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Compact 



***Federico Nguyen – ENEA
On behalf of the WP5 Group***

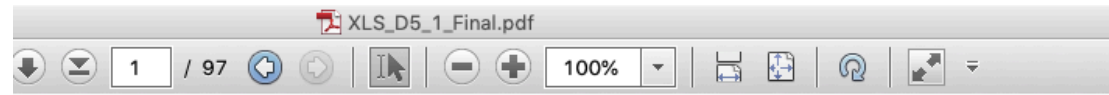
CompactLight Midterm Review Meeting – Helsinki, July 2nd 2019



Yes: it's almost 100
pages!

Definitely
comprehensive an
overview: details
are in there!

Very many thanks
everyone!



XLS Deliverable D5.1

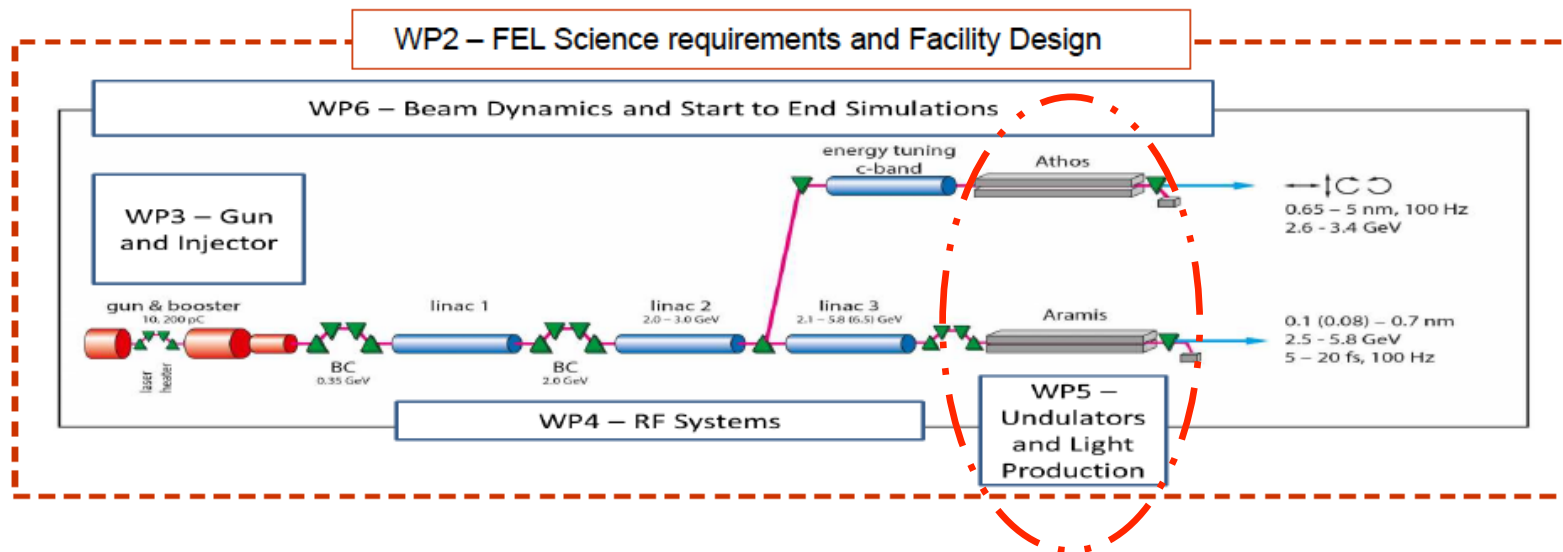
Technologies for the CompactLight undulator

F. Nguyen^{1)*}, A. Aksoy[†], A. Bernhard[‡], M. Calvi[§], J.
A. Clarke[¶], H. M. Castañeda Cortés[¶], A. W. Cross^{||},
G. Dattoli^{*}, D. Dunning[¶], R. Geometrante^{**},
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J. Marcos^{††}, Z. Nergiz^{*}, F. Perez^{††}, A. Petralia^{*}, S.
C. Richter^{‡, ‡‡}, T. Schmidt[§], D. Schoerling^{‡‡},
N. Thompson[¶], K. Zhang[§], L. Zhang^{||}, D. Zhu^{***}



The document organisation can be based on the XLS machine layout and arranged in a multi-level structure, in the form of a Project Breakdown Structure (PBS)

From Carlo Rossi, Yesterday



We have to provide inputs here



As document repository we propose
CERN's Engineering Data Management

- XLS - PBS and Specifications
 - 01 - Electron Source
 - 02 - Linac1
 - 03 - Linac2 and Linac3
 - 04 - Bunch Compressors 1 and 2
 - 05 - Kicker and Spreader
 - 06 - FEL1 and FEL2
 - 07 - Beam Dumps
 - 08 - Machine Control and Protection
 - 09 - Infrastructure and Services
 - 10 - Access Control and Safety

We have to fill in together with C. Rossi and with WP2 → photon beamlines (see V. Goryashko)

From Carlo Rossi, Yesterday



WP5 activity plan within 18 months ahead of us towards D5.2

- Very innovative undulator technologies are in place and have been described
- Full description possibly available coming from RADIA or OPERA studies
- Most promising or representative CompactLight electron bunches described as 6D distributions available, too
- To-do's related to the undulators: a technology risk model and some tolerance studies (featuring matching+FODO optimization, deteriorating effects) on the FEL performance

Please, stay FEL-tuned



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Thank you!

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