



# TIARA

## Mid-term meeting

### 12-15 June 2012

WP3: Accelerator R&D Infrastructures

# 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 and their Targets. **Done!**
- f) 3.5.1 Definition of the appropriate Structure for ensuring the Sustainability. **Done!**

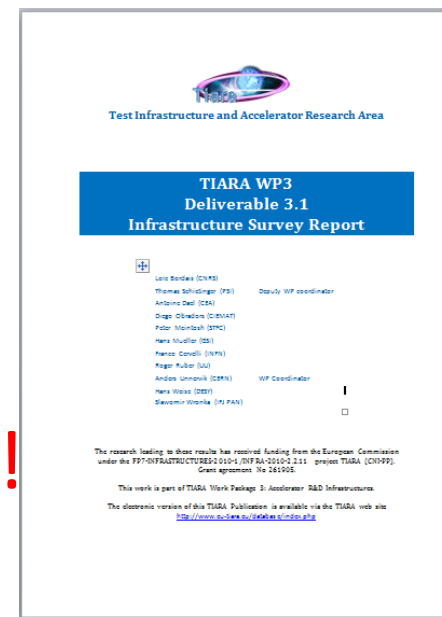
# Survey of accelerator R&D infrastructures in Europe



**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.

# On-going actions



- a) 3.2.1 CMLIN Assessing the current, medium- an long-term accelerator RDI needs (from WP4);
- b) 3.2.2 CAIN Comparison of the R&D needs with existing infrastructures;
- c) 3.3.1.1 AAI: Analysis of Access of Industry to Existing Infrastructure;
- d) 3.3.1.2 CRS Determine Criteria and the Rules for Sharing RDI;
- e) 3.3.2 FMI Investigating Financial Models for developing joint RDI;
- f) 3.4.2 ITA Identify the Technology Alternatives and give recommendations on which Alternatives that should be Pursued.
- g) 3.5.2 CMUCI Proposal of a common Costing Method for the Upgrade and Construction of individual large Infrastructures



# List of WP3 meetings



Meeting	Date	Venue	Attendance	Objective(s)
<b>Kick-off meeting</b>	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

\* Attendance in person (attendance via phone or web)

# Updated Gantt chart



N°	WBS	Task Name
1	WP3	<b>WP3 Accelerator R&amp;D Infrastructures</b>
2	3.1	<b>3.1 SCC: Survey of existing accelerator R&amp;D (jointly with WP4)</b>
3	M3.1	<b>M3.1 IWPC: Nomination of WPC for each ARA (from WP4)</b>
4	3.1.1	3.1.1 SIARA: Survey of ongoing acc. R&D and existing IS's per ARA
5	M3.2	<b>M3.2 ISR: Interim Survey Report</b>
6	3.1.2	3.1.2 ECICM: Cost Estimation for existing IS's
7	D3.1	<b>D3.1 ISR: IS and R&amp;D Survey Report</b>
8	D3.2	<b>D3.2 IWD: Web based database of R&amp;D and IS's</b>
9	3.1.3	3.1.3 ECI: Establishing Efficient Communication with Industry
10	M3.3	<b>M3.3 IWD: Presentation of Web based database to TIARA collaborators</b>
11	3.2	<b>3.2 ACA: Assessing infrastructure needs</b>
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	<b>M3.4 IRC (=M4.3): Interim Report on Infrastructure versus Needs comparison</b>
15	D3.3	<b>D3.3 IIR: Report on Infrastructure versus Needs comparison</b>
16	D3.5	<b>D3.5 RUC: Report on potential infrastructure upgrades</b>
17	3.3	<b>3.3 SDI: Sharing and developing R&amp;D Infrastructures jointly with Industry</b>
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	<b>3.4 TRI: Definition of a Technology Roadmap for the Development of Future Accelerator Components in Industry</b>
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	<b>3.5 SSC: Definition of the appropriate Structure for ensuring the Sustainability</b>
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	<b>M3.5 JTI: Proposal of structures for sustainability to WP2</b>
29	3.6	<b>3.6 ATI: Access to the TIARA Infrastructures</b>
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	<b>D3.4 IAR Infrastructure Access Report</b>
33	3.7	<b>3.7 JTI: Joining TIARA Infrastructures</b>
34	3.7.1	3.7.1 CEPET: Criteria and procedures for joining TIARA

