



CLUSTER OF RESEARCH INFRASTRUCTURES
FOR SYNERGIES IN PHYSICS



CRISP

Cluster of Research Infrastructures for Synergies in Physics

www.crisp-fp7.eu

Michael Krisch
European Synchrotron Radiation Facility
Grenoble, France



Outline of the presentation

Mission and Scope of CRISP

Participating Research Infrastructures and Partners

CRISP and Industry Relations

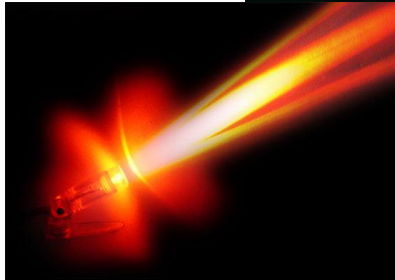
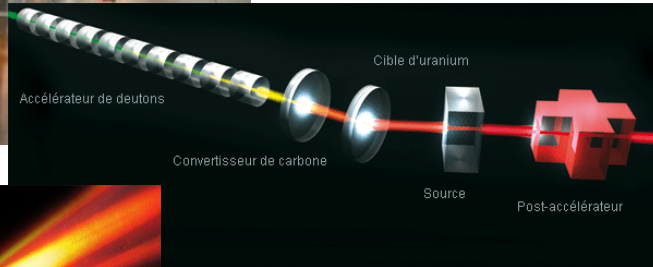


FP7 Capacities - Research Infrastructures

Social Sc. & Hum. (5)	Life Sciences (10)		Environmental Sciences (10)		Material and Analytical Facilities (6)	Physics and Astronomy (11)		Energy (4)	e-Infra-structures (1)
SHARE	BBMRI	ELIXIR	ICOS	EURO-ARG	EUROFEL	ELI	TIARA	ECCSEL	PRACE
European Social Survey	ECRIN	INFRA FRONTIER	LIFEWATCH	IAGOS	EMFL	PRINS	CTA	JHR	
CESSDA	INSTRUCT	EATRIS	EMSO	EPOS	European XFEL	SPIRAL	SKA	IFMIF	
CLARIN	EU-OPEN SCREEN	EMBRC	SIAEOS	EISCAT_3D	ESRF Upg	E-ELT	FAIR	HiPER	
DARIAH	Euro BioImaging	ERINHA BSL4 Lab	COPAL	AURORA BOREAL	NEUTRON ESS	KM3NeT	ILC-HIGRADE		
					ILL20/20 Upg	SLHC			



Physics



Astronomy



Analytical facilities





Objectives

Build up **collaborations** and create **long-term synergies**

Facilitate the implementation and enhance the efficiency and attractiveness of the (future) RIs

Harmonisation, cost-efficiency and interoperability



11 Research Infrastructures





17 Partners





The European Organization for Nuclear Research



- Large Hadron Collider Upgrade
- 10-fold increase in luminosity at 14 TeV
- Upgrade of Atlas and CMS detectors
- timeline 2013 - 2018

European Synchrotron Radiation Facility



- Storage ring upgrade
- 8 completely new experimental facilities
- New enabling technologies & infrastructures
- timeline 2009 – 2015 (2019)



Institut Laue-Langevin



- ILL Millenium programme
- 11 new or upgraded instruments
- enabling technologies (guides, detectors, ..)
- timeline (2007 – 2012), 2013 – 2017



Facility for Antiproton and Ion Research

- Upgrade of GSI (Darmstadt, D)
- 10 partner countries
- start of construction: 2011
- start of operation: 2018



Accelerator complex for heavy ions

- Upgrade of Ganil (Caen, F)
- Partners in 13 countries
- start of construction: 2011
- start of operation: 2013 (2016)



EUROPEAN
SPALLATION
SOURCE

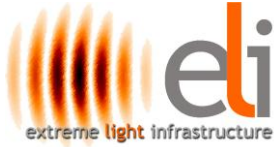
European Spallation Source

- Lund (Sweden)
- 17 partner countries
- start of construction: 2014
- start of operation: 2019 (2025)



European X-Ray Free-Electron Laser Facility

- Hamburg (D)
- 8 partner countries
- start of construction: 2009
- start of operation: 2016



Extreme Light infrastructure

- Facilities in Czech Republic, Hungary & Romania
- 13 partner countries
- start of construction: 2011
- start of operation: 2016



Free electron lasers for Europe

- Facilities in Hamburg (D), Frascati (I), Villigen (CH), Lund (Sweden)
- more under design/construction
- FLASH (D) and FERMI (I) operational
- SwissFEL (CH): start of operation 2017



International Linear Collider

- Global project
- Technical Design Report completed in 2013
- start of construction: > 201?
- start of operation: > 201(?+7)

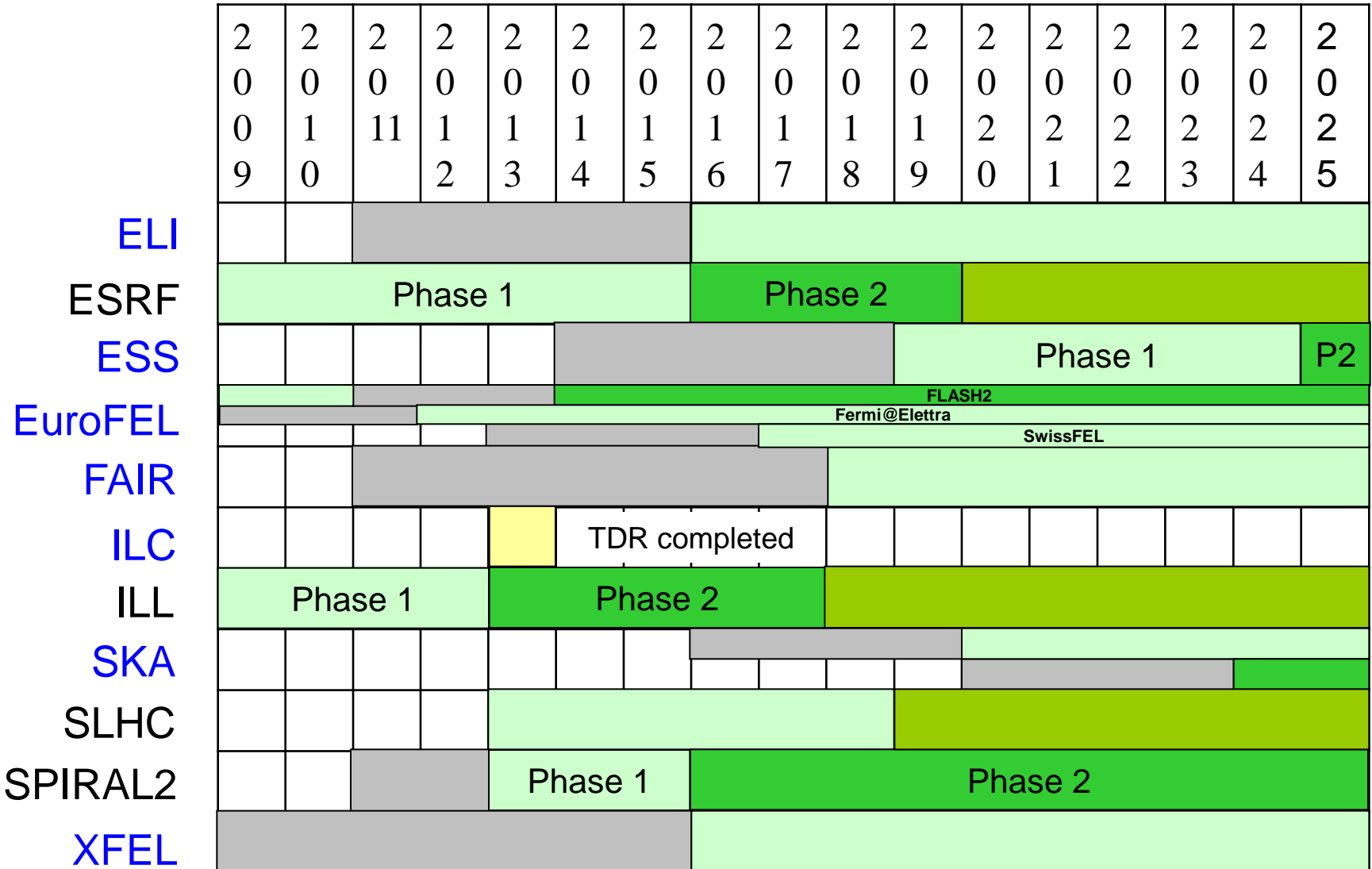


Square Kilometre Array Telescope

- Global project, sites in Australia and South Africa
- 11 partner countries
- start of construction: 2016 (2020)
- start of operation: 2020 (2024)

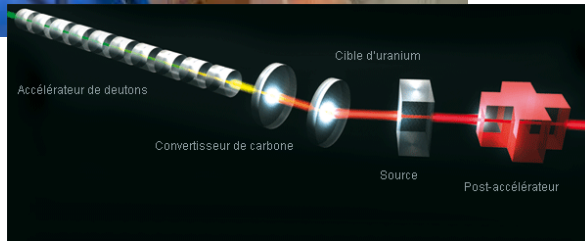


Overview of timelines





Accelerators



Instruments & Experiments



Detectors & Data Acquisition



IT & Data Management





Participating projects

	ELI	ESRF	ESS	EuroFEL	FAIR	ILC	ILL	SKA	SLHC	SPIRAL2	XFEL
Accelerators											
Instr & Exp											
Det & DAQ											
IT & DM											

IT & Data Management





CRISP & the other three cluster projects

BioMedBridges

Building data bridges between biological and medical infrastructures in Europe

DASISH

Data Service Infrastructure for the Social Sciences and Humanities

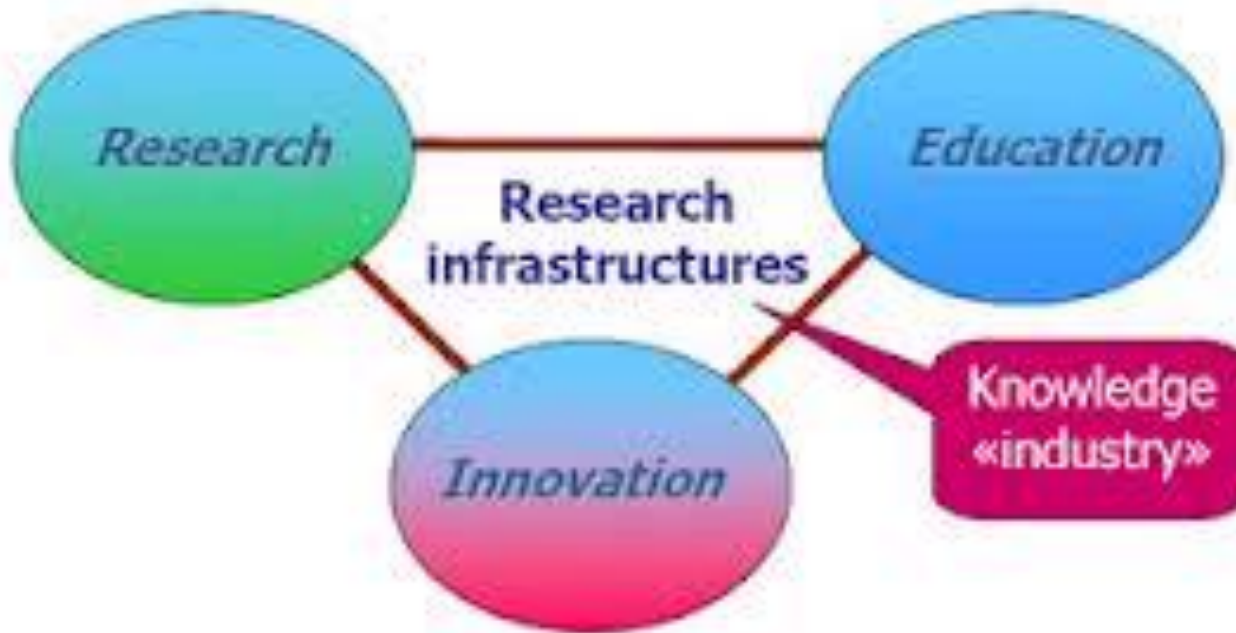
ENVRI

Common Operations of Environmental Research Infrastructures



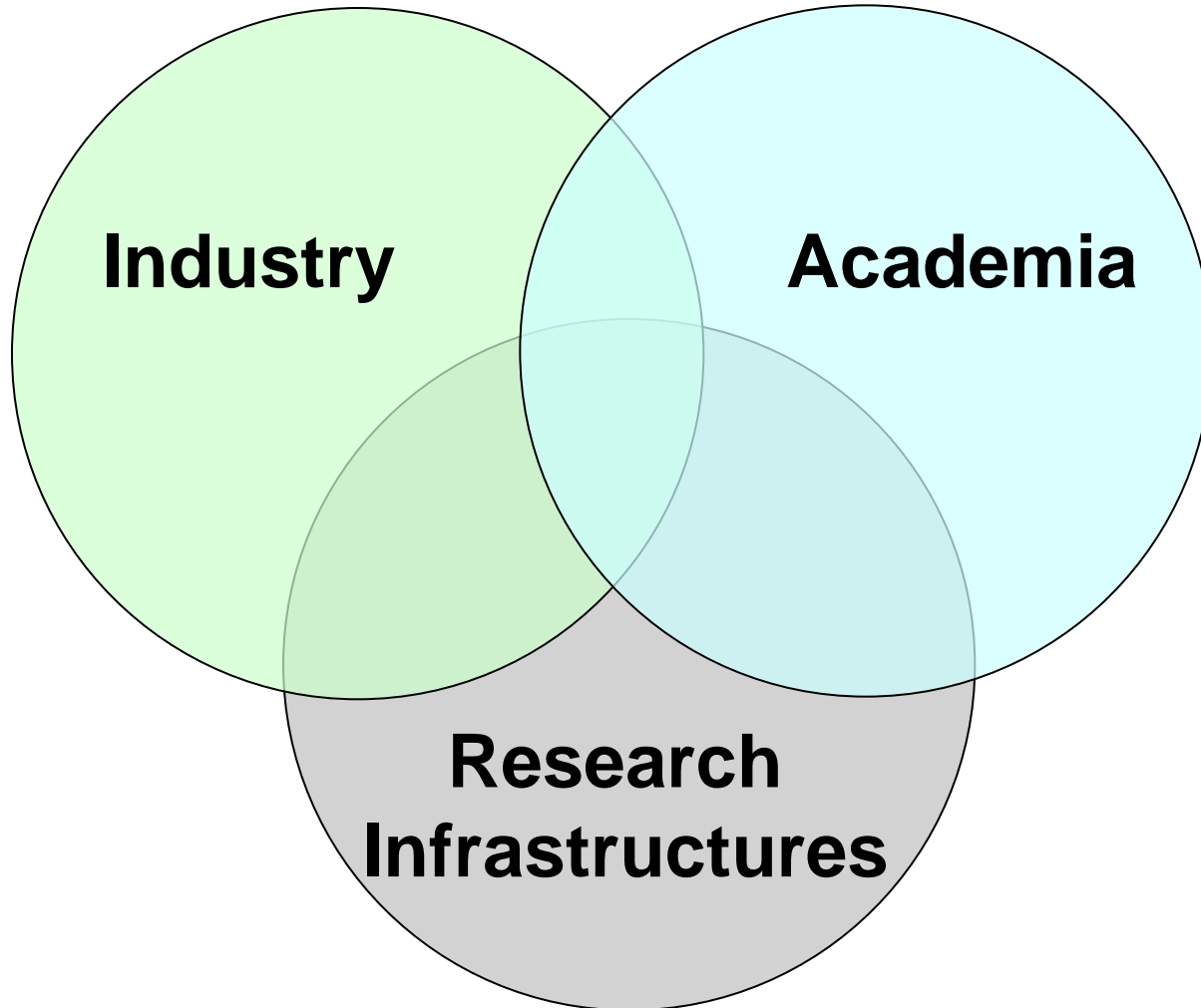
Research Infrastructures & Industry Relations

The ESFRI Knowledge Triangle





RIs & Industry Relations





RIs & Industry Relations

- Industry as supplier: top level hard- and software,...
- Industry as beneficiary: technology transfer
- Industry as user: pay for access and service at RI
 - pharma, automotive, micro-electronics,...
- Industry as partner: **Co-Innovation**
 - with experts at the RIs
 - with Academia
 - with RIs **and** Academia



CRISP & Industry

- Bring together different RI communities to work together with Industry
- Develop strategies and roadmaps to strengthen collaborations with industry



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Thank you for your attention!