

WELCOME ! 1st Topical Workshop

Carsten P. Welsch











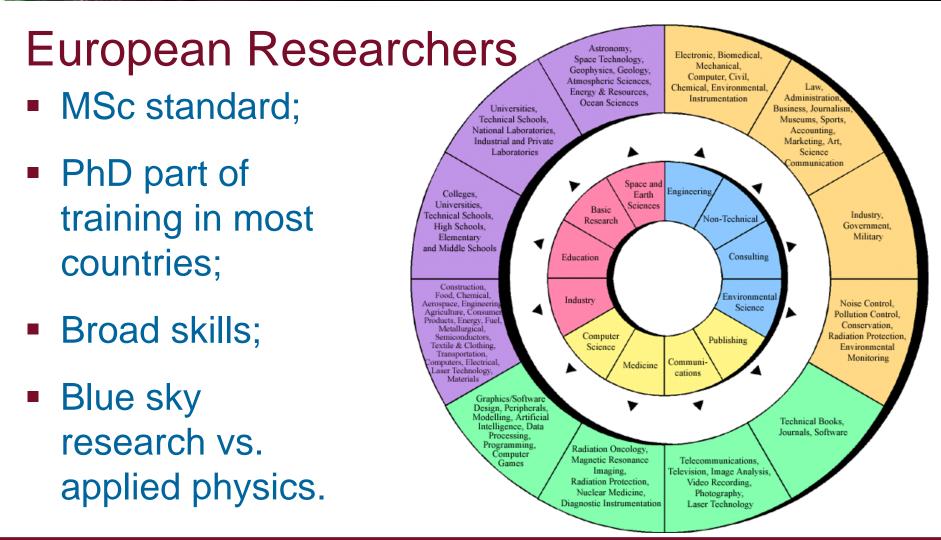
Laser R&D and researcher training within LA³NET

- What is LA³NET ?
 - Motivation
 - The consortium
 - The network's research and training program
- This Topical Workshop
 - Sessions overview
 - Laboratory visits
 - Discussion









LA*NET*

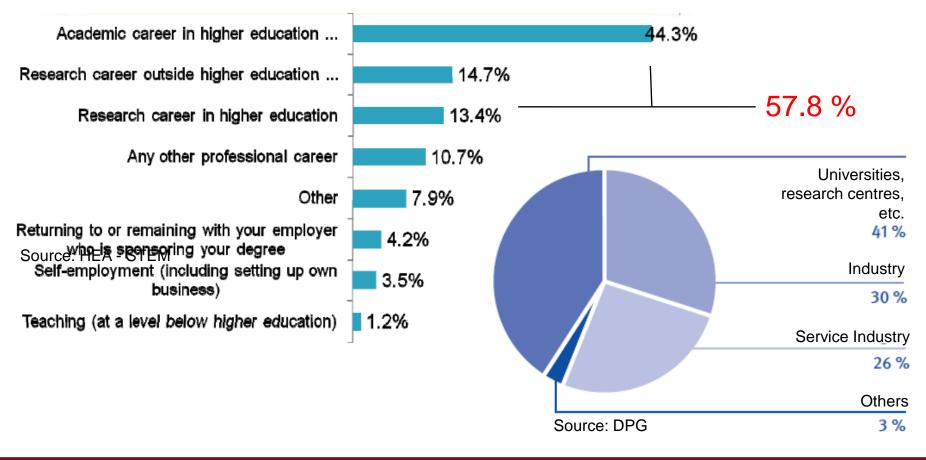






Career – Aspirations and Reality

LANET









,Classic' PhD training in Europe

Focus on academic career path;

LANET

- Scientific papers as key quality indicator;
- Training through (often blue sky) research;
- Very little training in complementary skills researchers often need to be (re)trained on the job;
- Students or researchers ?

Evolution: Initial training networks (ITNs)









Marie Curie ITNs

- Introduced in EU Framework Program 7 4.8 B€ !
- 1996 2010: 50,000 Marie Curie researchers;
- Provides support for early career and experienced researchers (young Postdocs);

<u>Goals</u>

- Improve employability of researchers;
- Better training through demonstrated international mobility;
- Maintain Europe's leadership position in R&D.









LA³NET: Background



A Marie Curie Initial Training <u>NET</u>work >>













Background: DITANET

- Largest-ever EU funded training network in beam instrumentation and diagnostics (4.2 M€);
- Training of researchers (18 ESRs, 3 ERs)
- Gives industry an important role;
- Presently 32 partners (and still growing...)
- Recognized importance of beam diagnostics at European level !

(only 68 from 905 selected - with 11 in physics)

C.P. Welsch, Proc. BIW, IPAC 2011



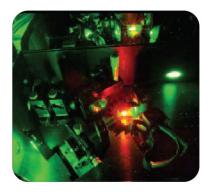






LAser Applications at Accelerators a european <u>NET</u>work

- More than 30,000 accelerators in the world;
- Lasers are becoming increasingly important
 - Beam generation;
 - Acceleration;
 - Characterization.
- Few experts trained in <u>both</u> fields;
- Large scale facilities: International collaboration is key !













The 2011 MC ITN Call

- One of the most competitive (EU) funding schemes.
- A total of 1022 'Outline' Proposals were received
- Proposals were evaluated within 8 "Panels"
 - CHE: 108 proposals
 - LIFE: 285 proposals
 - ENV: 121 proposals
 - ECO: 15 proposals
 - SSH: 72 proposals
 - ENG: 204 proposals
 - MAT: 15 proposals
 - PHY: 99 proposals

LIVERPOOL

Only 84 selected;









What does this mean ?

- Funding for 17 fellows (15 recruited)
- One of the very large Marie Curie networks with a budget of 4.6 M€
- Gives industry an important role in training the next generation of scientists !
- Allows for organizing a (large) number of events.
- Many opportunities to become part !









International Partnership

Beneficiary Partners



+ many new partners are joining us...!!!







Research Program

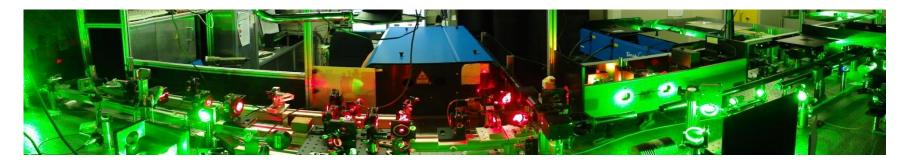
Main areas:

- Particle Sources;
- Particle Beam Acceleration Schemes;

LA*NET*

- Beam Diagnostics;
- System Integration;
- Laser and Photon Detector Technology.













Training

- Local training by host:
- Network-wide events on diagnostic techniques;
- Intra-network exchange of researchers;
- Secondments to partners from industry;
- Training in complementary skills



Motivation: *Ideal* Training.







Workshop overview

Very intense program;

LANET

- State-of-the-art covered;
- Laboratory visit today;
- Collaboration/Grant application discussion tomorrow
- Network, discuss, meet friends !

Leser R&D and Researcher Training within LA*NET	Prof. Carston WELSCh
30-7-018, CERN	09:00 - 09:20
Normel-conducting RF photoinjectors for Free Electron Lesers	Dr. Mark STEPHAN
30-7-018, CERN	09:20 - 10:00
Leser systems for the low emittence injector of the future SwissFEL X-rey source	Dr. Marta DIVAL
30-7-018, CERN	10:00 - 10:20
Coffee Break	
CERN CERN	10:20 - 10:40
Leser ion source of the ISAC/TRIUMP on-line redirective ion beem facility	Dr. Jona LASSE
30-7-018, CERN	10:40 - 11:20
The Alto leaser ion source	Dr. Rushang U stal
30-7-018, CERN	11:20 - 11:40
Development status of GANIL ion source GISELE	Jose Luis HENARES
30-7-018, CBRN	11:40 - 12:10
25%	12:10 - 14:00
CERN Photocathodes for high brightness electron beams	
	Dr. Daniele SERTOR
Photocethodes for high brightness electron beams 20-7-018, CERN	Dr. Daniele SERTOR
Photocathodes for high brightness electron beems 20-7-022, CEAV PhotoInijector ectivities at CERM	Or. Deniele SERTOR 14:00 - 14:41 Dr. Christoph HESSLER
Photocethodes for high brightness electron beems	Dr. Denicis 528709. 14:00 - 14:4 Dr. Christoph M252128 14:40 - 15:01
Photocathodes for high brightness electron beams 20-7-013, CEOV Photoinigetor activities at CERN 30-7-023, CEOV Photocathodes for Rossendorf SRF gun 07-7013, CEOV	Dr. Denizie SERTOR 14:00 - 14:40
Photocethodes for high brightness electron beams 30-7-028, CEAN PhotoInjector activities at CERN 30-7-028, CEAN Photocethodes for Rossandorf SRP gun	Dr. Denicio 557707. 14:00 - 14:44 Dr. Chraboph H255127 14:40 - 13:00 Dr. Rang XXANO
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Photocethodes for high brightness electron beams 20-7-013, CSRV Photoinjector sclivities at CSRN 30-7-013, CSRV Photocethodes for Rossendorf SRP gun 0-7-013, CSRV Coffee Sneak CSRV ConSide Learns and their Applications in Science and Industry 20-7-013, CSRV	Dr. Dawiels 52870A. 14:00 - 14:4 Dr. Christoph H25525 14:40 - 12:0 dr. Rang XXAW 15:00 - 15:3 15:10 - 15:15 Dr. Koming Di
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URL: (http://www.)la3net.eu

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Network Structure Projects Vacancies News Events		LÆNET	
Press Downloads		Upcoming Events	
Dissemination Links Contact EU Project T.E.A.M.		February 20 th -22 nd 2013 1st LAªNET Topical Workshop on Laser Based Particle Sources (<u>1TW</u>)	
Vacancies		March 4 th - 8 th 2013	
APPLICATION DEADLINE: February 28 th 2013	HZDR	EU Science: Global Challenges, Global Collaboration (<u>ES:GC2</u>) March 14 th -15 th 2013	
News	The exploitation of LAsers for Applications at Accelerator facilities for ion beam generation, acceleration and diagnostics is the goal of the new	'Pushing the ELBE CW RF-system to high average beam current'	
16/02/2013	NET work (LA ³ NET) within the FP7 Marie Curie Initial Training Network (ITN) scheme.	workshop	











- A lump sum of 1 k€ to a scientist in the first five years of his/her career.
- Awarded annually.

Deadline for nominations: 30.6.2013











Final Remarks

Collaboration and knowledge exchange key to research success !

Network. Discuss with other participants !

Enjoy this event !



