Linac4 action list

	action	person	status	date
SM18 high-power test stand				
☐	before exchanging module 3 with module 2: i) RGA on module 3, ii) bead-pull,	Frank/Jan	RGA done, 1 order of magnitude better but still not within specs,	
☐	exchange pumps in bunker, replace ion with turbo pumps when module 3 is installed	Frank/Jan		
☐	power/pick-up calibration with power meter	Han/Jose		
☐	buy 2nd power meter	Han	on 69742	
☐	need automatic frequency tuning to compensate	Tomoko/Jose/ Nuaman	code ready, now implementation in SM18	
movable tuners				
☑	discuss modified piston guidance with Alessandro/vacuum group	Yves	next meeting 11.10.13	
☐	prepare test of DTL type coupler with inclination	Jose/Yves	horizontal test in preparation	3-Oct-13
☐	movable tuner installation on bunchers in week 48		with a temporary fix or a final solution	
3 MeV test stand				
☐	modification of 3+1 (spare) existing mobile tuners to L4 standards	Yves	parts are being fabricated by CERN workshop	
3 MeV installation in Linac4				
☑	delivery of buncher amplifiers and positioning in Linac4	Han/Jose	delivered and now being connected (water, el.)	20-Sep-13
☐	RF tests of buncher amplifiers	Han/Jose	week 46	
☑	2 amps ready to be sent back to DB for modification	Han	done	
☐	scaffolding for RF feeder line installation	Han	beginning to mid November, to be scheduled end of October when Han is back from holidays,	
☐	install RF feeder lines for buncher cavities	db	47	
☐	install RF feeder line for debuncher	db	later	
☐	RF tests on buncher amplifiers	Han/Jose	after above	
☐	re-heating system	Jose	design office will finish work until end of August, start-up of RFQ can be done without	
☑	commissioning of RFQ cooling system	Jose	now works as it has been in test stand, will be used like that for first RFQ power tests, instead of trying to maintain a fixed temperature with CV and fine tuning system, it is now proposed that CV always cools by 1 deg and Jose always heats by ~1 deg, first operation will be done with old system, ready for operation	17-Oct-13
☐	slug tuners are not yet cooled	Jose	after first tests,	
☑	solution for cooling water for buncher circulators	Han/Jose	most likely from chopper cooling (in parallel)	12-Sep-13
☐	interlock tests/commissioning before beam start-up	Jose	ongoing	
☑	buncher pick-ups are connected	Han/Jose		3-Oct-13
☐	re-design and fabrication of buncher pick-ups	Yves/Frank		
☐	beam start mid week 44			
waveguide couplers				
construction in India				
☑	prepare CERN-India meeting on October, 11th and clarify production strategy	Frank	gave mid-November as limit date to receive a conform Linac4 coupler,	
construction at CECOM				
☑	clarify if CECOM can produce more couplers if needed	Suitbert	yes, but delay needs to be clarified	12-Jul-13
☐	packaging of raw material (series) for CECOM	Yves/JM	will be delivered after acceptance test of pre-series, delivery will take place probably in October,	
☑	weld qualification tests at 2nd company	Suitbert	samples have been sent to company, welds seem ok but sheets are deformed too much, exclude for the time being	3-Oct-13
jacks				
☐	complete series of 2.5 and 5 t jacks	Yves/Suitbert	series completed at manufacturer,	17-Oct-13
☐	installation of jacks (CCDTL + PIMS1) before February 2014	Frank/Benoit		
CCDTL				
assembly in SM18				
☐	quad installation module 6	JB	probably next week	17-Oct-13
☐	quad installation module 7	JM/JB	one quad faulty	15-Aug-13
☐	conditioning of module 3	Tomoko/Jose/ Frank		
☐	bead pull data from Alexey for module 3	Frank		
☐	measurement procedure BINP	Frank		
☐	verify if all survey results are done	Frank		
☐	collect vacuum tests (EDMS) for all measurements made	Frank/Jan		
DTL				
construction				
☐	fabrication of Al covers for ports for vacuum tests,	Yves	fabrication launched	
☐	final machining of covers tank2,3			
☑	delivery T3S4	Suitbert	received but needs some repairs,	12-Sep-13
☑	Cu plating T3S4	Yves	done	17-Oct-13
☐	drift tube installation in T3S4	Yves		
☑	assembly of T1S1 and T1S2	Yves/Suitbert	done on rotating support, survey of half tank alignment done, seems to be just within limits, t.b.v.	29-Sep-13
☑	preparing for low-level RF measurements		repair of movable short circuit needs to be done	3-Oct-13
PIMS				
☐	go through Patricia's work on tuning curves for tuning islands, complete simulations, calculate curves and tables the 3 different cell types for cavity M	Rolf	good progress, so far we seem to be well prepared, cavity M done, continuing with L	
☐	qualification of disc production for series	CERN workshop	ok given for discs of cavity 3 and 4 (coaxiality problem (4 times tolerance) => waiting for metrology of fully assembled cavity, steps on nose cone tip => waiting for high power test results)	
☐	metrology of central disc M_8-9 and ring M_9-10	Rolf	not yet received, preparation for re-machining, should be done next week	17-Oct-13
☐	metrology and brazing analysis of waveguide ring M	Rolf	needs repair, too short by .5 mm, Ra 2-3 instead of 0.8 (20% higher losses), coaxiality not perfect, brazing done, brazing seems successful but flange needs re-machining because pieces have moved slightly (0.6 mm), new flange fixture under study, cleaning procedure needs to be established, geometry did not change too much, flange was re-machined and now has a flatness of 20 um, though a roughness of 1,	3-Oct-13
☑	prepare tooling for surface treatment of discs	Yves/Rolf	discussed with Marc, priciple to be discussed with Yves, Yves started design/calculation work, production launched	26-Sep-13
☐	assembly and inspection of cavity M	Rolf		
☐	if time permits, optimise tuning of PIMS cavities (Octave routines, network analyser communication, intelligent tuning suggestion)	Rolf		
☐	determine amount of re-machining for all discs cavity M	Rolf		
☐	re-machining of discs cavity M	Rolf		
☐	problem with ring M11-12 prevents green light for series until	Rolf	trapped volume of air can probably be opened to cavity vacuum	
☑	rings for 3 cavities are sent to Jülich			17-Oct-13
☐	2nd waveguide ring being prepared			17-Oct-13
windows				
SPL/HOM				
MTF				
☐	MTF input DTL	SR/RVT	drift tube data being uploaded,	
☐	MTF input CCDTL	SR/FG/RVT		
☐	MTF input PIMS	FG/SR/RVT		
☐	MTF input buncher cavities	FG/SR/RVT		
A.O.B.				
☑	transport of CCDTL & DTL prototypes, and RFQ vane to Linac4 exhibition area for open day	Yves	request for transport launched	9-Sep-13
☑	transport back into previous area	JM	will finish this week	17-Oct-13
☐	revision of RF structure transport into tunnel (meeting with Catherina, Rolf, Suitbert, Frank)			

Operations & maintenance

	action	person	status	date
shut-down work				
Modulator		Vince	done	
Frank James				
☐	prepare a complete spare amplifier (apparently all pieces are available from Linac3 spare amplifier),	Vince/Han/ Frank	missing is the ramping up of filament system, including testing ~60 kCHF, **agreement by Erk that this project will be financed one way or another**	1-Jun-14
☐	RFQ cavity base: try to remove some corrosion from all the fixed parts to avoid that rust gets into the movable parts, verify if there is a water leak (internal/external) responsible for corrosion and apply some spray...	Vince/JM	needs water to fully test,	
☐	completion of 4 FJ amps (buncher, debuncher L2), capton needs to be ordered, installed tested (CU plating to be clarified)	Han		
Linac2 maintenance		Vince	basically done	18-Jul-13
☐	Linac3 maintenance	Vince	stopped until mid-September because a big AC unit was placed before the amplifiers to replace the regular unit during maintenance work	
☐	RFQD maintenance	Vince		
machine operation				
☑	water cut			1-Jun-13
☑	define date when we need the water back for amplifier test	JM	for everything else we need water 1 month before start up. Added another 1 month for JMs amplifier test. FG sent a request to Detlef	30-May-13
☐	clarify when water is back	Frank		
REX upgrade				
☑	shipping of amplifier to Bertronix	Han	everything packed, now preparing shipping papers to make sure no TVA is paid, shipping will be done beginning October, done	
☐	opening of RFQ	Han/Vince	measurements done, delayed because of CV works, could be shifted to beginning of 2014	
	several integration problems with new/old installations of REX upgrade	Han	Han follows and makes sure that our installations remain operable	19-Sep-13
☐	amplifier tests	Han	complete test by March 2014, installation by June 2014	
A.O.B.				
☐	order of new network analyzer	Han	use 69742 and 69748, presentation planned by the 2 companies,	
☐	2 months of ampl. testing Feb. to April 2014, needs organising meeting with involved groups,			
☐	commissioning of FESA class in Linac2			