

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 checked="" type="checkbox"/>	installation of L4 modulator in SM18	Jose/JM/ Frank/Tomoko	modulator running	22-Jul-13
<input type="checkbox"/>	meeting to enable remote control of modulator			
<input type="checkbox"/>	automatize conditioning process	Tomoko/Jose	Sven started installing PC to enable remote,	
<input type="checkbox"/>	exchange pumps in bunker, replace ion with turbo pumps,	Frank		
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 checked="" type="checkbox"/>	test of pre-series on test set-up	Jose	PIMS type coupler has been tested	15-Aug-13
<input type="checkbox"/>	prepare test of DTL type coupler with inclination	Jose		
<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 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	
3 MeV installation in Linac4				
<input checked="" type="checkbox"/>	buncher interlocks need to be added (e.g. with RFQ)	Jose	Philippe has done cabling, electrical connections are defined, rack numbers defined, rack will be done by DB, Philippe 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 36	
<input type="checkbox"/>	3 trombones for phase adjustment where recuperated to reduce reflected power during filling/decay	Han/JM	under testing	
<input type="checkbox"/>	delivery of buncher amplifiers to CERN	Han/Jose	week 39 (end September)	
<input type="checkbox"/>	operation of buncher amplifiers	Han/Jose	week 43 (end October)	
<input type="checkbox"/>	circulators order to limit reflected power to ss-amps	Han	amps can take 10% reflected power, but this is quickly reached during filling/discharging, waiting for more quotes,	
<input checked="" type="checkbox"/>	new water manifold	Jose	manifold is ready and being connected by Vladimir	15-Aug-13
<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	everything is there apart from power feed, integration is done, installation by DB in preparation	
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 checked="" type="checkbox"/>	send cleaning procedure, which was done at CERN on the Cu plated prototype	Frank/Yves	done	19-Jul-13
<input checked="" type="checkbox"/>	send reception report	Frank		19-Jul-13
<input type="checkbox"/>	send RGA results	Frank		
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)	Yves	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 checked="" type="checkbox"/>	visit of Cu plating company, if they can do the closed box then the contract will go there,	Marina+?	new Cu-plating station will be made, quote was requested,	2-Aug-13
<input type="checkbox"/>	welding tests will be qualified during August + machining sample	Suitbert	welding tests should arrive this week, sample is done	15-Aug-13
<input checked="" type="checkbox"/>	clarify if CECOM can produce more couplers if needed	Suitbert	yes, but delay needs to be clarified	12-Jul-13
<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,	
<input type="checkbox"/>	weld qualification tests at 2nd company	Suitbert		
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	delivery end of August, available end of September, have to be ready before open days	
<input type="checkbox"/>	complete series of 2.5 and 5 t jacks	Yves/Suitbert	probably end of October (earlier than foreseen)	
<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	one quad faulty	15-Aug-13
<input checked="" 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, problem solved	15-Aug-13
<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	done, waiting for survey results	15-Aug-13
<input type="checkbox"/>	module 3: tunnel installation	JM/Frank		
<input checked="" type="checkbox"/>	CCDTL 4 quads installed and survey made	JM/JB		18-Jul-13
<input checked="" type="checkbox"/>	CCDTL 4 welding of quads to beam pipes and final installation	JM/JB	done, ready for RF conditioning	15-Aug-13
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 Mancisor 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 checked="" type="checkbox"/>	T1S2 drift tube installation	Yves	completed, survey done	15-Aug-13
<input checked="" type="checkbox"/>	T3S1 drift tube installation	Yves	done, survey done and ok in hor./vert.	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 was done at CADINOX, should come end of August	
<input type="checkbox"/>	Cu plating T3S4	Yves	end of September	
<input type="checkbox"/>	drift tube 323 is not conform to vacuum requirements, now an outside cleaning will be applied and then another test made	Suitbert/Yves	stem/drift tube welding was cut-off and new stem fitted, drift tube was not cleaned before the new weld,	
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	15-Aug-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 4 standard	Rolf	good progress, so far we seem to be well prepared	
<input type="checkbox"/>	metrology of cavity M	Rolf	done	18-Jul-13
<input type="checkbox"/>	qualification of disc production for series	CERN workshop	ok given for discs of cavity 3 => waiting for metrology problem (4 times tolerance) -> waiting for metrology of fully assembled cavity, steps on nose cone tip => waiting for high power test results)	
<input checked="" type="checkbox"/>	metrology of 4 rings M	Rolf	results are acceptable	15-Aug-13
<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 checked="" type="checkbox"/>	metrology of PIMS target supports	Rolf	metrology was made on 3 out of 28, not too good so far, assume that we don't remove target supports. In that case they are good enough	15-Aug-13
<input type="checkbox"/>	prepare tooling for surface treatment of discs	Yves/Rolf	discussed with Marc, principle to be discussed with Yves, Yves started design/calculation work	15-Aug-13
<input checked="" type="checkbox"/>	sent reminder list of auxiliary parts needed for 1st cavity	Rolf	done, another 5 fixed tuners, flanges to close waveguide port, spacers for wg-helicoflex ports, flanges for end-discs, transport frames (al), supports between spacers and cavities	15-Aug-13
<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"/>	contract with CPI terminated and all pieces recovered			15-Aug-13
<input type="checkbox"/>	problem with ring M11-12 prevents green light for series until	Rolf	trapped volume of air can probably be opened to cavity vacuum	
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 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 checked="" type="checkbox"/>	construction of pick-ups for measurements on Cu cavity models	JM	construction done	15-Aug-13
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		done	
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"/>	prepare a complete spare amplifier (apparently all pieces are available from Linac3 spare amplifier),	Vince/Han	missing is the ramping up of filament system, including testing ~50 kCHF	
<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	needs water to fully test,	
	Linac2 maintenance	Vince	basically done	18-Jul-13
<input type="checkbox"/>	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	
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
<input type="checkbox"/>	clarify when water is back	Frank		
REX upgrade				
<input checked="" type="checkbox"/>	dismantling of REX amplifier	Han/Vince	dismantling done and is moved out,	13-Jun-13
<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
<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 August,	
<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	
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 by the 2 companies,	
<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			