



TIARA

Polish meeting

27-28 Sept 2012

WP3: Accelerator R&D Infrastructures

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Main objectives



- a) Provide a survey of the existing accelerator R&D infrastructures;
- b) identify discrepancies between the existing infrastructures and future needs for accelerator R&D;
- c) analyse the different possible options for sharing R&D infrastructures and developing joint R&D infrastructures with industry;
- d) define a technology roadmap for the development of future accelerator components in industry;
- e) propose appropriate structures that can ensure the sustainability of the process described under a) and b) and propose a common costing method for the operation, upgrade and construction of individual large infrastructures;
- f) define the general access policy and modalities for accessing R&D infrastructures of TIARA;
- g) establish technical criteria and evaluation procedures for joining the TIARA distributed infrastructure.

Planning, 24 months



Milestone/ deliverable	Description	Date	
Milestone MS 8	Nomination of WPC for each ARA	Jan 2011/ July	✓
Milestone MS 9	Interim Infrastructure Survey report	August 2011/ October	✓
Deliverable D 3.1	Infrastructure Survey Report	December 2011/Feb 2012	✓
Deliverable D 3.2	Infrastructure Web-based Database	April 2012/May 2012	✓
Milestone MS 10	Presentation of the IWD to the TIARA collaborators	May 2012/June 2012	✓
Milestone MS 11	Interim Infrastructure Need and Resource comparison	August 2012	
Milestone MS 12	Presentation of structure proposals for joining TIARA	September 2012	
Deliverable D 3.3	Infrastructure Need and resource comparison	December 2012	
Deliverable D 3.4	Infrastructure Access report	December 2012	

Main achievements



- a) Nominate WP contacts for each Accelerator Research Area (WP4). **Done!**
- b) Carry out a survey of accelerator R&D infrastructures in Europe. **Done!**
- c) Establish contacts with Industry. **Done!**
- d) Design and implement a web-based database for the surveyed infrastructures. **Done!**
- e) 3.4.1: Identify the Critical Requirements **Done!**
- f) 3.5.1 Definition of the appropriate Structure for ensuring the Sustainability. **Done!**

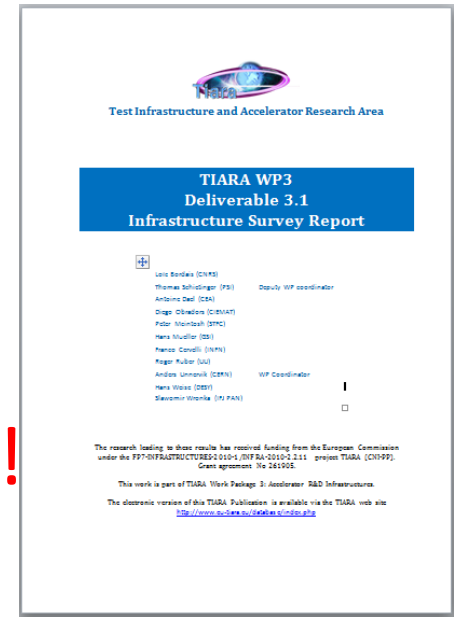
Survey of accelerator R&D infrastructures in Europe



140 infrastructures “listed”. Some detailed information still missing, e.g. cost info. Possibly some infrastructures still missing, e.g. light sources

Austria	1	Poland	6
Denmark	1	Slovenia	1
Finland	1	Spain	8
France	19	Sweden	3
Germany	13	Switzerland	61
Italy	13	UK	13

Information → **Web-based database!**



Contacts with industry



Initial list prepared by WP3 representatives, completed by:

1. companies participating in conferences such as EPAC and IPAC;
2. companies proposed by various branch associations in the relevant fields of activity, such as PIGES and EIFAST;
3. input from the Industrial Liaison Officers appointed for each Member State at CERN;

List presently (12 June 2012) composed of **356 firms in 13 European countries**, all firms have been contacted.

89 firms have indicated an interest to be informed about TIARA.

AT	BE	DK	FI	FR	DE	IT	SL	ES	SE	CH	NL	UK	TOT
2	1	3	119	15	27	46	2	54	2	12	44	29	356
0	0	2	1	8	7	21	1	14	0	6	20	9	89

Contacts with industry



Web-based questionnaire drafted to get more info from firms;

May 2012: Presentation of TIARA at a workshop organized by EUSPEN (The European society for precision engineering and nanotechnology);

December 2012: Possibly joint workshop with HL-LHC, ESS and Industry, related to superconducting technologies for the next generation of accelerators.

Planning, 24 months



Milestone/ deliverable	Description	Date	
Milestone MS 8	Nomination of WPC for each ARA	Jan 2011/ July	Done
Milestone MS 9	Interim Infrastructure Survey report	August 2011/ October	Done
Deliverable D 3.1	Infrastructure Survey Report	December 2011/Feb 2012	New Oct 2012
Deliverable D 3.2	Infrastructure Web-based Database	April 2012/May 2012	New Oct 2012
Milestone MS 10	Presentation of the IWD to the TIARA collaborators	May 2012/June 2012	
Milestone MS 11	Interim Infrastructure Need and Resource comparison	August 2012	Oct 2012?
Milestone MS 12	Presentation of structure proposals for joining TIARA	September 2012	Oct 2012?
Deliverable D 3.3	Infrastructure Need and resource comparison	December 2012	
Deliverable D 3.4	Infrastructure Access report	December 2012	

One of the ongoing tasks

- “Analysis of Access of Industry to Existing Infrastructures in Europe and other Region”
- “Determine the Criteria and the Rules for sharing R&D Infrastructures”
- “Investigating Financial Models for Developing Joint R&D Infrastructures”

List of WP3 meetings



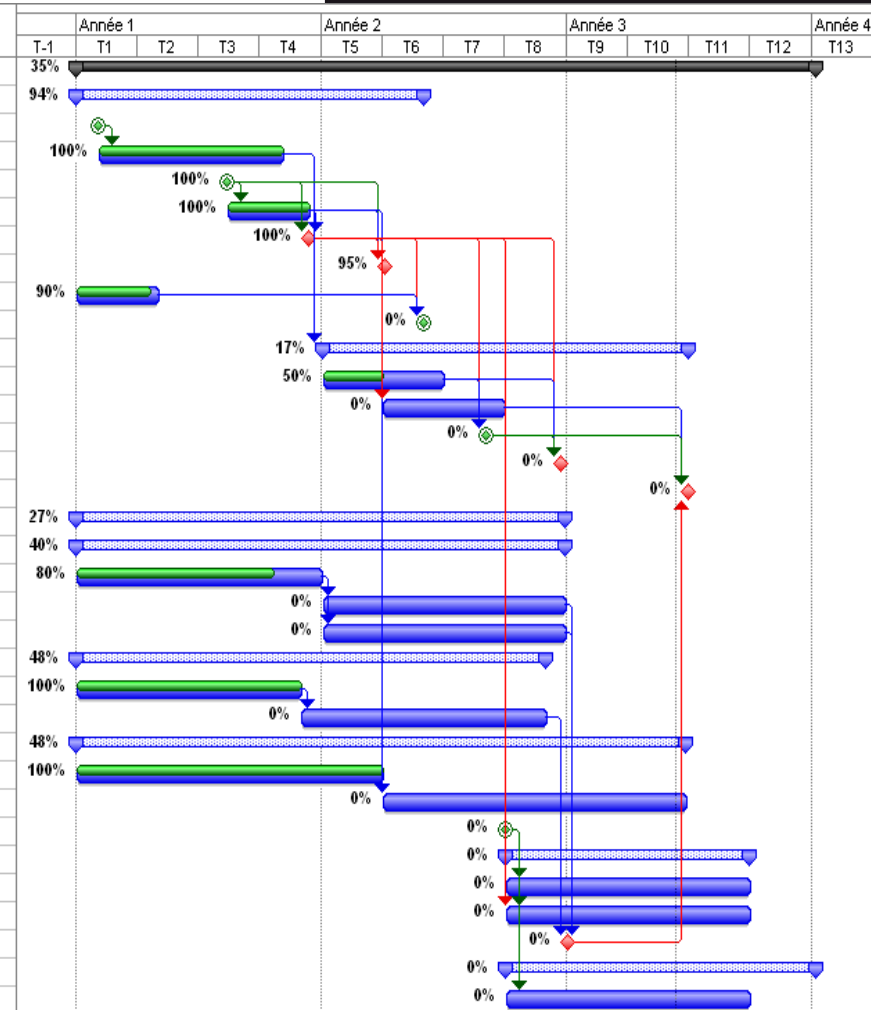
Meeting	Date	Venue	Attendance	Objective(s)
Kick-off meeting	23-24 Feb 2011	CERN	9	Launch TIARA-PP
WP3 meetings 2011	25 Jan 2011	CERN	5	Review WP3 objectives, milestones and deliverables. Establish work plan
	4 July 2011	CERN	8(1)*	Review survey of R&D infrastructures, discuss requirements for the web-based database
	7 Oct 2011	CERN	9(1)*	Review survey, agree on Interim ISR
	15 Nov 2011	CERN	5(1)*	Review Survey, progress in General
WP3 meetings 2012	31 Jan 2012	CERN	7(1)*	Review Survey report
	20 March 2012	CERN	5 (2)*	Review Database
	4 May 2012	CERN	7	Review Database
Mid-term meeting	12-14 June 2012	CIEMAT	6	Review Survey, progress in General
	25 Sept 2012	CERN	7	Review contacts with industry, progress in General

* Attendance in person (attendance via phone or web)

Updated Gantt chart



N°	WBS	Task Name
1	WP3	WP3 Accelerator R&D Infrastructures
2	3.1	3.1 SCC: Survey of existing accelerator R&D (jointly with WP4)
3	M3.1	M3.1 IWPC: Nomination of WPC for each ARA (from WP4)
4	3.1.1	3.1.1 SIARA: Survey of ongoing acc. R&D and existing IS's per ARA
5	M3.2	M3.2 ISR: Interim Survey Report
6	3.1.2	3.1.2 ECICM: Cost Estimation for existing IS's
7	D3.1	D3.1 ISR: IS and R&D Survey Report
8	D3.2	D3.2 IWD: Web based database of R&D and IS's
9	3.1.3	3.1.3 ECI: Establishing Efficient Communication with Industry
10	M3.3	M3.3 IWD: Presentation of Web based database to TIARA collaborators
11	3.2	3.2 ACA: Assessing infrastructure needs
12	3.2.1	3.2.1 CMLIN: Assessing the accelerator R&D infrastructure needs
13	3.2.2	3.2.2 CAIN: Comparison of the R&D needs with existing infrastructures
14	M3.4	M3.4 IRC (=M4.3): Interim Report on Infrastructure versus Needs comparison
15	D3.3	D3.3 IIR: Report on Infrastructure versus Needs comparison
16	D3.5	D3.5 RUC: Report on potential infrastructure upgrades
17	3.3	3.3 SDI: Sharing and developing R&D Infrastructures jointly with Industry
18	3.3.1	3.3.1 CRI: Determining the Criteria and Establishing the Rules for Sharing R&D Infrastructures
19	3.3.1.1	3.3.1.1 AAI: Analysis of Access of Industry to Existing Infrastructure in Europe and other Regions
20	3.3.1.2	3.3.1.2 CRS: Determine Criteria and the Rules for Sharing R&D Infrastructures
21	3.3.2	3.3.2 FMI: Investigating Financial Models for Developing Joint R&D Infrastructures
22	3.4	3.4 TRI: Definition of a Technology Roadmap for the Development of Future Accelerator Components in Industry
23	3.4.1	3.4.1 ICR: Identify the Critical Requirements and their Targets
24	3.4.2	3.4.2 ITA: Identify the Technology Alternatives and Give Recommendation what Alternative should be Pursued
25	3.5	3.5 SSC: Definition of the appropriate Structure for ensuring the Sustainability
26	3.5.1	3.5.1 DSSPT: Definition of the appropriate Structure for ensuring the Sustainability
27	3.5.2	3.5.2 CMUCI: Proposal of a common costing method
28	M3.5	M3.5 JTI: Proposal of structures for sustainability to WP2
29	3.6	3.6 ATI: Access to the TIARA Infrastructures
30	3.6.1	3.6.1 PMAIT: Policy and modalities for accessing TIARA
31	3.6.2	3.6.2 CnEII: Coordination with infrastructures outside TIARA
32	D3.4	D3.4 IAR Infrastructure Access Report
33	3.7	3.7 JTI: Joining TIARA Infrastructures
34	3.7.1	3.7.1 CEPET: Criteria and procedures for joining TIARA





Thank A. Unnerwik for sharing his slides