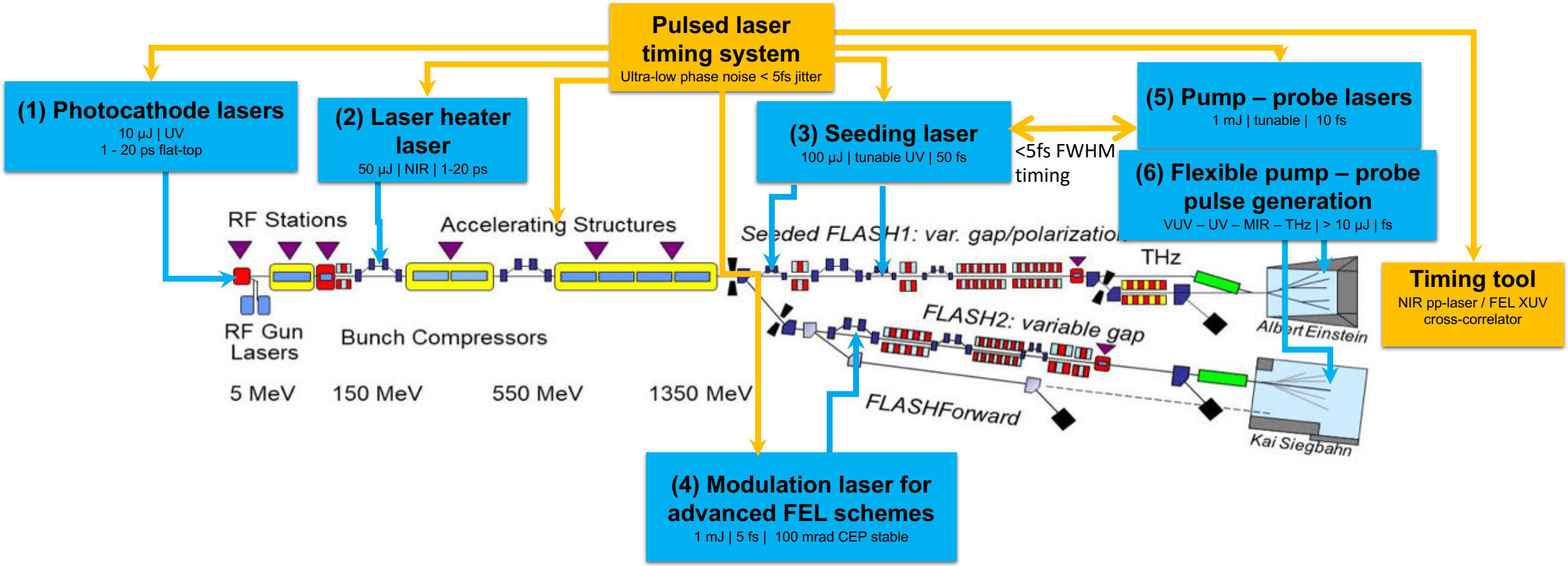
FLASH 2020+

Lasers

Ingmar Hartl
July 3, 2020

FLASH 2020+ laser upgrades



FLASH 2020+ laser upgrades

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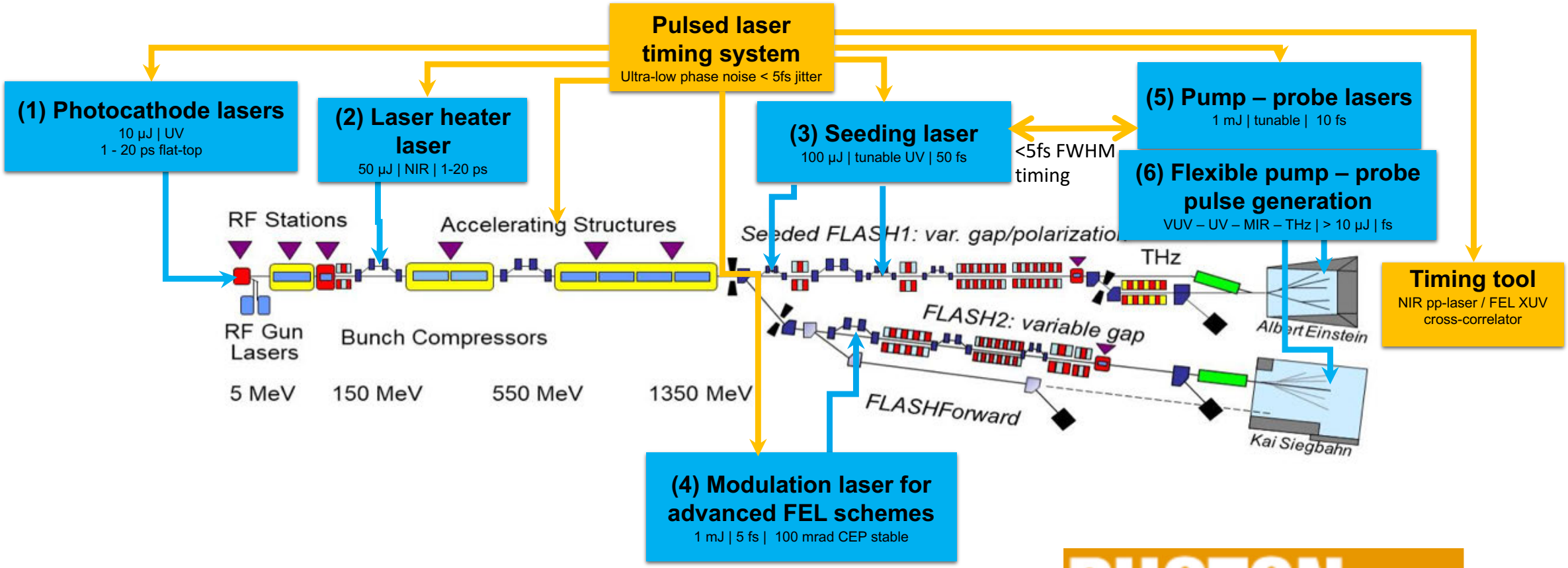
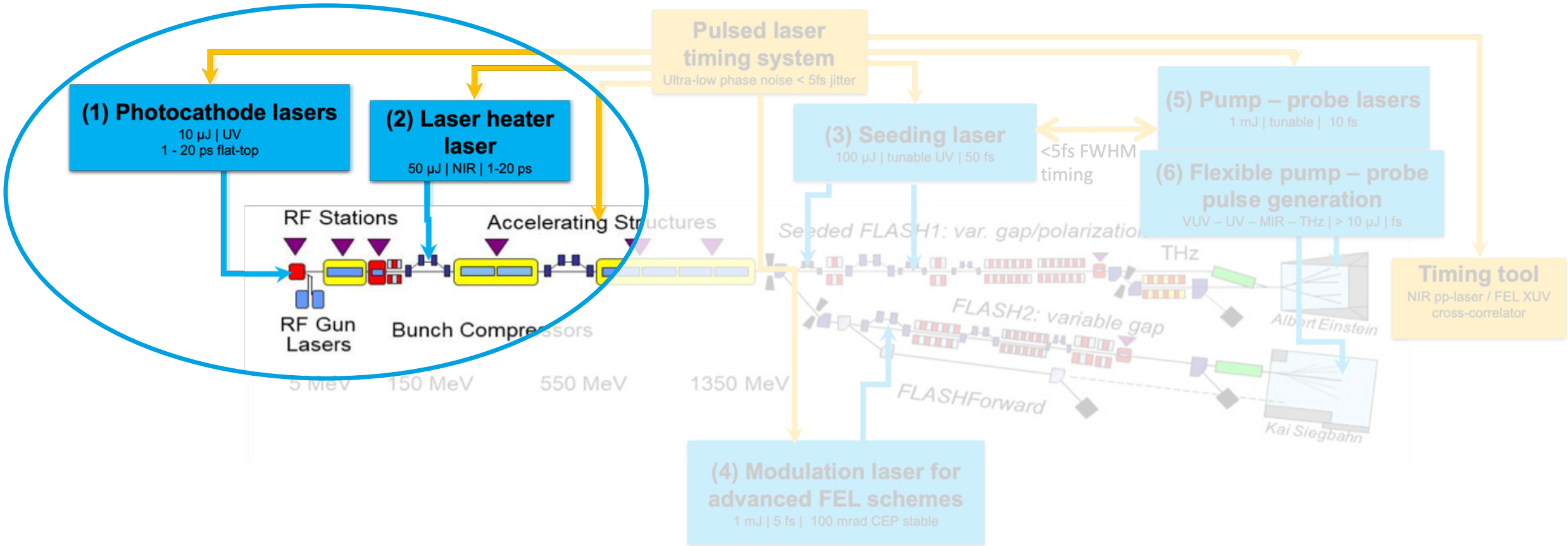


M-DIVISION
Accelerator-Division at DESY

PHOTON SCIENCE
DESY generates pulses of brilliant light for deeper insight.

Photocathode lasers

FLASH 2020+



Photocathode lasers

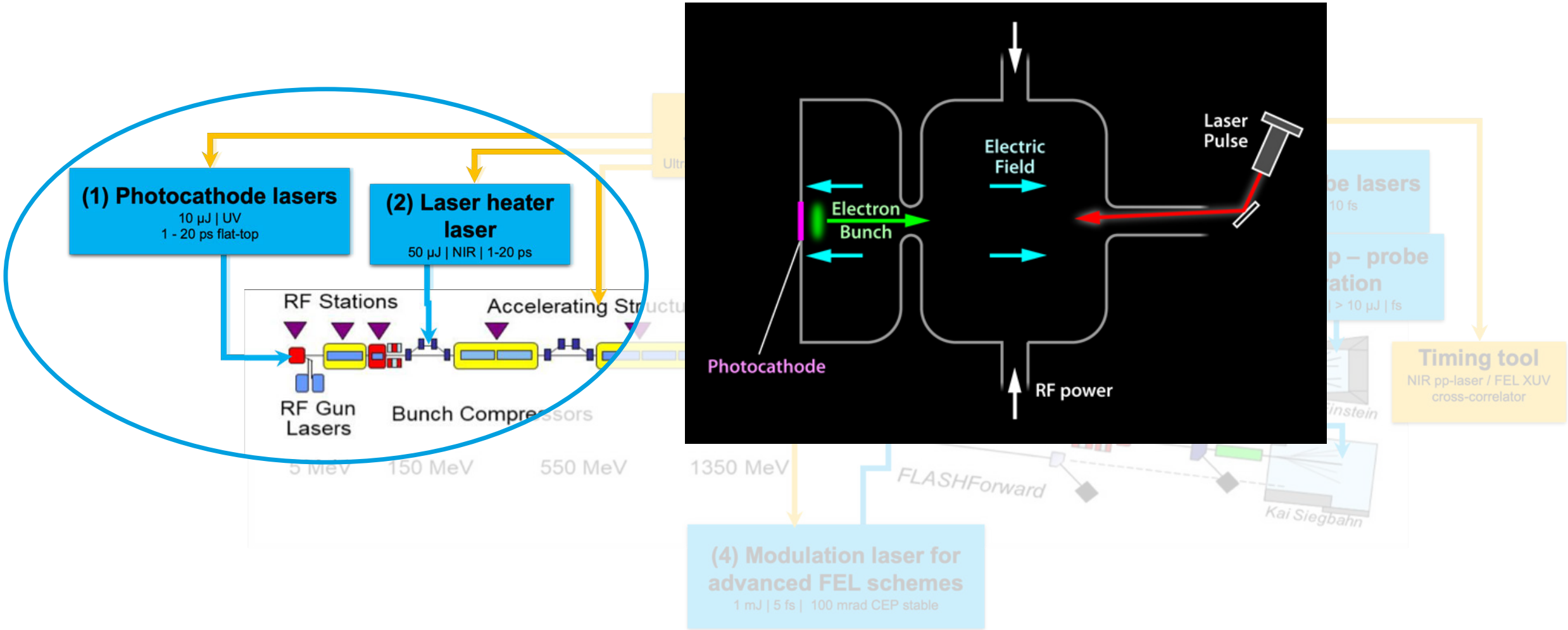
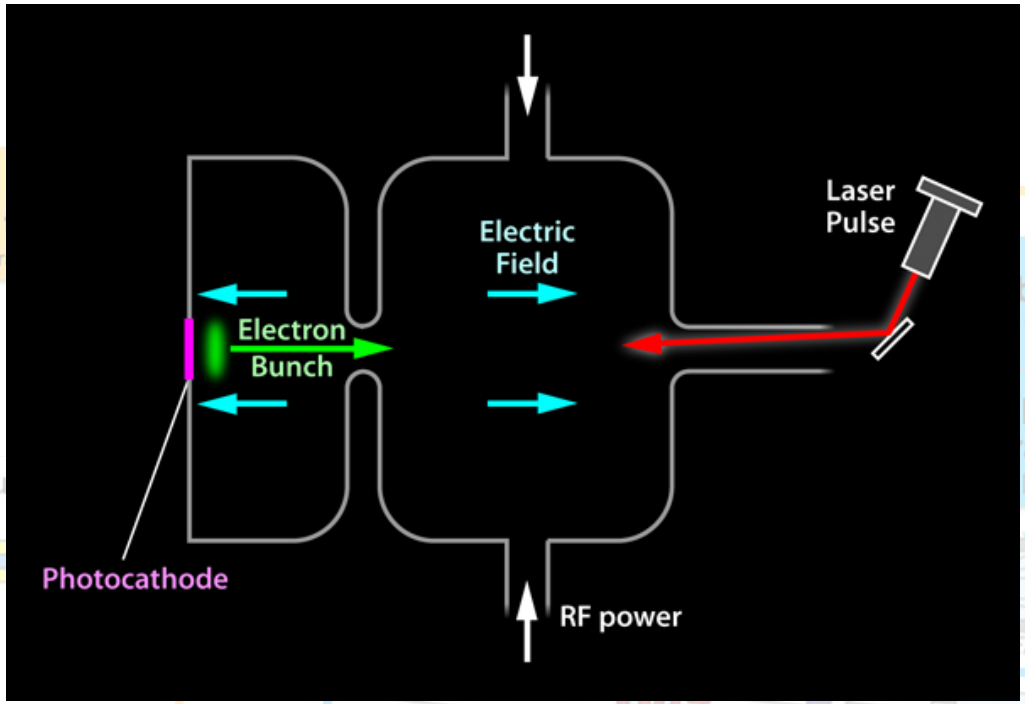
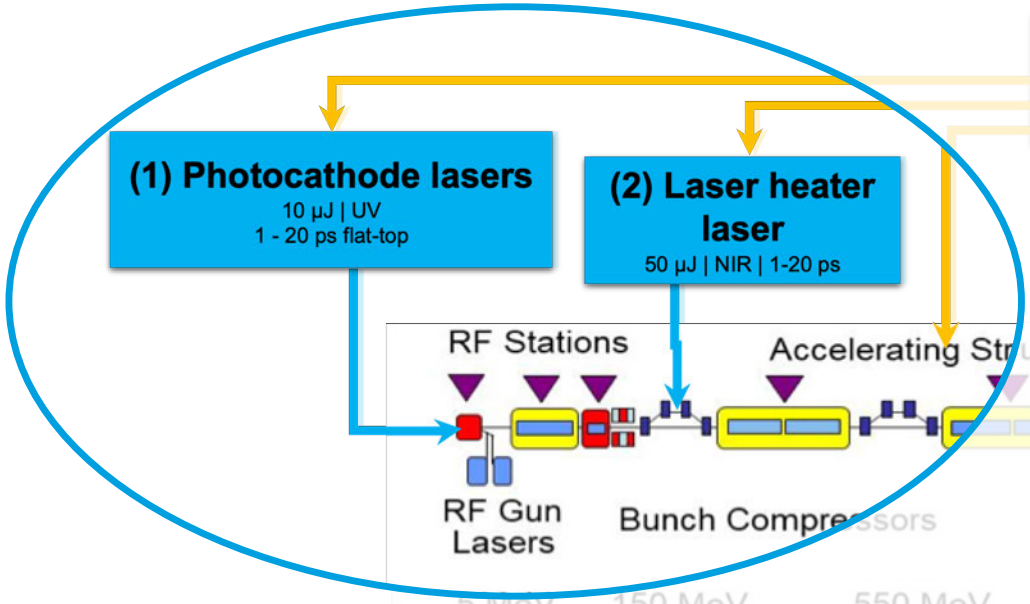


Photo: Dirk Nölle

Photocathode lasers

New: Flexible pulse shape





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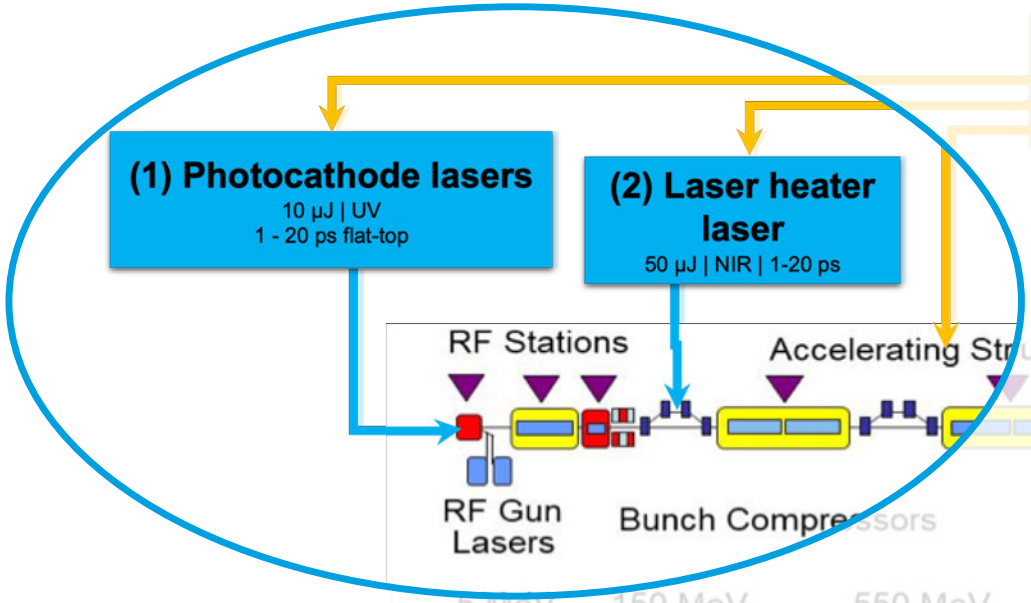

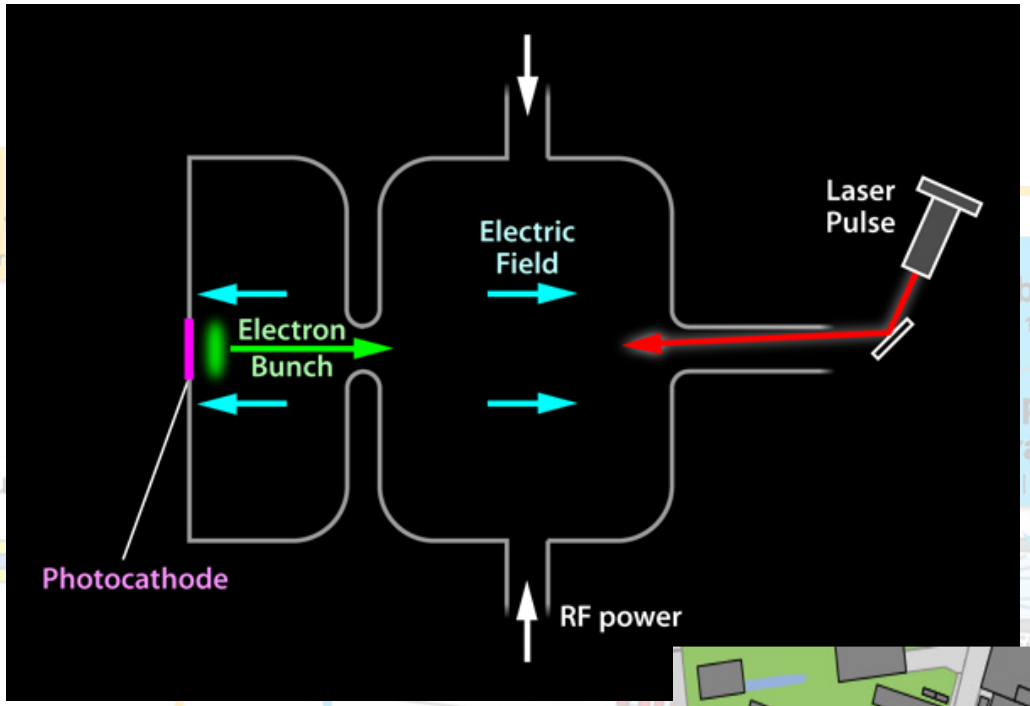

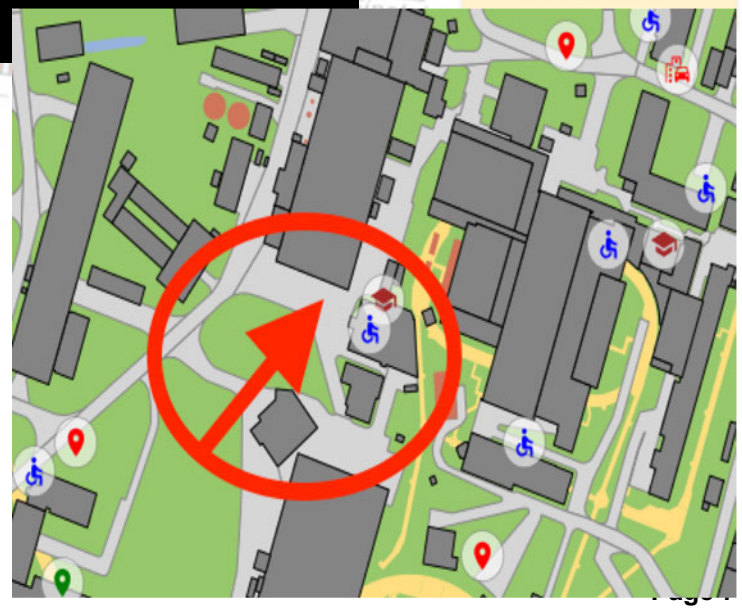

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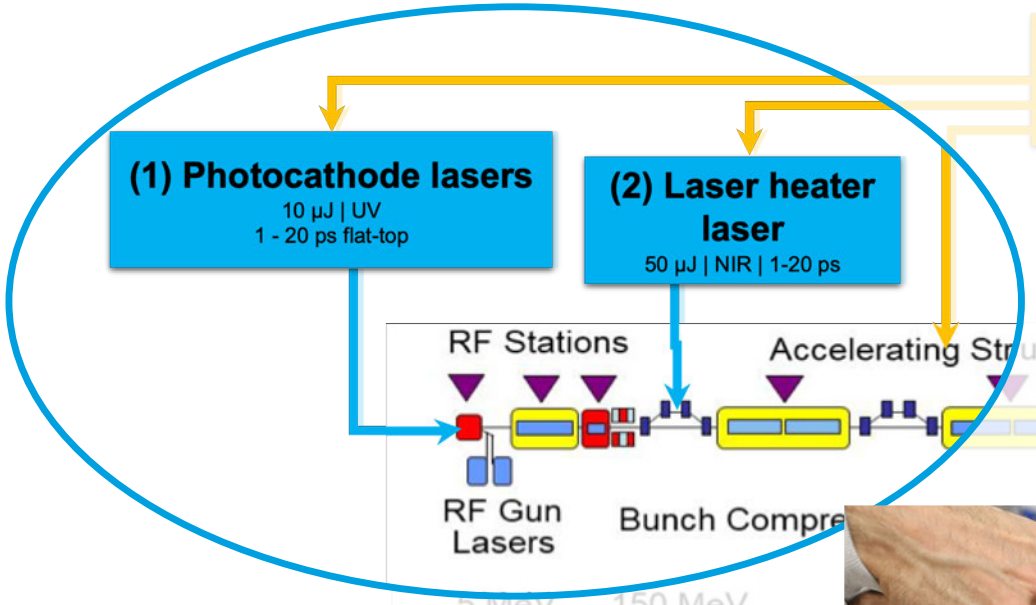
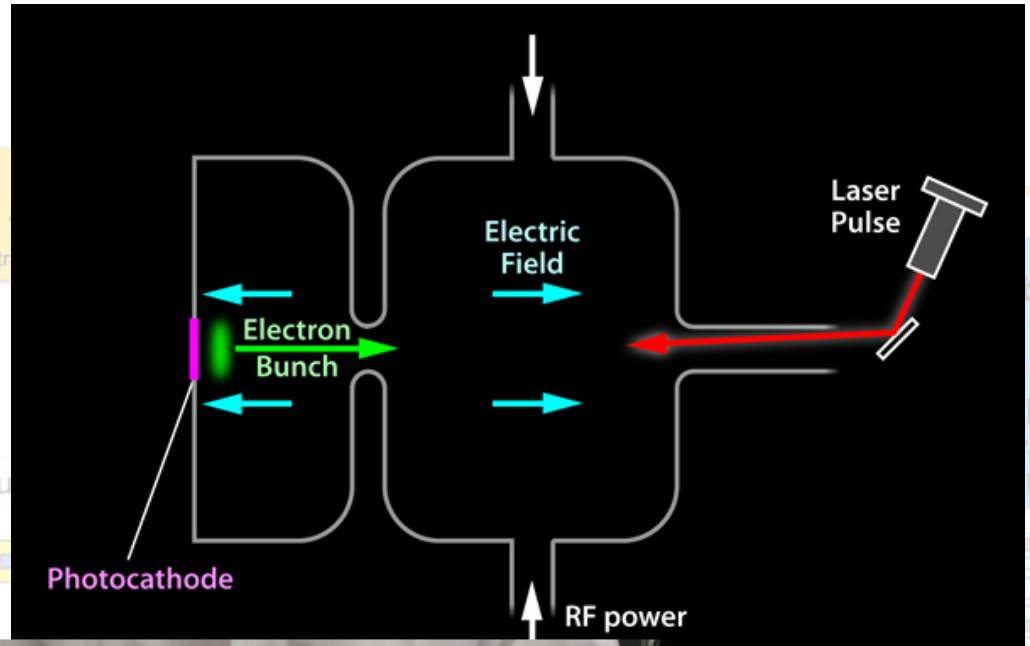




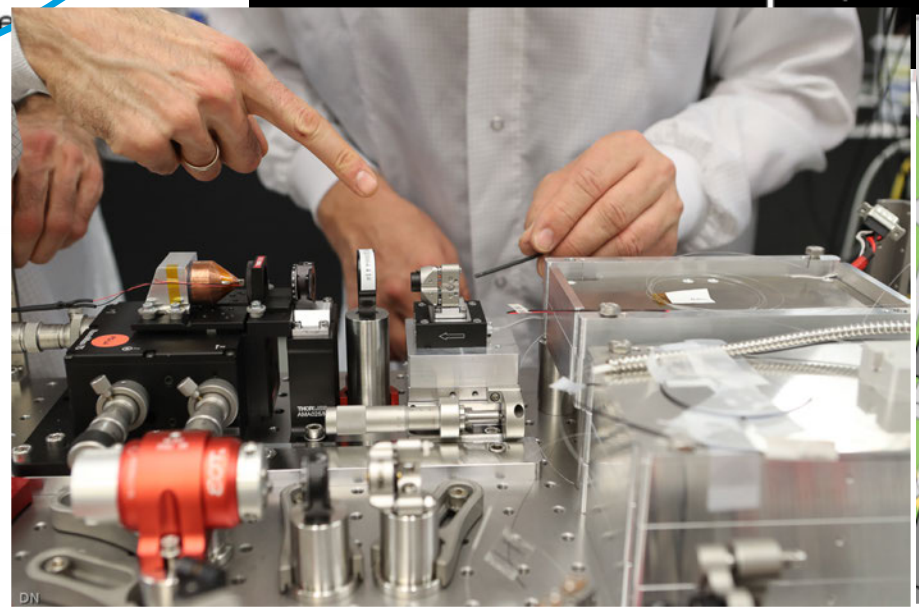
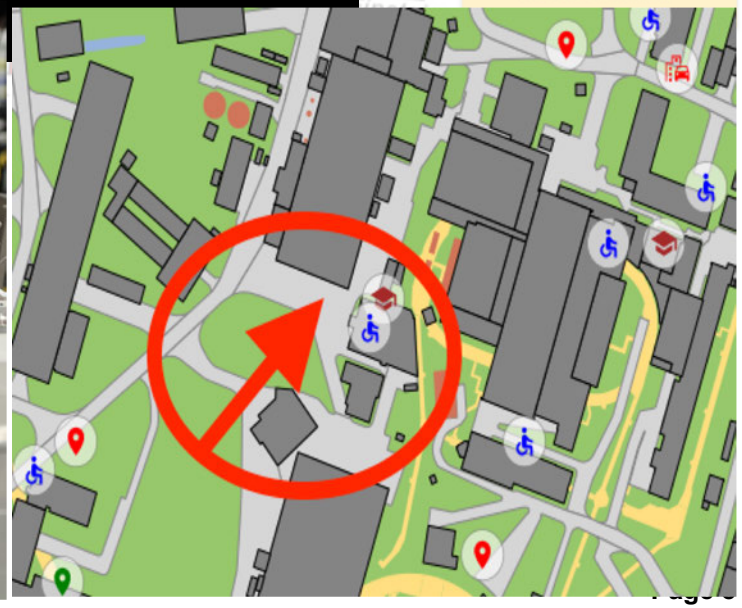
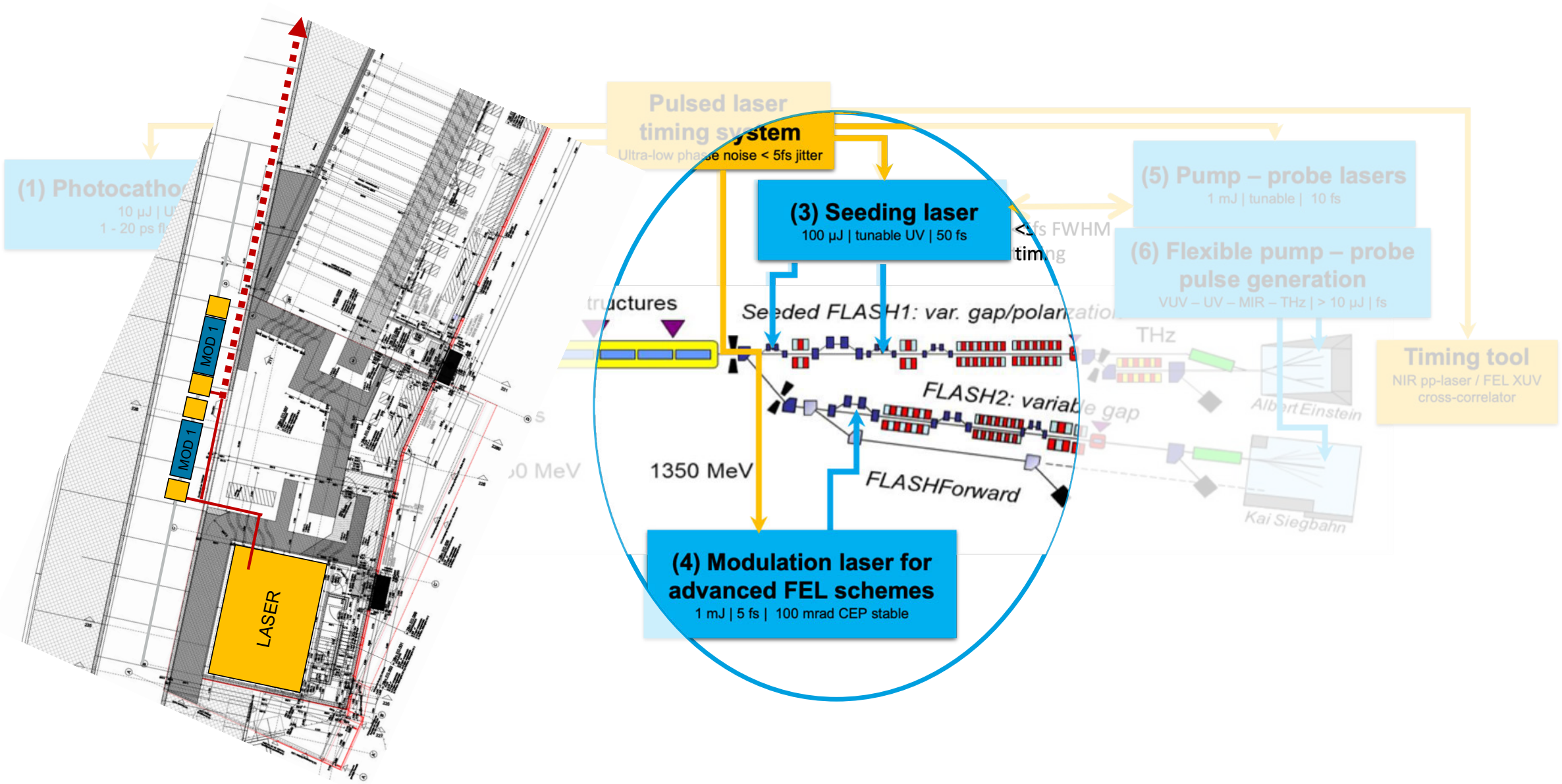


Photo: Dirk Nölle

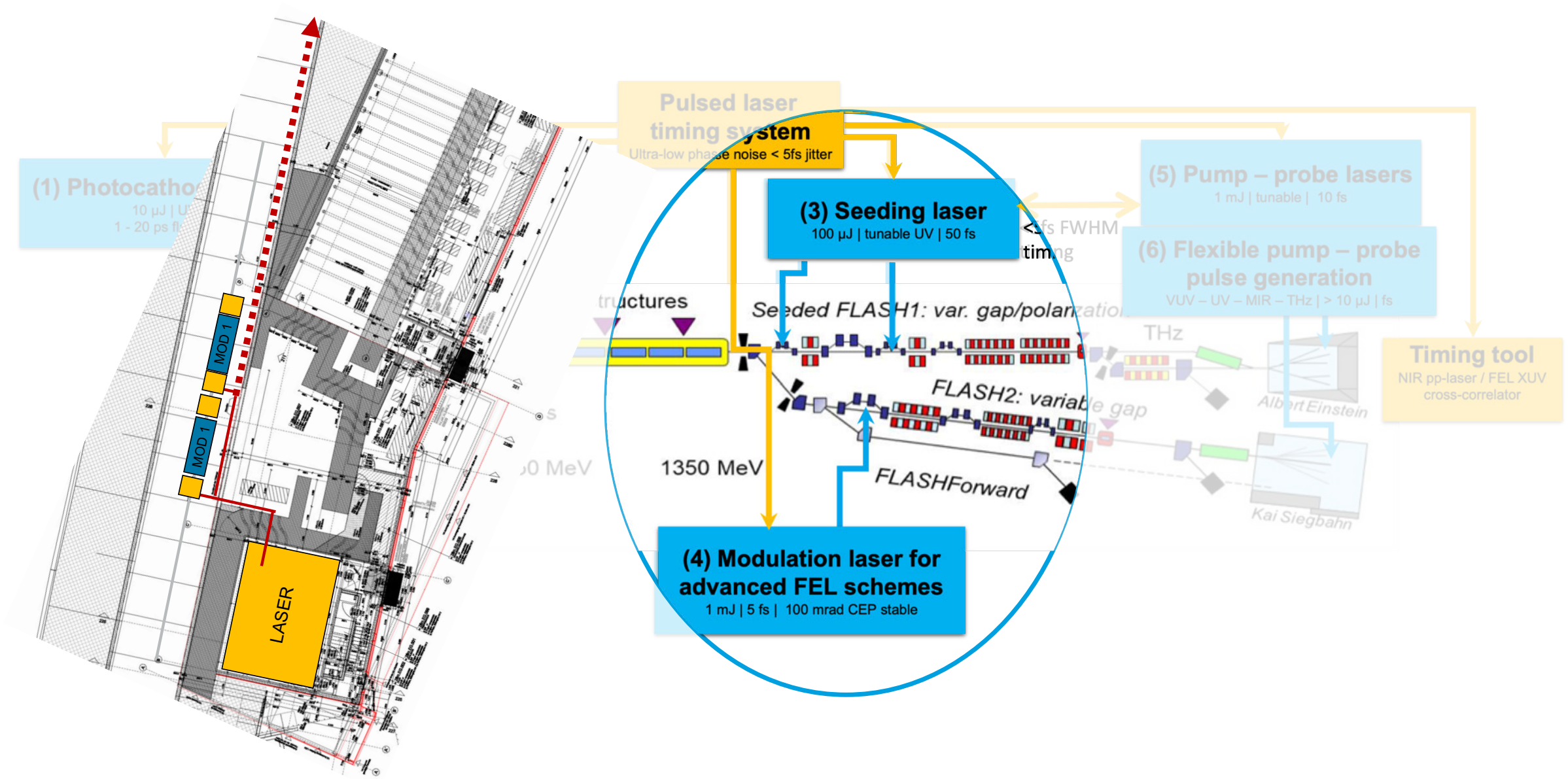


Seeding laser



Seeding laser

New: High repetition rate external seeding



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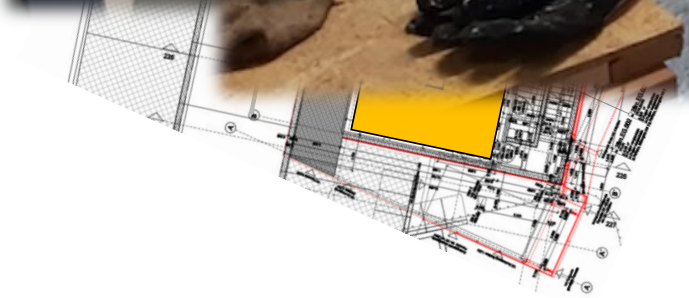

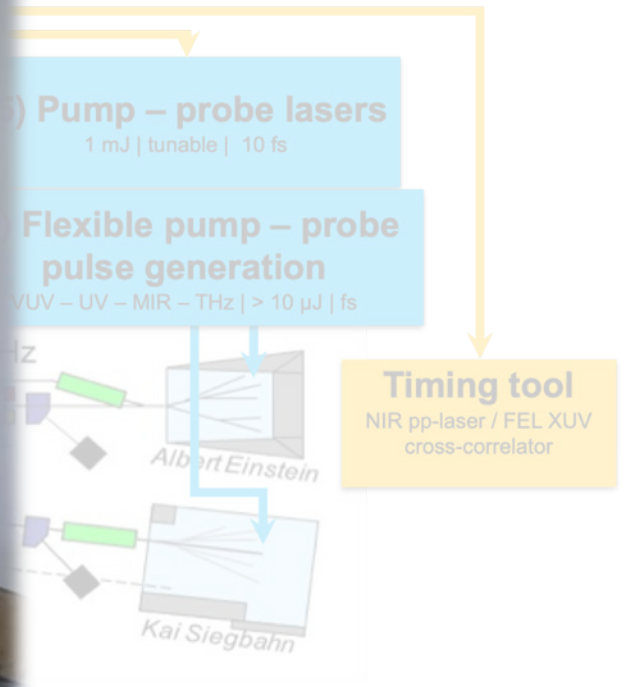

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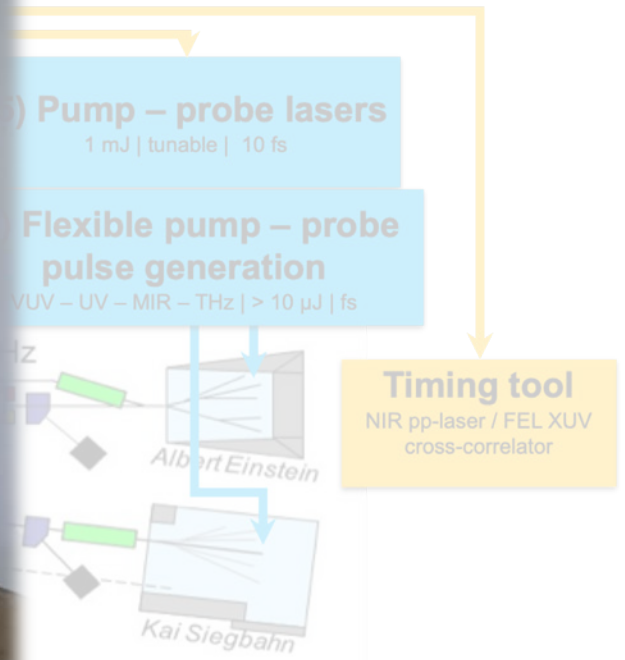

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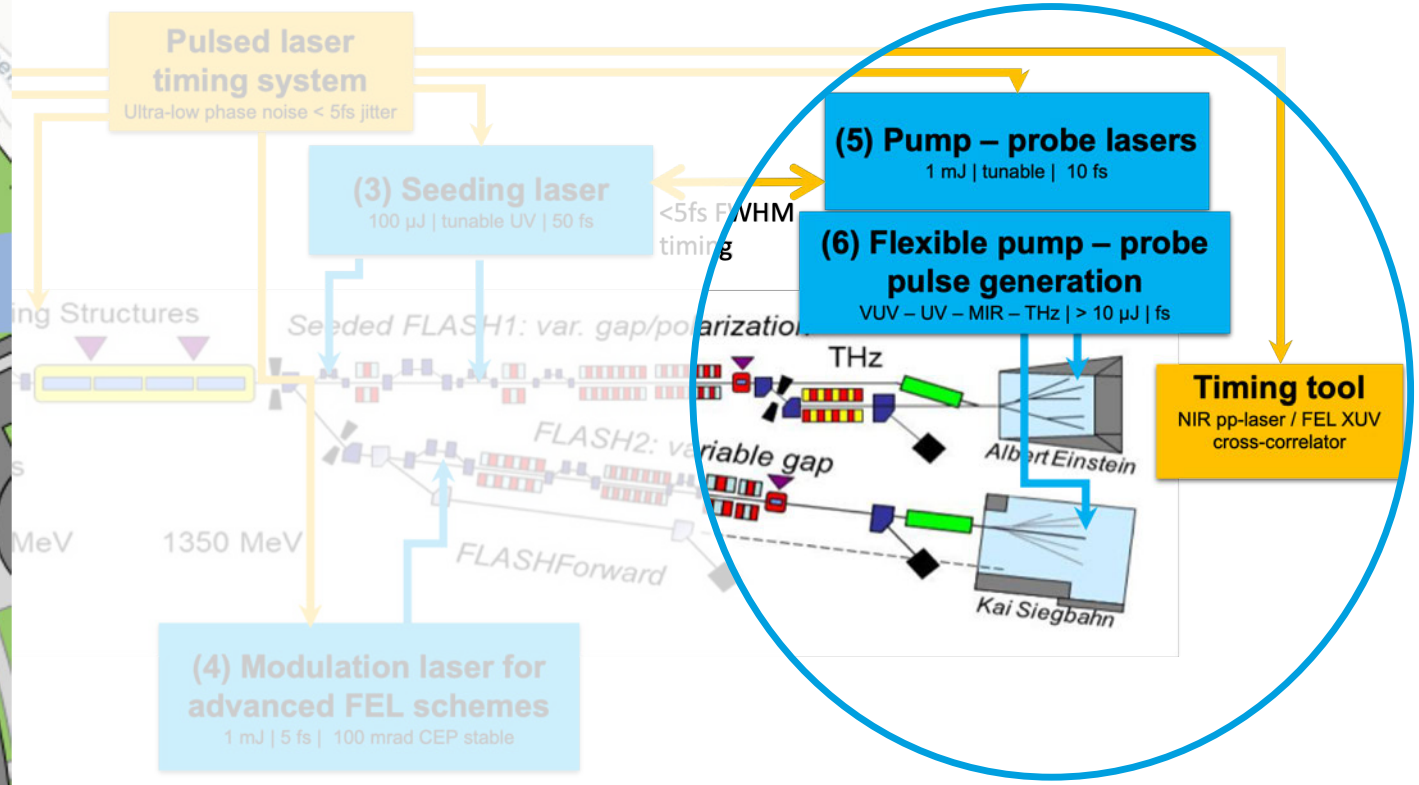
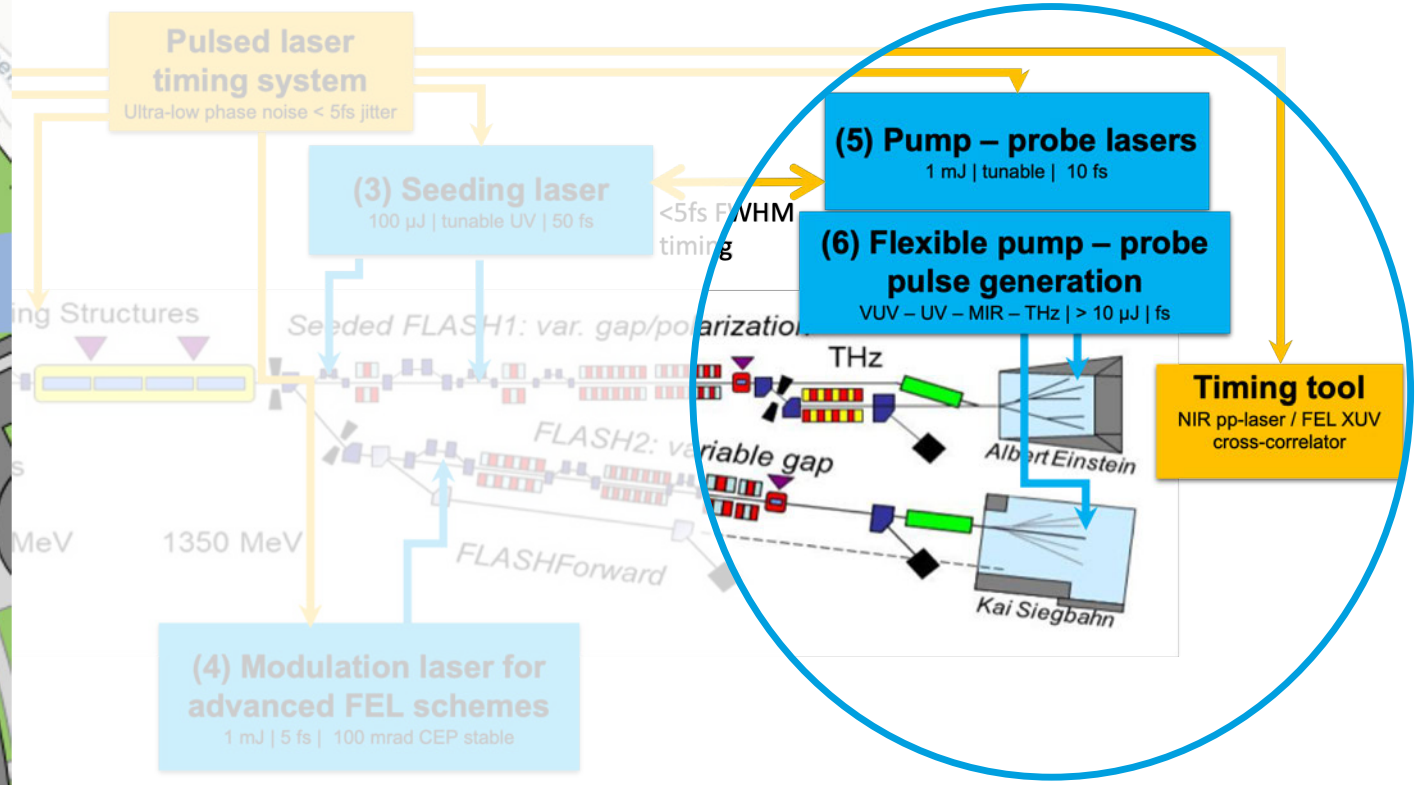
Pump-probe lasers



Pump-probe lasers

New: Wide tuning range, excellent timing to x-rays



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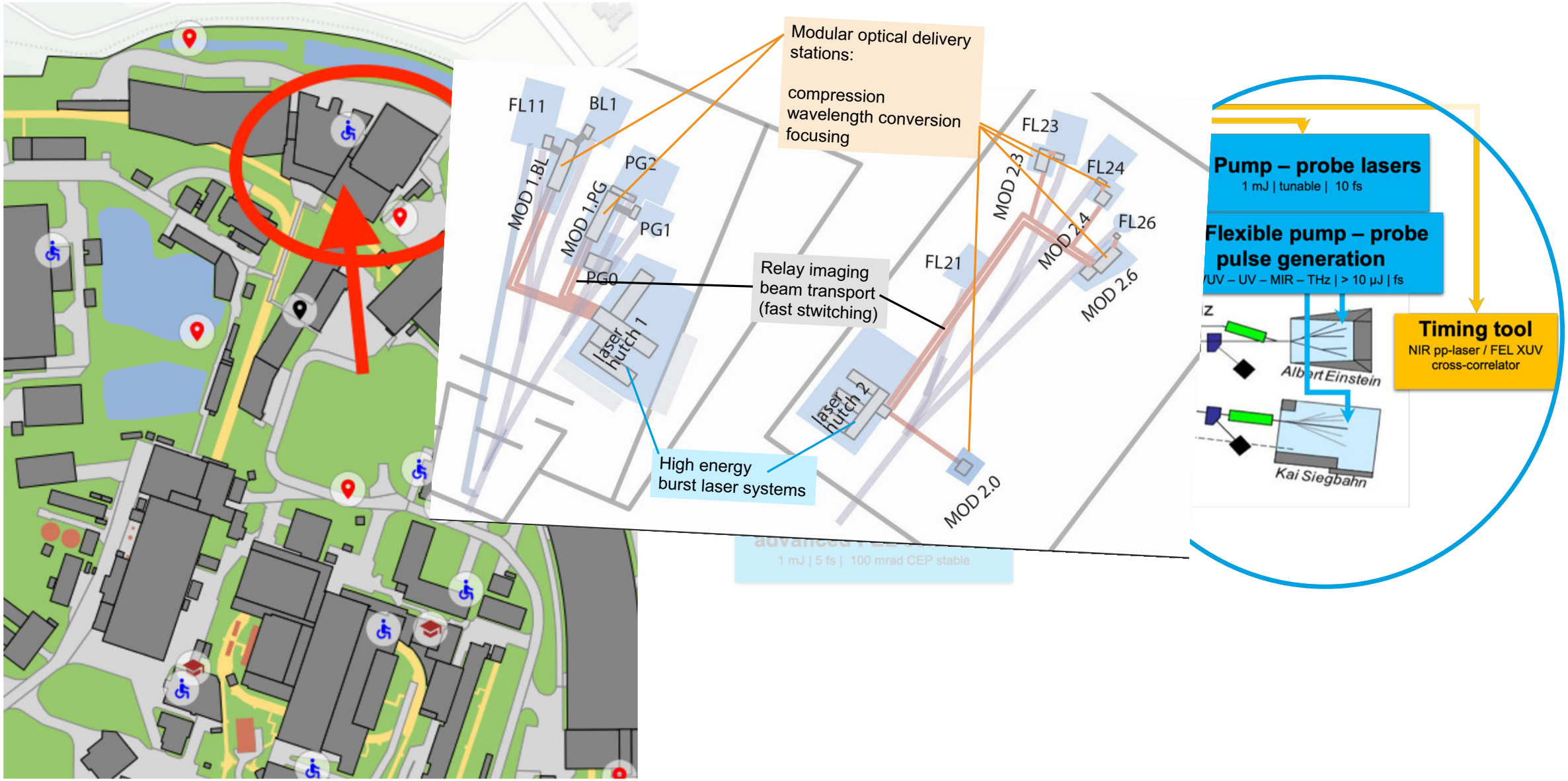

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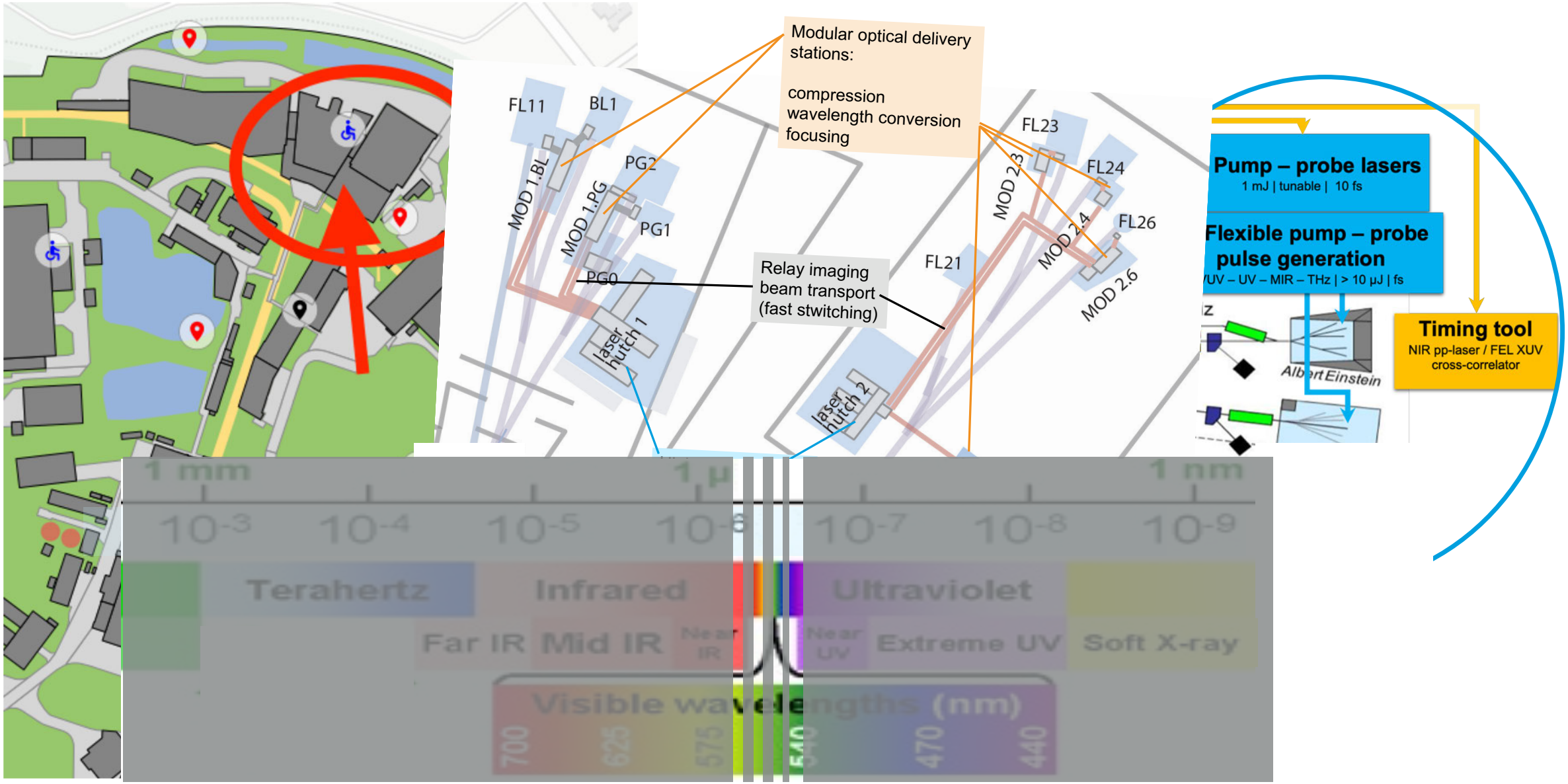

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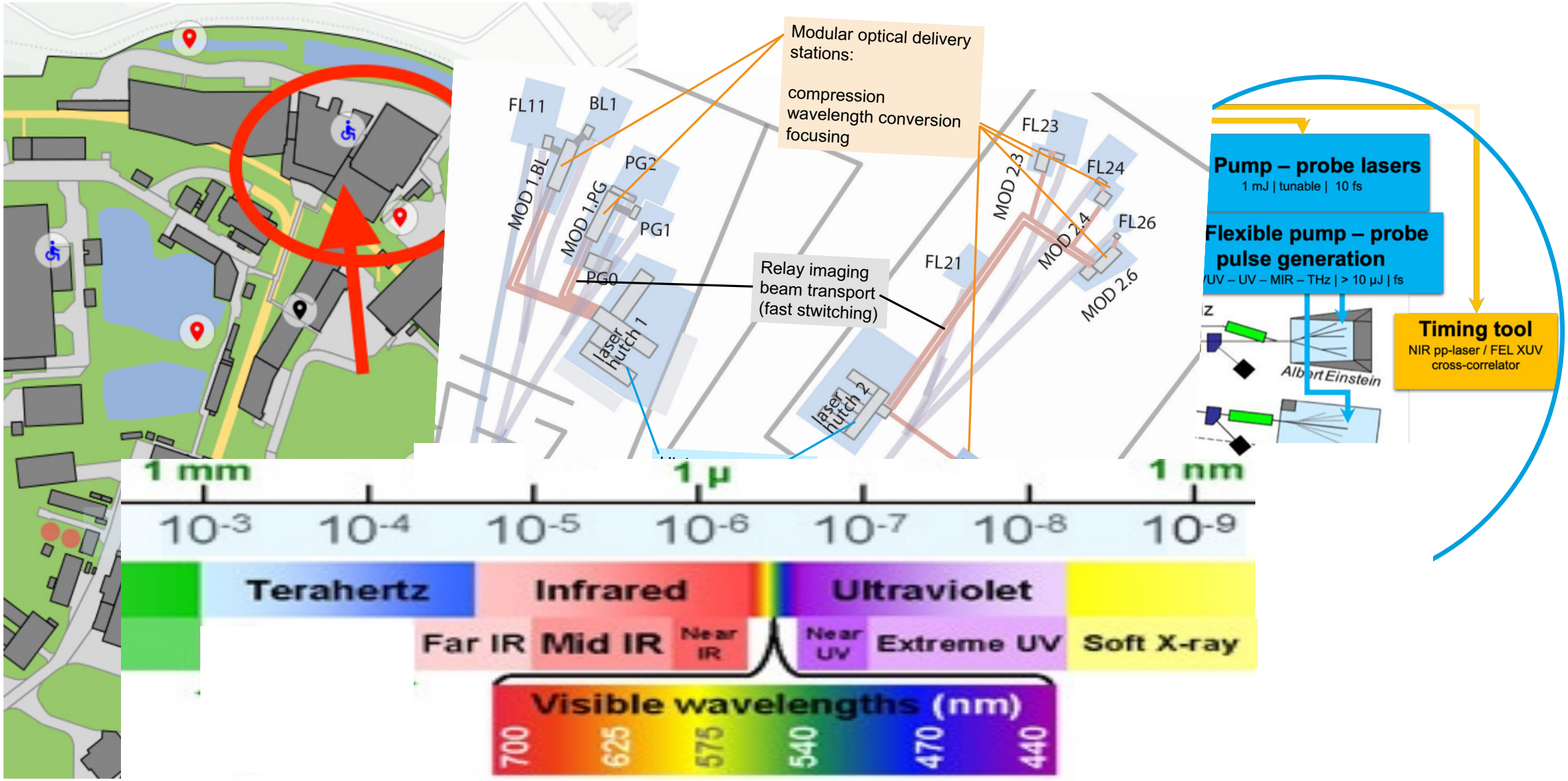

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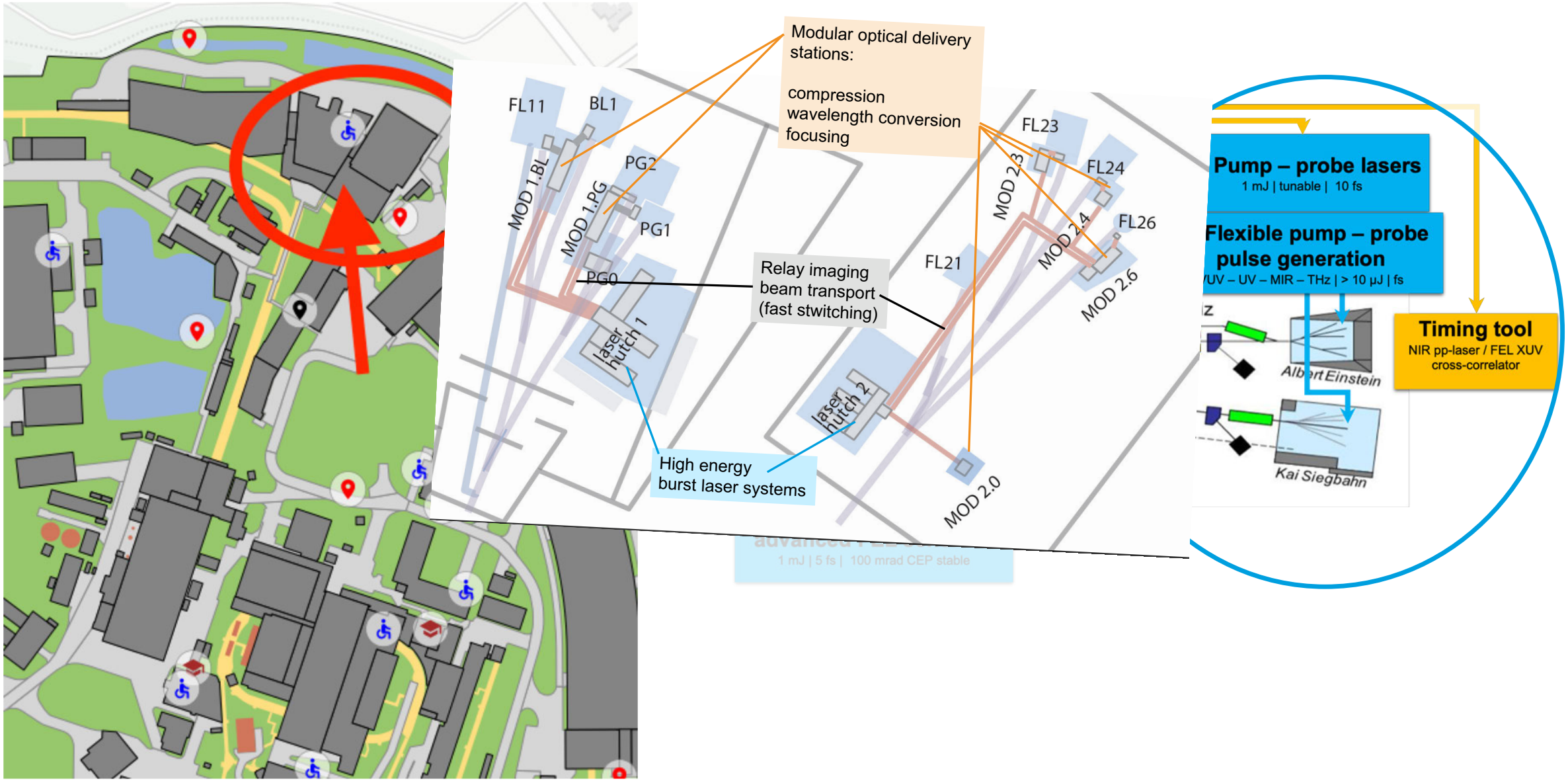

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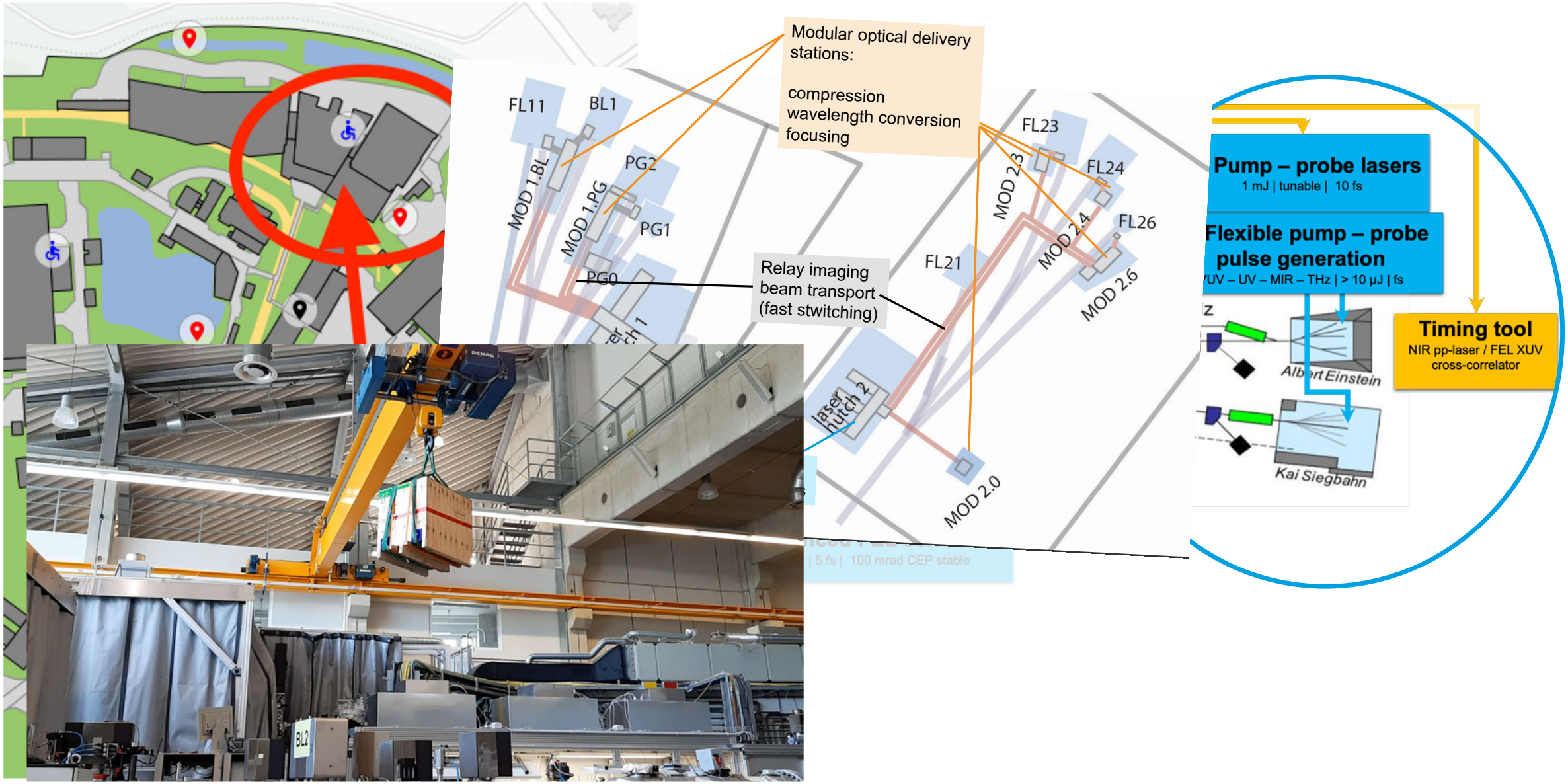

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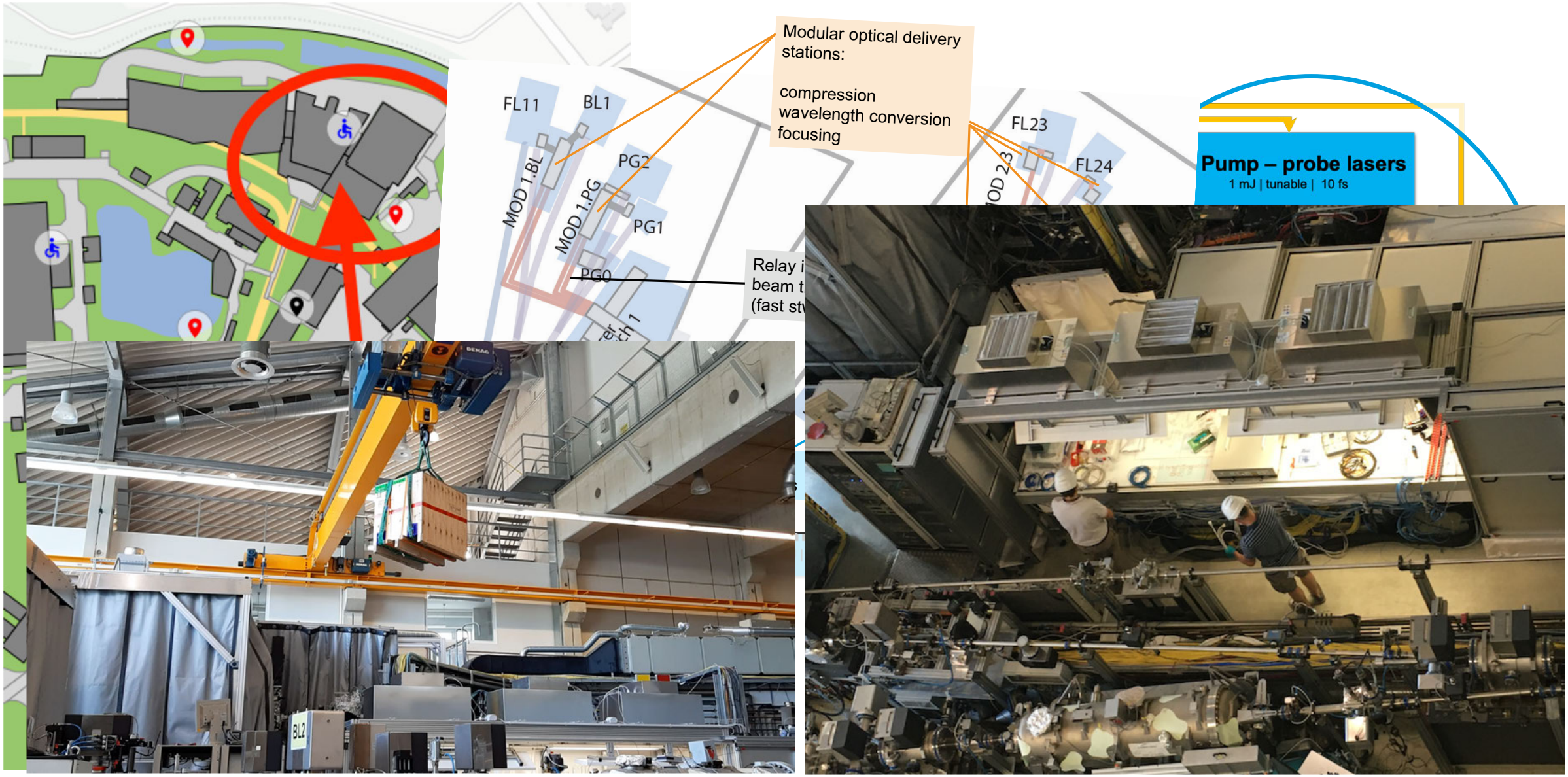

Pump-probe lasers

Novel technologies

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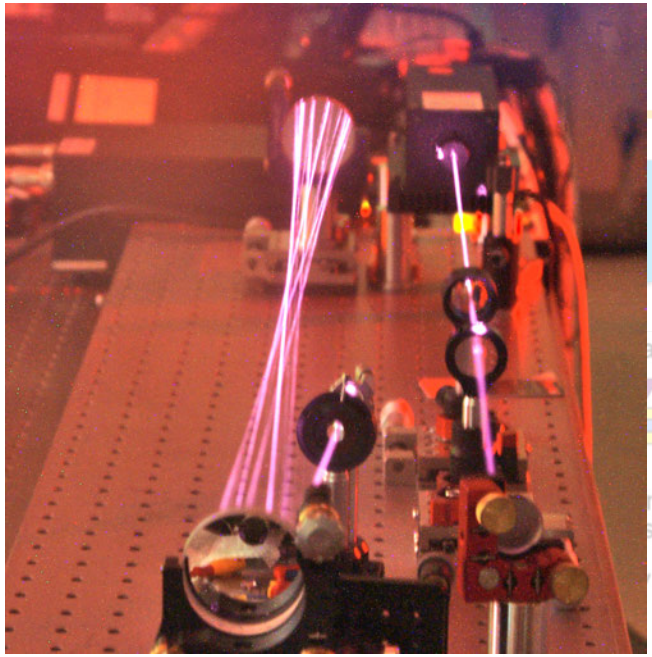
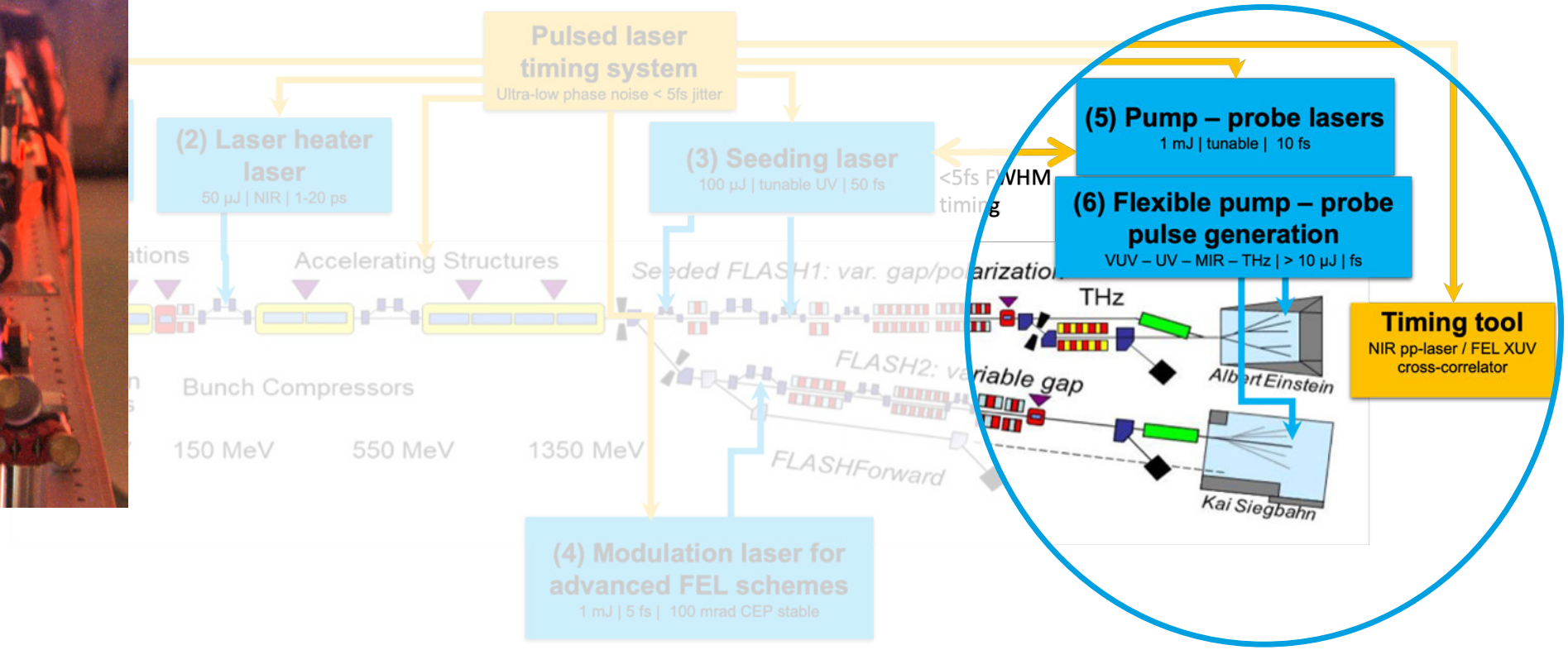
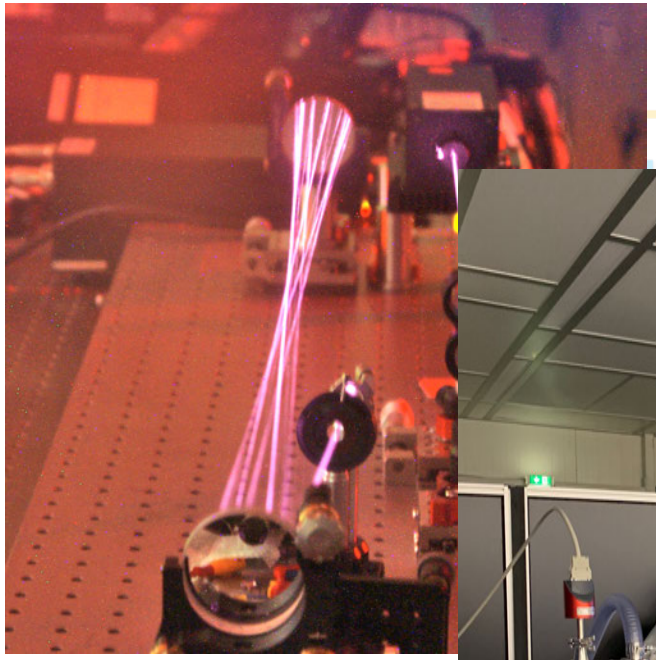
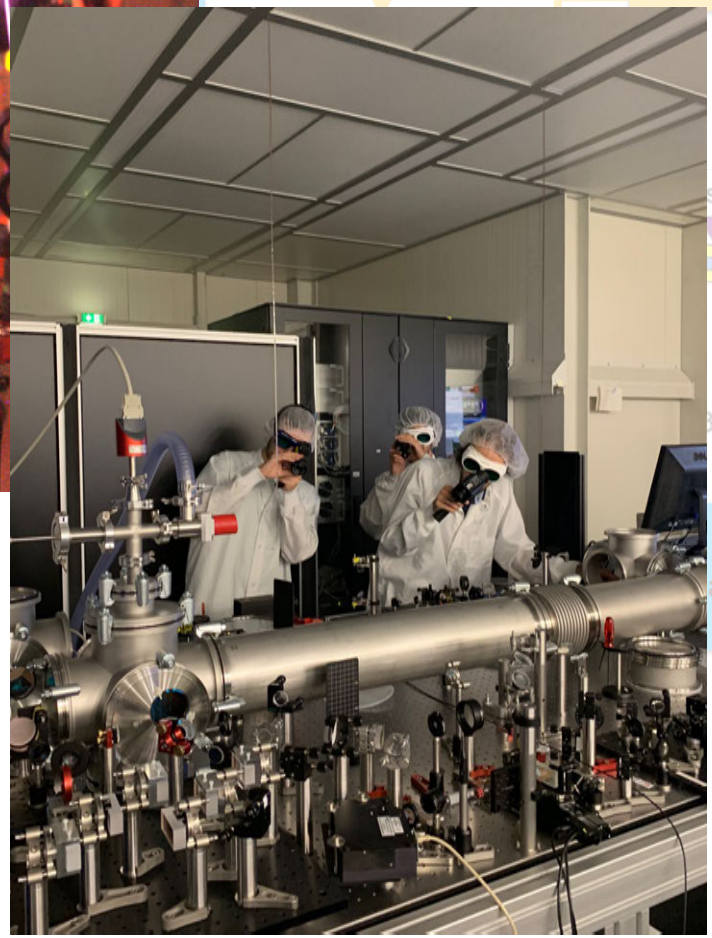


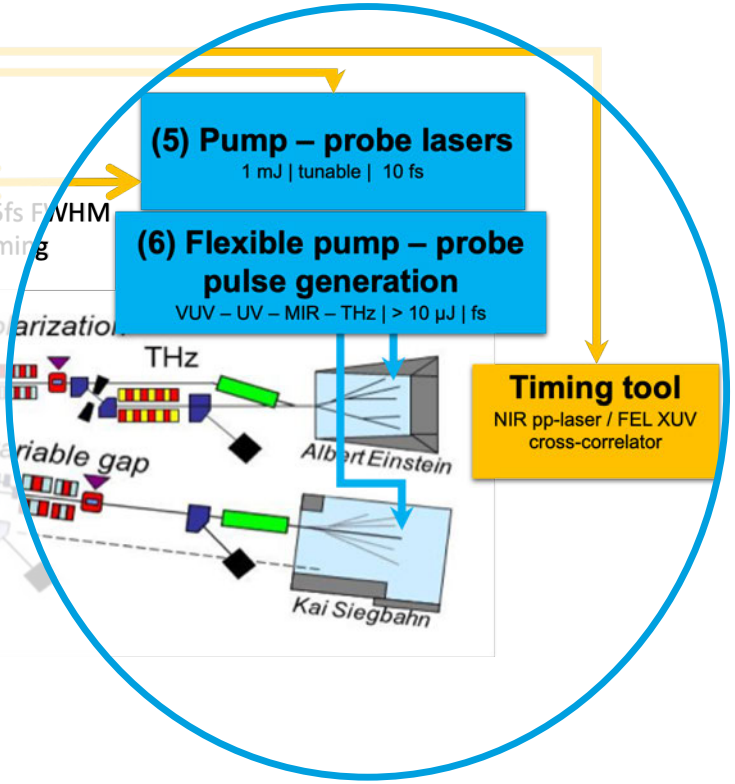


Pump-probe lasers

Novel technologies







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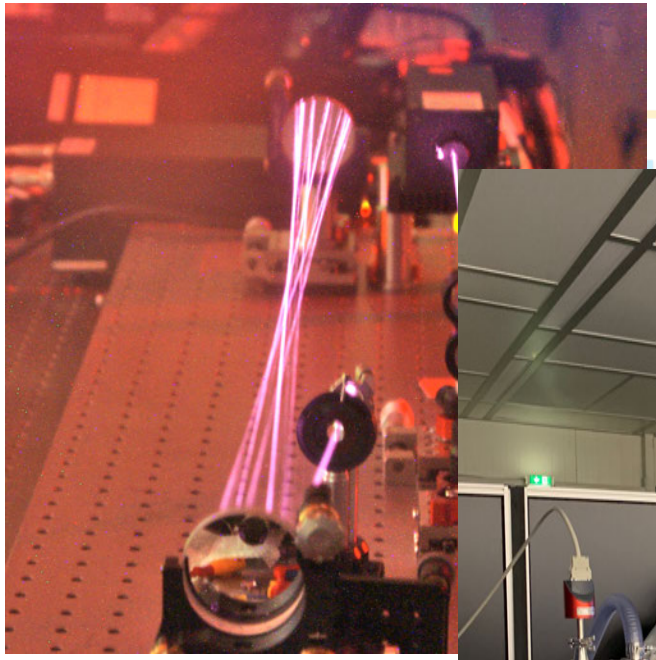

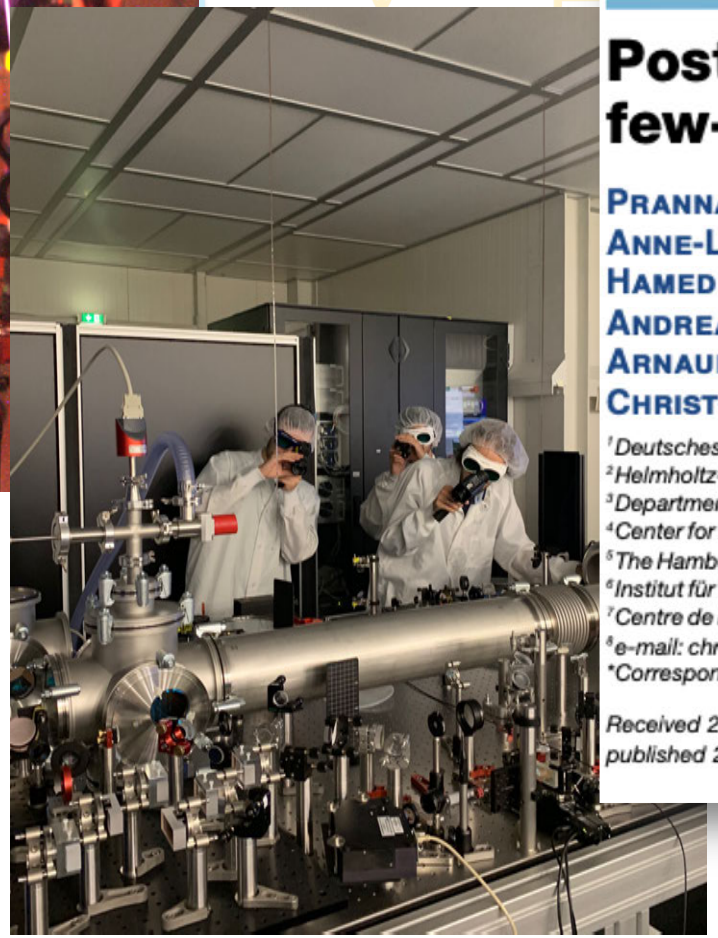

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Optics Letters

Postcompression of picosecond pulses into the few-cycle regime

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Pump-probe lasers

Challenges: Arrival time stability

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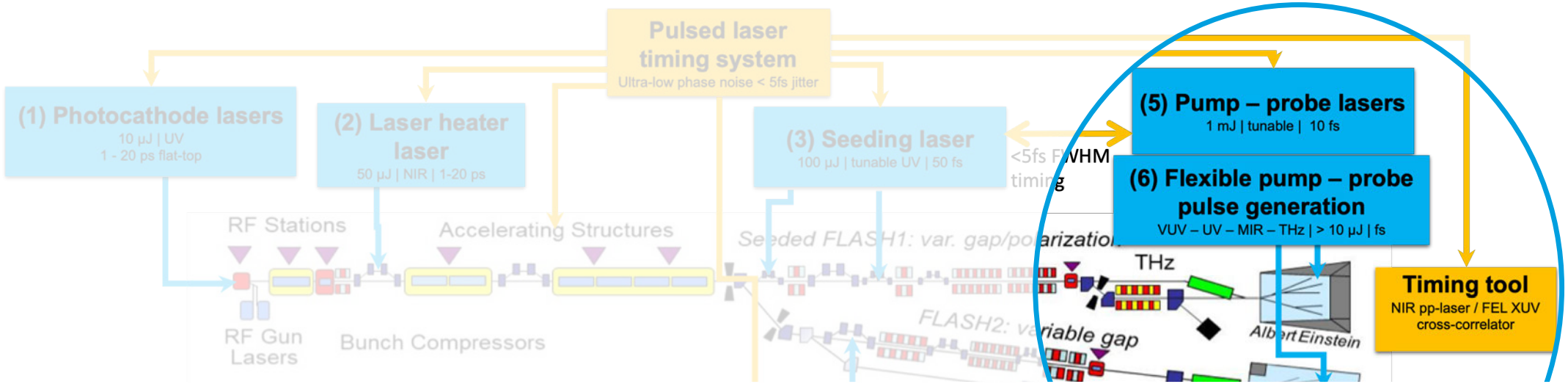

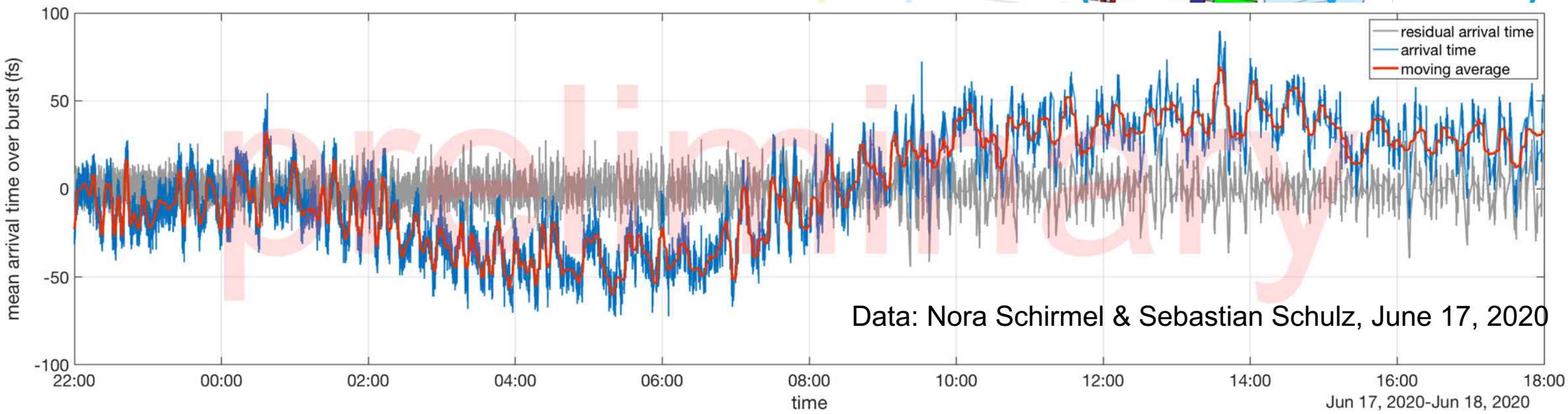

Data: Nora Schirmel & Sebastian Schulz, June 17, 2020

Pump-probe lasers

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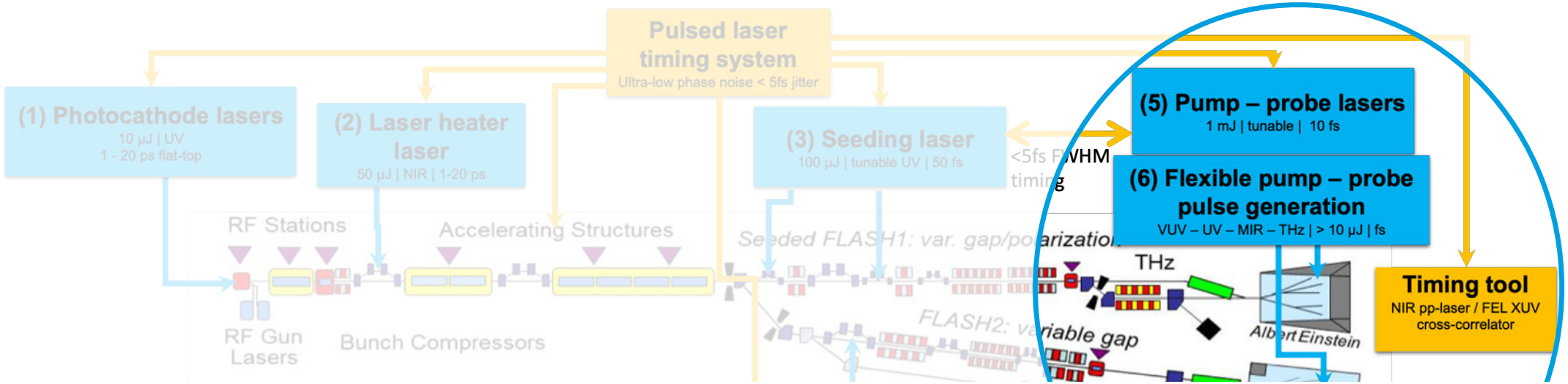

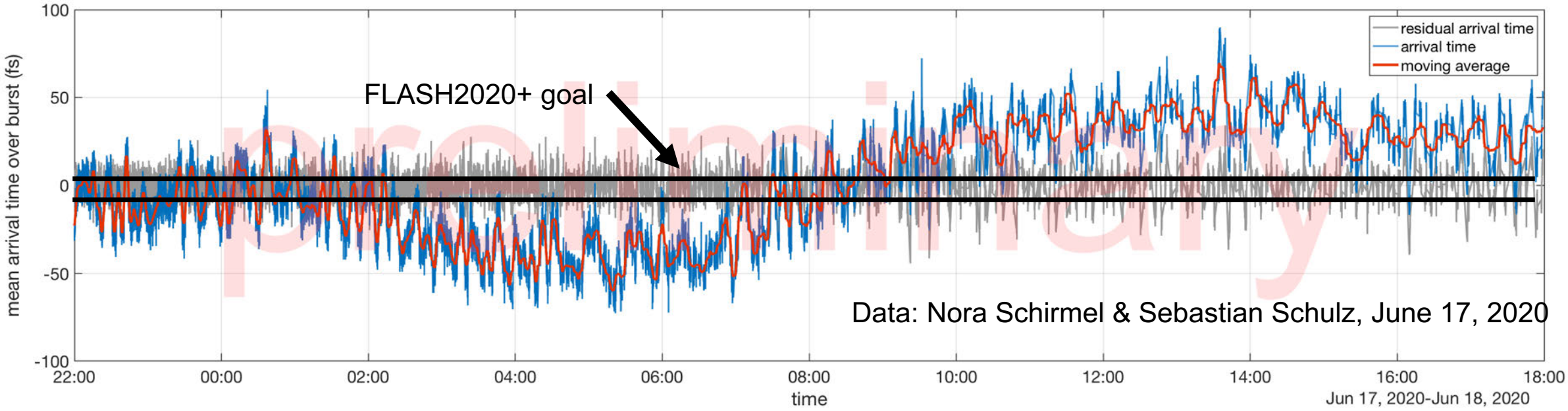

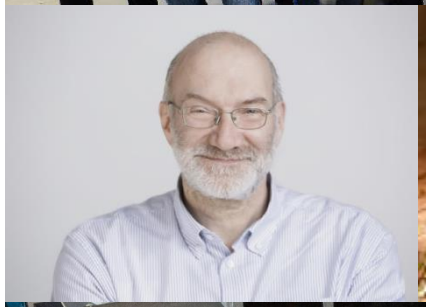

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