

Financial Review

Building 771 - Polymer lab

Location: Preveessin site

Agenda

- Status of the works in B771: current budget and planning
 1. CE and access control – **H. Botella**
 2. HVAC, fluids and sanitary installations – **C. Martel**
 3. Electrical installations – **J. Gomez**
 4. IT installations – **M. Da Costa**
 5. Fire detection – **M. Averna**
 6. Process equipments – **S. Tavares**
- **AOB**

Financial Review

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1. Civil Engineering and Access Control

WP 01: Building structure and envelope

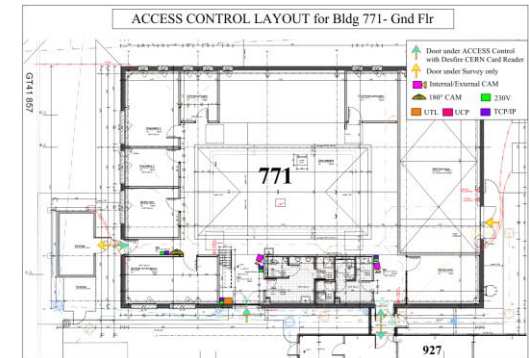
WP 02: Internal fit-out

H. Botella SMB/SE-CEB

1. CE and access control works - Planning



- Technical reservations for HVAC installations – Completed ✓
- False ceilings being installed (after cables installation and IT works) – Weeks 4 to 7 of 2018
- Caulking and fire sealing – Following technical installations
- External fencing to technical area – Following site works → March 2018
- Painting of parking places and green spaces – Following site works → May 2018
- Access Control – Weeks 8 to 9 of 2018 ← IT/EL installations completed



1. CE works and Access control – Financial review

- Total estimated Budget (on January 2018) of 1.307.020 CHF
- Around 55 kCHF to be committed (estimation)

WP Description	Budget code	Initial BASELINE IPP (CHF)	Current BASELINE Steering Committee of 17/01/2017 (CHF)	Estimated Cost 23/01/2018 (CHF)	Charged to BC from CET (CHF) on 19/01/18	Plurianual Open Commitment from CET (CHF)	Pluri-annual Commitments from CET (CHF) on 19/01/18	Balance: Committed Budget - Estimated cost (CHF)	Observations
		A	B	C	D	E	F = D + E	G = F - C	
WP 01: Civil, Structural & Building envelope	76191								
WP 02: Internal fit-out	76192	1,454,724.00	1,260,986.00	1,307,018.87	1,197,671.97	40,532.14	1,238,204.11	-68,814.76	55kCHF to be committed
WP 09: Access Control installations									
Building Permit, CE Design and supervision			192,795.00	192,795.00					
CE Consultants			142,795.00	142,795.00	149,957.60	0.00	149,957.60		
CE works Supervision			50,000.00	50,000.00					
CE Works			1,062,791.00	1,108,823.87					
CE Works			1,006,560.00	1,006,560.00	1,029,127.61	0.00	1,029,127.61		
False Ceiling			14,000.00	21,258.87	0.00	21,258.87	21,258.87		
External Fencing			9,000.00	9,000.00					
Caulking + Fire Sealing			9,000.00	9,000.00					
CE Openings			10,000.00	12,005.00	12,066.37	0.00	12,066.37		
Painting Parking Spaces				6,000.00					
Works on resin for the installation of ovens				10,000.00					
WP 09: Access control installations - BE/ICS/AC			14,231.00	35,000.00	1,143.97	19,273.27	20,417.24		
Hoist Installation			5,400.00	5,400.00	5,376.42	0.00	5,376.42		

Deviations from the Steering Committee (January 2017) due to:

- The use of Contract Prices → CERN Blanket Contract prices (false ceilings)
- Access Control finally not included in CB 72590
- Increase the scope of the works (openings / painting of parking spaces / removal of resin under the ovens)

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2. HVAC, fluids and sanitary installations

WP 03: Technical installations for HVAC and fluids

WP 04: Technical installations for Sanitary

C. Martel SMB/SE-HE

2. HVAC, fluids and sanitary installations: Agenda

- Scope of the supply
- Progress report
- Engineering changes &
- Financial reports
- CET situation

2. HVAC, fluids and sanitary installations: Scope of the supply

Hvac:

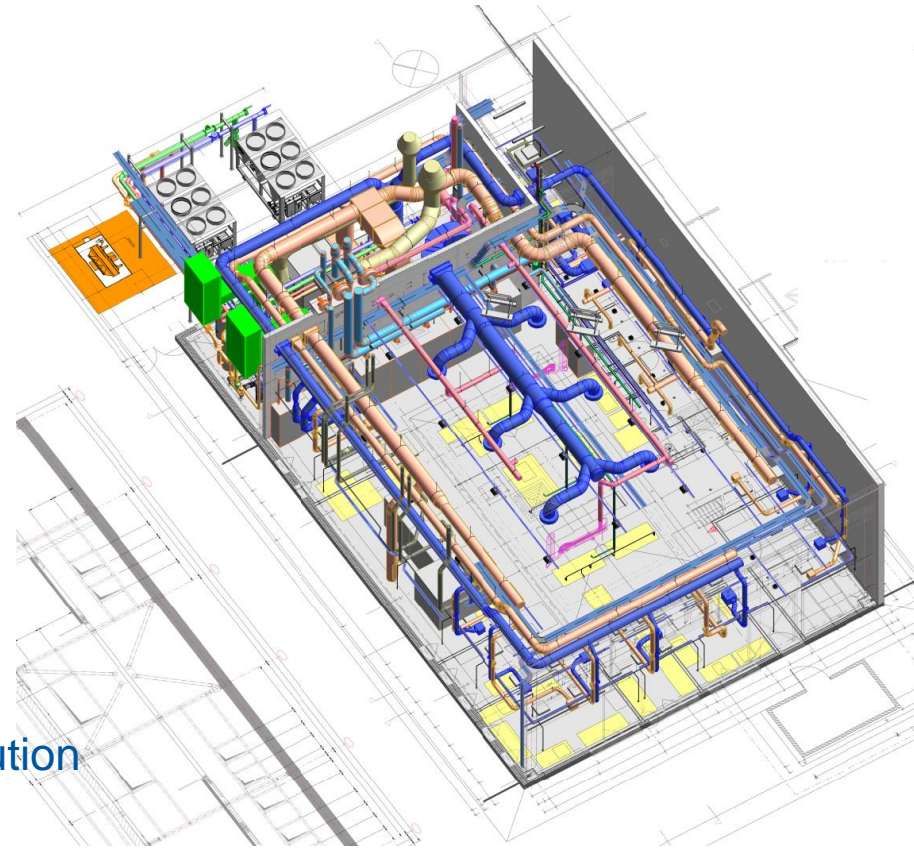
- Building heating, ventilation and cooling
- Fume cupboards air extraction
- Ovens air extraction
- Other laboratory equipment extraction

Industrial fluids:

- Vacuum pumps exhaust
- Stoves exhaust
- Compressed air distribution

Sanitary:

- Drinkable water distribution
- Hot domestic water production & distribution
- Sanitary fittings
- Safety device: eyes washer



2. HVAC, fluids and sanitary installations: Progress report

Hvac:

- Building ventilation 90% (waiting for FC and oven delivery, one extraction duct for degassing system, waiting for false ceiling for the installation of the grilles).
- Heating and cooling 95% (thermal insulation of the pipes)
- Power and control cubicles 90% (control cables to finish)

Industrial fluids:

- Vacuum pumps exhaust 98%
- Stoves exhaust 98%
- Compressed air distribution 98%

Sanitary:

- Sanitary and solar panels 90% (waiting for entrance date for sanitary appliances installation)

2. HVAC, fluids and sanitary installations: Budget and Engineering changes

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
		A	B	C	D	E	F = D + E
Total WP 03 & WP 04:	76619	998 000.00	1 368 715.00	1 548 399.80	680 515.55	905 442.63	1 585 958.18
WP 03 Technical installations for HVAC and fluids			1 318 715.00	1 498 399.80	638 587.03	902 647.37	1 541 234.40
HVAC and fluids Works		848 000.00	855 715.00	1 393 553.00			
Connection to CERN central heating and water pipes		50 000.00	50 000.00	50 000.00			
Settlement agreement to finish the contract with EMTE				56 949.00			
Modifications in the scope: additional section in air handling units for future humidification control, additional ATEX fume cupboards, compliance to ATEX requirements, compressed air pipes from galvanised to stainless steel, vacuum pumps from PE to stainless steel, from galvanised to stainless steel for the arm extraction ducts, separation of some extraction circuits, additional chemical cupboards, invitation to tenders splitted in three price inquiries, CHF rate, etc			363 000.00				
Removing ATEX requirement for 3 fume cupboards				-21 293.00			
Vacuum pump exhaust circuit		50 000.00	50 000.00				
Compressed air modification				3 442.00			
Moving pipe and stove in lab 771/R-005				1 948.80			
Additional acceptance test due to delay of the ovens and contingency				13 800.00			
WP 04 Technical installations for Sanitary		50 000.00	50 000.00	50 000.00	41 928.52	2 795.26	44 723.78

2. HVAC, fluids and sanitary installations: CET situation

CET extraction dated on 22.01.2018.

HVAC

Budget Code	Order Code	Order Description	Technical Contact	Parent Agreement	Last Modified Date	First Entry Date	Charged to Budget Code (CHF)	Pluri-annual Commitments (CHF)	Pluri-annual Open Commitments (CHF)	Pipeline (CHF)	Order Status
76619	CD6759500	771 - systemes de ventilation	MARTEL Christophe	6759500	31.12.2017	30.06.2017	185,485.11	575,861.04	390,375.93		30
76619	CD6759501	771 - systemes hydraulique	MARTEL Christophe	6759501	31.12.2017	30.06.2017	100,834.83	613,106.26	512,271.43		30
76619	CD6759683	771 - systemes electriques/regul	MARTEL Christophe	6759683	31.12.2017	30.06.2017	293,382.32	293,382.33	0.01		30
76619	OV506427	settlement agreement (1702-)	Martel Christophe	6621893	18.04.2017	22.02.2017	56,949.87	56,949.87			91
							636,652.13	1,539,299.50	902,647.37		

Connection to building 927

Budget 50000 CHF, 33716 CHF ordered in BC 76614 (OV6823611). Blg. 927 skid regulation to order and contingency 15kCHF.

Sanitary:

Budget Code	Order Code	Order Description	Technical Contact	Parent Agreement	Last Modified Date	First Entry Date	Charged to Budget Code (CHF)	Pluri-annual Commitments (CHF)	Pluri-annual Open Commitments (CHF)	Pipeline (CHF)	Order Status
76619	CA6331974	bat771 bati support sanitaire	POTARD Denis Henri	6331974	21.04.2016	21.03.2016	4,590.00	4,590.00			91
76619	CA6339679	reseau Eaux Usees	POTARD Denis Henri	6339679	21.04.2016	01.04.2016	4,890.00	4,890.00			91
76619	CA6363747	bat927 receveurs douches	POTARD Denis Henri	6363747	20.05.2016	18.04.2016	1,776.00	1,776.00			91
76619	CA6424576	Rental of a temporary site toilet	VERNAL James Alexander	6424576	07.12.2016	23.06.2016	1,934.90	1,934.90			91
76619	CA6598952	bat771 materiel sanitaire	POTARD Denis Henri	6598952	24.12.2016	30.11.2016	4,990.00	4,990.00			91
76619	J3044945	TOLERIE/SOUDURE	TONOLI Jacky	7034760	30.11.2017	24.11.2017	682.5	682.5			91
76619	OV6844732	771 production ECS solaire (1707-1708)	POTARD Denis Henri	17069069V2	31.12.2017	27.06.2017	25,000.02	27,795.28	2,795.26		30
							43,863.42	46,658.68			

Budget 50000 CHF (46658 CHF ordered, 1 chemical wash basin + 1 eyes washer < 4 kCHF to order)

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3. Electrical installations

WP 05: Electrical installations

J. Gomez SMB/SE-HE

3. Electrical installations - Progress review

TASK

FINISHED AT

- | | |
|----------------------------------|------|
| • HT/LV power lines | 100% |
| • Transformer | 100% |
| • Main switchboard | 100% |
| • 48V DC power line | 100% |
| • Cable trays | 100% |
| • Installations in the labs | 75% |
| • Installations in the HVAC room | 40% |
| • Installations in the HALL | 75% |
| • Outdoor lighting | 30% |
| • Chillers powering | 100% |
-
- ❑ The installation and subsequent commissioning of the lighting system depends on the availability of a false ceiling in the labs. A later date has been set for its reception.
 - ❑ This false ceiling will be available February 23th 2018. The schedule has been modified accordingly.

3. Electrical installations – Financial review

WP Description	Budget code	Initial BASELINE IPP (CHF)	Current BASELINE Steering Committee of 17/01/2017 (CHF)	Estimated Cost 23/01/2018 (CHF)	Orders placed on EDH (CHF)	Balance: Estimated cost - Orders placed (CHF)	Observations
		A	B	C	D	E = C - D	
WP 05: Electrical Installation works	76629	490,000.00	614,000.00	604,000.00	451,073.00	152,927.00	153 kCHF to be committed
Power Distribution		400,000.00	477,000.00	447,000.00	324,700.00		
HT power lines and transformer		0.00	55,000.00	55,000.00	54,373.00		
Main switchboard		90,000.00	55,000.00	55,000.00	55,000.00		
Grounding building and piping		0.00	27,000.00	17,000.00	7,000.00		
Additional works		0.00	0.00	30,000.00	10,000.00		

Deviation from IPP due to:

- New CERN installation blanket contract new contractual unit prices ~ +15%
- Need of a new transformer (transformer, auxiliaries, HV power line etc.)
- Main switchboard less costly
- Including grounding building and piping

Additional requests:

- Extra metallic supports on the superstructure for cable ladders,
- Increase number of fume cupboards,
- Blinds commands,
- IT cable trays,
- Switchboard modification for ovens.

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4. IT installations

WP 06: IT installations

M. Da Costa IT/CS-DO

4. IT installations – Budget and Progress review

	Budget disponible	Dépenses
	50 000 CHF	
Dépenses effectives (2017)		
Main d'oeuvre		14 398 CHF
Equipements passifs		4 622 CHF
Equipements actifs		10 860 CHF
Trunk fibres		7 558 CHF
Dépenses 2017		37 438 CHF
Dépenses futures (2018)		
Travaux de finition		5 000 CHF
Dépenses totales		42 438 CHF

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5. Fire Detection

WP 07: Fire Detection Installations


M. Averna BE/ICS-AS

5. Fire Detection and Evacuation– Financial review

Budget

B771	KCHF
Engineering	3
Supply	17
Cabling	8
Installation	8
Commissioning	2
Aleas	3
TOTAL DI+EVAC	40

Planning

- Requirements 
- Preliminary design 
- Details design :
- Integration :
- Purchase Order: ongoing 
- Implementation: week 5 to 7, 2018
- Commissioning: end Feb/March 2018

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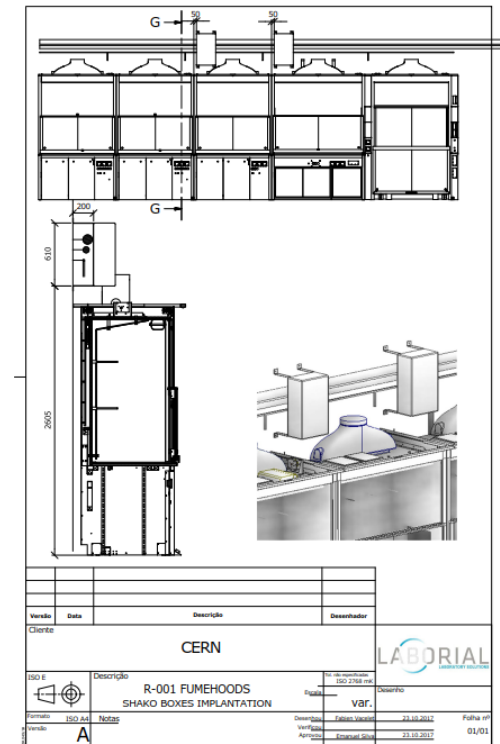
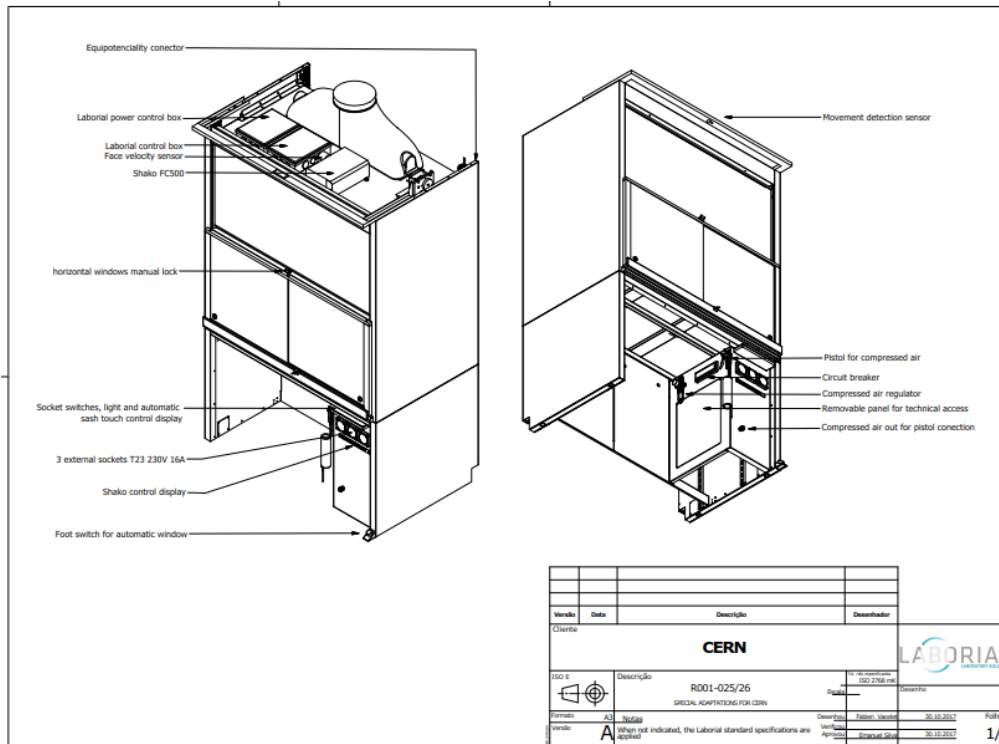
6. Process Equipment

WP 08: Process Equipment

S. Tavares TE/MS-C-MDT

6. Process Equipment – Financial review

- Procurement of the fume cupboards (FCB)
 - DO-30059/TE/MSC, EDMS 1707091
 - Contract awarded to Laborial (PT), CA 6556835, 85.6 kEUR, Oct 2016



6. Process Equipment – Financial review

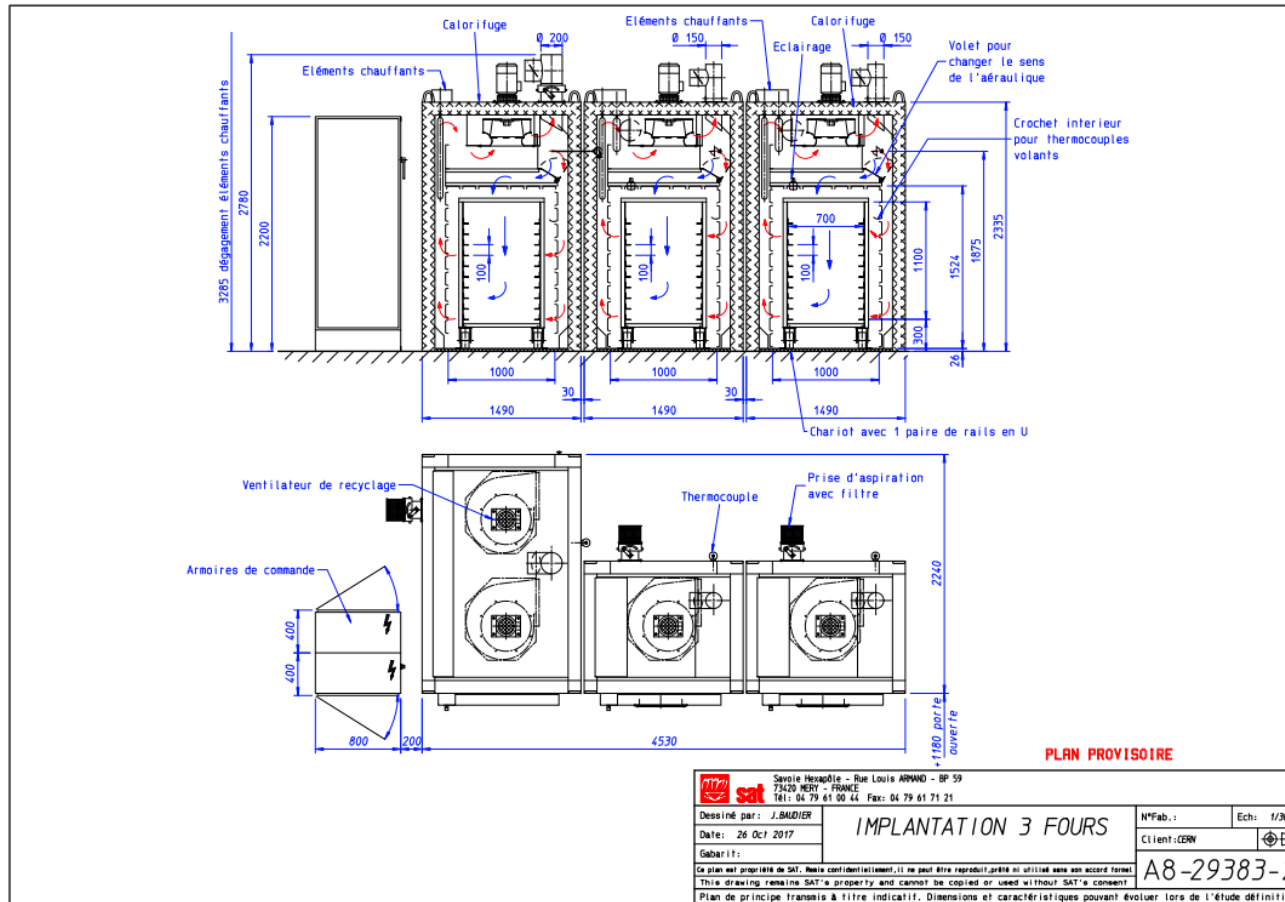
- Current situation:
 - Installation: 16.01.2017 in DO-30059/TE/MSD vs. weeks 8-10 2018
- Timeline
 - Oct 2016: contract notification and kick-off meeting
 - Nov 2016: Meeting at CERN with TE-HVAC-ELEC
 - Mar 2017: DO-30286, compliance of FCB with ATEX regulation
 - May 2017: removal of ATEX on 3 FCB (simplification of project, cost reduction)
 - May 2017: HVAC confirmed fittings to FCB
 - Jun-Aug 2017: architectural design not performed as planned
 - Laborial claimed clashes with other projects
 - Sept-Oct-Nov 2017: architectural design & CERN approval
 - Nov 2017 - Jan 2018: procurement of materials & manufacturing
 - Feb 2018 (week 5) – FAT
 - Laborial claims delays with delivery of ATEX appliances

6. Process Equipment – Financial review

- Aim: keep installation in weeks 8-10
- Proposed mitigation of further delays agreed with Laborial
 - 2 FATs, non-ATEX and ATEX FCBs
 - 2 deliveries, non-ATEX and ATEX FCBs
- First FAT week 5 2018 – not confirmed by Laborial
- Application of penalties being considered with Procurement officer

6. Process Equipment – Financial review

- Procurement of the ovens
 - DO-30181/TE/MSC, EDMS 1716474
 - Contract awarded to SAT (FR), CA 7065434, 137.1 kEUR, Dec 2017



6. Process Equipment – Financial review

- Planned installation: 18.05.2017
- Timeline
 - Jul 2017: DO-30181 sent to 8 bidders + 2 bidders added in the bidding period
 - Sept 2017: 5 bidders replied, first bidders not complying with Tech Spec
 - Oct-Nov 2017: negotiations with first bidder for compliance to Tech Spec
 - Dec 2017: Contract notification
 - Jan-Feb 2018: design file & CERN approval
 - Mar-Apr 2018: Procurement of materials and manufacturing
 - May 2018: FAT and installation
- Impact on other WPs:
 - CE: removal of floor resin on oven footprint for temp constrains (10 kCHF)
 - ELEC: change of power supply, switchboard modified (6 kCHF), connection in May 2018
 - IT: Private IT for ovens in May 2018
 - HVAC: Reception of B771 without ovens Jun 2018, ovens' reception July 2018 (13.8kCHF)

AOB

- Any questions?



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