

# Test Infrastructure and Accelerator Research Area

# **Scientific / Technical Note**

# Report of the survey realized at the TIARA workshop on RF power generation, Uppsala, 17-19 June 2013

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# Report of the survey realized at the TIARA workshop on RF power generation, Uppsala, 17-19 June 2013

This report presents the main results of the survey carried out during the second TIARA-industry workshop in order to assess the level of satisfaction of attendees.

All the results and statistics are available via the TIARA intranet (<a href="https://espace.cern.ch/tiara-intranet/default.aspx">https://espace.cern.ch/tiara-intranet/default.aspx</a>) under:

Collaboration with industry/TIARA workshops/2013-06-17to19\_Uppsala

## 1. General information on the workshop

Uppsala University and TIARA organized a 3-day international workshop on novel concepts for RF power generation for accelerators. The workshop focussed on the main areas of:

- electron tube devices,
- solid-state amplifiers,
- phase-stability and timing.

Details on programme and organisation are available on the meeting website: <a href="http://melba.its.uu.se/indico/conferenceDisplay.py?ovw=True&confld=4">http://melba.its.uu.se/indico/conferenceDisplay.py?ovw=True&confld=4</a>

This workshop was the second of a series of initiatives aiming at connecting research infrastructures with potential commercial partners.

# 2. Participation to the survey

A feedback questionnaire (in annex) was distributed to the 95 delegates (including around 5-10 people involved in the organisation of the event). As shown in the table below, 42% of the participants responded to the survey.

	Identified as industrialists	Identified as researchers	Unknown affiliation	Total
Nb of participants	35	60	-	95
Nb of respondents	9 (≈26 %)	13 (≈22 %)	18	40 (42 %)

The questionnaire was anonymous. However it was proposed to the respondents to indicate their names and affiliation if they would like. Approximately half of the respondents provided this information, which enabled to distinguish their affiliation (research or industry).

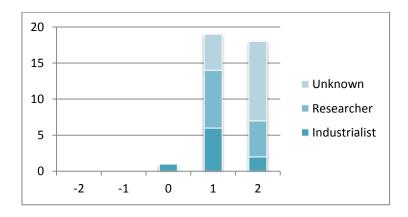
For the next workshops, it is suggested to add a question regarding affiliation (research or industry) in the questionnaire so as to make a more comprehensive analysis possible.

# 3. Analysis of the results

In the following analysis, it was felt more appropriate to sort the results depending on the category (industrialist, researcher, unknown affiliation).

# I. Overall appreciation

Question 1: Did the workshop meet your expectations? (Possible answers: -2, -1, 0, 1, 2)



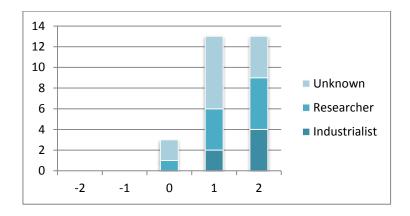
Additional questions (possible answers: -2, -1, 0, 1, 2)	Average mark
2. Did the talks address the points which are relevant for your company?	1,2
3. Did you interact usefully with project scientists?	1,4
<ul><li>4. Did you learn information?</li><li>5. Would this interaction/information influence the R&amp;D strategy of your company?</li></ul>	1,5 1

#### **Conclusion**

The delegates were well satisfied of the event in general.

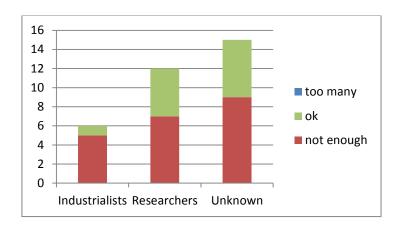
# II. Format of meeting

Question 1: Do you think the proposed format adequate overall? (Possible answers: -2, -1, 0, 1, 2) Remark: Around 25% of the respondents did not answer this question.



#### Question 4: Number of talks from industry (possible answers: not enough, ok, too many)

64% of the respondents felt that there were not enough talks from industry. This remark was made by most of the industrialists but also by some researchers as shown in the graphic below.



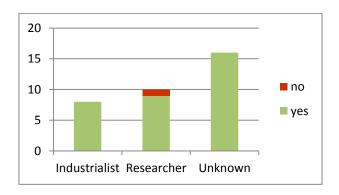
#### **Conclusion**

The format of the meeting was well appreciated in general. However it was pointed out that the industrialists had not been attributed enough speaking time. In particular the industry exhibition was not given enough interest.

Thus it is suggested for the next workshops to give the industrialists more opportunities to express themselves.

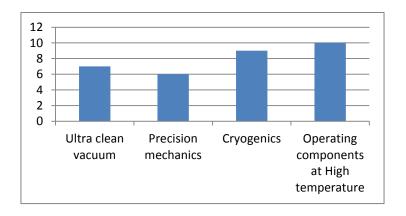
#### III. Next meeting, frequency

Question 1: Would you or someone from your company be willing to participate in a next similar workshop? (Possible answers: yes/no)



Question 2: Which topic(s) would you think useful to address in next meetings?

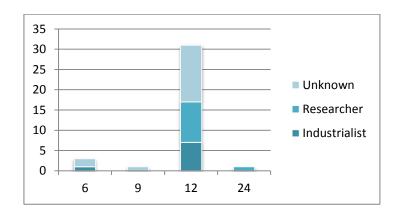
Possible answers: Ultra clean vacuum, Precision mechanics, Cryogenics, Operating components at High temperature, Other (*please precise*)



Several topics were proposed by the respondents in the box 'Others':

- RF power generation II
- RF distribution systems
- windows
- RF phase control
- HP amplifier
- machine diagnostics + safety systems
- timing + synchronisation of accelerators
- RF generators/ components C & X bands
- radiation effects
- high voltage
- cavity input coupler.

Question 3: What frequency of such meeting is desirable? (Possible answers: 4, 6, 9 or 12 months)



#### **Conclusion**

Most respondents (97%) would be willing to participate in a next similar workshop. It appears clearly that no more than one workshop per year should be organised. There is no strong preference on the topic but it can be noted that 'Operating components at high temperature' and 'Cryogenics' obtained most of the votes.

#### Overview of comments received

In the various sections of the questionnaire, the respondents were invited to leave comments. Here below is a selection of the most pertinent remarks, sorted per affiliation.

#### From industrialists

[Question I.1b, missing aspects]

"A way to give interest to the posters"

#### [Question I.6]

"It was the first time that people could openly discuss and w/o controversy about 2 different technologies."

"Maybe it would be interesting to address the topic "innovation competition". For new projects+products, innovation through industries could be stimulated if the topology choice is made by the industry.[...] "

#### [Question II.7]

"Industry talks are difficult. It should not end up in an advertisement show. Disclosure of company background and know how may also be difficult."

#### [Question IV.4]

"I believe it is important to try to match the appropriate industrial partners to the topic of the meeting."

#### From researchers

[Question I.1b, missing aspects]

"perhaps an initial talk to specify the main issues to be tackled"

#### [Question I.6]

"There are a huge number of meetings each year covering the same ground. The importance for myself is to go to a couple to meet with other people in my field. The talks after prompt further discussion at lunch & coffee which is far more interesting than the talks."

"would be useful to cover frequencies >3 GHz (i.e. C & X bands)"

[Question III.3b, aspect missing for industry exhibition]

"1/4 of day without talks for discussions"

#### [Question III.4]

"In the future the manufacture of solid state amps and tube amps should closer cooperate to meet the requirements of the accelerator physics."

#### [Question IV.4]

"If you have a meeting on couplers & tuners it will cover everything in the list."

## **Unknown** affiliation

#### [Question I.6]

"Strange that no manufacturer or supplier was invited to speak. A lot of assumptions from some speakers but answering or arguing as a manufacturer at the short discussion isn't possible."

"why not more tubes? There was a lot of solid state!"

#### [Question II.2b]

"could even be longer e.g. 4-5 days - very interesting workshop"

[Question III.3b, aspect missing for industry exhibition]

"there were no particular time scheduled for industry exhibition on day 3"

#### [Question III.4]

"This was most of the allocated time not a discussion but just a presentation!"

"The industry exhibition was not emphasized during sessions. Maybe industry should have had a special session. 5-minute slots to entice participants to visit the poster?"

Annex: feedback questionnaire



# TIARA Workshop on RF Power Generation for Accelerators 17-19 June 2013, Uppsala University, Sweden



# Your feedback on the TIARA Workshop on RF Power Generation for Accelerators

Please take 5 minutes to fill in and return in the box at registration desk, thank you.

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1	Did the workshop meet your expectations?	-2	-1	0	1	2
1b	If not, what aspects were missing?					

2	Did the talks address the points which are relevant for your company?	-2	-1	0	1	2
3	Did you interact usefully with project scientists?	-2	-1	0	1	2
4	Did you learn information?	-2	-1	0	1	2
5	Would this interaction/information influence the R&D strategy of your company?	-2	-1	0	1	2

6	Comments

# II. Format of meeting

1	Do you think the proposed format adequate overall?	-2	-1	0	1	2	l
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2	Duration of workshop	Too short	Ok	Too long
2b	If duration was not satisfactory, please propose duration			
3	Number of talks from scientists	Not enough	Ok	Too many
4	Number of talks from industry	Not enough	Ok	Too many
5	Duration of talks	Too short	Ok	Too long
6	Time allocated for discussion	Too short	Ok	Too long

7	Comments

# Annex: feedback questionnaire

# III. Panel discussions and industry exhibition

What frequency of such meeting is

Did	Did the following sessions meet your expectations?					
1	Prospect for developing new tubes (on day 2)	-2	-1	0	1	2
1b	If not, what aspects were missing?					
2	Electron tubes or solid state? (on day 3)	-2	-1	0	1	2
2b	If not, what aspects were missing?					
3	Industry exhibition (on day 3)	-2	-1	0	1	2
3b	If not, what aspects were missing?		•		1	

4	Comments		
***	N		
IV.	Next meetings, frequency		
	Would you or someone from your		
1	company be willing to participate in a	Yes	No
	next similar workshop?		
		☐ Ultra clean vacuum	
		☐ Precision mechanics	
	Which topic(s) would you think useful	☐ Cryogenics	
2	to address in next meetings?	☐ Operating components	at High temperature
		☐ Other ( <i>please precise</i> ):	

4	Comments

4 months

6 months

9 months

12 months

# V. Contact

desirable?

1	If you like, you may state your name and affiliation	
1a	Name	
1b	Affiliation	