



u. dorda Eupraxia yearly meeting 27. io. 2016, paris



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 653782.



# Reminder WP10



- Task: monitor alternative novel technologies and evaluate their applicability to EuPRAXIA
  - Fiber laser
  - Dielectric acceleration
    - As alternative injector
    - As 'competition'
- Non-EU funded WP
  - 4 persons participating in meetings
    - Guoxing Xia (WP leader)
    - Ulrich Dorda (WP leader)
    - Barbara Marchetti
    - Andreas Walker
    - Few % only, so help and any hints are very welcome!



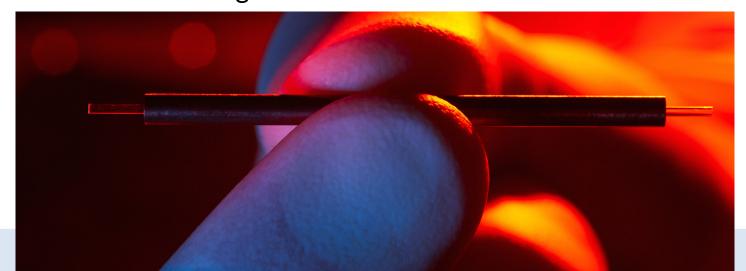
# Dielectrics



- Part of our normal job, eg. AXSIS, ACHIP, ...
  - We have a good understanding of the worldwide efforts

#### • Todo:

- The next years will be an exciting time in the field with many experiments coming online
- Start to fill wiki
- Increase exchange between WP members









### • So far:

- Learned about fiber laser
  - The laser technology (incl. combination technologies)
  - it's application in LPWA
- Gained overview over worldwide activities

### • Todo:

- Continue monitoring, study papers,...
- Find best way to engange with the community, workshop?,....



# Deliverables



- 31.03.2017: D10.1: Tests are performed to extract an ultra-cold electron bunch from an alternating current magneto-optical trap.
- 30.09.2018: D10.2: Simulation and experimental studies on acceleration in dielectric structures
- 30.04.2019: D10.3: Summary report on possible alternative injector concepts including an analyses of the compatibility with the project requirements and identification of possible technological bottle-necks
- 30.04.2019: D10.4: Report on state of the art in fibre optics lasers and related ongoing research
- 30.04.2019: D10.5.: A conceptual design of an accelerator based on dielectric structures, analyzing achievable beam parameters.