

## **Fluorescence Profile Monitor Tasks and Priorities for 2017**

S. Udrea, P. Forck

GSI Helmholtz-Zentrum für Schwerionenforschung, Darmstadt, Germany



E-Lens Collab. Video Meeting, Feb. 3<sup>rd</sup>, 2017

## Main Tasks to End of June

- Realisation and commissioning of the optomechanical setup
  - Most standard parts from Thorlabs already delivered
  - Some custom components have to be machined
  - Input from CERN needed
  - Completion mid of March
- Design and realisation of the LED calibration target
  - Completion mid of April
- Design and realisation of the holder for the BIF setup
  - Input from CERN needed
  - Completion mid of May
- · Commissioning of the iCCD and the complete BIF setup at GSI
  - Image intensifier ordered, delivery time about 12 weeks
  - Completion mid of June
- Report on and documentation of the new BIF setup
  - Completion mid of June
- Installation of the new BIF setup at the new test stand at Cockcroft
  - Depends also on the progress at CERN/Cockcroft
  - Completion end of June?



## **Further Tasks**

- Performance assessment of the new BIF setup at Cockcroft
- Measurements with Nitrogen and Neon
  - Especially for Neon the new e-gun is needed
  - First measurements with Neon may be performed with the present BIF setup at Cockcroft
  - For Neon at least one new optical filter has to be purchased
- Data processing and comparison
  - As soon as data for Neon is available
- Simulation and assessment of the influence of the transversal gas jet density distribution on image quality/resolution
  - Probably not a high priority task
  - Involvement from Cockcroft?
- (Complete) simulation of the influence of particle dynamics on image quality/resolution
  - See comments regarding previous simulation task

**BIF Profile Monitor**