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FISI Project - contract n°257118

D4.3.1 European SatCom training survey - draft

FISI project executive summary

The FISI project aims at supporting the Integral SatCom Initiative (Technology Platform) in defining a strategic vision on innovation priorities to reinforce the competitiveness of the European SatCom industry and in promoting emerging SatCom architectures in response to EU policy objectives.

Involving leading European satellite manufacturers, Research Institutes/Universities, SME, and a Service provider in the SatCom domain, FISI will serve the interest of all European SatCom industry stakeholders gathered in the ISI technology platform (www.isi-initiative.org) by highlighting and promoting the added value of emerging SatCom architectures in the support of EC grand challenges including broadband for all, security and Future Internet; Harmonising the research and innovation priorities for the European SatCom industry sector; And promoting an ambitious framework program to maintain the technological edge, international competitiveness and market share of the European SatCom industry.

Abstract

This deliverable contains the aggregate results of the ISI Training Survey managed by FISI project. Results of this report will be made available to the Public through different dissemination means.

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1 Introduction

The ISI SatCom training survey aimed at identifying the actual offer coming from the ISI community regarding training and educational courses in order to increase their visibility at international level as well as identify the gap present in this field related to new SatCom trends and new emerging SatCom areas development.

In particular, data collected in this survey will be used to:

- set up a data base of training and educational courses offered by ISI members in Europe;
- analyze the gap come out from the collection of data on available courses;
- identify the potential divide to be covered in Europe between satellite communication training and the emerging satellite communication systems and architectures;
- support ISI promotion activities.

The ISI SatCom training survey was opened on April 2011 through the advertisement on the ISI Platform Web site and the invitation, sent to all ISI members, to respond to the survey, and it was closed on August 2011. The collected data reported in aggregated form in this deliverable, provide a first overview of the training courses offered by ISI members. A second iteration of this survey will be prepared enriching the content thanks to the feedback of the ISI members and will be launched on the ISI Portal during the second year of the project in order to collect more data about SatCom training and educational courses in Europe and better understand the real educational offer in the SatCom field.

The final results will be reported in the deliverable D4.3.2 “European SatCom training survey – final”, as planned.

2 ISI SatCom Training Survey Structure

The ISI SatCom Training survey was organized in the following 6 sections aiming at collecting information about the SatCom related courses proposed by ISI members and organizations, in order to set up a database of educational offer on SatCom field currently available in Europe.

1. Compiler personal

- Name
- Email
- Role in organization

2. Organization data

- Name
- Country
- Reference person
- E-mail Reference person

3. ISI Member

- Yes
- No

4. Organization profile

- Ground equipment/technology manufacturing
- Space equipment/technology manufacturing
- Solution vendor
- System prime
- Satellite operator
- Service provider
- Consultancy
- Research institute
- Governmental

5. Footprint

- European
- European member states
- Non European based

6. Proposed SatCom related courses (there may be several)

- Course title
- Course program
- Teaching language
- Course structure
 - Single module
 - Sub modules
- Duration (in hours)
- Periodicity
 - Recurrent event
 - Single event
- History
 - New course
 - Course running for (year)
- Targeted audience
 - Ph.D. Students
 - Operators

- Investors
 - Designers
 - Other
- Prerequisites for the audience
- Course material
 - Book
 - Papers
 - Slides
 - Technical report
 - Recorded lessons
 - Other
- Material language
- Material format
 - Electronic
 - Paper
 - Other
- Course format
 - Face to face
 - Interactive webinar
 - Webcast
- Laboratory experience
 - Yes
 - No
- Credits (e.g., for Ph.D. students)
 - Yes
 - No
- Final test required
 - Yes
 - No
- Fee
- URL (for advertisement on the ISI Web site)

3 Aggregated results

In the following, aggregated results are reported for the questions proposed to the ISI Members.

During the first consultation, only eight ISI Members replied to the Survey (for the complete list of the members who participated to the consultation see the Annex A).

As mentioned before, this survey will be launched again in order to increase the number of data collected and it will be advertised on the ISI Web site in order to invite ISI Members to compile the questionnaire.

3.1 Training courses distribution per organization profile

As expected, SatCom related Training courses are set up mainly by Research institutes (75%) and Consultancy organizations (25%) taking part of the ISI community, as reported in the following Figure. However, in some cases, representatives from SatCom industry are invited to give a lecture on specific topics and on new SatCom trends which increases the interest of participants. The new consultation will take into account also this aspect in order to gather more detailed information on the invited speakers on the basis of the target of the course.

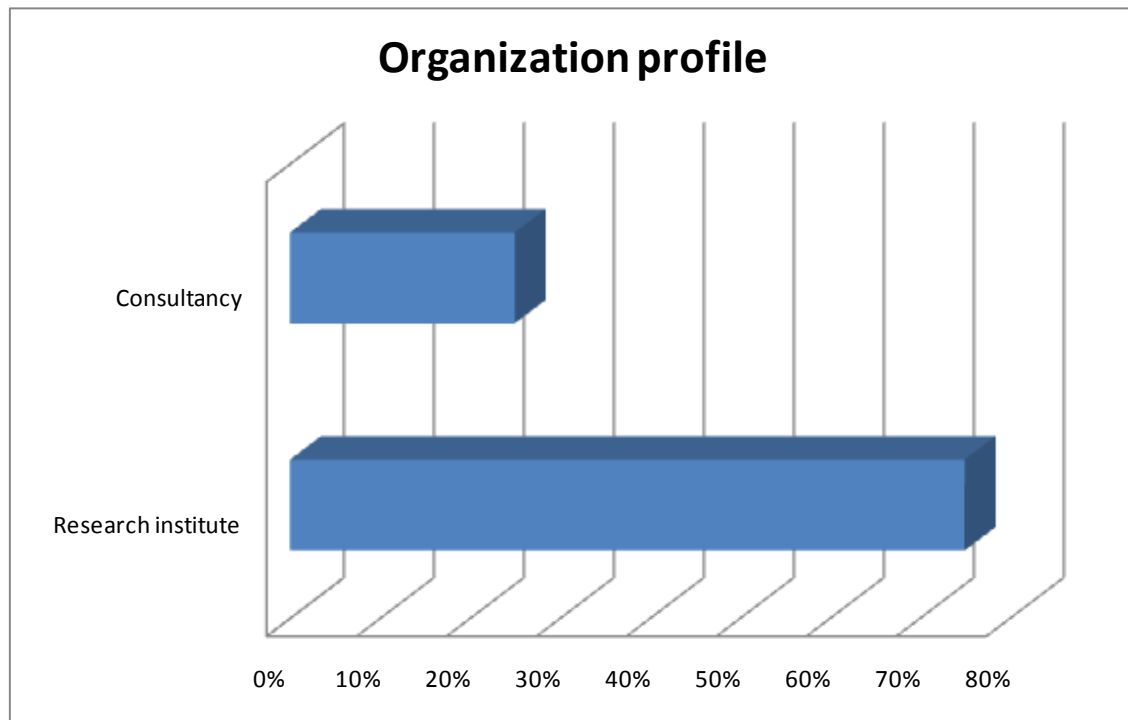


Figure 1: SatCom Training courses distribution per organization profile

3.2 SatCom Training courses per footprint

The following Figure shows which the footprint of the ISI Members which organize SatCom Training courses. Most of them (87%) have a European footprint. This means that their activities are carried out at level of Europe in the geographical sense and not only in the European Union states.

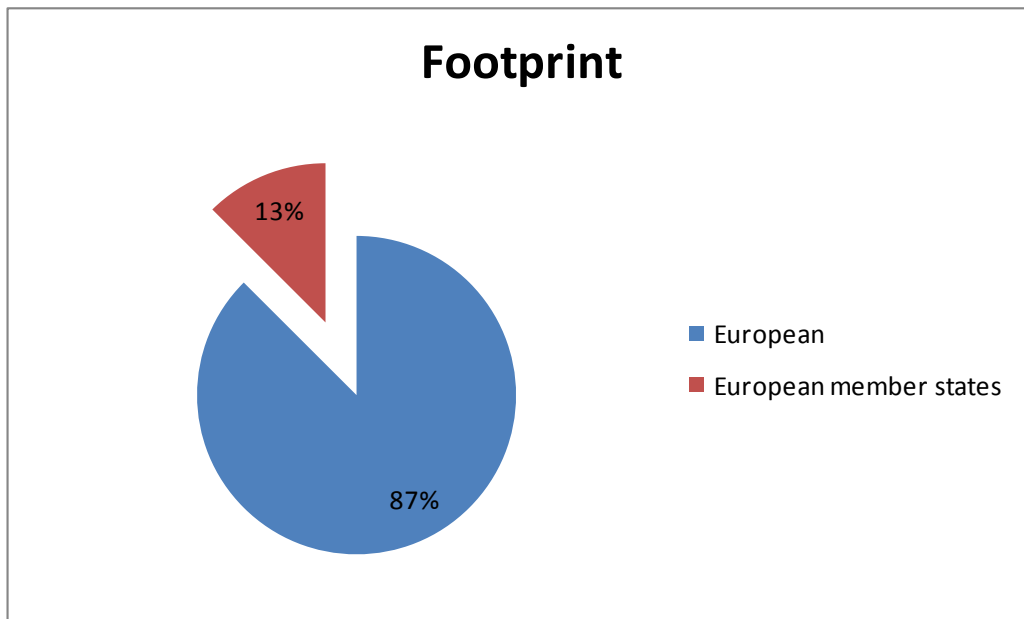


Figure 2: SatCom Training courses distribution per Organization footprint

Such result allows inferring that the courses will be taken in different European Countries giving the opportunities to participants to meet and discuss and to enter and be involved actively in the SatCom community.

3.3 SatCom related courses

In the following, some data collected regarding the SatCom training courses organized by ISI members are reported. Most of the training courses are face-to-face courses, are recurrent and thought in English, and allow Ph.D. students to get credits useful for their Ph.D. programme, after successfully passing a final exam.

The prerequisites to participate the courses range from basic satellite communication skills to skills in digital transmission, networking, communication theory and propagation. Usually, the qualification required is the Master degree in telecom engineering, but in case of advance training courses on SatCom, the Ph.D. qualification could be also requested.

3.3.1 SatCom Training course periodicity

Most of the courses are recurrent, i.e. for example they are organized on a year basis. This is an interesting result because such courses or schools become the key appointments in the agenda of the SatCom community.

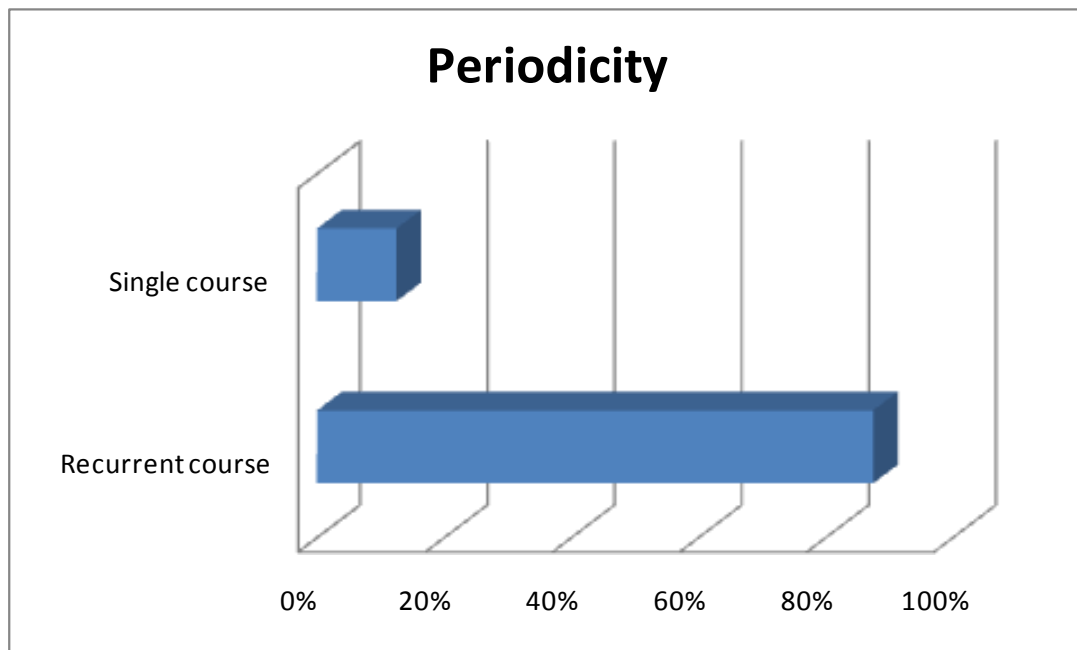


Figure 3: SatCom course periodicity

3.3.2 SatCom Training course language

Most of the training courses (87%) are in English in order to give people coming from different countries the opportunity to be able to follow the lessons and discuss with the teachers and the other participants on key topics related to SatCom.

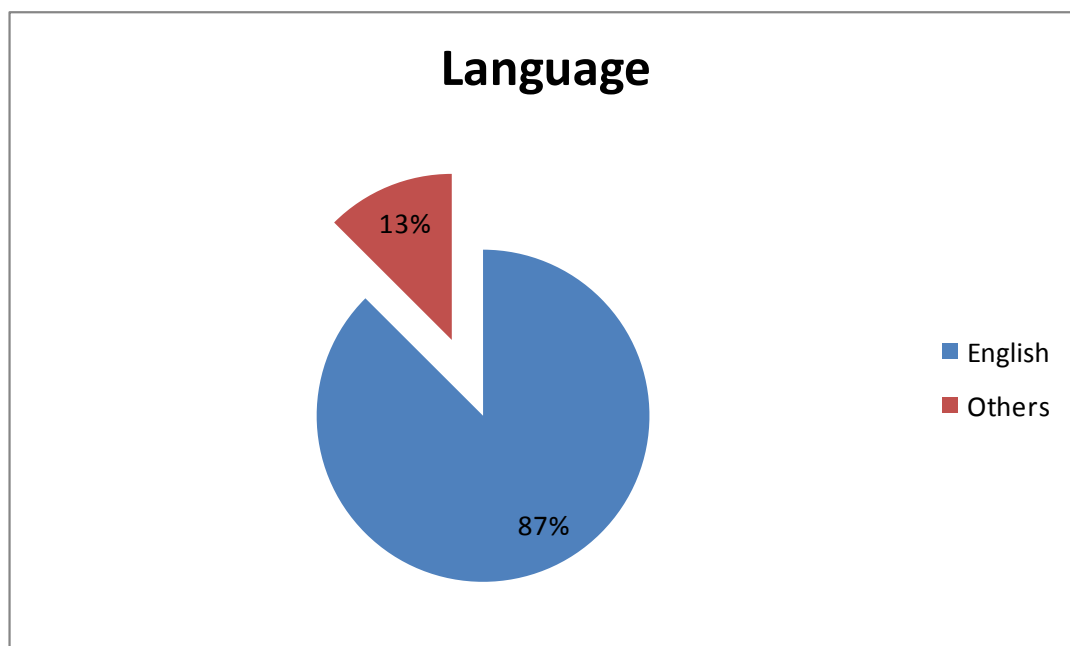


Figure 4: SatCom course language

3.3.3 SatCom Training course format

Most of the training courses (75%) are face-to-face in order to give people coming from different countries the opportunity to meet experts and other colleagues working in the same field with which to be able to discuss and exchange ideas on different topics related to SatCom.

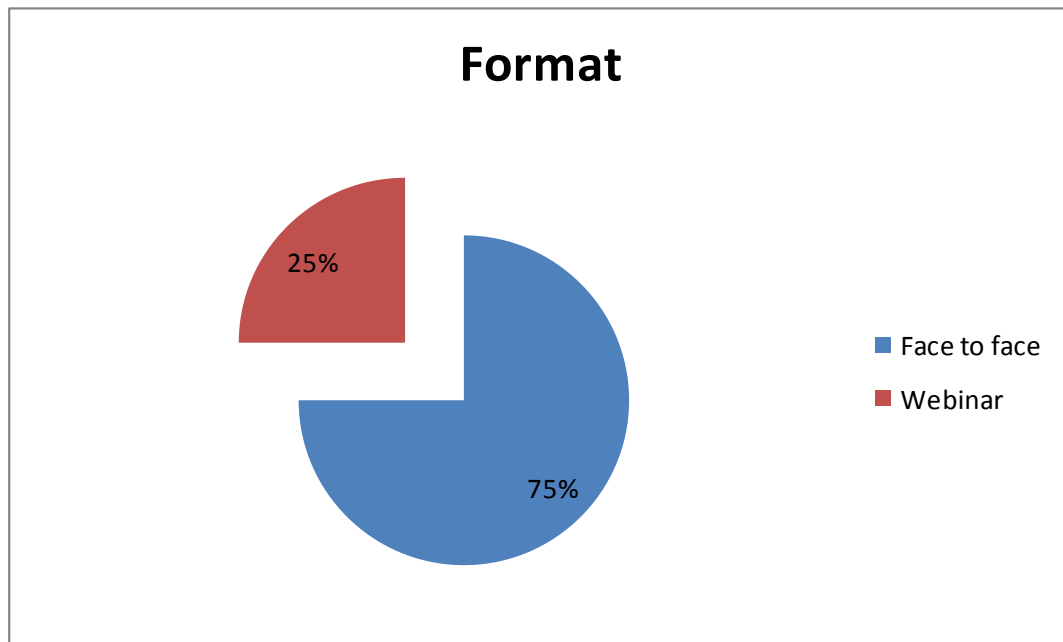


Figure 5: SatCom course format

3.3.4 SatCom Training course credits

Most of the courses (62%) give Ph.D. students the opportunity to get credits useful for their Ph.D. programme. This makes the participations to such courses very appealing for the students which can live an interesting experience for their professional carrier and, at the same time, get credits required to complete the programme.

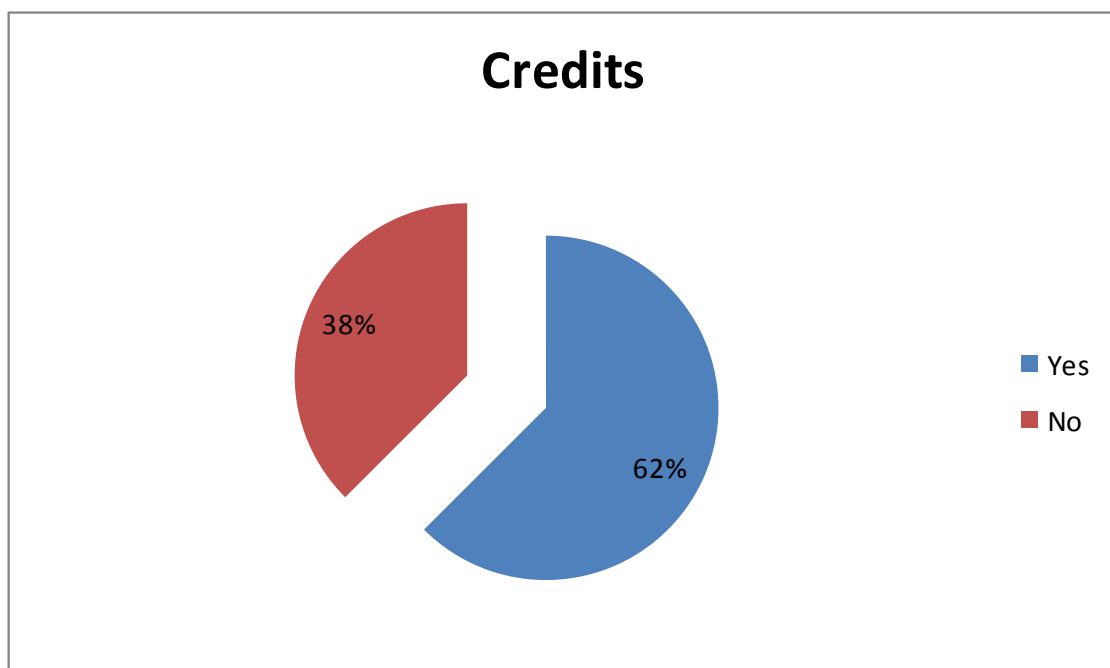


Figure 6: SatCom Training course credits

3.3.5 SatCom Training course final exam

All courses issue a certificate of attendance but in the most cases, the successful passing of a final exam is required to get the qualification offered by the course. In particular, to get credits for the Ph.D. programme it is mandatory to pass the exam.

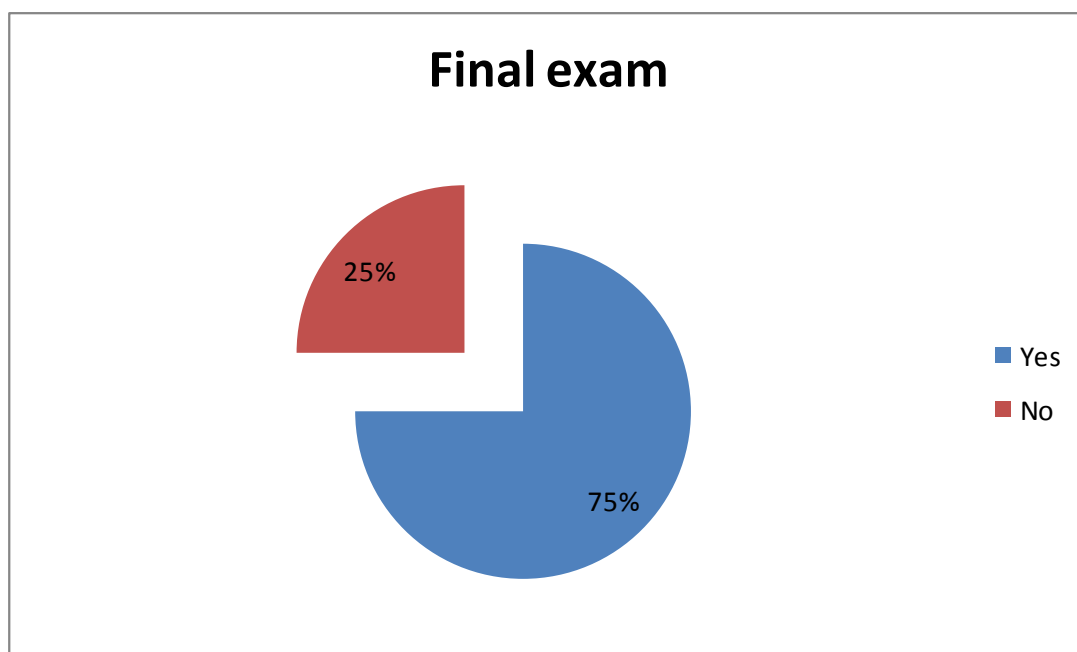


Figure 7: SatCom Training course final exam

4 Conclusions

This deliverable has reported the aggregated results of ISI European SatCom training survey aimed at collecting information about the actual offer coming from the ISI community regarding training and educational courses.

The collected data are very interesting to identify missing training opportunities which could be offered by ISI member in Europe and to provide recommendations for addressing the ISI future work.

A further consultation is envisaged to be launched during the second year of the project which will have the purpose to collect more data on the current educational offer in order to have a clearer and more complete view on this issue. In particular, the new survey will be enriched with new items aiming at better identifying the topics addressed by the courses in order to analyse the potential gap in the Educational field related to SatCom and between the training offer and the emerging satellite communication areas. Moreover, the new consultation will aim at gathering more information the ISI members' expectations in training.

5 Annex A – ISI members who replied to the Survey

In the following table, the list of all ISI members who replied to the ISI SatCom training Survey with the main information on the current training courses is reported.

Name	Last Name	Affiliation	Course Title	Course Duration
Alberto	Ginesi	ESA	Advanced Satellite Communication Systems and Techniques	5 days
			Principles and Technologies of Satellite TT&C	3 days
Alejandro	Alvarez Melcon	Technical University Cartagena	Summer course on space technology	3 days
Michele	Luglio	University of Rome Tor Vergata	Satellite Telecommunications	up to 60 hours
Julián	Seseña	ROSE Vision	Spectrum management and Satellite frequency coordination	3 months
Roberto	Garello	Politecnico of Turin	2nd level specializing Master in Navigation and related Applications	1 year
Richard	Swayne	e2E Services Ltd.	Intro to Satellite Communications	1 day
János	Bitó	Budapest University of Technology and Economics	Space technology	56 hours

Appendix: FISI internal document control

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