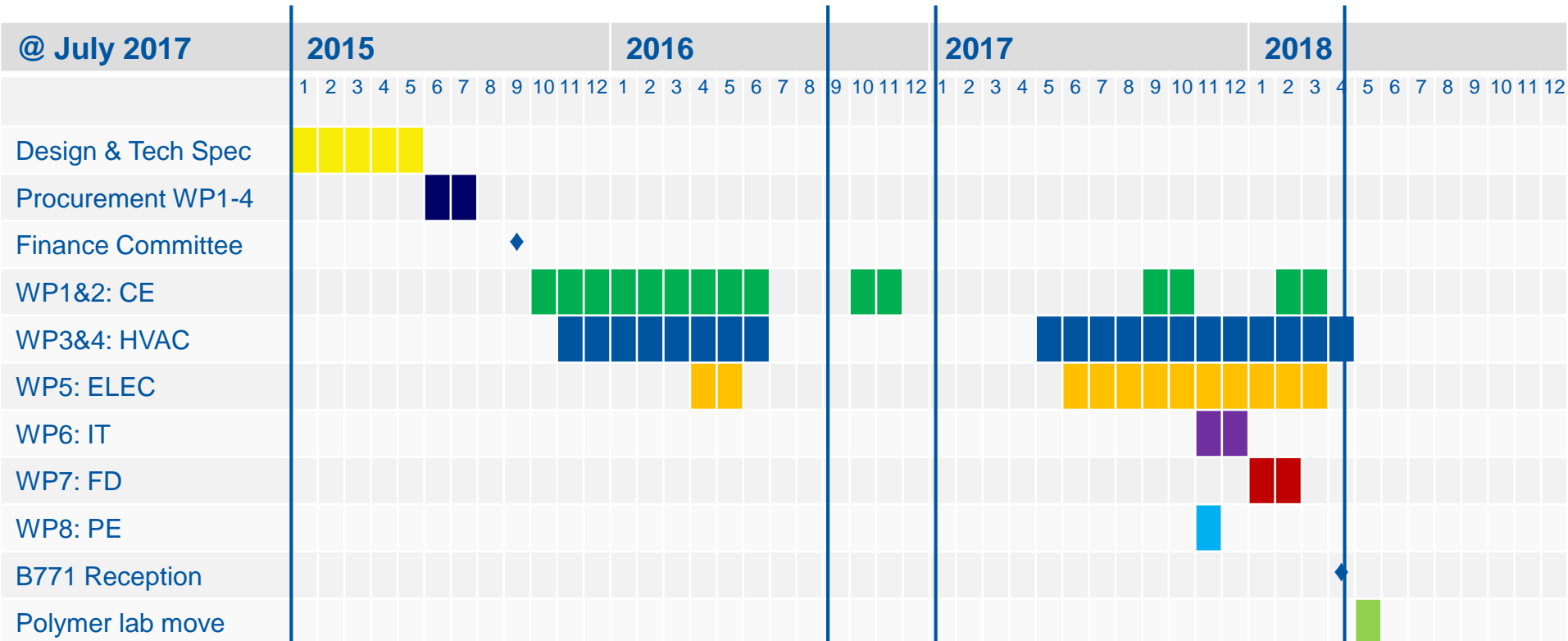


Project Schedule - evolution

- Consecutive delays in the HVAC execution studies from Contractor EMTE, during Q1-Q3 2016
- Low confidence on company's ability to accomplish the works
- Steering meeting of Sept 2016: TE & SMB decided to stop contract T098 with EMTE (IT-4115/GS)
- Solution for contract procurement: split IT-4115/GS into three DOs: DO-(30286/30287/30288)SMB
- Steering meeting of Jan 2017: TE & SMB agreed on modifications, budget, and planning:
Budget: 3'373 KCHF, reception in December 2017
- Following the start of the three HVAC orders in May 2017, a revised schedule was released in July 2017

	<u>Sep 2015</u>	<u>Aug 2016</u>	<u>July 2017</u>
Start of CE works	01/10/2015	01/10/2015	01/10/2015
Acceptance CE works with reserves, gros-oeuvre	16/05/2016	10/06/2016	10/06/2016
Start of HVAC works (design work file)	15/11/2015	15/11/2015	04/05/2017
End of HVAC design work file	22/01/2016	12/09/2016 +8m	06/06/2017
Start HVAC/Elec installations	22/03/2016	12/09/2016	19/06/2017
Equipment Installation	30/05/2016	10/03/2017	14/11/2017
End of HVAC/Elec installations	13/06/2016	17/03/2017	09/03/2018
End of test/comm. HVAC	11/07/2016	10/04/2017	21/03/2018
End of IT & FD installations	27/06/2016	21/04/2017	06/04/2018
Practical completion	18/07/2016	24/04/2017 +9m	12/04/2018

Project Schedule – July 2017



IPP approval :
11.11.2014
Project Launch Sheet:
28.11.2014

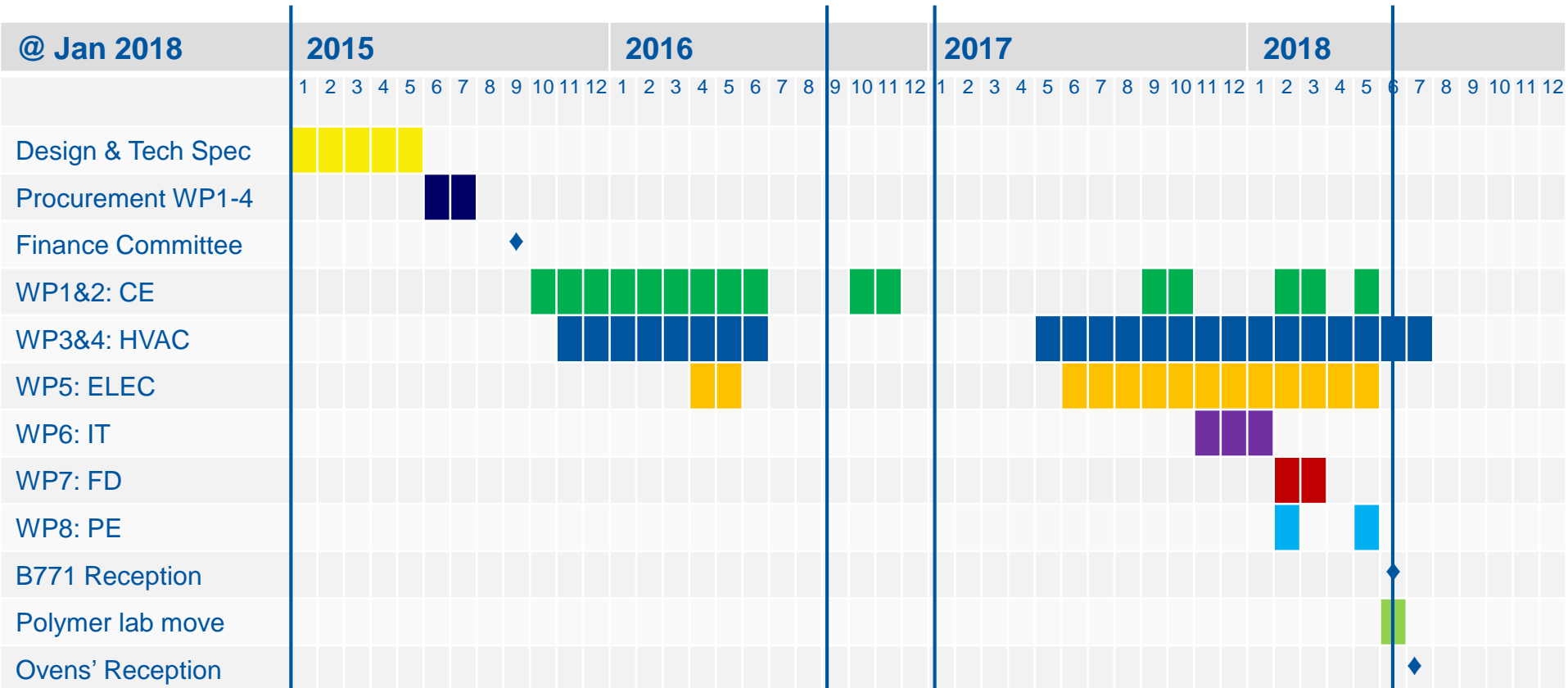
Steering Committee
02.09.2016:
Cancel HVAC Contract

Steering Committee
17.01.2017:
Approved Budget: 3'373 kCHF
B771 Reception by end 2017

@ July 2017:
Reception 12.04.2018



Project Schedule – January 2018



IPP approval :
11.11.2014
Project Launch Sheet:
28.11.2014

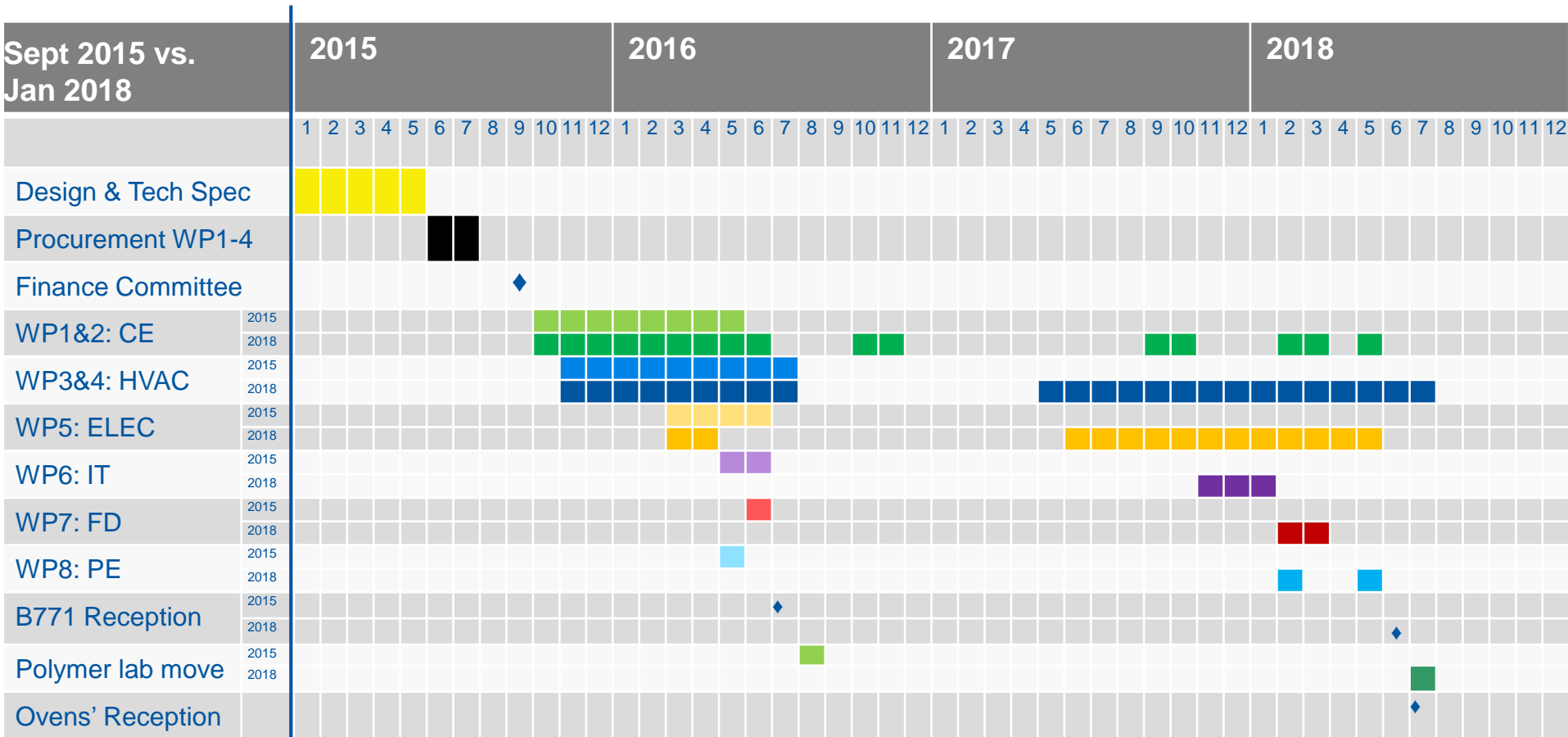
Steering Committee
02.09.2016:
Cancel HVAC Contract

Steering Committee
17.01.2017:
Approved budget: 3'373 kCHF
B771 Reception by end 2017

@ January 2018
Reception 15.06.2018



Project Schedule – 2015 vs. 2018



IPP approval :
11.11.2014
Project Launch Sheet:
28.11.2014

- All WPs increased their activity duration
- The building reception will be made in June 2018, prior to the ovens' reception
- The two-phase reception allows the Polymer Lab move in June 2018



Budget tracking

		Approved Budget
IPP	Nov 2014	2993 KCHF
Project Launch Sheet	Nov 2014	3'000 ± 450 KCHF
Steering Committee	Jan 2017	3'374 KCHF

WP Description	Budget code	Initial BASELINE IPP (CHF)	Current BASELINE Steering Committee of 17/01/2017 (CHF)	Estimated Cost 19/01/2018 (CHF)	Charged to BC from CET (CHF) on 19/01/18	Plurianual Open Commitment from CET (CHF) on 19/01/18	Pluri-annual Commitments from CET (CHF) on 19/01/18	Balance: Committed Budget - Estimated cost (CHF)
		A	B	C	D	E	F = D + E	G = F - C
Bât.771 -Polymer Lab		2,992,724.00	3,373,701.00	3,541,856.67	2,168,376.97	1,178,808.49	3,347,185.46	-194,671.21

Department	Group	Budget	Budget Code Description	Charged (CHF)	Open commitments (CHF)	Sum of Pipeline (CHF)
SMB	SE	76191	Polymer lab building structure and envelope	718,148	37,896	
		76192	Polymer lab internal fit-out works	479,524	2,636	
		76619	Polymer lab HVAC	680,516	905,443	
		76629	Polymer lab electrical installations	290,189	232,834	1,221
			(blank)			
	SE Total			2,168,377	1,178,808	1,221
SMB Total				2,168,377	1,178,808	1,221

3'347'185 CHF

Budget tracking

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		2017	2018	Grand Total
BE	POLYMERLAB		40	40
SMB	POLYMERLAB	447	1511	1958
Grand Total		447	1551	1998

SMB	budget available (kCHF)	1,958	
	budget needed to cover commitments	2,056	
	Delta	-98	Is there more to come?

Required for SMB:
 $194 - 40 \text{ kCHF} = 154 \text{ kCHF}$

DELTA: $154 + 98 \text{ kCHF}$
 252 kCHF

To be confirmed by reviewers

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Budget Evolution & Perspective

Estimated Cost	Jan 2018	3'542 kCHF
IPP	Nov 2014	2'993 kCHF

Not included in IPP	Cost (kCHF)	Comments
Painting of parking spaces	6	
Transformer	55	Estimated 300 kCHF, EN-CV
Grounding & piping	27	
Access control	35	
Fire Detection	40	
Total	163	

EUR-CHF Fluctuation: about 100 kCHF

Settlement for HVAC contract: 56 kCHF

=> Modifications + impact of 3 DOs for HVAC account for: 230 kCHF