Report from WP2: Dissemination, Communication & Outreach (DCO)

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Contents of presentation

1. Newsletter
2. Public website
3. Scientific publications
4. Monographs
5. PhD statistics

Accelerating News published

- **Issue 1 (spring 2012) out now:** **www.acceleratingnews.eu**
    - Collaborative newsletter initiated by EuCARD with TIARA, HiLumi LHC & EUROnu
    - Nearly 900 subscribers
    - Quarterly, next issue summer 2012
- **Add your EuCARD news, contact eucard-editor@cern.ch**

From the editors

Jewels in the crown: TIARA's key research areas and R&D issues

EuCARD highlights new developments

Why do we need a High Luminosity LHC?

Towards the summit of achievements for EUROnu: Entering the final phase

Accelerating medical treatments

Upgrading together, HL-LHC and LIU

New world record vertical emittance in the Swiss Light Source Storage Ring

Issue 1: Spring 2012

From the editors

by Kate Kahle (CERN), Celine Tanguy (CEA), Elena Wildner (CERN)

Welcome to the first issue of Accelerating News, a new quarterly online publication for the accelerator community.

This newsletter has evolved from the EuCARD newsletter and aims to showcase news and results from the EuCARD, TIARA, HiLumi LHC and EUROnu projects as well as listing relevant events and linking to external articles of interest to the accelerator community.

We hope you enjoy this first issue. Please contact us with any news or events that you would like added to future issues.

Accelerating News is sponsored by four FP7 projects: EuCARD, TIARA, HiLumi LHC and EUROnu. Image credit: the four sponsored projects.

Read more >>

Keywords: editors; introduction

Jewels in the crown: TIARA's key research areas and R&D issues

by Paolo Pierini (INFN)

A recently published report identifies and describes key, critical items requiring strongly focused R&D activities in the TIARA implementation.

The purpose of the TIARA Preparatory Phase is to set the grounds for a European distributed accelerator R&D infrastructure. It supports a strongly coordinated R&D programme focused on keeping Europe at the forefront of development and deployment of large accelerator-based infrastructures for basic and applied physics. This coordination allows higher efficiency and savings in both resources and time for European accelerator R&D. In this context, the primary objective of Work Package 4 "Joint R&D

KARA (Key Accelerator Research Area) relevance for future projects and facilities (click image to enlarge). Image credit: TIARA.

Builds on EuCARD newsletter

- **Issues 1 to 11 now available in archive**

  http://cern.ch/EuCARD/news/newsletters/archive/

- **Subscribers rose from 200 to 800**
  - All EuCARD members
  - + related projects
  - + requests via website

Web site outreach section

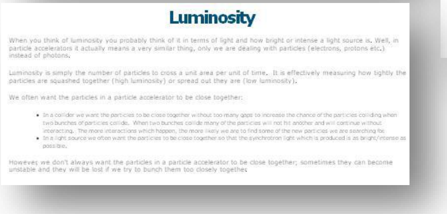
- Outreach material now online, thanks to Naomi

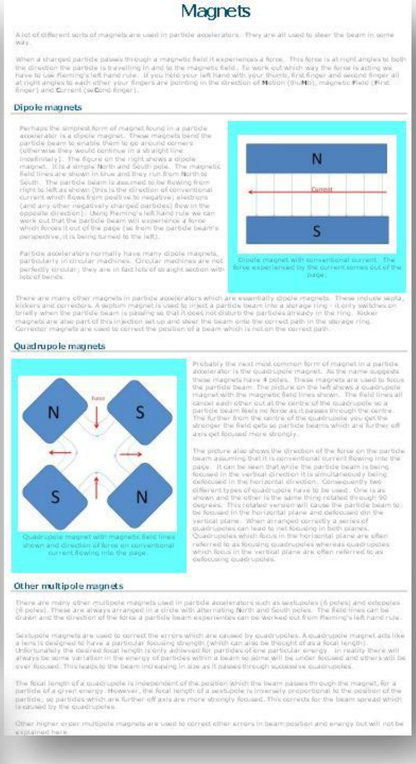

Different types of accelerator

Colliders

Synchrotron Radiation Sources

Synchrotrons and Cyclotrons

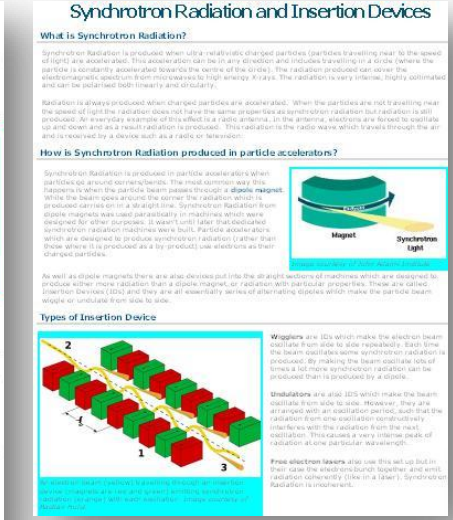

Luminosity


Magnets

Dipole magnets

Quadrupole magnets

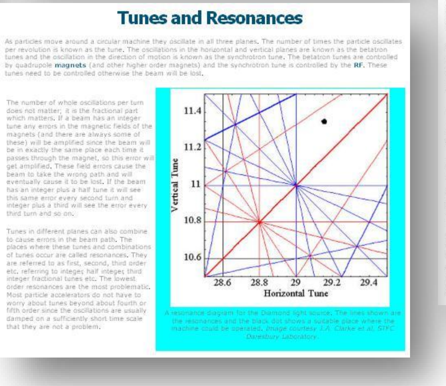
Other multipole magnets

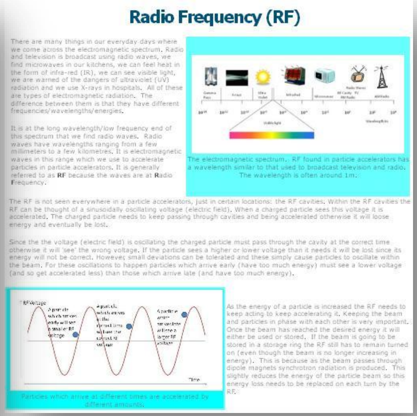

Synchrotron Radiation and Insertion Devices

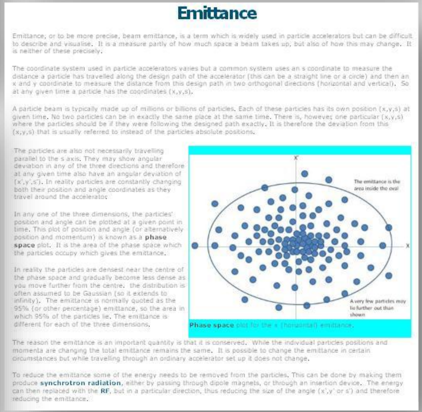
What is Synchrotron Radiation?

How is Synchrotron Radiation produced in particle accelerators?

Types of Insertion Device

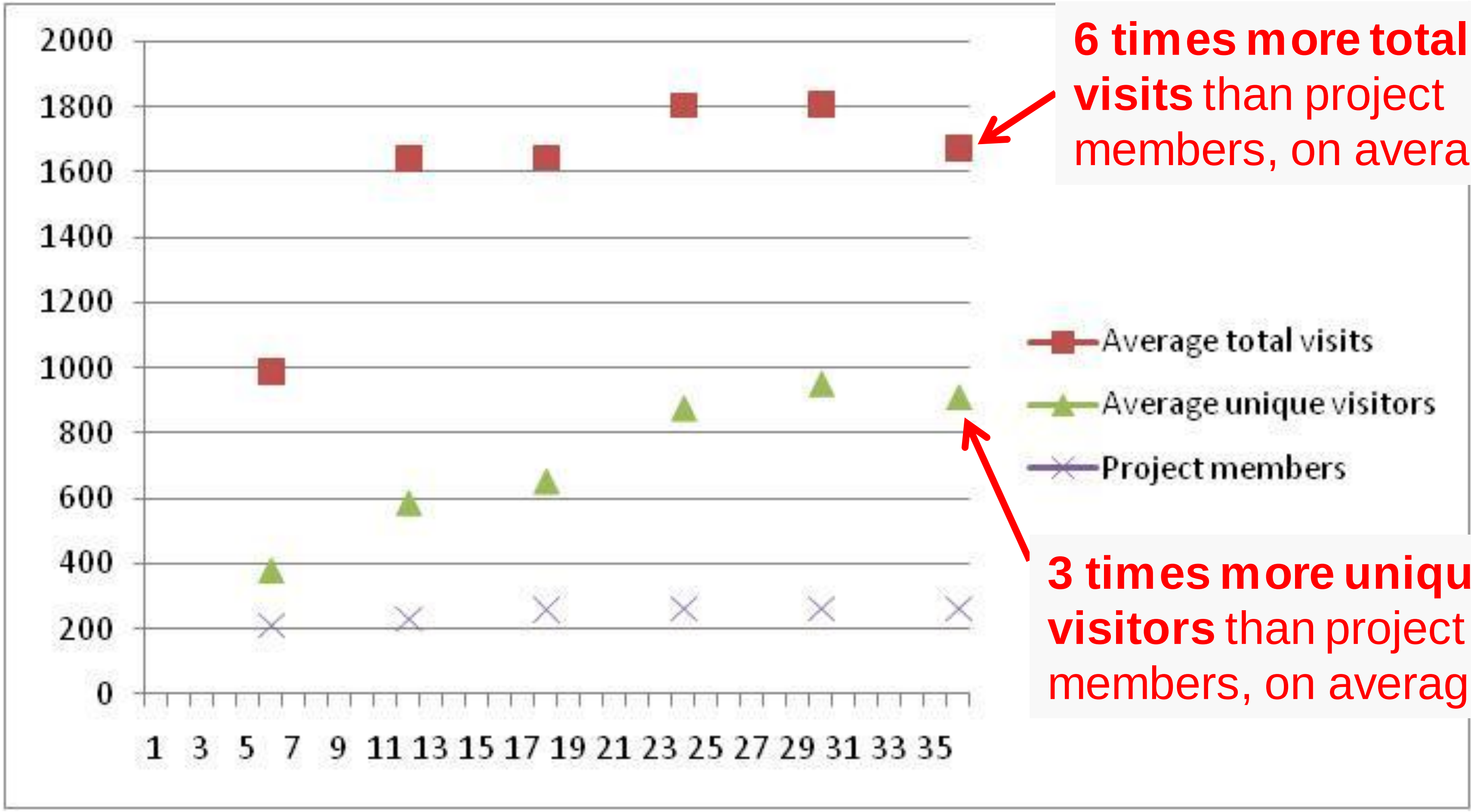

Tunes and Resonances


Radio Frequency (RF)


Emittance

Web site visitors

- Fluctuations over the year, so average visits are shown below



6 times more total visits than project members, on average

3 times more unique visitors than project members, on average

Scientific publications

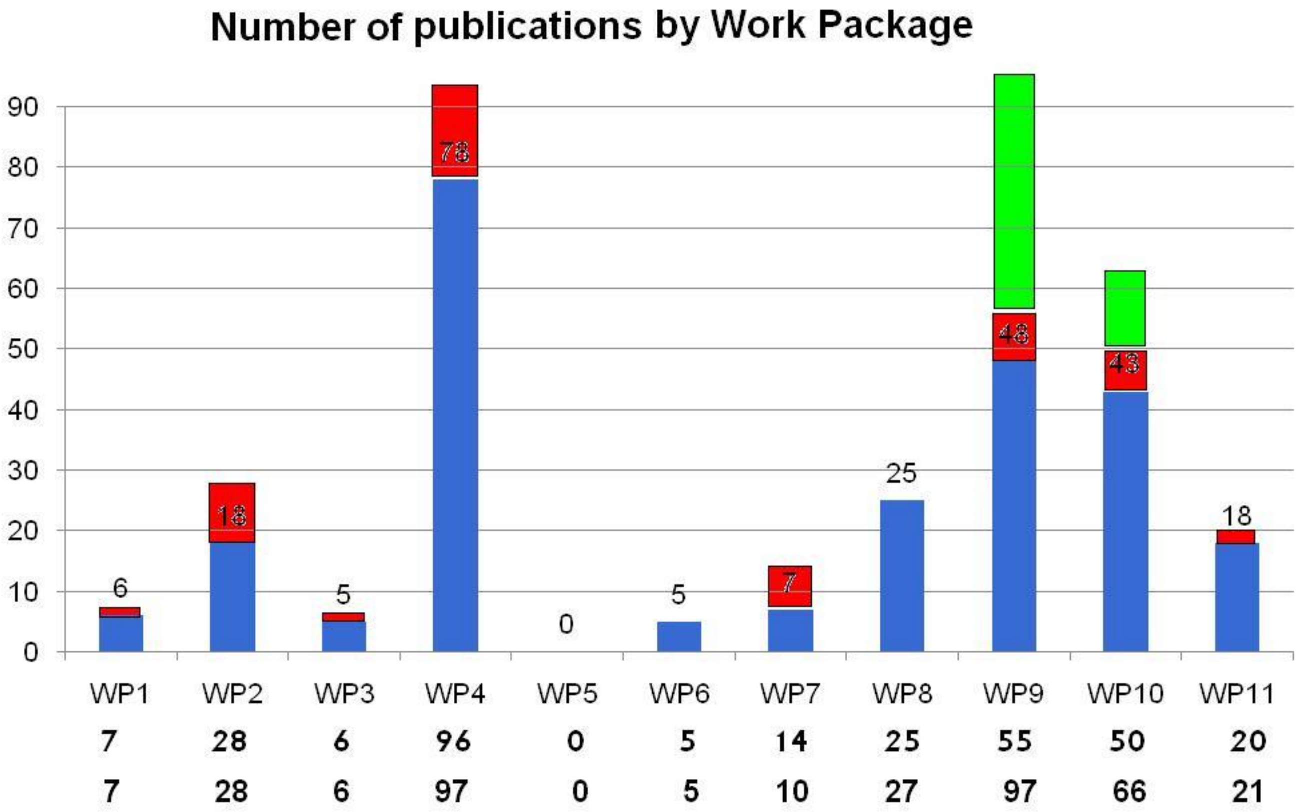
- **Acknowledgement text**
  - Please acknowledge EuCARD in your publication e.g. *Research supported by FP7 EuCARD* *http://cern.ch/eucard*
- **Copyright issues**
  - For copyrighted material e.g. journals
  - Upload an as-final-as-possible preprint to avoid issues

Publication Database (CDS)

Wish list for version 2	Status
New “miscellaneous” category	**Done**
More info in notification emails	**Done**
Allow publications from multiple work packages	**Done**
Link EuCARD publications to those already in CDS	**Foreseen for Period 3** Simple tagging does not fulfill consortium agreement: - Need automatic front page of acknowledgements - Need to send out automatic approval emails For now submit file copy/pasting details & CDS report number, library then automatically notified to merge 2 CDS entries

Publications: Statistics

- 357 in publication database (24/04/12), was 306 (01/12/11) and 245 (31/03/11)



WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP10	WP11
7	28	6	96	0	5	14	25	55	50	20
7	28	6	97	0	5	10	27	97	66	21

- Red = increase since annual meeting (presented in Dec Steering Committee)
- Green = increase since Dec Steering Committee

Publications: Statistics

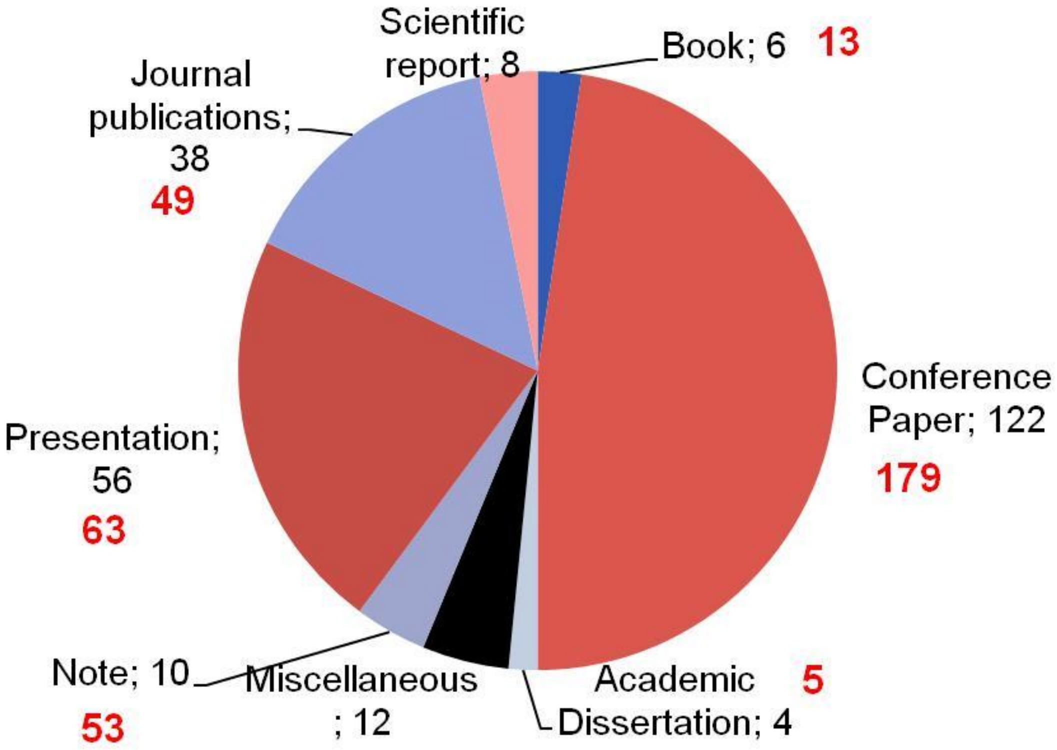
Publications and presentations (12/4/2012)

	M12	M24	M36	
Conf. papers	40	135	179	***+44***
Presentations	…	60	63	***+3***
Journal publications	19	38	49	***+11***
Notes, reports, other	…	36	53	***+17***
Academic	2	4	5	***+1***
Books	…	…	13	
TOTAL	77	273	362	***+89***

(in CARE, 70 publications per year on average)

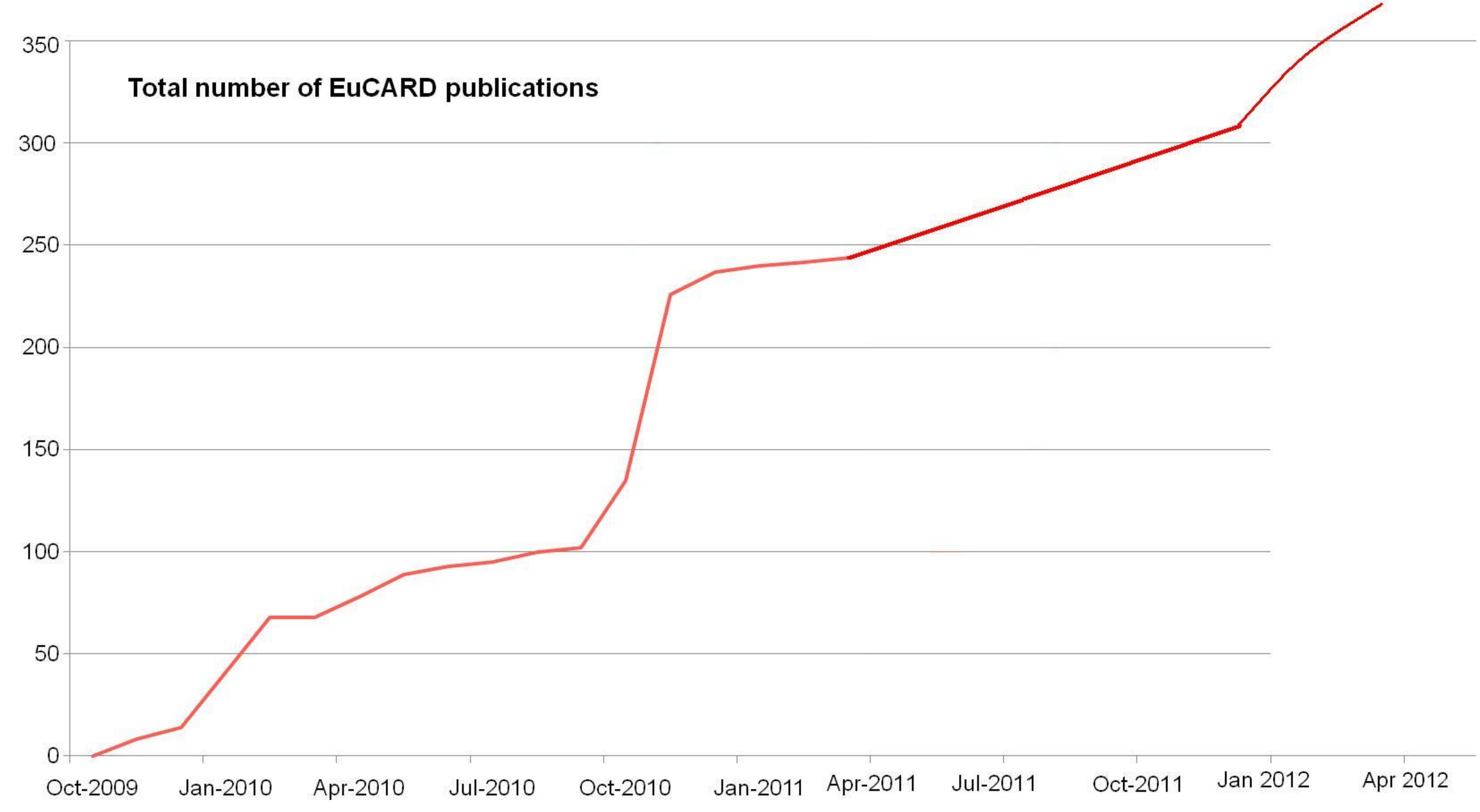
Publications: Statistics

EuCARD publications by type: (12/04/2011) and (24.04.2012)



- **All types of document produced are encouraged to be submitted**

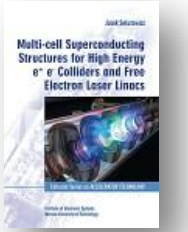
Publications: Statistics



Monographs

EuCARD Series: 13 volumes published

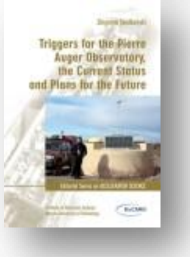
- **Vol.1.** J.Sekutowicz, *Multi-cell Superconducting Structures for High-Energy e+e- Colliders & Free Electron Laser Linacs*
- **Vol.2.** K.Pozniak, *TRIDAQ Detector Systems for High Energy Physics Experiments*
- **Vol.3.** Z.Szadkowski, *Triggers for the Pierre Auger Observatory, the current status and plans for the future*
- **Vol.4.** R.Aleksan, O.Napoly, *Coordinated Accelerator Research in Europe, Summary of Project Achievements*
- **Vol.5.** H.Mais, *Some topics in beam dynamics of storage rings*
- **Vol.6.** G.Sterbini, *An early separation scheme for the LHC luminosity upgrade*
- **Vol.7**. T.Czarski, *Complex envelope control of pulsed accelerating fields in superconducting cavities*
- **Vol.8.** P.Grybos, *Front-end electronics for multichannel semiconductor detector systems*


Multi-cell Superconducting Structures for High Energy e^+e^- Colliders and Free Electron Laser Linacs

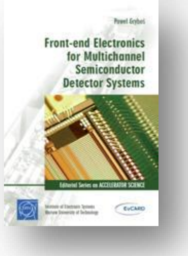

Coordinated Accelerator Research in Europe


Detektorowe systemy pomiarowe typu TRIDAQ w eksperymentach fizyki wysokich energii


Some Topics in Beam Dynamics of Storage Rings


Triggers for the Pierre Auger Observatory, the Current Status and Plans for the Future


An Early Separation Scheme for the LHC Luminosity Upgrade


Front-end Electronics for Multichannel Semiconductor Detector Systems
Editorial Series on ACCELERATOR SCIENCE
EuCARD


Complex Envelope Control of Pulsed Accelerating Fields in Superconducting Cavities
Editorial Series on ACCELERATOR SCIENCE
EuCARD

Monographs

5 published since last annual meeting

- **Vol.9.** V.Khan, *A damped and detuned accelerating structure for main linacs of the compact linear collider*
- **Vol.10.** W.Weingarten, *European infrastructures for R&D and test of superconducting RF cavities and cryo-modules*
- **Vol.11.** G.Kasprowicz, *Determination of beam intensity and position in a particle accelerator*
- **Vol.12.** C. Antoine, *Materials and Surface Aspects in the Development of SRF Niobium Cavities*
- **Vol.13.** M.A. Fraser, *Beam Dynamics Studies of the ISOLDE Post-Accelerator for the High Intensity & Energy Upgrades*

Next volumes foreseen

- **Vol.14.** T. Plawski, *CEBAF LLRF upgrade*
- **Vol.15.** S. Wronka, *Selected aspects of security applications based on electron accelerators*
- **Vol.16.** W.Scandale, "Crystals" in Accelerator technology

We encourage potential authors to contact us

http://cern.ch/EuCARD/activities/communication/booklets/

Vasim Khan
A Damped and Detuned Accelerating Structure for the Main Linacs of the Compact Linear Collider
Editorial Series on ACCELERATOR SCIENCE

Wolfgang Weingarten
European Infrastructures for R&D and Test of Superconducting Radio-Frequency Cavities and Cryo-Modules
Editorial Series on ACCELERATOR SCIENCE

Grzegorz Kasprowicz
Determination of Beam Intensity and Position in a Particle Accelerator
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EuCARD

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Monograph distribution

- **Distribution foreseen to**
  - EuCARD partner libraries
  - Steering Committee members
  - Governing Board members
  - SLAC
  - Fermilab
  - KEK
  - Small quantity at CERN for online requests
- **Planned for Period 3**

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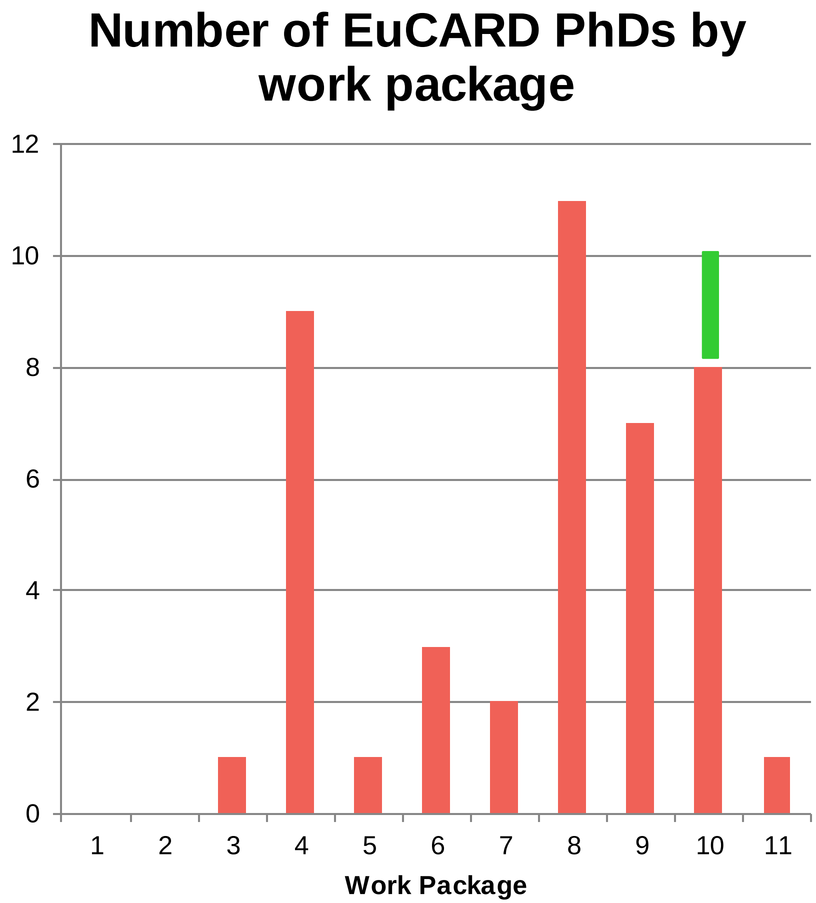
EuCARD PhDs

- We are aware of 45 PhDs being undertaken as part of the project

- PhDs can be added to the list on the intranet https://espace.cern.ch/EuCARD/WP2/Lists/EuCARD%20PhDs/AllItems.aspx

- Please let us know if data is incomplete!



Plans for M37-M48

- **DCO Network**: Work with DCO contacts to enhance flow of information
- **Web site**: Keep events, news and results are up-to-date
- **Newsletter**: Continue extended newsletter
- **Publications**
  - Encourage publications to be submitted into publication database
  - Link EuCARD publications to those already in CDS
- **Monographs**
  - Publish several volumes of EuCARD monographs
  - Distribute monographs
  - Encourage WP coordinators to publish technical results in monographs

WP2 Evaluation

***WP2: Dissemination, Communication & Outreach** (CERN, WUT)*

Evaluation by Project Coordinator

Results	Possible issues or improvements
D&C: **results well beyond contract** O: **modest**	- D&C: **insufficient reference to EuCARD support in publications & presentations; focus and distribution of monographs.** - O: **all partners invited to contribute in Outreach, or inform DCO of their actions.**

Promote your Work Package

- Showcase your work package achievements by:
  - Suggesting articles for ***Accelerating News***
  - Providing images for EuCARD **website**
  - **Acknowledging EuCARD** in your publications
  - **Uploading** scientific publications in **CDS database**
  - Authoring EuCARD **monographs**
  - Informing us of any **outreach** activities you have done
  - Updating **PhD** statistics
- Send material to EuCARD-editor@cern.ch

Any Questions?