

Linac4 action list

	action	person	status	date
SM18 high-power test stand				
<input checked="" type="checkbox"/>	Call David on availability of Linac4 type modulator, help by Jean-Michel, Jose and FSU for cabling can be provided	Frank	modulator of L4 bld will be moved to SM18 until end of May, decided to stop conditioning until modulator is in place	7-May-13
<input checked="" type="checkbox"/>	test stand available until early 2014	Frank		7-May-13
<input type="checkbox"/>	installation of L4 modulator in SM18	Jose/JM/ Frank/Tomoko	modulator installed, power team still struggling	
movable tuners				
<input checked="" type="checkbox"/>	Send silk paper to CECOM	Yves	together with material for coupler pre-series	13-May-13
<input checked="" type="checkbox"/>	give green light for brazing and/or EBW (during testing of prototypes at CERN)	Frank	requested by CECOM on 15.513	16-May-13
<input checked="" type="checkbox"/>	measure THK device & send to vacuum test	Yves	THK device is correct, measurements at CECOM were wrong,	18-Jul-13
<input type="checkbox"/>	one tolerance for the guiding of the piston was not kept, CECOM needs to be notified and we need correction for the series	Yves		
<input type="checkbox"/>	verify if CECOM has put the RF joint	Yves		
<input type="checkbox"/>	test of pre-series on test set-up	Jose	start 4th week of June, vacuum tests done, IKEA test pending	
<input type="checkbox"/>	try prototype on Indian coupler to see if penetration is sufficient for matching in SM18	Rolf/Jose		
3 MeV test stand				
<input checked="" type="checkbox"/>	clarify what Philippe needs to test his LLRF beginning of June	Frank	connectivities defined, one day of test for Philippe, preparations are made before, will be in parallel with dismantling of REX amp.	16-May-13
<input checked="" type="checkbox"/>	what is the minimum buncher voltage/can we switch off buncher cavities easily (e.g. by shifting timing to a slot w/o) beam	Frank/Han	can be reduced to ~100 W in the cavity (23 db from 20 kW) ~1/14 of voltage is possible, minimum value will be lowered by Jose/Han, Han contacts Alessandra	16-May-13
<input type="checkbox"/>	installation of buncher pick-ups	Yves	will be done together with installation of the modified tuners below, better to do RF measurements before descending into the tunnel	
<input type="checkbox"/>	modification of 3+1 (spare) existing mobile tuners to L4 standards	Yves	parts are being fabricated by CERN workshop	
<input checked="" type="checkbox"/>	test of chopper interlock	Jose	done, remaining work to be done in L4 tunnel	20-Jun-13
<input type="checkbox"/>	field map of buncher cavities for Alessandra	Frank/Tomoko	sent Superfish field map on 17.7.13, 3D field map pending	
<input checked="" type="checkbox"/>	RF tests on buncher cavities	Han	~first 2 weeks of June	14-Jun-13
<input checked="" type="checkbox"/>	support for Philippe's LLRF tests	Han/Jose	closed loop operation achieved, but still shaky for breakdowns,	14-Jun-13
<input checked="" type="checkbox"/>	conditioning now at 500 us (formerly 250)	Jose		14-Jun-13
<input checked="" type="checkbox"/>	chopper line has been moved and put on standby			1-Jul-13
3 MeV installation in Linac4				
<input checked="" type="checkbox"/>	buncher interlocks need to be added (e.g. with RFQ)	Jose	Phillippe has done cabling, electrical connections are defined, rack numbers defined, rack will be done by DB, Phillippe gives the interlock signals RFQ/buncher	20-Jun-13
<input checked="" type="checkbox"/>	budget code for 3 MeV installation	Frank	69742 for some days of design office + some material	
<input checked="" type="checkbox"/>	cost estimate for 3 MeV installation in L4 tunnel (incl. water system)	Jose		13-Jun-13
<input checked="" type="checkbox"/>	budget code for 3 MeV installation (equipment)?? with Carlo	Frank	RFQ, chopper, 69742	20-Jun-13
<input type="checkbox"/>	amplifier qualification for buncher amplifiers in Italy	Han/Jose	week 29	
<input type="checkbox"/>	circulators ordered to limit reflected power to ss-amps	Han	amps can take 10% reflected power, but this is quickly reached during filling/discharging	
<input type="checkbox"/>	new water manifold	Jose	design is made, in the process of selecting a company,	
<input type="checkbox"/>	re-heating system	Jose	design office will finish work until end of month, start-up of RFQ can be done without	
<input type="checkbox"/>	cabling for RF signals needs to be verified, maybe existing cables can be used, t.b.c. with Luca	Han		
waveguide couplers				
construction in India				
<input checked="" type="checkbox"/>	RGA/vacuum test of Indian coupler	Yves/JM	first test with "thinner" Russian joint showed a leak at 10-9 level, but the coupler itself seemed to be leak tight	2-May-13
<input checked="" type="checkbox"/>	Exchange joint and re-do test	Yves/JM	results ok	16-May-13
<input checked="" type="checkbox"/>	communicate results to Purushottam	Frank		16-May-13
<input type="checkbox"/>	decided not to do a baking test	all		2-May-13
<input checked="" type="checkbox"/>	send construction proposal with cost to India	Frank	India seems interested and asks for more details	2-May-13
<input checked="" type="checkbox"/>	send modified technical specifications + answers	Frank		7-May-13
<input type="checkbox"/>	send cleaning procedure, which was done at CERN on the Cu plated prototype	Frank/Yves	to be clarified if general Cu cleaning procedure was applied, also important for CECOM--> Frank to ask Mauro	
construction at CECOM				
<input checked="" type="checkbox"/>	launch contract with CECOM	Suitbert/Frank		
<input checked="" type="checkbox"/>	send raw material for pre-series to CECOM	Yves		13-May-13
<input checked="" type="checkbox"/>	received production drawings and planning/procedures for series	Suitbert	comments to be sent back to CECOM	6-Jun-13
<input checked="" type="checkbox"/>	material order for series (incl India)	Suitbert	went out	6-Jun-13
<input checked="" type="checkbox"/>	visit at CECOM to discuss production issues	Suitbert	several details still to be clarified, bending and welding is outsourced,	12-Jun-13
<input checked="" type="checkbox"/>	to be verified if smaller welds on the reinforcement is acceptable (e.g. 3 instead of 5 mm)	Suitbert	calculation by Federico, must be 5 mm and all around, otherwise we get plastic deformation with each pumping cycle	4-Jul-13
<input type="checkbox"/>	visit of Cu plating company, if they can do the closed box then the contract will go there,	Marina+?	foreseen for 1. August	
<input type="checkbox"/>	welding tests will be qualified during August, qualification and material delivery caused already 6 weeks of delay	Suitbert		
<input type="checkbox"/>	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,	
jacks				
<input checked="" type="checkbox"/>	bill from Inmepre contains 7 pieces instead of 6, verify	Yves	7 is correct	2-May-13
<input checked="" type="checkbox"/>	clarify with Albert Mason if material can be stored in L4 building	Yves	storage space can be used and jacks will be stored there	16-May-13
<input checked="" type="checkbox"/>	transport 5 jacks to 400-R-203	Yves	transport request made	24-May-13
<input checked="" type="checkbox"/>	15 PIMS jacks arrive from Inmepre and will be checked	Yves	visual inspection made and considered ok	30-May-13
<input checked="" type="checkbox"/>	spacers for PIMS jacks arrived and are now in Linac4 bld	Yves		30-May-13
<input checked="" type="checkbox"/>	5 cases with shims and spacers from Bulgaria arrived, DTL & CCDTL,	workshop/ Yves	reception tests going on at central workshop,	20-Jun-13
<input type="checkbox"/>	reception of housings and remaining parts for 6 x 2.5 t, and 3 x 5 t	Yves/Suitbert	foreseen for July	
<input checked="" type="checkbox"/>	3 existing 2.5 t jacks to be installed for RFQ,	Benoit	probably today, 13-June	20-Jun-13
<input type="checkbox"/>	install the 3 RFQ jacks for CCDTL module 3	Frank/Benoit		
<input checked="" type="checkbox"/>	reception of remaining of 1 t jacks	Yves	expected until mid-June, reception test still to be made	13-Jun-13
CCDTL				
assembly in SM18				
<input checked="" type="checkbox"/>	make sure that space is available in SMA18	Frank/JM	Vittorio was contacted and freed the area	3-May-13
<input checked="" type="checkbox"/>	delivery of supports to SM18	JM		7-May-13
<input checked="" type="checkbox"/>	delivery of modules to SM18	JM		13-May-13
<input checked="" type="checkbox"/>	preparation of assembly area for visit of BINP team on 27th May	JM		27-May-13
<input checked="" type="checkbox"/>	beam pipe installation and RGA on module 3	JM	success, ready for tunnel installation	29-May-13
<input checked="" type="checkbox"/>	metrology of supports	JM		24-May-13
<input checked="" type="checkbox"/>	repair of leak on pick-up port on module 1 half cavity + subsequent leak check	JM		13-Jun-13
<input checked="" type="checkbox"/>	repair of Cu plating and cleaning of repaired half cavity	JM/Frank	cavity is transported to Marina on 13-6.	
<input checked="" type="checkbox"/>	final RGA on module 4 (complete with intertanks)			
<input checked="" type="checkbox"/>	correction of module 7 supports (e.g. with bronze pads)	JM	will be corrected with shims between bronze pads and cavity support pads	18-Jul-13
<input type="checkbox"/>	quad installation module 7	JM/JB		
<input type="checkbox"/>	re-machining of module 6 CC to adapt neighboring flanges (tank 1 and 2), and correct for 0.68 mm misalignment	Rolf/JM/Frank	machining done, CC installed but leaking probably because the Cu is peeling off (most likely because of insufficient Ni-plating), Cu is being removed now	
<input checked="" type="checkbox"/>	verify survey results of module 1, misalignment of tank 3 expected, was opened at CC like module 6 (before survey measurements..)	Rolf/JM/Frank	misalignment acceptable, tank3 was shimmed,	18-Jul-13
<input type="checkbox"/>	close module 6, vacuum test, survey,	JM		
<input type="checkbox"/>	module 3: tunnel installation	JM/Frank	July/August? (after moving of RFQ and after conditioning)	
<input checked="" type="checkbox"/>	CCDTL 4 quads installed and survey made	JM/JB		18-Jul-13
<input type="checkbox"/>	CCDTL 4 welding of quads to beam pipes and final installation	JM/JB		
DTL				
construction				
<input checked="" type="checkbox"/>	repair of T1S2, thin walls between tuner port and cooling channel	Yves/Suitbert	tested and ok,	2-May-13
<input checked="" type="checkbox"/>	repair of T3S3, thin walls between tuner port and cooling channel	Yves/Suitbert	tested and ok, transport to CADINOX ongoing	7-May-13
<input checked="" type="checkbox"/>	T3S1 Cu plating	Yves	entrance flange not plated (Helicoflex surface)	17-May-13
<input checked="" type="checkbox"/>	metrology of tank2 girders in Spain	Yves/Suitbert	repair works at Mancidor successful, metrology ok, these are the last missing girders,	16-May-13
<input checked="" type="checkbox"/>	re-cleaning of some PMQ after outgassing test (all PMQs done)	Yves	cleaning succeeded	30-May-13
<input checked="" type="checkbox"/>	order of post-couplers will be launched with company in Austria (Lindental)	Suitbert/Yves	welding and assembly at CERN (subcontracted by workshop)	30-May-13
<input checked="" type="checkbox"/>	send material for post-coupler production to company	Yves		30-May-13
<input checked="" type="checkbox"/>	T1S2 copper plating	Yves	ongoing ~10 days from 30-May	13-Jun-13
<input checked="" type="checkbox"/>	delivery of tank 2 girders	Yves		13-Jun-13
<input type="checkbox"/>	fabrication of Al covers for ports for vacuum tests,	Yves	fabrication launched	
<input type="checkbox"/>	T1S2 drift tube installation	Yves	girder installed, not leak tight, yet, start in July/August	
<input checked="" type="checkbox"/>	T3S1 drift tube installation	Yves	done, survey to be done,	18-Jun-13
<input type="checkbox"/>	final machining of covers tank2,3			
<input checked="" type="checkbox"/>	T3S4 metrology	Suitbert	at company and correct	6-Jun-13
<input type="checkbox"/>	delivery T3S4	Suitbert	some repair works need to be done at CADINOX, should come in July	
<input type="checkbox"/>	Cu plating T3S4	Yves	mid-to end of August	
PIMS				
<input checked="" type="checkbox"/>	practicing vacuum tests procedures in Poland	Rolf/JM		14-May-13
<input type="checkbox"/>	repair of ring M-1-2 after finding Al traces around the port weldings	Rolf	complicated as inside and outside of ring need to be remachined, non-standard weld diameter, material thickness of port reduced from 4.0 mm to ~ 3.0 mm decision taken to stock ring and replace it by a spare one where ports are welded with standard dimensions. In emergency cases, this ring can be re-activated (best to repair it at CERN)	15-May-13
<input checked="" type="checkbox"/>	ultrasound test of brazed fixed tuners to verify that one brazing wire is enough	JM	report (EDMS 1290677) shows that the brazing penetrates 6 to 7 mm (2 tuners analysed). The 11 tuners can be used (see below for details), the remaining 54 tuners will be brazed with 2 wires	10-Jun-13
<input checked="" type="checkbox"/>	verify if 11 brazed fixed tuners can be used for Linac4	Rolf	The 11 tuners have been tested vacuum tight. Vacuum experts, brazing experts, CERN workshop suggest to use the 11 tuners for Linac4, 6mm of brazing is sufficient for mechanical concerns	18-Jul-13
<input checked="" type="checkbox"/>	make EDMS folders for remaining 11 PIMS cavities, upload documents of X-ray tests for rings M and N and vacuum test for discs M	Rolf	done	11-Jun-13
<input type="checkbox"/>	schedule cavity M activities with CERN metrology, main workshop and surface treatment	Rolf	done but re-scheduling needed as 2 parts are considerably delayed, no answer from Poland for 2 weeks	18-Jul-13
<input checked="" type="checkbox"/>	update main workshop on PIMS production progress	Rolf	done	18-Jul-13
<input checked="" type="checkbox"/>	prepare and send information on vacuum test of waveguide ring with indium wire to Poland	Rolf/JM	waveguide ring is re-machined, length is 0.5 mm shorter, frequency error will then be compensated by tuning rings - at the limit, modification of flange prepared in drawing and sent to Poland, Indium wire sent, procedure needs to be prepared and sent (after brazing is done)	18-Jul-13
<input type="checkbox"/>	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	ongoing	
<input type="checkbox"/>	metrology of 4 standard discs M	Rolf	done	18-Jul-13
<input type="checkbox"/>	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)	
<input type="checkbox"/>	metrology of 4 rings M	Rolf	rings are in metrology	
<input type="checkbox"/>	metrology of central disc M_8-9 and ring M_9-10	Rolf	not yet received	
<input type="checkbox"/>	metrology and brazing analysis of waveguide ring M	Rolf	needs repair,	
<input type="checkbox"/>	metrology of PIMS target supports	Rolf	metrology was made on 3 out of 28, not too good so far,	
<input type="checkbox"/>	prepare tooling for surface treatment of discs	Yves/Rolf	discussed with Marc, principle to be discussed with Yves	
<input type="checkbox"/>	sent reminder list of auxiliary parts needed for 1st cavity	Rolf	ongoing	
<input type="checkbox"/>	assembly and inspection of cavity M	Rolf		
<input type="checkbox"/>	RF measurements of cavity M	JM/Rolf		
<input type="checkbox"/>	if time permits, optimise tuning of PIMS cavities (Octave routines, network analyser communication, intelligent tuning suggestion)	Rolf		
<input type="checkbox"/>	determine amount of re-machining for all discs cavity M	Rolf		
<input type="checkbox"/>	re-machining of discs cavity M	Rolf		
<input type="checkbox"/>	5 new fixed tuners for cavity M, brazed with 5 brazing wires	Rolf	October	
windows				
<input checked="" type="checkbox"/>	arrange a permanent window conditioning test place in Linac4 bld.	Frank	7 windows should be ready for peak power testing in July, before they are tested at 40 kW CW by Eric, Decided to start window conditioning in 3 MeV test place and to do PIMS conditioning in SM18 until we have to move out (mid-2014?)	7-Jun-13
<input checked="" type="checkbox"/>	use Russian gaskets for tests		seems to work..	
<input type="checkbox"/>	water available in 3 MeV from beginning of September to end of October, notify Eric	Frank		
SPL/HOM				
<input type="checkbox"/>	construction of pick-ups for measurements on Cu cavity models	JM	construction started	
MTF				
<input checked="" type="checkbox"/>	prepare stay of Raul Valera Teruel	SR/FG	1.st of July, agreed to come	1-Jul-13

Operations & maintenance

	action	person	status	date
shut-down work				
Modulator				
<input checked="" type="checkbox"/>	Verifier Condensateurs	Vince	ongoing work to repair damage caused by water leaks onto the HT transmission line in modulator 1	4-Jul-13
<input checked="" type="checkbox"/>	Maintenance gravity switch	Vince	on-going	
<input checked="" type="checkbox"/>	Controler resistances	Vince		16-May-13
<input checked="" type="checkbox"/>	Verifier huile transformateur	Vince		16-May-13
<input checked="" type="checkbox"/>	Verifier connexions des bobines	Vince		16-May-13
<input checked="" type="checkbox"/>	Tester tous les diodes	Vince		16-May-13
<input checked="" type="checkbox"/>	Verifier IR lampes	Vince		16-May-13
<input checked="" type="checkbox"/>	Nettoyage et controle pieces HT	Vince		16-May-13
<input checked="" type="checkbox"/>	mise en etat des circuits de protection HT des 3 modulateurs	Vince		18-Jul-13
Frank James				
<input checked="" type="checkbox"/>	Nettoyage et controle alimentations HT 15 kV	Vince	on-going	4-Jul-13
<input checked="" type="checkbox"/>	Maintenance gravity switches	Vince	on-going	4-Jul-13
<input checked="" type="checkbox"/>	check of wiring	Vince		18-Jul-13
<input checked="" type="checkbox"/>	Linac2 TH170 cavity bases check	Vince	RFQ cavity base is in a bad state (very corroded), but was never moved since the original tuning in 2008. If we try to clean, then it will need ~1 week re-adjustment during start-up. There is no spare! It seems that all movable parts are not very much affected. The RFQ does not need full power from this amp, so even if phase/amplitude settings are not optimal we could still operate (and accept higher losses)	18-Jul-13
<input type="checkbox"/>	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		
	Linac2 maintenance	Vince	basically done	18-Jul-13
	Linac3 maintenance	Vince	ongoing	
machine operation				
<input checked="" type="checkbox"/>	Linac3 run (until end of May)		beyond tank2 everything is under radiation control (equipment needs to be checked when taken out)	30-May-13
<input type="checkbox"/>	Linac3 tunnel heated up to 30 degrees because of water cut, also humidity is high, contact Detlef	Frank		
<input checked="" type="checkbox"/>	water cut			1-Jun-13
<input checked="" type="checkbox"/>	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
REX upgrade				
<input checked="" type="checkbox"/>	dismantling of REX amplifier	Han/Vince	dismantling done and is moved out,	13-Jun-13
<input type="checkbox"/>	shipping of amplifier to Bertronix	Han	everything packed, now preparing shipping papers to make sure no TVA is paid, shipping will be done by end of July	
<input type="checkbox"/>	amplifier tests	Han	complete test by March 2014, installation by June 2014	
<input type="checkbox"/>	opening of RFQ	Han/Vince	measurements done, delayed because of CV works	
<input checked="" type="checkbox"/>	request of accurate phase measurement of phase shifters (1/2 deg) is declined because of manpower reasons	Han	request by Mathew	30-May-13
A.O.B.				
<input checked="" type="checkbox"/>	responsibility for section car includes to make sure that tyres, oil, etc are checked?	Han/Vince	Vince will take over, We just received a new car and will receive a bill for little repairs. Put transfer sheets in the car.	16-May-13
<input type="checkbox"/>	order of new network analyzer	Han	use 69742 and 69748, presentation planned for first 2 weeks of July	
<input checked="" type="checkbox"/>		Frank	for the time being use consolidation budget for all LS1 work on the machines	6-Jun-13
<input type="checkbox"/>	2 months of ampl. testing Feb. to April 2014, needs organising meeting with involved groups,			
<input type="checkbox"/>	commissioning of FESA class in Linac2			