



HIPPI in 2006/07

HIPPI Planning 2006/07 - 1



ID	Task Name	2006												2007												20									
		12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06			
1	WP2: NORMAL CONDUCTING STRUCTURES																																		
2	2.1 Drift Tube Linac																																		
3	2.1.1 DTL design																																		
6	2.1.5 DTL coupler prototype construction and testing																																		
7	2.1.4 DTL beam dynamics design																																		
8	2.2 H-mode Drift Tube Linac																																		
9	2.2.1 RF model CH tank1 RF design																																		
10	2.2.2 RF cold model design & construction																																		
11	2.2.3 RF model construction																																		
13	2.2.5 CH model cavity tests																																		
15	2.2.7 CH-prototype construction, tests																																		
17	2.3 Side Coupled Linac																																		
18	2.3.1 RF model RF design																																		
19	2.3.2 RF model mechanical design																																		
20	2.3.3 RF model construction																																		
21	2.3.4 RF model testing																																		
22	2.3.5 SCL module design																																		
23	2.4 Cell Coupled Drift Tube Linac																																		
25	2.4.2 Pre-prototype high-power RF tests	N,LPSC,CEA																																	
27	2.4.4 Revision of design after prototype testing	CERN																																	
28	2.4.5 Testing of ISTC prototype	CERN																																	
29	WP3: SUPERCONDUCTING STRUCTURES																																		
30	3.1 ELLIPTICAL CAVITIES																																		
32	3.1.2 Tuner design	INFN-MI																																	
33	3.1.3 Integration of piezo design	INFN-MI																																	
34	3.1.4 Tuner construction	INFN-MI																																	
35	3.1.13 Cavity A assembly with tuner	CEA																																	
37	3.1.6 Construction cavity B	CEA																																	
38	3.1.13 Preparation, vert. test & welding cavity B	CEA																																	
39	3.1.7 Power coupler design & engineering	CEA																																	
40	3.1.9 RF couplers construction & preparation	CEA,LPSC																																	
41	3.1.8 RF source order & construction	CEA																																	
42	3.1.10 Modulator preparation for 700 MHz test stand	CEA																																	
43	3.1.11 RF source testing	CEA																																	
44	3.1.12 High power pulsed tests	CEA,INFN-MI																																	
45	3.2 SPOKE CAVITIES																																		
47	3.2.2 Evaluation of 760 MHz resonator in vertical cry	IN2P3-Orsay																																	
49	3.2.4 Design of coupler prototype	IN2P3-Orsay																																	
50	3.2.5 Construction of coupler prototype	IN2P3-Orsay																																	
51	3.2.9 Test of coupler prototype	IN2P3-Orsay																																	
54	3.2.8 Final design of 352 MHz multi-gap prototype	FZJ,IN2P3-Orsay																																	
55	3.2.10 Manufacturing of 352MHz multi-gap prototyp	FZJ																																	

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ID	Task Name	2006												2007												2008				
		12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04
57	3.3 CH RESONATOR																													
58	3.3.1 Design of tuning system							IAP-FU																						
59	3.3.2 Construction of CH tuning system													IAP-FU																
60	3.3.3 Measurement of tuning system																													
61	WP4: CHOPPING																													
62	 4.1 CHOPPER STRUCTURE A																													
64	4.1.2 Pre-Prototype testing	CERN																												
65	4.1.3 Driver construction, testing																													
67	4.1.5 Full scale prototype construction	CERN																												
68	4.1.6 Prototype testing w/o beam													CERN																
69	 4.2 CHOPPER LINE																													
71	4.2.2 Dump construction																													
72	4.2.3 Beam line assembling													CERN,CEA,LPSC																
73	 4.3 CHOPPER STRUCTURE B																													
75	4.3.2 Prototype design	RAL																												
76	4.3.3 Prototype construction													RAL																
77	WP5: BEAM DYNAMICS																													
78	 5.1 Code development																													
79	5.1.1 3D space charge routines development, testing													RAL																
80	5.1.2 LORASR development	IAP-FU																												
81	5.1.3 Neutralization and ECR source modelization st													CEA																
82	5.1.4 Improvement, modelling high current													GSI																
83	5.1.5 Code preparation for 3 MeV test stand													CERN																
84	5.1.6 Code preparation and analysis for SC linacs													FZJ																
85	5.1.7 Code comparison and benchmarking													GSI,RAL,IAP-FU,CEA,CERN,LPSC																
86	5.1.8 Code benchmarking with experiment													GSI,RAL,IAP-FU,CEA,CERN,LPSC																
87	 5.2 Experiment at UNILAC																													
88	5.2.1 Preparation, simulations													GSI																
89	5.2.2 First experiment campaign	GSI																												
90	5.2.3 Second experiment campaign													GSI																
91	 5.3 Diagnostics and collimation																													
93	5.3.2 Profile measurement testing													GSI																
95	5.3.4 Non-interceptive bunch measurement const., te													GSI																
97	5.3.9 Test and improvement of halo monitor													GSI																
98	5.3.6 On-line transmission control													GSI																
99	5.3.7 Beam profile monitor design													FZJ																
100	5.3.8 Collimators study	CERN																												
101	 5.4 Experiment at CERN																													
102	 5.5 Comparative assessment of dynamics and meas.																													

Deliverables & Milestones



HIPPI MILESTONES AND DELIVERABLES 2006

WBS #	WP	Title	Due date in Annex 1	Type
2.4.3	2	CCDTL Prototype ready	June 06	M
2.2.7	2	H-DTL Prototype ready	December 06	D
2.4.4	2	CCDTL prototype design report	December 06	D
3.1.6	3	Cavity B ready	June 06	D
4.3.2	4	Chopper B design report	June 06	M
4.1.5	4	Chopper A Prototype ready	August 06	D
5.1.5	5	Intermediate report on codes for 3 MeV tests	June 06	M
5.3.2	5	Final report on profile measurements by fluor.	July 06	D
5.2.3	5	Final report on simulations and exper. at Unilac	December 06	D
5.3.4	5	Final report on non-interceptive bunch meas.	December 06	D
5.3.8	5	Collimator prototype ready	December 06	M
5.3.8	5	Final report on collimator design	December 06	D

HIPPI MILESTONES MOVED FROM 2005 TO 2006

WBS #	WP	Title	Due date in Annex 1	Revised date	Type
4.1.2	4	Chopper A Intermediate test report	June 05	March 06	M
3.3.1	3	CH tuning intermediate report	June 05	March 06	M

HIPPI Budget 18 months 06-07



Budget for the next 18 months (January 1st 2006 to June 30 2007)

JRA3	Participant (cost model)	Permanent Staff direct cost ONLY (Euros)	Additional Staff direct cost ONLY (Euros)	Durable Equipment direct cost ONLY (Euros)	Consumable s and Prototyping direct cost ONLY (Euros)	Travel direct cost ONLY (Euros)	All Direct Cost	Subcontract	Indirect cost	Expected costs including indirect cost (Euros)	Requested funding (Euros)
1	CEA (FC)	384,637	100,000	450,000	280,000	4,000	1,218,637	0	357,853	1,576,490	504,000
3	CNRS-IN2P3	80,000	18,000	0	35,000	4,000	137,000	0	27,400	164,400	30,000
	CNRS-LPSC	96,000	0	0	40,000	3,000	139,000	0	27,800	166,800	24,000
	CNRS(FCF)	176,000	18,000	0	75,000	7,000	276,000	0	55,200	331,200	54,000
4	GSI(FC)	147,570	174,258	10,000	2,900	7,800	342,528	0	78,000	420,528	236,550
5	IAP-FU(AC)	0	185,000	0	310,000	13,333	508,333	0	101,667	610,000	245,000
7	FZJ(FC)	204,000	110,000	0	75,000	9,000	398,000	0	0	398,000	194,000
10	INFN-Mi(AC)	0	0	0	20,000	5,000	25,000	0	5,000	30,000	15,000
17	CERN (AC)	0	280,000	100,000	40,000	12,000	432,000	0	86,400	518,400	127,860
20	CCLRC (FC)	202,252	125,470	0	220,650	5,000	553,372	0	458,811	1,012,183	140,795
	Grand total	1,114,459	992,728	560,000	1,023,550	63,133	3,753,870	0	1,142,931	4,896,801	1,517,205

1.5 M€ from preliminary spending profile in HIPPI proposal (2006 + $\frac{1}{2}$ 2007)