WP2: Training, Communication and Outreach for Accelerator Science

3 May 2022

Philip Burrows (John Adams Institute, Oxford University)

Outline

- **What did we achieve?**

- **Next steps**

ARIES WP2 participants

Participants: CERN, ESS, CNRS, RTU, UOXF

Partners:

Aarhus University (AU), Univ. Helsinki,

European Scientific Institute (ESI),

Univ. Oslo (UiO), Stockholm University (SU),

Univ. Lancaster (ULANC), Univ. Liverpool (UNILIV)

Affiliates:

CEA, Lund Univ, CIEMAT, GSI, KIT, INFN, PSI, Warsaw Inst. Tech.

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Thanks to everyone!

WP2 tasks

- **Task 1: Management and coordination**

- **Task 2: Coordination, support and enhancement of communication/outreach activities for accelerators in Europe**

- **Task 3: Coordination, support and enhancement of training activities for accelerators in Europe**

- **Task 4: Provide an e-learning course: introduction to accelerator science, engineering and technology**

Milestones & Deliverables for WP2

Tasks

2.2	Internal and external project communications and outreach activities	
2.3	Monitor provision for training in Europe and within a global context	
2.4	Produce an introductory e-learning course on accelerator science	

Milestones

MS10	Project website launched	2.2	M6	Oct 2017
MS11	Meeting to agree MOOC platform and academic structure and content of e-learning course	2.4	M12	May 2018
MS12	Workshop on training activities in Europe in a global context	2.3	M24	April 2019

Deliverables

D2.1	E-learning course	2.4	M36	**April 2020**
D2.2	Final report on coordination of communication/outreach activities	2.2	M37	**May 2020**
D2.3	Final report on coordination of training activities	2.3	M39	**July 2020**

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Deliverables

D2.1	E-learning course	2.4	M36	**April 2020**
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D2.3	Final report on coordination of training activities	2.3	M39	**July 2020**

Completed

Completed

Major Achievements

Updated survey of training provision + needs in Europe (Rutambhara Yogi)

- Talk to follow

Provided an E-learning course ('MOOC') (Nicolas Delerue)

- Talk to follow

Delivered communications (Jennifer Toes, Daniela Antonio, Antoine Le Gall)

- Internal + external communications, dissemination of news etc.

- Preparations for Annual Meetings + other events

- Input and editorial support for Accelerating News

- Two dedicated workshops for professional communicators from major European accelerator laboratories

Ensured a smooth transition to next set of 'TCO' actions in I.FAST

- Internal + external communications — talk by Antoine Le Gall (Thursday)

- Challenge Based Innovation scheme — talk by Nicolas Delerue (Wednesday)

- Industrial training/knowledge transfer scheme — talk by Tord Ekelof (Wednesday)

Personal observations … next steps

- Integrating Activity projects such as ARIES (and previously EUCARD, EUCARD2) provide a framework for cooperation, sharing of knowledge and resources, and coordination of activities, that serve the European accelerator community very broadly, at an under-pinning level

- Provide a platform that helps to nurture the community and provides an incubator environment for development of other focused projects/proposals (eg. Design Studies, INFRA-TECH projects, MSCI training networks …)

- Training, communications & outreach is a prime example:

  Even though resources are limited, the value of the activities is very high

  A broad action plan was developed by TIARA PP project (2013)

Roy Aleksan → Jose Manuel Perez, Eugenio Nappi

📁 Accelerator R&D Programming

Accelerator R&D covers many domains, from the concepts of acceleration themselves to the study and realization of sub-elements. TIARA aim in supporting R&D toward future Accelerator Science and Technology, promoting cooperation concerning R&D activities for the benefit of the accelerator developersamd the

⇄ Collaboration with industry

TIARA aims to provision and support industry, for accessing equipment, facilties and accelerator system at accelerator R&D at a European level. Moreover, innovation through collaboration with industry is a key item to achieve TIARA purposes.

📅 Education & Training Programmes

Education, outreach and training programs are the base for achieving the TIARA purpose. Workshops, conferences, proposal preparation, project reviewing, etc. are the tools necessary to complete the project activities.

TIARA PP WP5 Recommendations

Test Infrastructure and Accelerator Research Area

**TIARA WP5
Deliverable 5.4
Recommendations for promoting accelerator science and technology in Europe**

7 November 2013

François Kircher, Phu-Anh-Phi Nghiem, Celine Tanguy, **CEA, France**

Roger Bailey, Louis Rinolfi, **CERN, Switzerland**

*M. Luisa Marco Arboli (**WP Deputy**), Susana Falcon, Diego Obradors,* **CIEMAT, Spain**

*Catherine Clerc, Alex C. Mueller (**WP Deputy**), CNRS-IN2P3, France*

Leonid Rivkin, **EPFL, Switzerland**

Sabrina Appel, Oliver Boine-Frankenheim, **GSI, Germany**

Francesca Galluccio, Vittorio Vaccaro, **INFN Napoli, Italy**

Piotr Malecki, **Institute of Nuclear Physics, Polish Academy of Sciences, Poland**

Søren Pape Møller, **ISA, Aarhus University, Denmark**

*Philip Burrows (**WP leader**), Max Bradbury,* **John Adams Institute, University of Oxford, United Kingdom**

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Content

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Test Infrastructure and Accelerator Research Area

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TIARA proposals

	Proposal	Estimate of resources needed	Unit cost (Euro)	Number of units
Undergraduate-level training	1. 'e-learning' course, 'Introduction to Accelerator Science and Technology'.	12 months (course setup) + 5 months per annum thereafter (centralised course monitoring and support) + IT infrastructure (server, software tools etc.).	N/A	
	2. Internships at 'local', or an international, accelerator laboratory.	150,000 Euro + 3 person months, per annum.	Intern month 1,500	100
Master's-level training	3. Bursary support to attend established international and national accelerator schools.	100,000 Euro + 2 person-months, per annum.	Bursary 2,000	50
	4. European Master's fellowship scheme.	200,000 Euro (year 1), 400,000 Euro (year 2 and per annum thereafter) + 2 person months per annum.	Fellowship 20,000 Euro	10
	5. Internships for project work in support of a thesis.	300,000 Euro + 3 person months, per annum.	Intern month 1,000	300
PhD-level training	6. Bursary support to attend established international and national accelerator schools.	100,000 Euro + 2 person-months, per annum.	Bursary 2,000	50
	7. European PhD fellowship scheme.	250,000 Euro (year 1), 500,000 Euro (year 2), 750,000 Euro (year 3 and per annum thereafter) + 2 person months per annum.	Fellowship 25,000	10
Structural support	9. Enhanced accelerator schools provision.	100,000 Euro + 1 person-month, per annum.	N/A	
	10. www-portal	6 months (course setup) + 2 months per annum thereafter (centralised course monitoring and support) + IT infrastructure (server, software tools etc.).		
Outreach	11. Outreach support	1 MEuro per annum	Per country 100,000	10

ARIES

MOOC

- *Updated training survey*
- *Outreach professionals workshops*
- *Accelerating News*

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I.FAST

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I.FAST

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I.FAST

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ARIES

Next steps?

TIARA established a vision for longer-term structural support for training, communications and outreach (TCO)

ARIES + I.FAST have addressed some of the high-priority actions within the available resources

The community, and many EU accelerator-related projects, keenly interested in TCO

As we plan for successor projects to ARIES and I.FAST let's keep TCO firmly in mind …

Can we (should we) aim to do more?

Can we provide more coordination + support across the community?

Discussion starting within TIARA – we welcome thoughts/ideas