



# Status of EuCARD-2 and ARIES

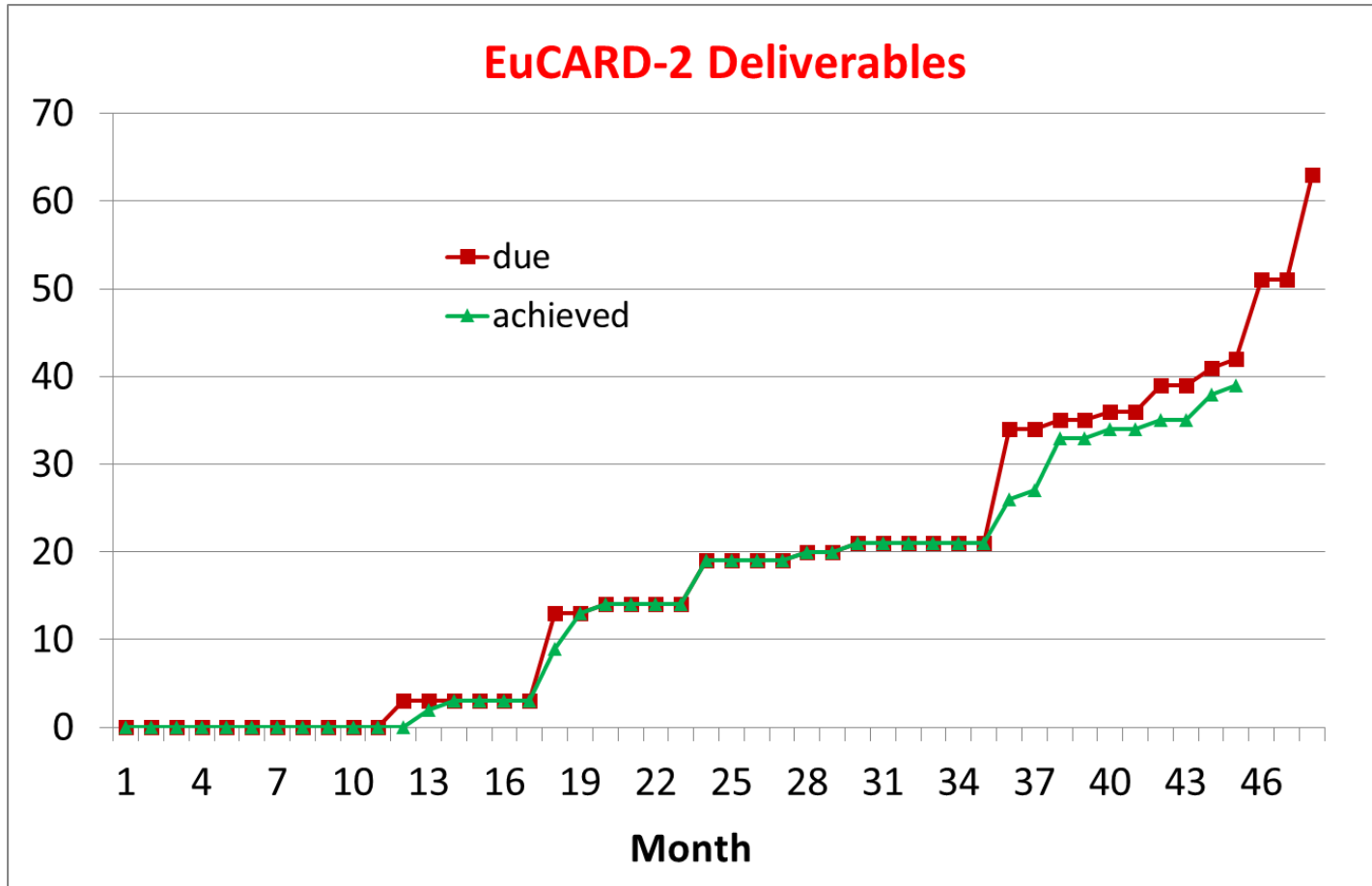
Maurizio Vretenar, CERN  
TIARA Collaboration Council, 2.3.2017

# EuCARD2: the final sprint

- Only 2 months to go before the end of the project (30 April)
- Overload of work (deliverables, final reporting, last meeting) with a reduced support team (new inexperienced project assistant, communication support leaving CERN) and addressing partners with particularly busy schedules.



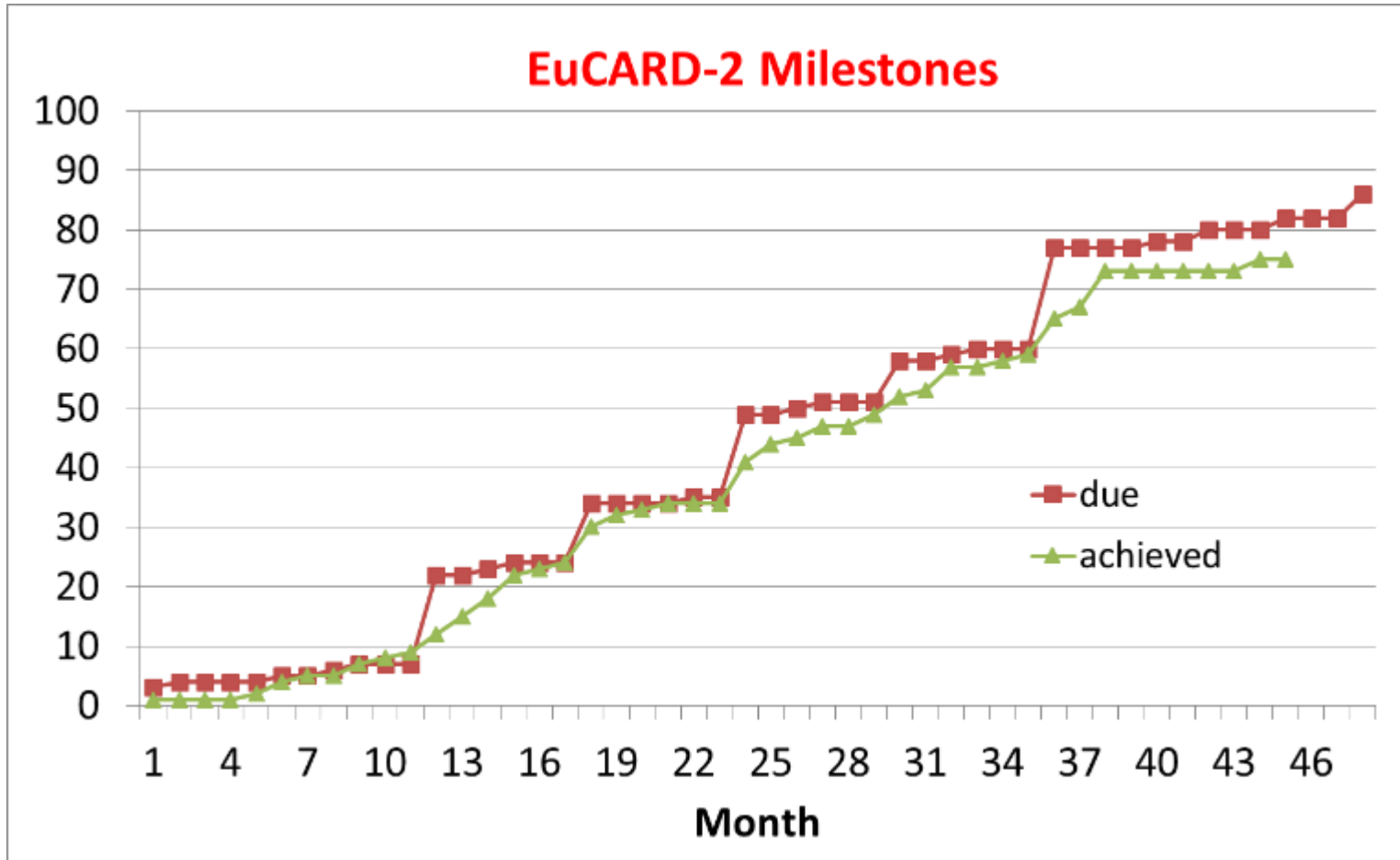
# Deliverable progress (@15/2)



- 39/65 deliverables completed
- 2 delayed and justified to EC: 13.5(FLASH NRF cavity and FB system, M36 to M48) and 10.4 (Magnet cold test, M44 to M48).
- 10 due end of February (M46), only 2 received, 4 expected soon, 1 (APAE doc.) in March, 2 expected mid-April, 1 no news.
- M48: 5 more scientific deliverables + 7 management deliverables.

1. Deposition test facility at **CEA Saclay** (C. Antoine): experimental problems (EMC limits B field) and personnel problems (PhD resignation at INP Grenoble) have caused delay in the design of the facility (not yet done) and could hinder D12.10 due at M48 (Cavity deposited and qualified). The DE description offers a chance to stop with the design of the facility, but at least this needs to be done.
2. The **NRF cavity for fs stabilisation** at FLASH (S. Pfeiffer) late for FLASH is replaced by off-line tests. D13.5 promised M48.
3. HTS **magnet test stand** preparation and test late for unexpected personnel problems (decease of G. Volpini). D10.4 delayed to M48.

# Milestone progress



- As well some delays but milestones are less critical



# The 4<sup>th</sup> and last Annual Meeting

**EuCARD-2 4<sup>th</sup> Annual Meeting**  
28-30 March 2017

UNIVERSITY OF STRATHCLYDE Glasgow Scotland

EuCARD-2, the largest collaborative accelerator-based programme of European research for the next decade, Annual Meeting on 28-30 March 2017, hosted by the University of Strathclyde, Glasgow, Scotland.

The meeting will feature the latest UK and European developments in the field of high energy and high power accelerators, with a particular focus on the new laboratory for plasma wakefield acceleration. The programme includes keynote presentations, workshops, technical sessions, and a social programme. The meeting will be held at the University of Strathclyde, Glasgow, Scotland.

For more information and registration: <http://www.eucard2.eu>

Permanent Information and registration: [info@eucard2.eu](mailto:info@eucard2.eu)

CERN  
EUROPEAN UNION  
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EUROPEAN RESEARCH INFRASTRUCTURE CONSORTIUM  
EUROPEAN STRATEGIC INFRASTRUCTURE PROGRAMME  
EUROPEAN RESEARCH INFRASTRUCTURE PROGRAMME

- 28-30 March, University of Strathclyde, Glasgow, UK.
- Connected to the new laboratory for plasma wakefield acceleration.
- Usual blend of WP presentations and highlight talks.
- No parallel WP meetings, session on preparation of final reporting
- 75 registered so far.

## TUESDAY 28/03/2017 EuCARD-2 Plenary Session

<b>08:30</b>	09:30	01:00	<i>Registration</i>	
<b>09:30</b>	09:40	00:10	Opening address	
<b>09:40</b>	10:10	00:30	Welcome from EuCARD-2 Coordinator and activity report	M. Vretenar (CERN)
<b>10:10</b>	10:40	00:30	Accelerators and Radiation at Strathclyde	D. Jaroszynski (Strathclyde Univ)
<b>10:40</b>	<b>11:05</b>	<b>00:25</b>	Coffee break	
<b>11:05</b>	11:30	00:25	Extreme Beams - report from WP5 XBEAM (20'+5')	F. Zimmermann (CERN)
<b>11:30</b>	11:55	00:25	Future Trends for FELs in Nuclear Physics and Nuclear Photonics	L. Serafini (INFN Milano)
<b>11:55</b>	12:20	00:25	Status and Progress of the Future Circular Collider Study	M. Benedikt (CERN)
<b>12:20</b>	12:45	00:25	Low Emittance Rings - report from WP6 LOW-e-RiNG (20'+5')	Y. Papaphilippou (CERN)
<b>12:45</b>	<b>13:45</b>	<b>01:00</b>	Buffet lunch	
<b>13:45</b>	14:10	00:25	MICE and the future of muon beams for particle physics	K. Long (STFC)
<b>14:10</b>	14:30	00:20	Review of the industry session at the Advanced Low Emittance Rings Technology (ALERT) workshop	R. Geometrante (KYMA)
<b>14:30</b>	14:55	00:25	Future magnets - report from WP10 (20'+5')	L. Rossi (CERN)
<b>14:55</b>	15:15	00:20	Test results of the Feather-M0 HTS coil	H. Bajas (CERN)
<b>15:15</b>	<b>15:45</b>	<b>00:30</b>	Tea break	
<b>15:45</b>	16:10	00:25	Novel Accelerator Concepts - report from WP13 (20'+5')	V. Malka (CNRS)
<b>16:10</b>	16:30	00:20	Recent activities on electron acceleration with laser at LLC	O. Lundh (Lund Univ)
<b>16:30</b>	16:45	00:15	The MagNet facility at CERN	M. Bajko (CERN)
<b>16:45</b>	17:00	00:15	Optical fiber based sensors for low temperature and superconductors	A. Chiuchiolo (CERN)
<b>17:00</b>	17:15	00:15	The HiRadMat facility at CERN	A. Fabich (CERN)
<b>17:30</b>	19:30	02:00	Governing Board & Steering Committee Meeting	
<b>19:00</b>	21:00	02:00	Welcome Drink	

## WEDNESDAY 29/03/2017 EuCARD-2 Plenary Session

08:30	08:55	00:25	Accelerator Applications - report from WP4 AccApplic (20'+5')	R. Edgecock (STFC)
08:55	09:15	00:20	Hybrid biogas - an electron beam system for electricity and bio-fertilizer production	A. Chmielewski (ICHTJ)
09:15	09:35	00:20	High energy electron beams for radiotherapy	A. Lagzda (Manchester U.)
09:35	09:50	00:15	Energy Efficient Accelerators - report from WP3 EnEfficient (20'+5')	M. Seidel (PSI)
09:50	10:10	00:20	Efficient RF power sources for proton driver accelerators	F. Gerigk (CERN)
10:10	10:30	00:20	Power consumption and efficiency analysis of PSI's 1.4MW Proton Accelerator	A. Kovach (PSI)
10:30	11:00	00:30	<b>Coffee break</b>	
11:00	11:20	00:20	Knowledge and Technology Transfer within EuCARD-2: report from WP2 (15'+5')	V. Skarda (STFC)
11:20	11:40	00:20	Outcomes of "Low energy electron beams for industrial and environmental applications" workshop with industry (15+5)	H. Bjerke (CERN)
11:40	12:05	00:25	Innovative RF technologies - report from WP12 (20'+5')	P. McIntosh (STFC)
12:05	12:15	00:10	EuCARD2 Communication report	J. Toes, A. Szebrerenyi (CERN)
12:15	12:25	00:10	The EuCARD2 accelerator series: overview and perspectives	R. Romaniuk (WUT)
12:25	13:25	01:00	<b>Buffet Lunch</b>	
13:25	13:50	00:25	Novel Accelerators - report from WP7 EuroNNAC2 (20'+5')	R. Assmann (DESY)
13:50	14:10	00:20	Results from the SPARC Facility	<i>tbz</i>
14:10	14:30	00:20	Status and first results from AWAKE	P. Muggli (Max Planck Institute)
14:30	14:55	00:25	Collimator materials for high-density energy deposition - report from WP 11 (20'+5')	A. Rossi (CERN)
14:55	15:15	00:20	Ion irradiation studies for novel applications of diamond based materials	M. Tomut (GSI/Darmstadt)
15:15	15:30	00:15	BTV screen tests at the HiRadMat facility	M. Turner (CERN)
15:30	15:50	00:20	Numerical Simulations for Complex Superconducting RF Structures	T. Flisgen (UROS)
15:50	16:10	00:20	Beyond Niobium SRF materials: thin films and new superconductors	C. Antoine (CEA)
16:15	18:00	01:45	<b>VISIT OF SCAPA</b>	
19:30	21:30	02:00	<b>Banquet Dinner at City Chamber</b>	





# Day 3

## THURSDAY 30/03/2017 REPORTING PREPARATION, SAC report, ARIES Meeting

<b>09:00</b>	10:00	01:00	<b>Special talk: Ripples from the Dark side of the Universe</b>	Prof. Jim Hough, University of Glasgow
<b>10:00</b>	11:00	01:00	<b>Meeting on preparation of EUCARD2 final reporting</b>	
<b>11:00</b>	11:30	00:30	Coffee break	
<b>11:30</b>	12:00	00:30	SAC Report & Close-out	
<b>12:00</b>			End of Plenary Meeting	
<b>12:00</b>	13:30	01:30	Lunch break	
<b>13:30</b>	17:00	03:30	ARIES Steering Committee	



# Deadlines for EuCARD2 final reporting

- Periodic Report 3: contributions due to Coordinator on 30.3, submission 30.4.
- Final Report: templates to be distributed 30.3, contributions to coordinator 15.5, submission 15.6.





# The next project...



3 nice logos... a bit too many, final decision will be taken at the next Steering Committee Meeting

# Status of ARIES

- Grant Agreement signed
- Consortium Agreement ready for signature.
- EC Scientific Officer Patricia Postigo McLaughlin.
- Start date 1 May 2017.

News:

Innovation WP Coordinator: Marcello Losasso (CERN)

Some rediscussion of GSI coordination role in Network WP6

In preparation: general mailing list, Governing Board composition





# ARIES Steering Committee, Glasgow

Meeting of Steering Committee will take place in Glasgow on 30 March pm, immediately after EuCARD2 meeting.

The goal is that the composition of the Committees is ready to be approved by the first Meeting of the Governing Board

Agenda:

- Status of ARIES preparation and expected pre-financing.
- ARIES communication: web site, videos and logo.
- Composition and selection criteria for the **ARIES Committees**: Scientific Advisory Board, Industry Advisory Board, TA User Selection Panels.
- Preparation and agenda of the ARIES kick-off meeting on **May 4 and 5 at CERN**.
- Preparation status of each WP.
- AOB

# ARIES Kick-off meeting

- CERN, 4-5 May.
- Presentation of all WPs, Meeting of Governing Board, Industrial Meeting, TA meeting.
- Announcement in preparation, registration will open this week.



Local organising & programme committee:  
Maurizio Vretenar (CERN),  
Ralph Assmann (DESY),  
Valerie Brunner (CERN)  
and the ARIES Steering Committee

Contact: [Valerie.Brunner@cern.ch](mailto:Valerie.Brunner@cern.ch) - [www.aries-project.eu](http://www.aries-project.eu)

## THURSDAY 04/05/2017 ARIES Plenary Session - The Globe of Science and Innovation (CERN)

08:30	09:00	00:30	Registration	
09:00	09:10	00:10	Opening address	F. Bordry (CERN)
09:10	09:40	00:30	Accelerator Science in the XXIst century and the role of ARIES	M. Vretenar (CERN)
09:40	10:00	00:20	Sustainability of accelerator R&D in Europe	R. Aleksan (CEA)
10:00	10:20	00:20	Coffee break	
10:20	10:35	00:15	Enlarging the base: the role of small countries in accelerator science	T. Torims (RTU, CERN)
10:35	11:00	00:25	Training and communication for accelerator science (WP2)	P. Burrows (Oxford)
11:00	11:25	00:25	Promoting innovation in the accelerator science (WP)	M. Losasso (CERN)
11:25	11:50	00:25	Improving accelerator performance and new concepts (WP6)	F. Zimmermann (CERN)
11:50	12:15	00:25	A new paradigm on the horizon: the European Network on Novel Accelerators (WP5)	R. Assmann (DESY)
12:15	13:15	01:00	Buffet lunch	
13:15	13:40	00:25	A new frontier: Rings with ultra-low emittance (WP7)	R. Bartolini (Oxford)
13:40	14:05	00:25	Industrial and societal applications of accelerators	R. Edgecock (STFC)
14:05	14:30	00:25	Towards a sustainable accelerator technology	M. Seidel (PSI)
14:30	14:50	00:20	Diagnostics and instrumentation for the future generation of accelerators	P. Forck (GSI)
14:50	15:15	00:25	New technologies: coatings for improving superconducting cavities	O. Malyshev (STFC)
15:15	15:40	00:25	Tea break	
15:40	16:05	00:25	New technologies: electron lenses for collimation and focusing	D. Ondreka (GSI)
16:05	16:30	00:25	New technologies: advanced collimation materials	A. Bertarelli (CERN), M. Tomut (GSI)
16:30	16:55	00:25	New technologies for very high gradients	A. Specka (CNRS)
16:55	17:10	00:15	Access to magnet testing facilities	M. Bajko (CERN)
17:10	17:25	00:15	Access to material testing facilities	A. Fabich (CERN)
17:25	17:40	00:15	Access to electron and proton beam testing facilities	J. Schwindling (CEA)
17:40	17:55	00:15	Access to radiofrequency testing facilities	R. Ruber (Uppsala)
17:55	18:10	00:15	Access to plasma beam testing facilities	B. Cros (CNRS)
18:15	19:15		visit "The World of particles" exhibition (The Globe)	
19:00	19:30		Aperitif	
19:30	22:00	02:30	Banquet (at Globe or buses leaving from the Globe with stop at Hostel)	





# Kickoff meeting – day 2

## FRIDAY 05/05/2017 ARIES Parallel Sessions - Council Chamber (CERN)

	09:00	10:30	01:30	Meeting of ARIES Governing Board	
	09:00	10:00	01:00	for non-GB members: visit of CERN (synchrocyclotron, ATLAS visitor centre)	
	10:00	11:00	01:00	Coffee available, Salle des Pas Perdus	
	10:30	12:00	01:30	ARIES Industrial Meeting (Industry Advisory Board, Industrial participants, collaborating Industries)	10:30 - 12:00 Room 61-1/017 Transnational Access Meeting
	11:00	12:00	01:00	for GB members and others: visit of CERN (synchrocyclotron, ATLAS visitor centre)	
	12:00	14:00	02:00	Lunch (free, CERN Restaurant 1)	
	14:00	15:30	01:30	Special visit to Linac4 (limited number, registration and personal data required)	
	15:30	16:30	01:00	ARIES Steering Committee Meeting - wrap up (alternative: working lunch)	

Agenda for Industrial Meeting:

- ARIES Technology Transfer and Industrial programmes (Marcello or Maurizio, 20')
- New EU tools in preparation (Roy, 20')
- Preparation of the Accelerator industry Workshop (?, 20')
- Discussion (1h)

