



# CompactLight WP1-WP7 Meeting

## Communication, Exploitation and Cost Analyses

ARCNL Amsterdam, Science Park 106, 14-15 October 2019





Deliv.	Deliverable name	WP Lead part.	Type Del. date	
D1.1	CompactLight Public Website.	WP1-ST	DEC-PU-M3	20
D1.2	Data Management Plan	WP1-ST	ORDP-PU-M6	
D2.1	Report providing users requirements and FEL performance specification.	WP2-STFC	R-PU-M12	8
D3.1	Evaluation report of the optimum e-gun and injector solution for the XLS CDR.	WP3-INFN	R-PU-M18	
D3.2	A review report on the bunch compression techniques and phase space linearization	WP3-INFN	R-PU-M18	20
D4.1	Computer code report for RF power unit design and cost optimization.	WP4-CERN	R-PU-M18	
D5.1	A review report comparing the different technologies for the CompactLight undulator.	WP5-ENEA	R-PU-M18	19
D6.1	Review report on the most advanced computer codes for the facility design	WP6-UAIAT	R-PU-M18	
D2.2	Report summarizing the FEL design with accelerator and undulator requirements.	WP2-STFC	R-PU-M24	20
D7.1	Mid-term report with CompactLight global integration and cost analysis	WP7-ST	R-PU-M24	
D3.3	Design report of the injector diagnostics/beam manipulations based on a X-band cavities	WP3-INFN	R-PU-M36	20
D3.4	E-gun and injector Design Report with diagnostics and phase space linearizer	WP3-INFN	R-PU-M36	
D4.2	Design report of the optimized RF unit	WP4-CERN	R-PU-M36	20
D4.3	Report on RF unit design and fabrication procedure	WP4-CERN	R-PU-M36	
D5.2	Conceptual Design Report of the undulator	WP5-ENEA	R-PU-M36	20
D6.2	Final report with start to end facility simulations	WP6-UAIAT	R-PU-M36	
D7.2	Final report with CompactLight global integration analysis, services and cost.	WP7-ST	R-PU-M36	20
D2.3	Hard X-ray FEL Conceptual Design Report.	WP2-STFC	R-PU-M36	
D1.2	Production of a short monograph summarizing the Conceptual Design Report.	WP1-ST	R-PU-M36	

31 Dec. 2019



Participant	WP1	WP7	Total Person-Month
1 - ST	15	11	26
2 - CERN	2	2	4
3 - STFC	2	1	3
5 - IASA	2	1	3
7 - UoM	2	2	4
8 - ANSTO	2	0	2
9 - UA-IAT	2	1	3
11 – VDL ETG	0	2	2
13 - INFN	2	1	3
14 - Kyma	0	2	2
16 - ENEA	2	1	3
17 - ALBA-CELLS	1	1	2
23 - VU	0	2	2
<b>Total Person-Months</b>	<b>32</b>	<b>27</b>	<b>59</b>

- WP7 will address strategic issues related to the impact and benefits that CompactLight will bring to the XFEL communities.
- The results of this work package will be reports that funding agencies and policy makers can use in the decision-making process for the realization of new research infrastructures or the upgrade of existing facilities.



We need to gather the user demands on FELs and the needs from European laboratories in the near and mid-term future, to address integration plans for new accelerator-based research Infrastructures both at the European level and worldwide.



- **Task 7.1** - Global integration of CompactLight for new Research Infrastructures at European level and Worldwide.
- **Task 7.2** - Research services to be provided at international level.
- **Task 7.3** - Preliminary estimation of construction and operation costs.

Deliverables:

**D7.1 - Mid-term report providing CompactLight global integration strategies and cost analysis (R, PU, M24)..**

D7.2 - Final report giving an overview of the integration process, services and a preliminary cost estimate, (R, PU, M36).

Development of a PBS  
(C. Rossi)



The screenshot shows a software interface with a tree view on the left and a table on the right. The tree view shows a hierarchy starting with 'CompactLight (XLS)' and sub-items for various work packages (WP1-WP7) and a final 'PBS and Specifications' item. The table on the right, titled 'Projects (9)', lists the following data:

Id	Name	Eq code
<input type="checkbox"/>	CERN-0000190942	XLS - General
<input type="checkbox"/>	CERN-0000190943	XLS - WP1 - Project management and Technical Co...
<input type="checkbox"/>	CERN-0000190944	XLS - WP2 - FEL Science Requirements and Facilit...
<input type="checkbox"/>	CERN-0000190945	XLS - WP3 - Gun and Injector
<input type="checkbox"/>	CERN-0000190946	XLS - WP4 - RF system
<input type="checkbox"/>	CERN-0000190947	XLS - WP5 - Undulators and light pr...
<input type="checkbox"/>	CERN-0000190948	XLS - WP6 - Beam dynamics and st...
<input type="checkbox"/>	CERN-0000190949	XLS - WP7 - Global integration with ...
<input type="checkbox"/>	CERN-0000190918	XLS - PBS and Specifications

- Gather information from WPs Leaders
  - Machine layout, conventional services, building....
- Gather financial records and information to evaluate XLS costs
  - SwissFEL, X-FEL (for comparison).



In parallel: start analysis and survey for the XLS integration as new Research Infrastructures at European level:



gather the user demands on FELs and the needs from European laboratories in the near and mid-term future, to address integration plans of the X-band technology for new accelerator-based research Infrastructures both at the European level and worldwide.



# Thank you!

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