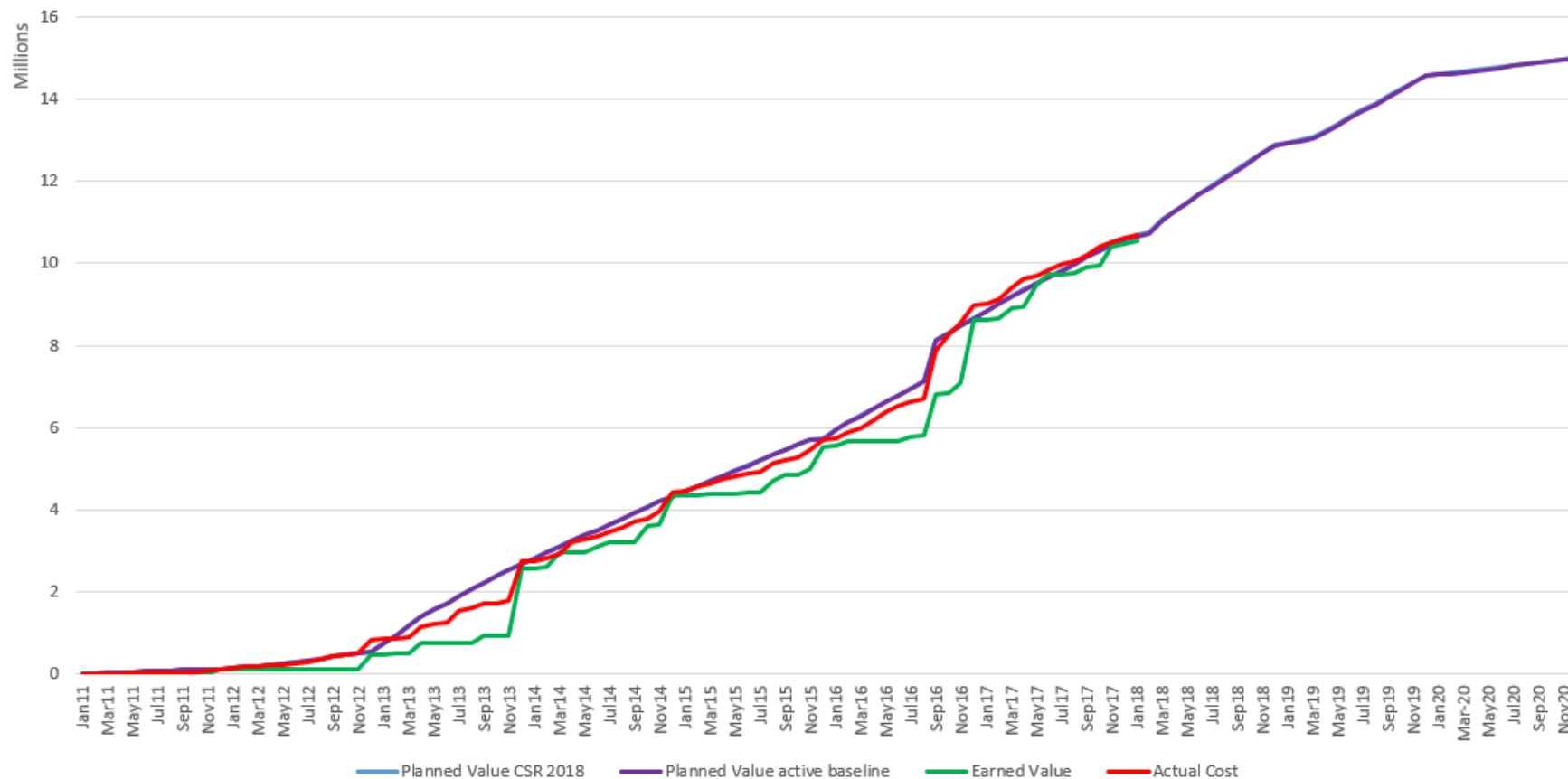




LIU Project EVM Metrics BE-BI

Extraction date: 28-Aug-18

EVM Metrics for LIU Project



Cost variance

in kCHF
-359

Schedule variance

	<i>in kCHF</i>	<i>in month</i>
Active baseline	-597	-3.0
CSR baseline	-630	-3.1

CET Metrics for LIU Project

	Budget Code Description	Department	Group	Project	Charged to Budget Code (CHF)	Annual Commitment (CHF)	Annual Open Commitment (CHF)	Payment Budget (CHF)	Pipeline (CHF)
LIU-IONS	64050 LIU-IONS Source Instrumentation	BE	BI	LIU-IONS	28,500.64	28,500.64	0.00	16,000.00	0.00
	64053 LIU-IONS LEIR instrumentation	BE	BI	LIU-IONS	31,627.92	33,957.70	2,329.78	94,000.00	0.00
LIU-PS	64032 LIU-PS Profile Measurement Upgrades (SEM & BTV)	BE	BI	LIU-PS	37,489.64	51,486.32	13,996.68	125,000.00	0.00
	64033 LIU-PS Wirescanner Upgrade	BE	BI	LIU-PS	0.00	0.00	0.00	0.00	0.00
	64034 LIU-PS Ionisation Profile Monitor	BE	BI	LIU-PS	40,231.77	73,823.68	33,591.91	63,000.00	0.00
	64035 LIU-PS BLM Upgrades (ring & diamond)	BE	BI	LIU-PS	5.22	5.22	0.00	0.00	0.00
	64036 LIU-PS mechanical production and installation	BE	BI	LIU-PS	65,205.54	106,294.99	41,089.45	137,000.00	0.00
	64037 LIU-PS electronics production and cables	BE	BI	LIU-PS	134,741.09	140,103.18	5,362.09	154,000.00	14,465.68
	64038 LIU-PS mechanical commercial components	BE	BI	LIU-PS	3,674.16	24,593.10	20,918.94	24,000.00	0.00
	64039 LIU-PS control electronics	BE	BI	LIU-PS	35,252.34	39,226.82	3,974.48	57,000.00	184.36
LIU-PSB	64020 LIU-PSB BLM Upgrades	BE	BI	LIU-PSB	0.00	0.00	0.00	1,000.00	0.00
	64021 LIU-PSB PU & BCT Upgrades	BE	BI	LIU-PSB	57,056.54	71,807.61	14,751.07	94,000.00	500.49
	64022 LIU-PSB Profile Measurement Upgrades	BE	BI	LIU-PSB	49,222.27	63,681.12	14,458.85	-3,000.00	832.00
	64023 LIU-PSB Wire scanners upgrade	BE	BI	LIU-PSB	6,237.53	6,374.25	136.72	0.00	0.00
	64024 LIU-PSB mechanical production and installation	BE	BI	LIU-PSB	112,897.31	251,906.23	139,008.92	219,000.00	0.00
	64026 LIU-PSB electronics production and cables	BE	BI	LIU-PSB	3,738.94	9,096.08	5,357.14	42,000.00	21,698.51
	64027 LIU-PSB control electronics	BE	BI	LIU-PSB	36,582.85	47,773.86	11,191.01	90,000.00	0.00
	64028 LIU-PSB mechanical commercial components	BE	BI	LIU-PSB	19,079.40	51,978.35	32,898.95	52,000.00	0.00
LIU-SPS	64040 LIU-SPS Wirescanner & BGI Upgrades	BE	BI	LIU-SPS	875.21	875.21	0.00	0.00	0.00
	64041 LIU-SPS BLM Upgrade	BE	BI	LIU-SPS	2,199.78	2,199.78	0.00	33,000.00	0.00
	64042 LIU-SPS Profile Monitor Upgrades	BE	BI	LIU-SPS	2,935.45	8,573.44	5,637.99	74,000.00	0.00
	64043 LIU-SPS Transverse Diagnostics Upgrade	BE	BI	LIU-SPS	1,007.14	1,437.24	430.10	1,000.00	0.00
	64045 SBDS Instrumentation	BE	BI	LIU-SPS	118,052.90	118,052.90	0.00	146,000.00	0.00
	64046 LIU-SPS LIU-SPS New MOPOS electronics	BE	BI	LIU-SPS	170,680.47	202,554.77	31,874.30	263,000.00	13,132.00
	64047 LIU-SPS mechanical production and installation	BE	BI	LIU-SPS	59,253.60	91,051.41	31,797.81	118,000.00	0.00
	64048 LIU-SPS electronics production and cables	BE	BI	LIU-SPS	4,266.48	7,837.91	3,571.43	233,000.00	12,073.43
	64049 LIU-SPS mechanical commercial components	BE	BI	LIU-SPS	9,801.19	26,051.75	16,250.56	26,000.00	0.00
	64058 LIU-SPS control electronics	BE	BI	LIU-SPS	18,595.24	21,851.07	3,255.83	55,000.00	0.00
64724 LIU-SPS Optical fibres	BE	BI	LIU-SPS	126,440.05	163,613.65	37,173.60	125,000.00	0.00	
Grand Total:					1,175,650.67	1,644,708.28	469,057.61	2,239,000.00	62,886.47

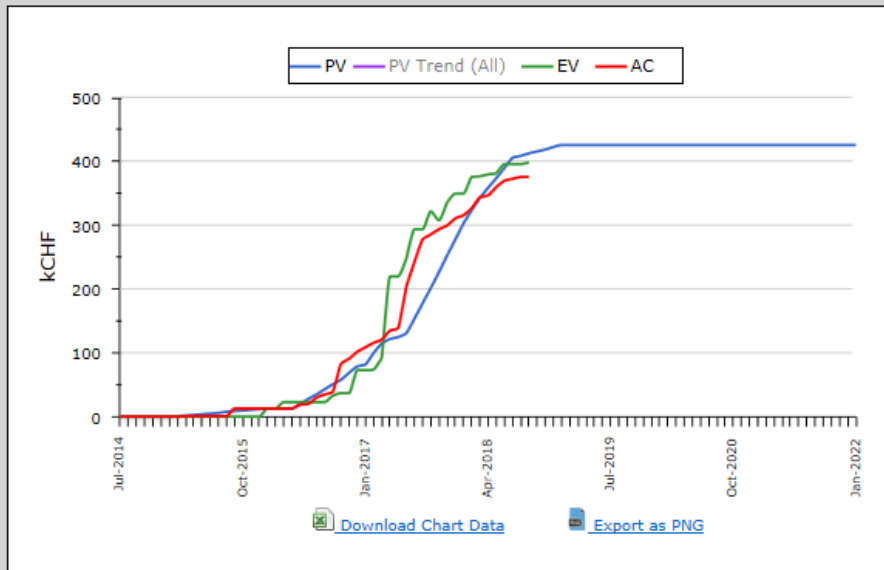
CET Metrics vs Cost to Completion

Machine	Depart.	Group	Budget code	Budget code description	Code status	Charged to Budget Code since 2011 (CHF)	Pluri-annual Commitment (CHF)	Pipeline accounting (CHF)	M to P received from DPOs (CHF)	CtC (CHF)	CtC - Commitments incl. pipeline & M to P (CHF)	Situation vs CtC
LIU-IONS	BE	BI	64050	LIU-IONS Source Instrumentation	Active	149 488	149 488	0	0	137 000	-12 488	●
			64052	LIU-IONS SPS Ion Injection BLMs	Black list	12 000	12 000	0	0	12 000	0	●
			64053	LIU-IONS LEIR instrumentation	Active	215 002	217 331	0	0	277 000	59 669	●
JU-IONS Total						376 490	378 819	0	0	426 000	47 181	●
LIU-PS	BE	BI	64030	LIU-PS Beam Instrumentation	Black list	607 333	607 333	0	0	607 001	-332	●
			64031	LIU-PS BPM Upgrades (BPM & WCM)	Black list	4 996	4 996	0	0	5 400	404	●
			64032	LIU-PS Profile Measurement Upgrades (SEM & BTM)	Active	75 422	89 419	0	0	178 000	88 581	●
			64033	LIU-PS Wirescanner Upgrade	Black list	47 252	47 252	0	0	47 252	0	●
			64034	LIU-PS Ionisation Profile Monitor	Active	385 907	419 498	0	0	622 000	202 502	●
			64035	LIU-PS BLM Upgrades (ring & diamond)	Black list	735 775	735 775	0	0	735 769	-5	●
			64036	LIU-PS mechanical production and installation	Active	91 175	132 265	0	0	272 500	140 235	●
			64037	LIU-PS electronics production and cables	Active	134 741	140 103	14 248	0	321 001	166 650	●
			64038	LIU-PS mechanical commercial components	Black list	16 666	37 585	0	0	37 000	-585	●
			64039	LIU-PS control electronics	Active	63 283	67 257	0	29 000	104 000	7 743	●
LIU-PS Total						2 162 549	2 281 483	14 248	29 000	2 929 923	605 192	●
LIU-PSB	BE	BI	64020	LIU-PSB BLM Upgrades	Active	1 096 229	1 096 229	0	0	1 155 001	58 772	●
			64021	LIU-PSB PU & BCT Upgrades	Active	1 148 381	1 163 132	500	0	1 230 000	66 367	●
			64022	LIU-PSB Profile Measurement Upgrades	Active	547 033	561 492	832	0	535 001	-27 323	●
			64023	LIU-PSB Wire scanners upgrade	Black list	474 101	474 238	0	0	468 000	-6 238	●
			64024	LIU-PSB mechanical production and installation	Active	136 410	275 419	0	0	391 000	115 581	●
			64025	LIU-HST Beam Instrumentation	Black list	61 851	61 851	0	0	62 000	149	●
			64026	LIU-PSB electronics production and cables	Active	20 590	25 947	21 372	0	135 000	87 681	●
			64027	LIU-PSB control electronics	Active	74 198	85 389	0	42 000	155 001	27 612	●
64028	LIU-PSB mechanical commercial components	Black list	26 073	58 972	0	0	59 000	28	●			
LIU-PSB Total						3 584 866	3 802 669	22 704	42 000	4 190 003	322 630	●
LIU-SPS	BE	BI	64040	LIU-SPS Wirescanner & BGI Upgrades	Black list	666 156	666 156	0	0	665 341	-815	●
			64041	LIU-SPS BLM Upgrade	Active	111 362	111 362	0	0	142 000	30 638	●
			64042	LIU-SPS Profile Monitor Upgrades	Active	167 945	173 583	0	0	264 009	90 427	●
			64043	LIU-SPS Transverse Diagnostics Upgrade	Black list	161 467	161 897	0	0	161 460	-437	●
			64044	LIU-SPS BCT Upgrades	Black list	214 580	214 580	0	0	215 068	488	●
			64045	SBDS Instrumentation	Active	120 853	120 853	0	0	188 800	67 947	●
			64046	LIU-SPS LIU-SPS New MOPOS electronics	Active	359 225	391 099	16 415	0	699 684	292 170	●
			64047	LIU-SPS mechanical production and installation	Active	70 921	102 719	0	0	208 000	105 281	●
			64048	LIU-SPS electronics production and cables	Active	4 266	7 838	11 892	0	316 000	296 270	●
			64049	LIU-SPS mechanical commercial components	Black list	14 538	30 788	0	0	30 500	-288	●
64058	LIU-SPS control electronics	Active	33 891	36 972	175	24 000	86 000	24 853	●			
64724	LIU-SPS optical fibre infrastructure	Active	3 760 780	3 797 953	0	0	4 477 594	679 641	●			
LIU-SPS Total						5 685 983	5 815 800	28 482	24 000	7 454 456	1 586 174	●
Grand Total						11 809 888	12 278 771	65 434	95 000	15 000 382	2 561 177	●

LIU Budget by Year

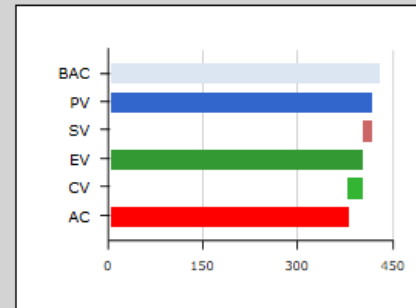
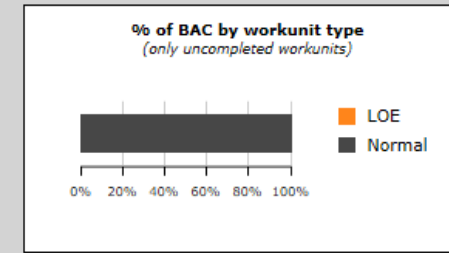
Project	Depart	Group	Description	Budget code	Charged up to 2016	Charged 2017	2018	2019	2020	2021	Total Ctc (kCHF)		
LIU-IONS	BE	BI	LIU-IONS Source Instrumentation	64050	91	30	16	0	0	0	137		
			LIU-IONS SPS Ion Injection BLMs	64052	12	0	0	0	0	0	12		
			LIU-IONS LEIR instrumentation	64053	6	177	94	0	0	0	277		
			BE Total		109	207	110	0	0	0	426		
LIU-IONS Total				109	207	110	0	0	0	426			
LIU-PS	BE	BI	LIU-PS Beam Instrumentation	64030	607	0	0	0	0	0	607		
			LIU-PS BLM Upgrades (ring & diamond)	64035	627	109	0	0	0	0	736		
			LIU-PS BPM Upgrades (BPM & WCM)	64031	3	2	0	0	0	0	5		
			LIU-PS Ionisation Profile Monitor	64034	297	49	63	198	15	0	622		
			LIU-PS Profile Measurement Upgrades (SEM & BTV)	64032	10	28	125	15	0	0	178		
			LIU-PS Wirescanner Upgrade	64033	34	13	0	0	0	0	47		
			LIU-PS mechanical production and installation	64036	0	26	137	90	20	0	273		
			LIU-PS mechanical commercial components	64038	0	13	24	0	0	0	37		
			LIU-PS electronics production and cables	64037	0	0	154	167	0	0	321		
			LIU-PS control electronics	64039	0	29	57	18	0	0	104		
			BE Total		1 578	269	560	488	35	0	2 930		
			LIU-PS Total				1 578	269	560	488	35	0	2 930
			LIU-PSB	BE	BI	LIU-HST Beam Instrumentation	64025	62	0	0	0	0	0
LIU-PSB BLM Upgrades	64020	1 037				59	1	58	0	0	1 155		
LIU-PSB Profile Measurement Upgrades	64022	365				133	-3	40	0	0	535		
LIU-PSB PU & BCT Upgrades	64021	900				191	94	45	0	0	1 230		
LIU-PSB Wire scanners upgrade	64023	366				101	0	0	0	0	468		
LIU-PSB mechanical production and installation	64024	0				24	219	117	31	0	391		
LIU-PSB mechanical commercial components	64028	0				7	52	0	0	0	59		
LIU-PSB electronics production and cables	64026	0				17	42	76	0	0	135		
LIU-PSB control electronics	64027	0				38	90	27	0	0	155		
BE Total		2 731				570	495	363	31	0	4 190		
LIU-PSB Total				2 731	570	495	363	31	0	4 190			
LIU-SPS	BE	BI	LIU-SPS BCT Upgrades	64044	182	32	0	0	0	0	215		
			LIU-SPS BLM Upgrade	64041	74	35	33	0	0	0	142		
			LIU-SPS Profile Monitor Upgrades	64042	157	8	74	25	0	0	264		
			LIU-SPS Transverse Diagnostics Upgrade	64043	160	0	1	0	0	0	161		
			LIU-SPS Wirescanner & BGI Upgrades	64040	645	21	0	0	0	0	665		
			SBDS Instrumentation	64045	0	3	146	40	0	0	189		
			LIU-SPS LIU-SPS New MOPOS electronics	64046	0	189	263	248	0	0	700		
			LIU-SPS mechanical production and installation	64047	0	12	118	62	16	0	208		
			LIU-SPS mechanical commercial components	64049	0	5	26	0	0	0	31		
			LIU-SPS electronics production and cables	64048	0	0	233	83	0	0	316		
			LIU-SPS control electronics	64058	0	15	55	15	0	0	86		
			LIU-SPS optical fibre infrastructure	64724	3 332	302	125	371	347	0	4 478		
			BE Total		4 551	621	1 075	844	363	0	7 454		
LIU-SPS Total				4 551	621	1 075	844	363	0	7 454			
Grand Total				8 969	1 667	2 240	1 695	429	0	15 000			

LIU-ION EVM Curves



WBS BAC vs Other BAC

Not applicable for the root node of the project.



Uncompleted Workunits/Total Workunits
(workunits only in PL, AC and CO statuses)

2/5

Metrics on the 28-Aug-2018





PV (kCHF)	EV (kCHF)	AC (kCHF)	BAC (kCHF)	PV Trend (All) (kCHF)	SV (kCHF)	SPI (%)	CV (kCHF)	CPI (%)	SV(t) (months)
412	399	376	426	412	-13	97	23	106	-2.35

LIU-ION EVM Metrics from Project Start to Date




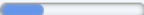
	From Project Start To Date					Total
	CV	SV	PV	EV	AC	PV
64050 - LIU-IONS Source Instrumentation	-17,488	-5,000	137,000	132,000	149,488	137,000
64052 - LIU-IONS SPS Ion Injection BLMs	0	0	12,000	12,000	12,000	12,000
64053 - LIU-IONS LEIR instrumentation	39,748	-8,614	263,364	254,750	215,002	277,000
Grand Total	22,260	-13,614	412,364	398,750	376,490	426,000

	Budget Code Description	Department	Group	Project	Charged to Budget Code (CHF)	Annual Commitment (CHF)	Annual Open Commitment (CHF)	Payment Budget (CHF)	Pipeline (CHF)
LIU-IONS	64050 LIU-IONS Source Instrumentation	BE	BI	LIU-IONS	28,500.64	28,500.64	0.00	16,000.00	0.00
	64053 LIU-IONS LEIR instrumentation	BE	BI	LIU-IONS	31,627.92	33,957.70	2,329.78	94,000.00	0.00
Grand Total:					60,128.56	62,458.34	2,329.78	110,000.00	0.00

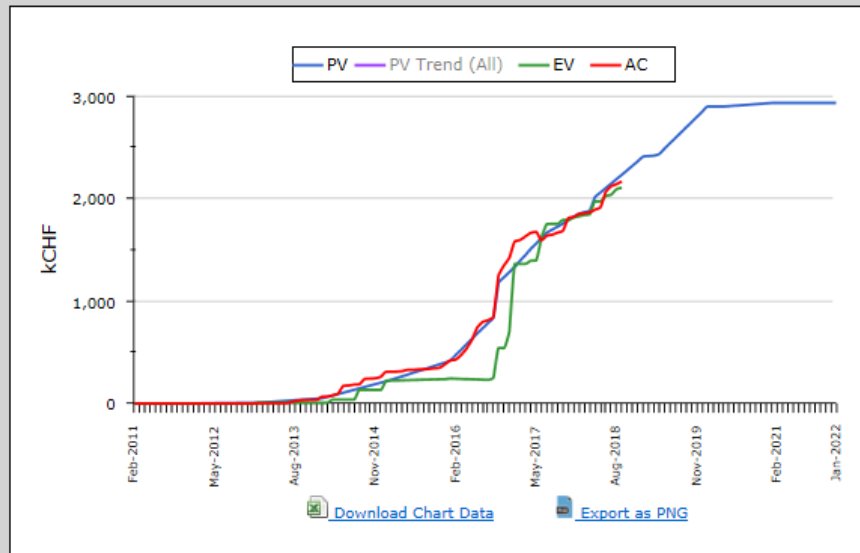
LIU-ION Active Workunits

▲ ID		Completion	Status	LOE	Description	WBS	Holder	Start Date	Finish Date	BAC(kCHF)	PV(kCHF)	EV (kCHF)	SV (kCHF)	SV (Months)
162706	☰			No	LINAC3 Instrumentation SEM and FC	LIU-ION 6.1	Federico Roncarolo (BE-BI)	01-Jan-2015	30-Sep-2018	56	56	51	-5	-7.13
174861	☰			No	LEIR Instrumentation Injection Line BPM	LIU-ION 6.1	Lars Soby (BE-BI)	01-Jan-2017	31-Dec-2018	245	231	223	-9	-2.06

LIU-ION Active Deliverables

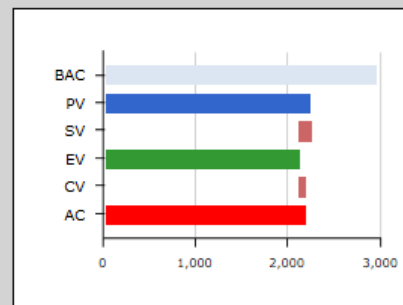
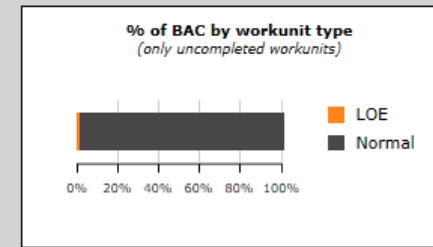
▲ Workunit ID	Workunit desc.	Deliverable desc.	Completion (%)	BAC (CHF)	PV (CHF)	EV (CHF)	Start date	Finish date	Last progress
162706	 LINAC3 Instrumentation SEM and FC	SEM ITL-ITM installation and commissioning		10,000	10,000	5,000	01-Sep-2017	30-Sep-2018	05-Jun-2018
174861	 LEIR Instrumentation Injection Line BPM	Secondary electrons and Ions		30,000	16,364	9,000	01-Apr-2018	31-Dec-2018	07-Aug-2018

LIU-PS EVM Curves



WBS BAC vs Other BAC

Not applicable for the root node of the project.



Uncompleted Workunits/Total Workunits
(workunits only in PL, AC and CO statuses)

9/26

Metrics on the 28-Aug-2018

PV (kCHF)	EV (kCHF)	AC (kCHF)	BAC (kCHF)	PV Trend (All) (kCHF)	SV (kCHF)	SPI (%)	CV (kCHF)	CPI (%)	SV(t) (months)
2,225	2,103	2,164	2,930	2,220	-122	95	-61	97	-2.81

LIU-PS EVM Metrics from Project Start to Date






























	From Project Start To Date					Total
	CV	SV	PV	EV	AC	PV
64030 - LIU-PS Beam Instrumentation	-333	0	607,000	607,000	607,333	607,000
64031 - LIU-PS BPM Upgrades (BPM & WCM)	404	0	5,400	5,400	4,996	5,400
64032 - LIU-PS Profile Measurement Upgrades (SEM & BTV)	-26,277	-75,184	124,329	49,145	75,422	178,000
64033 - LIU-PS Wirescanner Upgrade	-252	0	47,000	47,000	47,252	47,000
64034 - LIU-PS Ionisation Profile Monitor	2,124	2,614	385,636	388,250	386,126	622,000
64035 - LIU-PS BLM Upgrades (ring & diamond)	225	0	736,000	736,000	735,775	736,000
64036 - LIU-PS mechanical production and installation	-5,175	-15,136	101,136	86,000	91,175	272,500
64037 - LIU-PS electronics production and cables	-11,393	-14,300	137,648	123,348	134,741	321,000
64038 - LIU-PS mechanical commercial components	3,534	-4,073	24,273	20,200	16,666	37,000
64039 - LIU-PS control electronics	-23,188	-15,350	56,500	41,150	64,338	104,000
Grand Total	-60,331	-121,429	2,224,922	2,103,493	2,163,825	2,929,900

	Budget Code Description	Department	Group	Project	Charged to Budget Code (CHF)	Annual Commitment (CHF)	Annual Open Commitment (CHF)	Payment Budget (CHF)	Pipeline (CHF)
LIU-PS	64032 LIU-PS Profile Measurement Upgrades (SEM & BTV)	BE	BI	LIU-PS	37,489.64	51,486.32	13,996.68	125,000.00	0.00
	64033 LIU-PS Wirescanner Upgrade	BE	BI	LIU-PS	0.00	0.00	0.00	0.00	0.00
	64034 LIU-PS Ionisation Profile Monitor	BE	BI	LIU-PS	40,231.77	73,823.68	33,591.91	63,000.00	0.00
	64035 LIU-PS BLM Upgrades (ring & diamond)	BE	BI	LIU-PS	5.22	5.22	0.00	0.00	0.00
	64036 LIU-PS mechanical production and installation	BE	BI	LIU-PS	65,205.54	106,294.99	41,089.45	137,000.00	0.00
	64037 LIU-PS electronics production and cables	BE	BI	LIU-PS	134,741.09	140,103.18	5,362.09	154,000.00	14,465.68
	64038 LIU-PS mechanical commercial components	BE	BI	LIU-PS	3,674.16	24,593.10	20,918.94	24,000.00	0.00
	64039 LIU-PS control electronics	BE	BI	LIU-PS	35,252.34	39,226.82	3,974.48	57,000.00	184.36
Grand Total:					316,599.76	435,533.31	118,933.55	560,000.00	14,650.04

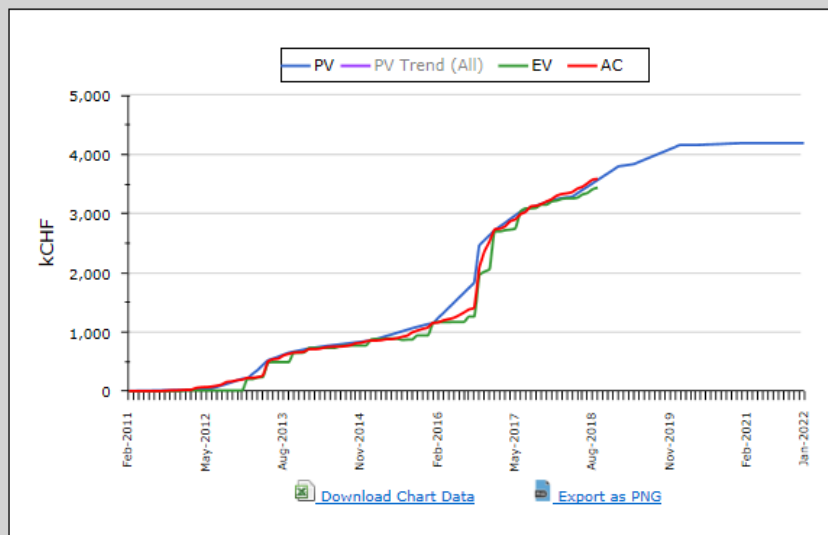
LIU-PS Active Workunits

▲ ID		Completion	Status	LOE	Description	WBS	Holder	Start Date	Finish Date	BAC(kCHF)	PV(kCHF)	EV (kCHF)	SV (kCHF)	SV (Months)
179014	≡			No	New SEM Grid (transfer line PSB-PS)	LIU-PS 6.2	Federico Roncarolo (BE-BI)	01-Jan-2016	31-Dec-2019	100	65	10	-55	-10.23
179022	≡			No	SEM Turn by Turn in the ring	LIU-PS 6	Federico Roncarolo (BE-BI)	01-Jan-2016	31-Dec-2019	50	35	23	-12	-4.84
179024	≡			No	BTV (PSB-PS : 41)	LIU-PS 6	Stephane Burger (BE-BI)	01-Jan-2016	31-Dec-2019	22	21	13	-8	-12.68
190721	≡			No	Mechanics production and installation for PS operational BWS (4 devices)	LIU-PS 6	Raymond Veness (BE-BI)	01-Jan-2017	31-Dec-2020	273	101	86	-15	-0.97
190722	≡			No	Procure mechanical commercial components for PS BWS	LIU-PS 6	Raymond Veness (BE-BI)	01-Jan-2017	31-Dec-2020	37	24	20	-4	-1.26
190731	≡			No	Control electronics for PS wire-scanners	LIU-PS 6	Federico Roncarolo (BE-BI)	01-Jan-2017	31-Dec-2020	104	57	41	-15	-2.06
190732	≡			No	Acquisition electronics and cables for PS wire-scanners	LIU-PS 6	Federico Roncarolo (BE-BI)	01-Jan-2017	31-Dec-2020	321	138	123	-14	-3.81
190767	≡			No	Provide vertical BGI device	LIU-PS 6.6	James William Storey (BE-BI)	01-Jan-2018	31-Dec-2020	270	34	36	3	0.52
191848	≡			Yes	Not yet defined BI activities	LIU-PS 6	Lars Jensen (BE-BI)	01-Jan-2018	31-Dec-2018	6	4	4	0	0.0

LIU-PS Active Deliverables

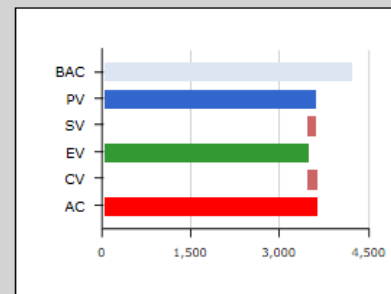
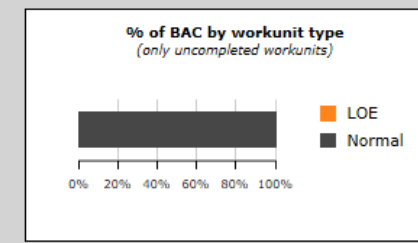
Workunit ID	Workunit desc.	Deliverable desc.	Completion (%)	BAC (CHF)	PV (CHF)	EV (CHF)	Start date	Finish date	Last progress
179014	 New SEM Grid (transfer line PSB-PS)	Procurement (2017)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	7,000	7,000	0	01-Oct-2017	28-Feb-2018	13-Aug-2018
179014	 New SEM Grid (transfer line PSB-PS)	Design & Procurement (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	73,000	48,000	0	01-Jan-2018	31-Dec-2018	13-Aug-2018
179022	 SEM Turn by Turn in the ring	Electronics design + procurement	<div style="width: 100%;"><div style="width: 100%;"></div></div>	15,000	15,000	13,500	01-Jan-2017	31-Aug-2018	13-Aug-2018
179022	 SEM Turn by Turn in the ring	Electronics production (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	30,000	19,726	9,000	01-Jan-2018	31-Dec-2018	13-Aug-2018
179022	 SEM Turn by Turn in the ring	Installation	<div style="width: 100%;"><div style="width: 100%;"></div></div>	5,000	0	0	01-Sep-2018	31-Dec-2019	13-Aug-2018
179024	 BTV (PSB-PS : 41)	Mechanical design	<div style="width: 100%;"><div style="width: 100%;"></div></div>	9,000	9,000	7,200	01-Oct-2016	25-Jan-2019	09-Jul-2018
179024	 BTV (PSB-PS : 41)	Mechanical production	<div style="width: 100%;"><div style="width: 100%;"></div></div>	11,000	11,000	5,500	01-Jan-2017	31-Mar-2019	09-Jul-2018
179024	 BTV (PSB-PS : 41)	Installation	<div style="width: 100%;"><div style="width: 100%;"></div></div>	2,000	658	0	01-Jan-2018	31-Dec-2019	09-Jul-2018
190721	 Mechanics production and installation for PS operational BWS (4 devices)	Production vacuum tanks and chambers 2018	<div style="width: 100%;"><div style="width: 100%;"></div></div>	100,000	54,545	30,000	01-Apr-2018	31-Dec-2018	27-Jul-2018
190721	 Mechanics production and installation for PS operational BWS (4 devices)	Production and special components 2018	<div style="width: 100%;"><div style="width: 100%;"></div></div>	30,000	16,364	27,000	01-Apr-2018	31-Dec-2018	27-Jul-2018
190721	 Mechanics production and installation for PS operational BWS (4 devices)	Vacuum pipes, supports and assembly 2018	<div style="width: 100%;"><div style="width: 100%;"></div></div>	5,000	2,727	1,500	01-Apr-2018	31-Dec-2018	27-Jul-2018
190721	 Mechanics production and installation for PS operational BWS (4 devices)	Scanners operational	<div style="width: 100%;"><div style="width: 100%;"></div></div>	0	0	0	01-Jun-2017	31-Dec-2020	27-Jul-2018
190722	 Procure mechanical commercial components for PS BWS	Resolvers, optical and feedthrough (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	16,000	8,727	6,400	01-Apr-2018	31-Dec-2018	27-Jul-2018
190722	 Procure mechanical commercial components for PS BWS	Procure viewports and fasteners (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	12,000	6,545	4,800	01-Apr-2018	31-Dec-2018	27-Jul-2018
190731	 Control electronics for PS wire-scanners	Design office 2018	<div style="width: 100%;"><div style="width: 100%;"></div></div>	13,000	7,091	1,950	01-Apr-2018	31-Dec-2018	13-Aug-2018
190731	 Control electronics for PS wire-scanners	VFC production (control) 2018	<div style="width: 100%;"><div style="width: 100%;"></div></div>	22,000	12,000	0	01-Apr-2018	31-Dec-2018	13-Aug-2018
190731	 Control electronics for PS wire-scanners	Int drive, inverter and DC bus (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	20,000	10,909	12,000	01-Apr-2018	31-Dec-2018	13-Aug-2018
190731	 Control electronics for PS wire-scanners	Procure electronics (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	6,000	3,273	4,200	01-Apr-2018	31-Dec-2018	13-Aug-2018
190731	 Control electronics for PS wire-scanners	Cabling assembly and test (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	5,000	2,727	2,500	01-Apr-2018	31-Dec-2018	13-Aug-2018
190732	 Acquisition electronics and cables for PS wire-scanners	VME crates and standard BE/CO modules (2017)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	4,997	5,000	1,499	01-Jun-2017	31-Jul-2018	17-May-2018
190732	 Acquisition electronics and cables for PS wire-scanners	VME crates and standard BE/CO modules (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	4,997	2,079	0	01-Jun-2018	31-Dec-2018	17-May-2018
190732	 Acquisition electronics and cables for PS wire-scanners	VFC production (acquisition) 2018	<div style="width: 100%;"><div style="width: 100%;"></div></div>	10,993	6,000	0	01-Apr-2018	31-Dec-2018	17-May-2018
190732	 Acquisition electronics and cables for PS wire-scanners	ADC mezzanines (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	1,199	655	0	01-Apr-2018	31-Dec-2018	17-May-2018
190732	 Acquisition electronics and cables for PS wire-scanners	Produce GEFE (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	8,994	4,909	0	01-Apr-2018	31-Dec-2018	17-May-2018
190732	 Acquisition electronics and cables for PS wire-scanners	Procure HV PS (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	3,498	1,909	3,323	01-Apr-2018	31-Dec-2018	17-May-2018
190732	 Acquisition electronics and cables for PS wire-scanners	Procure detectors + assembly (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	3,998	2,182	3,598	01-Apr-2018	31-Dec-2018	17-May-2018
190767	 Provide vertical BGI device	Mechanical design (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	12,000	0	0	01-Sep-2018	31-Dec-2018	16-Jul-2018
190767	 Provide vertical BGI device	Produce electronics (2018)	<div style="width: 100%;"><div style="width: 100%;"></div></div>	25,000	13,636	18,750	01-Apr-2018	31-Dec-2018	16-Jul-2018
190767	 Provide vertical BGI device	H device - Produce and assemble acquisition electronics	<div style="width: 100%;"><div style="width: 100%;"></div></div>	10,000	10,000	7,500	01-Apr-2018	31-Jul-2018	16-Jul-2018

LIU-PSB EVM Curves



WBS BAC vs Other BAC

Not applicable for the root node of the project.



Uncompleted Workunits/Total Workunits
(workunits only in PL, AC and CO statuses)

14/40

Metrics on the 28-Aug-2018

PV (kCHF)	EV (kCHF)	AC (kCHF)	BAC (kCHF)	PV Trend (All) (kCHF)	SV (kCHF)	SPI (%)	CV (kCHF)	CPI (%)	SV(t) (months)
3,563	3,436	3,585	4,190	3,568	-127	96	-149	96	-2.23

LIU-PSB EVM Metrics from Project Start to Date

	From Project Start To Date					Total
	CV	SV	PV	EV	AC	PV
64020 - LIU-PSB BLM Upgrades	771	0	1,097,000	1,097,000	1,096,229	1,155,000
64021 - LIU-PSB PU & BCT Upgrades	-22,881	-28,678	1,154,178	1,125,500	1,148,381	1,230,000
64022 - LIU-PSB Profile Measurement Upgrades	-90,233	-16,288	473,088	456,800	547,033	535,000
64023 - LIU-PSB Wire scanners upgrade	-6,101	0	468,000	468,000	474,101	468,000
64024 - LIU-PSB mechanical production and installation	-15,910	-30,682	151,182	120,500	136,410	391,000
64025 - LIU-HST Beam Instrumentation	149	0	62,000	62,000	61,851	62,000
64026 - LIU-PSB electronics production and cables	-4,994	-19,882	35,478	15,596	20,590	135,000
64027 - LIU-PSB control electronics	-16,387	-25,575	83,725	58,150	74,537	155,000
64028 - LIU-PSB mechanical commercial components	5,927	-6,545	38,545	32,000	26,073	59,000
Grand Total	-149,659	-127,650	3,563,197	3,435,546	3,585,205	4,190,000

	Budget Code Description	Department	Group	Project	Charged to Budget Code (CHF)	Annual Commitment (CHF)	Annual Open Commitment (CHF)	Payment Budget (CHF)	Pipeline (CHF)	
LIU-PSB	64020	LIU-PSB BLM Upgrades	BE	BI	LIU-PSB	0.00	0.00	0.00	1,000.00	0.00
	64021	LIU-PSB PU & BCT Upgrades	BE	BI	LIU-PSB	57,056.54	71,807.61	14,751.07	94,000.00	500.49
	64022	LIU-PSB Profile Measurement Upgrades	BE	BI	LIU-PSB	49,222.27	63,681.12	14,458.85	-3,000.00	832.00
	64023	LIU-PSB Wire scanners upgrade	BE	BI	LIU-PSB	6,237.53	6,374.25	136.72	0.00	0.00
	64024	LIU-PSB mechanical production and installation	BE	BI	LIU-PSB	112,897.31	251,906.23	139,008.92	219,000.00	0.00
	64026	LIU-PSB electronics production and cables	BE	BI	LIU-PSB	3,738.94	9,096.08	5,357.14	42,000.00	21,698.51
	64027	LIU-PSB control electronics	BE	BI	LIU-PSB	36,582.85	47,773.86	11,191.01	90,000.00	0.00
	64028	LIU-PSB mechanical commercial components	BE	BI	LIU-PSB	19,079.40	51,978.35	32,898.95	52,000.00	0.00
Grand Total:					284,814.84	502,617.50	217,802.66	495,000.00	23,031.00	

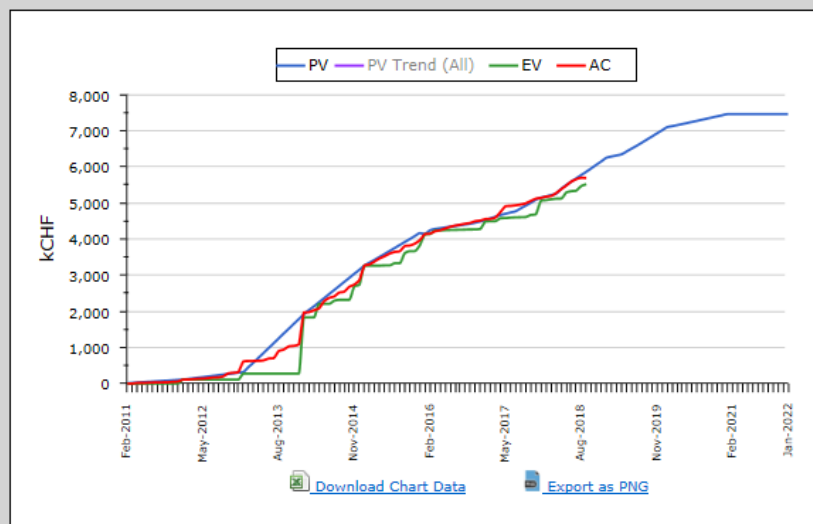
LIU-PSB Active Workunits

▲ ID	Completion	Status	LOE	Description	WBS	Holder	Start Date	Finish Date	BAC(kCHF)	PV(kCHF)	EV (kCHF)	SV (kCHF)	SV (Months)
91542			No	Watchdog BR8.TMD (4 monitors): Part 2	LIU-PSB 6	Patrick Odier (BE-BI)	01-Jan-2013	31-Dec-2018	168	161	150	-11	-6.71
91543			No	DCCT: Part 2	LIU-PSB 6	Patrick Odier (BE-BI)	01-Jan-2013	31-Dec-2019	105	75	78	3	5.29
91544			No	H0/H- population measurement at injection dump	LIU-PSB 6	Federico Roncarolo (BE-BI)	01-Jan-2014	31-Dec-2018	64	53	41	-12	-4.58
91547			No	Screens at extraction BT.MTV10+30	LIU-PSB 6	Stephane Burger (BE-BI)	01-Jan-2013	31-Dec-2019	56	51	51	0	0.0
93002			No	New tank for BI.MTV30 due to the replacement of BI.SMV: Part 2	LIU-PSB 6	Stephane Burger (BE-BI)	01-Jan-2014	31-Dec-2019	57	35	35	0	0.0
96106			No	turn-by-turn transverse profile measurements at injection : ring 3 for H +V planes	LIU-PSB 6	Federico Roncarolo (BE-BI)	01-Jan-2016	31-Dec-2019	176	152	148	-4	-1.45
126825			No	PSB Extraction line BLM system	LIU-PSB 6	Christos Zamantzas (BE-BI)	01-Jan-2015	31-Dec-2019	136	78	78	0	0.0
161665			No	New Tune PU for section 3L1	LIU-PSB 6	Marek Gasior (BE-BI)	01-Jan-2016	31-Dec-2019	150	142	140	-2	-1.84
190718			No	Mechanics production and installation for PSB operational BWS (8 devices)	LIU-PSB 6	Raymond Veness (BE-BI)	01-Jan-2017	31-Dec-2020	391	151	120	-31	-1.32
190719			No	Procure mechanical commercial components for PSB BWS	LIU-PSB 6	Raymond Veness (BE-BI)	01-Jan-2017	31-Dec-2020	59	39	32	-7	-1.29
190727			No	Control electronics for PSB wire-scanners	LIU-PSB 6	Federico Roncarolo (BE-BI)	01-Jan-2017	31-Dec-2020	155	84	58	-26	-2.35
190728			No	Acquisition electronics and cables for PSB wire-scanners	LIU-PSB 6	Federico Roncarolo (BE-BI)	01-Jan-2017	31-Dec-2020	135	35	16	-20	-3.45
191503			No	Stripline PU upstream BI.SMV10	LIU-PSB 6	Michele Bozzolan (BE-BI)	01-Jan-2018	31-Dec-2019	50	30	19	-11	-2.77
191504			No	Inductive PU upstream PI.SMH42	LIU-PSB 6	Michele Bozzolan (BE-BI)	01-Jan-2018	31-Dec-2019	20	10	2	-8	-6.71

LIU-PSB Active Deliverables

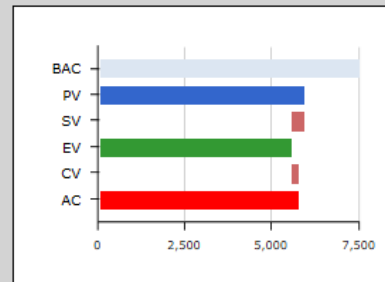
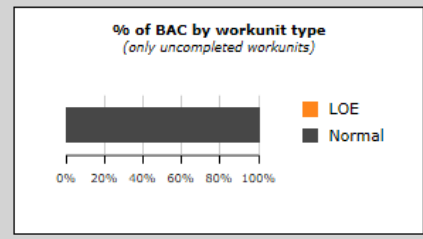
▲ Workunit ID	Workunit desc.	Deliverable desc.	Completion (%)	BAC (CHF)	PV (CHF)	EV (CHF)	Start date	Finish date	Last progress
91542	Watchdog BR8.TMD (4 monitors): Part 2	OASIS and electronics		20,000	13,151	2,000	01-Jan-2018	31-Dec-2018	06-Aug-2018
91543	DCCT: Part 2	normaliser		30,000	0	3,000	01-Jun-2018	30-Dec-2019	06-Aug-2018
91544	H0/H+ population measurement at injection dump	Electronics (2018)		24,000	13,091	2,400	01-Apr-2018	31-Dec-2018	13-Aug-2018
96106	turn-by-turn transverse profile measurements at injection : ring 3 for H +V planes	monitors production H+V		40,000	40,000	38,000	01-Jan-2017	31-Aug-2018	13-Aug-2018
96106	turn-by-turn transverse profile measurements at injection : ring 3 for H +V planes	Electronics production (2018)		35,000	15,997	14,000	01-Mar-2018	31-Mar-2019	13-Aug-2018
161665	New Tune PU for section 3L1	Mechanics and electronics (2018)		10,000	6,575	5,000	01-Jan-2018	31-Dec-2018	06-Aug-2018
190718	Mechanics production and installation for PSB operational BWS (8 devices)	Production vacuum tanks and chambers 2018		163,000	88,909	48,900	01-Apr-2018	31-Dec-2018	27-Jul-2018
190718	Mechanics production and installation for PSB operational BWS (8 devices)	Production and special components 2018		30,000	16,364	27,000	01-Apr-2018	31-Dec-2018	27-Jul-2018
190718	Mechanics production and installation for PSB operational BWS (8 devices)	Vacuum pipes, supports and assembly 2018		9,000	4,909	3,600	01-Apr-2018	31-Dec-2018	27-Jul-2018
190718	Mechanics production and installation for PSB operational BWS (8 devices)	Scanners operational		0	0	0	01-Jun-2017	31-Dec-2020	27-Jul-2018
190719	Procure mechanical commercial components for PSB BWS	Resolvers, optical and feedthrough (2018)		25,000	13,636	10,000	01-Apr-2018	31-Dec-2018	27-Jul-2018
190719	Procure mechanical commercial components for PSB BWS	Procure viewports and fasteners		20,000	10,909	8,000	01-Apr-2018	31-Dec-2018	27-Jul-2018
190727	Control electronics for PSB wire-scanners	Design office 2018		20,052	10,909	4,010	01-Apr-2018	31-Dec-2018	13-Aug-2018
190727	Control electronics for PSB wire-scanners	VFC production (control) 2018		32,083	17,455	0	01-Apr-2018	31-Dec-2018	13-Aug-2018
190727	Control electronics for PSB wire-scanners	Int drive, inverter and DC bus (2018)		29,075	15,818	14,538	01-Apr-2018	31-Dec-2018	13-Aug-2018
190727	Control electronics for PSB wire-scanners	Procure electronics (2018)		9,023	4,909	5,414	01-Apr-2018	31-Dec-2018	13-Aug-2018
190727	Control electronics for PSB wire-scanners	Cabling assembly and test (2018)		7,018	3,818	3,509	01-Apr-2018	31-Dec-2018	13-Aug-2018
190728	Acquisition electronics and cables for PSB wire-scanners	VME crates and standard BE/CO modules (2018)		7,522	4,091	752	01-Apr-2018	31-Dec-2018	13-Aug-2018
190728	Acquisition electronics and cables for PSB wire-scanners	VFC production (acquisition) 2018		16,048	8,727	0	01-Apr-2018	31-Dec-2018	13-Aug-2018
190728	Acquisition electronics and cables for PSB wire-scanners	ADC mezzanines (2018)		3,611	1,964	0	01-Apr-2018	31-Dec-2018	13-Aug-2018
190728	Acquisition electronics and cables for PSB wire-scanners	Produce GEFE (2018)		14,042	7,636	2,808	01-Apr-2018	31-Dec-2018	13-Aug-2018
190728	Acquisition electronics and cables for PSB wire-scanners	Procure HV PS (2018)		5,015	2,727	0	01-Apr-2018	31-Dec-2018	13-Aug-2018
190728	Acquisition electronics and cables for PSB wire-scanners	Procure detectors + assembly (2018)		5,015	2,727	4,513	01-Apr-2018	31-Dec-2018	13-Aug-2018
191503	Stripline PU upstream BI.SMV10	drawing office CERN		20,000	13,151	19,000	01-Jan-2018	31-Dec-2018	21-Aug-2018
191503	Stripline PU upstream BI.SMV10	Pick-up production		15,000	9,863	0	01-Jan-2018	31-Dec-2018	21-Aug-2018
191503	Stripline PU upstream BI.SMV10	ADC SIS3302		10,000	6,575	0	01-Jan-2018	31-Dec-2018	21-Aug-2018
191504	Inductive PU upstream PI.SMH42	Pick-up production		15,000	9,863	1,500	01-Jan-2018	31-Dec-2018	21-Aug-2018

LIU-SPS EVM Curves



WBS BAC vs Other BAC

Not applicable for the root node of the project.



Uncompleted Workunits/Total Workunits
(workunits only in PL, AC and CO statuses)

11/35

Metrics on the 28-Aug-2018

PV (kCHF)	EV (kCHF)	AC (kCHF)	BAC (kCHF)	PV Trend (All) (kCHF)	SV (kCHF)	SPI (%)	CV (kCHF)	CPI (%)	SV(t) (months)
5,849	5,514	5,686	7,454	5,856	-335	94	-172	97	-3.61

LIU-SPS EVM Metrics from Project Start to Date








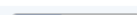

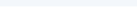







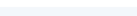

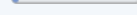





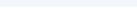



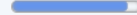





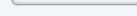





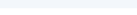

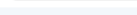

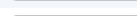



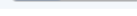



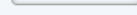
	From Project Start To Date					Total
	CV	SV	PV	EV	AC	PV
64040 - LIU-SPS Wirescanner & BGI Upgrades	-815	0	665,341	665,341	666,156	665,341
64041 - LIU-SPS BLM Upgrade	-1,812	-17,406	126,956	109,550	111,362	142,000
64042 - LIU-SPS Profile Monitor Upgrades	-13,362	-63,841	218,423	154,583	167,945	264,283
64043 - LIU-SPS Transverse Diagnostics Upgrade	-439	0	161,028	161,028	161,467	161,028
64044 - LIU-SPS BCT Upgrades	488	0	215,069	215,069	214,580	215,069
64045 - SBDS Instrumentation	-23,135	-6,090	103,807	97,718	120,853	188,500
64046 - LIU-SPS LIU-SPS New MOPOS electronics	-60,465	-69,812	368,712	298,900	359,365	700,000
64047 - LIU-SPS mechanical production and installation	6,379	-4,064	81,364	77,300	70,921	208,000
64048 - LIU-SPS electronics production and cables	2,634	-131,310	138,210	6,900	4,266	316,000
64049 - LIU-SPS mechanical commercial components	2,162	-3,345	20,045	16,700	14,538	30,500
64058 - LIU-SPS control electronics	-6,135	-18,433	46,201	27,768	33,903	86,000
64724 - LIU-SPS Optical fibres	-77,664	-20,735	3,703,850	3,683,115	3,760,780	4,477,593
Grand Total	-172,164	-335,036	5,849,006	5,513,971	5,686,135	7,454,313

	Budget Code Description	Department	Group	Project	Charged to Budget Code (CHF)	Annual Commitment (CHF)	Annual Open Commitment (CHF)	Payment Budget (CHF)	Pipeline (CHF)
LIU-SPS	64040	LIU-SPS Wirescanner & BGI Upgrades	BE	BI	LIU-SPS	875.21	875.21	0.00	0.00
	64041	LIU-SPS BLM Upgrade	BE	BI	LIU-SPS	2,199.78	2,199.78	0.00	33,000.00
	64042	LIU-SPS Profile Monitor Upgrades	BE	BI	LIU-SPS	2,935.45	8,573.44	5,637.99	74,000.00
	64043	LIU-SPS Transverse Diagnostics Upgrade	BE	BI	LIU-SPS	1,007.14	1,437.24	430.10	1,000.00
	64045	SBDS Instrumentation	BE	BI	LIU-SPS	118,052.90	118,052.90	0.00	146,000.00
	64046	LIU-SPS LIU-SPS New MOPOS electronics	BE	BI	LIU-SPS	170,680.47	202,554.77	31,874.30	263,000.00
	64047	LIU-SPS mechanical production and installation	BE	BI	LIU-SPS	59,253.60	91,051.41	31,797.81	118,000.00
	64048	LIU-SPS electronics production and cables	BE	BI	LIU-SPS	4,266.48	7,837.91	3,571.43	233,000.00
	64049	LIU-SPS mechanical commercial components	BE	BI	LIU-SPS	9,801.19	26,051.75	16,250.56	26,000.00
	64058	LIU-SPS control electronics	BE	BI	LIU-SPS	18,595.24	21,851.07	3,255.83	55,000.00
64724	LIU-SPS Optical fibres	BE	BI	LIU-SPS	126,440.05	163,613.65	37,173.60	125,000.00	
Grand Total:					514,107.51	644,099.13	129,991.62	1,074,000.00	25,205.43







LIU-SPS Active Workunits

▲ ID		Completion	Status	LOE	Description	WBS	Holder	Start Date	Finish Date	BAC(kCHF)	PV(kCHF)	EV (kCHF)	SV (kCHF)	SV (Months)
129721	☰			No	Provide fibre optic infrastructure LS2	LIU-SPS 6.4	Jeremy Blanc (EN-EL)	01-Jan-2015	31-Dec-2020	1,200	426	406	-21	-1.48
159980	☰			No	Upgrade synchrotron-light monitors	LIU-SPS 6.6	Federico Roncarolo (BE-BI)	01-Jan-2017	31-Dec-2018	82	68	12	-56	-16.26
179073	☰			No	Provide electronics for fast BLMs	LIU-SPS 6.3	Christos Zamantzas (BE-BI)	01-Jan-2016	31-Dec-2018	102	87	70	-17	-4.71
180008	☰			No	Upgrade SPS Orbit Acquisition Electronics (code 64046)	LIU-SPS 6.4	Andrea Boccardi (BE-BI)	01-Jan-2017	31-Dec-2020	700	369	299	-70	-3.13
190724	☰			No	Mechanics production and installation for SPS operational BWS (4 devices)	LIU-SPS 6	Raymond Veness (BE-BI)	01-Jan-2017	31-Dec-2020	208	81	77	-4	-0.32
190725	☰			No	Procure mechanical commercial components for SPS BWS	LIU-SPS 6	Raymond Veness (BE-BI)	01-Jan-2017	31-Dec-2020	31	20	17	-3	-1.29
190733	☰			No	Control electronics for SPS wire-scanners	LIU-SPS 6	Federico Roncarolo (BE-BI)	01-Jan-2017	31-Dec-2020	86	46	28	-18	-3.03
190734	☰			No	Acquisition electronics and cables for SPS wire-scanners	LIU-SPS 6	Federico Roncarolo (BE-BI)	01-Jan-2017	31-Dec-2020	316	138	7	-131	-5.74
192258	☰			No	SBDS Instrumentation	LIU-SPS 23.4	Lars Jensen (BE-BI)	01-Jan-2017	31-Dec-2019	186	101	96	-6	-2.06
192259	☰			No	SBDS Instrumentation	LIU-SPS 23.4	Lars Jensen (BE-BI)	01-Mar-2018	31-Dec-2019	3	2	2	0	-2.45
202725	☰			No	Provide BTv for TPSC4	LIU-SPS 6.6	Stephane Burger (BE-BI)	01-Apr-2018	31-Dec-2020	40	8	0	-8	-4.87

LIU-SPS Active Deliverables

▲ Workunit ID	Workunit desc.	Deliverable desc.	Completion (%)	BAC (CHF)	PV (CHF)	EV (CHF)	Start date	Finish date	Last progress
129721	 Provide fibre optic infrastructure LS2	Optical fibre installation 2018		162,581	106,931	86,168	01-Jan-2018	31-Dec-2018	24-Jul-2018
159980	 Upgrade synchrotron-light monitors	Mechanical design and installation		41,000	33,979	8,200	01-Jan-2017	31-Dec-2018	13-Aug-2018
159980	 Upgrade synchrotron-light monitors	Electronics design, purchase and installation		41,000	33,979	4,100	01-Jan-2017	31-Dec-2018	13-Aug-2018
179073	 Provide electronics for fast BLMs	VFC and mezzanines		55,000	39,956	22,550	01-Oct-2017	31-Dec-2018	22-May-2018
180008	 Upgrade SPS Orbit Acquisition Electronics (code 64046)	VFC procurement 2018		98,000	53,455	0	01-Apr-2018	31-Dec-2018	14-Aug-2018
180008	 Upgrade SPS Orbit Acquisition Electronics (code 64046)	Cables 2018		0	0	0	01-Apr-2018	31-Dec-2018	14-Aug-2018
180008	 Upgrade SPS Orbit Acquisition Electronics (code 64046)	Procurement of pizzaboxes (2018)		31,000	16,909	1,550	01-Apr-2018	31-Dec-2018	14-Aug-2018
180008	 Upgrade SPS Orbit Acquisition Electronics (code 64046)	Procurement of calibrators (2018)		10,000	5,455	500	01-Apr-2018	31-Dec-2018	14-Aug-2018
180008	 Upgrade SPS Orbit Acquisition Electronics (code 64046)	Software development (2018)		5,000	4,098	250	01-Apr-2018	30-Sep-2018	14-Aug-2018
180008	 Upgrade SPS Orbit Acquisition Electronics (code 64046)	Technical Student (electronics testing)		36,000	20,614	21,600	01-Feb-2018	31-Jan-2019	14-Aug-2018
190724	 Mechanics production and installation for SPS operational BWS (4 devices)	Production vacuum tanks and chambers 2018		66,000	36,000	19,800	01-Apr-2018	31-Dec-2018	30-Jul-2018
190724	 Mechanics production and installation for SPS operational BWS (4 devices)	Production mechanics and special components 2018		37,000	20,182	33,300	01-Apr-2018	31-Dec-2018	30-Jul-2018
190724	 Mechanics production and installation for SPS operational BWS (4 devices)	Vacuum pipes, supports and assembly 2018		4,000	2,182	1,200	01-Apr-2018	31-Dec-2018	30-Jul-2018
190724	 Mechanics production and installation for SPS operational BWS (4 devices)	Scanners operational		0	0	0	01-Jun-2017	31-Dec-2020	30-Jul-2018
190725	 Procure mechanical commercial components for SPS BWS	Resolvers, optical and feedthrough (2018)		13,000	7,091	5,200	01-Apr-2018	31-Dec-2018	27-Jul-2018
190725	 Procure mechanical commercial components for SPS BWS	Procure viewports and fasteners		10,000	5,455	4,000	01-Apr-2018	31-Dec-2018	27-Jul-2018
190733	 Control electronics for SPS wire-scanners	Design office 2018		10,987	6,000	2,197	01-Apr-2018	31-Dec-2018	13-Aug-2018
190733	 Control electronics for SPS wire-scanners	VFC production (control) 2018		17,979	9,818	0	01-Apr-2018	31-Dec-2018	13-Aug-2018
190733	 Control electronics for SPS wire-scanners	Int drive, inverter and DC bus (2018)		15,981	8,727	4,794	01-Apr-2018	31-Dec-2018	13-Aug-2018
190733	 Control electronics for SPS wire-scanners	Procure electronics (2018)		4,994	2,727	1,998	01-Apr-2018	31-Dec-2018	13-Aug-2018
190733	 Control electronics for SPS wire-scanners	Cabling assembly and test (2018)		3,995	2,182	1,998	01-Apr-2018	31-Dec-2018	13-Aug-2018
190734	 Acquisition electronics and cables for SPS wire-scanners	VME crates and standard BE/CO modules (2017)		4,000	3,136	0	01-Jun-2017	31-Dec-2018	13-Aug-2018
190734	 Acquisition electronics and cables for SPS wire-scanners	VME crates and standard BE/CO modules (2018)		4,000	3,136	0	01-Jun-2017	31-Dec-2018	13-Aug-2018
190734	 Acquisition electronics and cables for SPS wire-scanners	VFC production (acquisition) 2018		9,000	4,909	0	01-Apr-2018	31-Dec-2018	13-Aug-2018
190734	 Acquisition electronics and cables for SPS wire-scanners	ADC mezzanines (2018)		2,000	1,091	0	01-Apr-2018	31-Dec-2018	13-Aug-2018
190734	 Acquisition electronics and cables for SPS wire-scanners	Produce GEFE (2018)		7,500	4,091	750	01-Apr-2018	31-Dec-2018	13-Aug-2018
190734	 Acquisition electronics and cables for SPS wire-scanners	Procure detectors + assembly (2018)		3,500	1,909	3,150	01-Apr-2018	31-Dec-2018	13-Aug-2018

LIU-SPS Active Deliverables

▲ Workunit ID	Workunit desc.	Deliverable desc.	Completion (%)	BAC (CHF)	EV (CHF)	Start date	Finish date	Last progress	
190734	 Acquisition electronics and cables for SPS wire-scanners	Cables for control and acquisition (2018)	<div style="width: 0%;"><div></div></div>	200,000	118,301	0	01-Mar-2018	31-Dec-2018	13-Aug-2018
192258	 SBDS Instrumentation	Design office 2018	<div style="width: 50%;"><div></div></div>	6,000	6,000	3,600	01-Jun-2018	31-Jul-2018	27-Aug-2018
192258	 SBDS Instrumentation	Optical line (2018)	<div style="width: 20%;"><div></div></div>	10,000	5,455	2,000	01-Apr-2018	31-Dec-2018	27-Aug-2018
192258	 SBDS Instrumentation	Production of BPCE	<div style="width: 0%;"><div></div></div>	40,000	0	0	01-Sep-2018	31-Dec-2018	27-Aug-2018
192259	 SBDS Instrumentation	TID for cabling campaigns LS2	<div style="width: 80%;"><div></div></div>	2,353	0	2,118	01-Mar-2018	20-Jun-2018	20-Aug-2018
202725	 Provide BTv for TPSC4	Cables and electronics	<div style="width: 0%;"><div></div></div>	15,000	8,182	0	01-Apr-2018	31-Dec-2018	