Status of deliverables

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Contents of our two upcoming deliverables

Compact

D4.2:

A design report of the optimized RF unit. Based on the parameters emerging from the facility optimization, the design of the RF unit will be established at the component level and described in a report.

Objective:

Present the baseline design of the RF module with all the components. Describe the design process and optimization with results (parameter scans for example). Illustrate the integration in the baseline design and extended variants. Summary of other development in close relation to the RF system of the XLS.

Main sections:

- RF module
- Vacuum system
- Magnets
- System integration

- Other specialized RF hardware and systems:
  - 36 GHz linearizer
  - Sub-harmonic deflector
  - C-band accelerating module ? WP4 or WP3?
  - Wakefield monitors ?

- Industrialization

D4.3:

A report on the design and fabrication procedure, optimized for series industrial production, of the accelerating structure that is an important cost driver for the facility.

Objective:

This report of the accelerating cavity for the baseline design should serve as a template for industrial production

Main sections:

- Electromagnetic design
- Mechanical and thermal design
- Industrialization

Current status

RF module	Vacuum System	Magnets	System integration	Specialized RF hardware in other systems	Industrialization
Accelerating Structure	Vacuum components	Focusing	Module configuration: low-, medium- and high energy version	Higher Harmonic Linearizer System	Production process
RF power		Steering	Support and Alignment System	Sub-harmonic deflector	Industrial capacity
LLRF & Timing					

Deliverable D4.3 Accelerating structure design and fabrication procedure - Current status

Electromagnetic design	Mechanical and Thermal design	Industrialization
EM design & optimization of the regular cell	Mechanical design of the RF structure	Feasibility for mass production
Iris tapering	Cooling optimization with thermal study	Production process
RF breakdown consideration		Capacity
Wakefield simulations		
Coupler design		

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Thank you!

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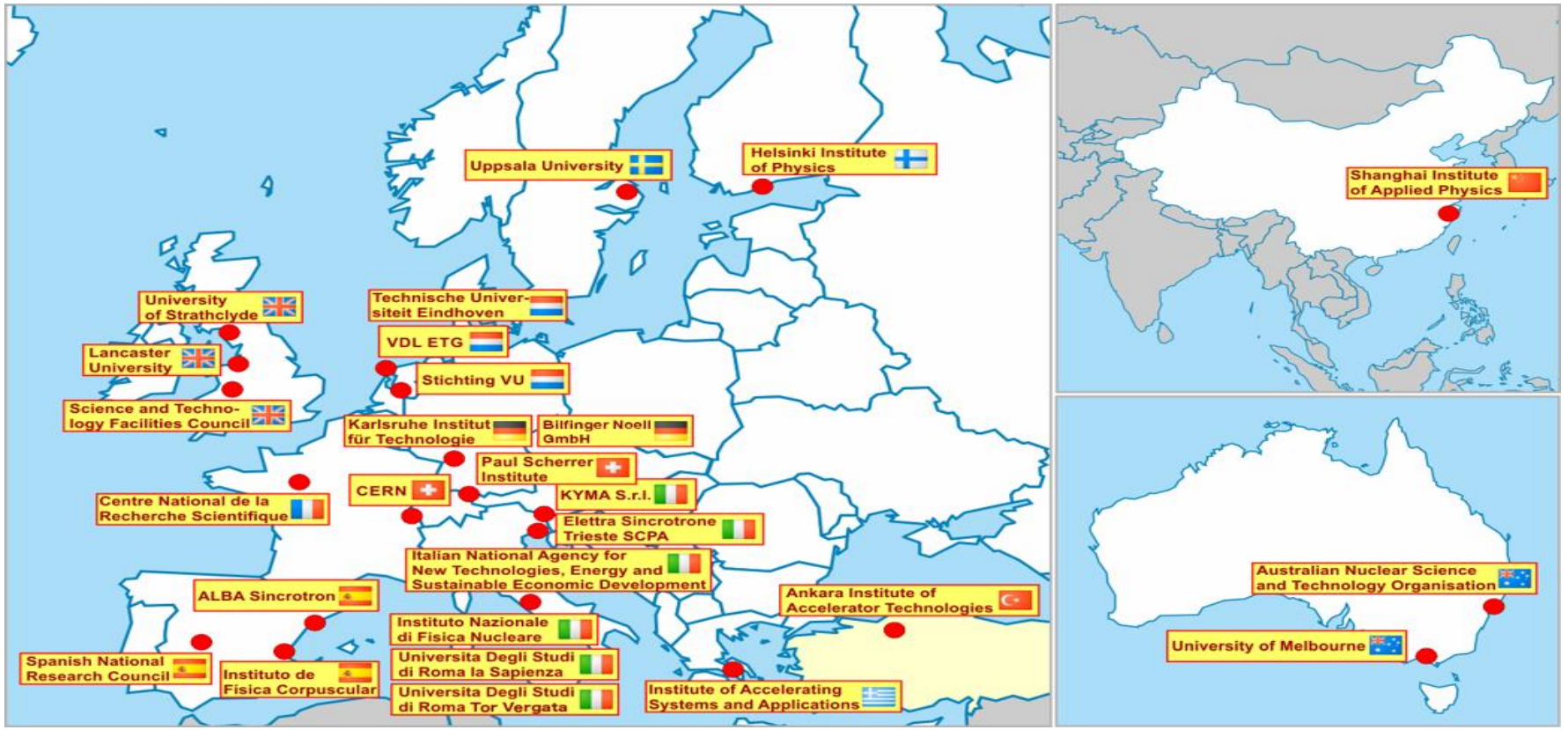

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