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		
☐	exchange pumps in bunker, replace ion with turbo pumps when module 3 is installed	Frank/Jan		
☑	dark current plot for module 2	Tomoko	plot indicates no dark current problem, inequality of power distribution remains even when pick-ups are exchanged	20-Sep-13
☐	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		
movable tuners				
☑	clarify if CECOM is happy that we correct the alignment of the DTL tuner piston and start another IKEA test using plastic guidance instead of RF joints	Frank	CECOM agrees that we correct alignment and proceed with another IKEA test,	12-Sep-13
☑	discuss modified piston guidance with Alessandro/vacuum group	Yves	waiting for calculations from Alessandro	
☐	prepare test of DTL type coupler with inclination	Jose/Yves	horizontal test in preparation	3-Oct-13
☐	try prototype on Indian coupler to see if penetration is sufficient for matching in SM18	Rolf/Jose		
3 MeV test stand				
☐	modification of 3+1 (spare) existing mobile tuners to L4 standards	Yves	parts are being fabricated by CERN workshop	
☐	3D field map of buncher cavity			
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 40/41	
☐	2 amps ready to be sent back to DB for modification	Han	week 40/41	
☐	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	see above	
☐	install RF feeder line for debuncher	db	see above	
☐	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	
☐	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	tests in ~2 weeks	
☑	buncher pick-ups are connected	Han/Jose		3-Oct-13
☐	re-design and fabrication of buncher pick-ups	Yves/Frank		
☐	beam start mid week 42			
waveguide couplers				
construction in India				
☐	prepare CERN-India meeting on October, 11th and clarify production strategy	Frank		
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	probably end of October (earlier than foreseen)	
☐	installation of jacks (CCDTL + PIMS1) before February 2014	Frank/Benoit		
CCDTL				
assembly in SM18				
☐	quad installation module 6	JB		
☐	quad installation module 7	JM/JB	one quad faulty	15-Aug-13
☐	conditioning of module 3	Tomoko/Jose/Frank		
☐	verify if all survey results are done	Frank		
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	beginning of October	
☑	assembly of T1S1 and T1S2	Yves/Suitbert	done on rotating support, survey of half tank alignment next week	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	
☐	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,	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	
windows				
SPL/HOM				
MTF				
☐	MTF input DTL	SR/RVT		
☐	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		
☐	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,	
☐	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			