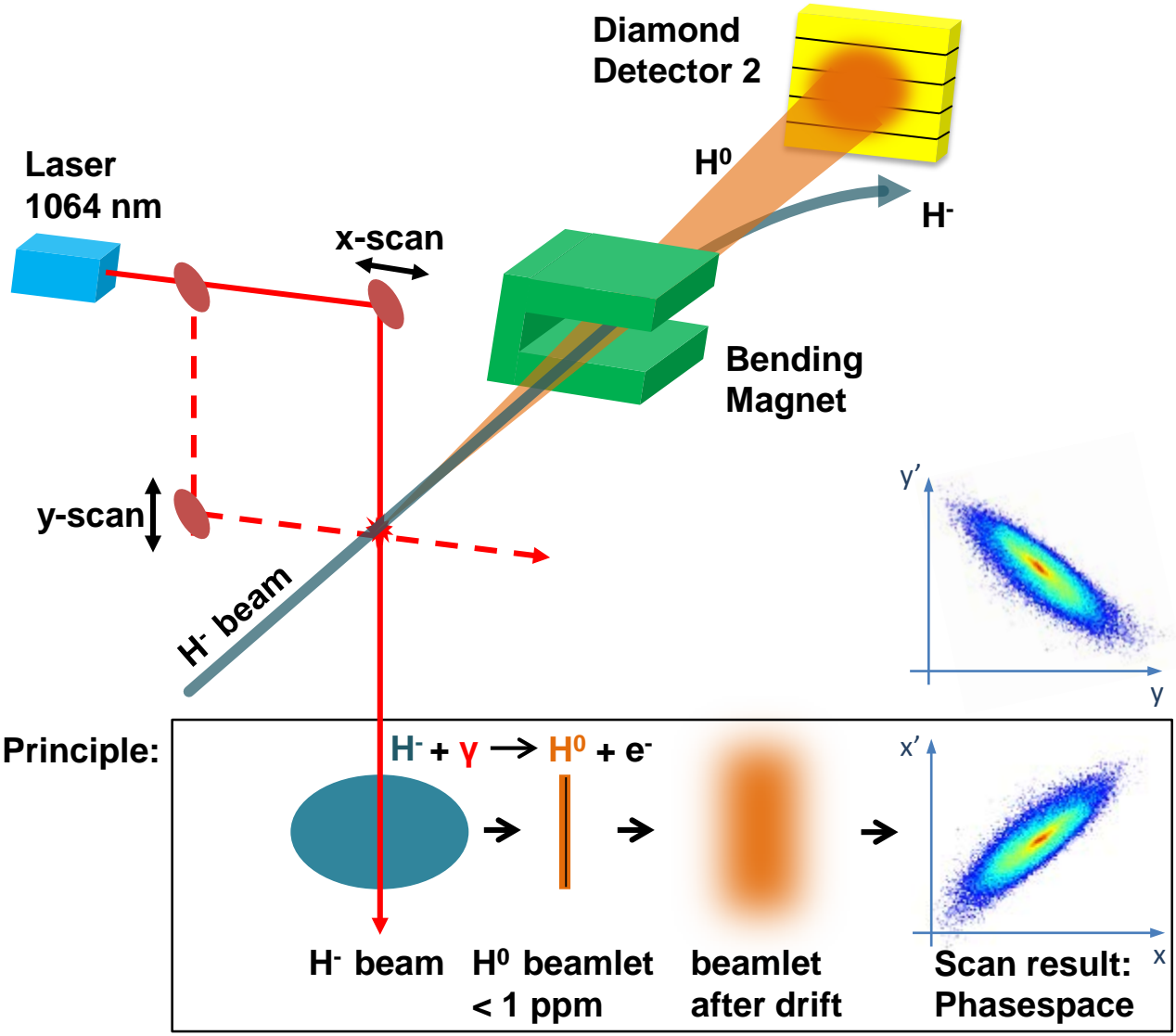




# Interlock logic for the laser emittance meter (BMLEM) at Linac4

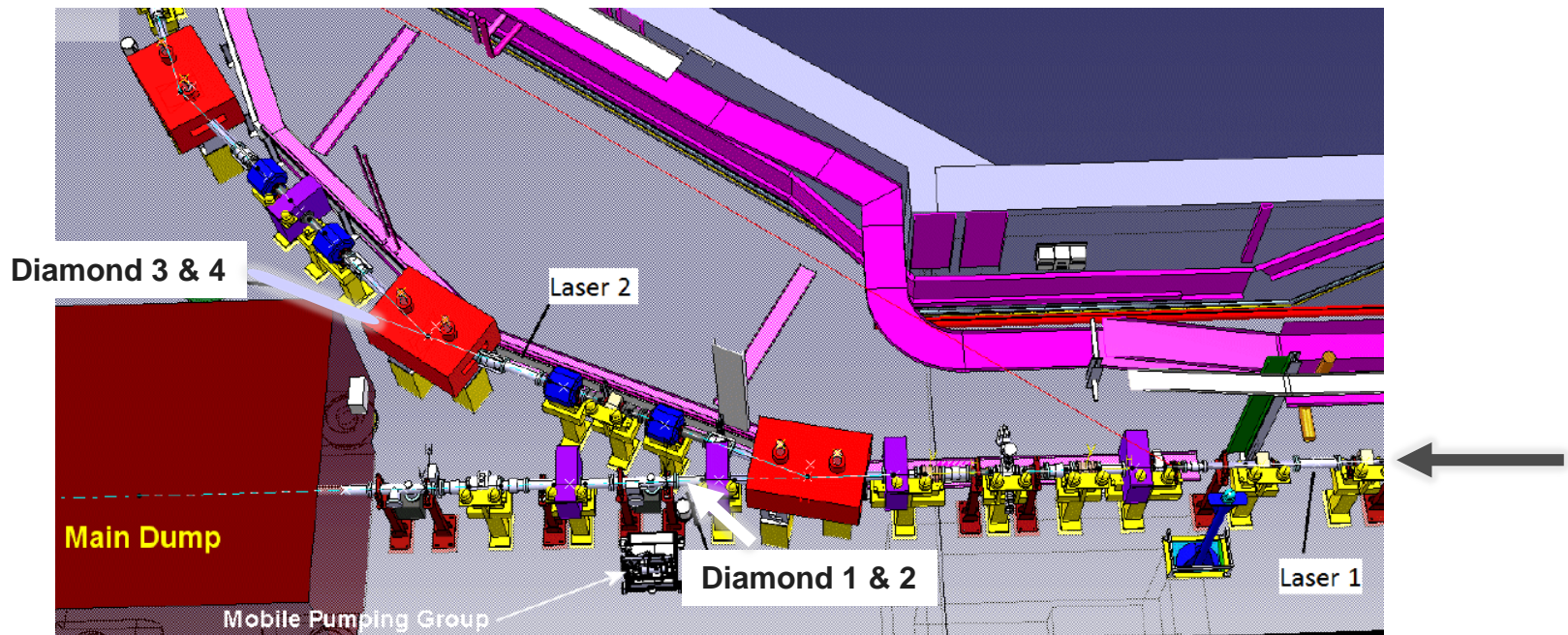
Thomas Hofmann  
MPP, 16 September 2016

# Concept of laser emittance meter (BMLEM)



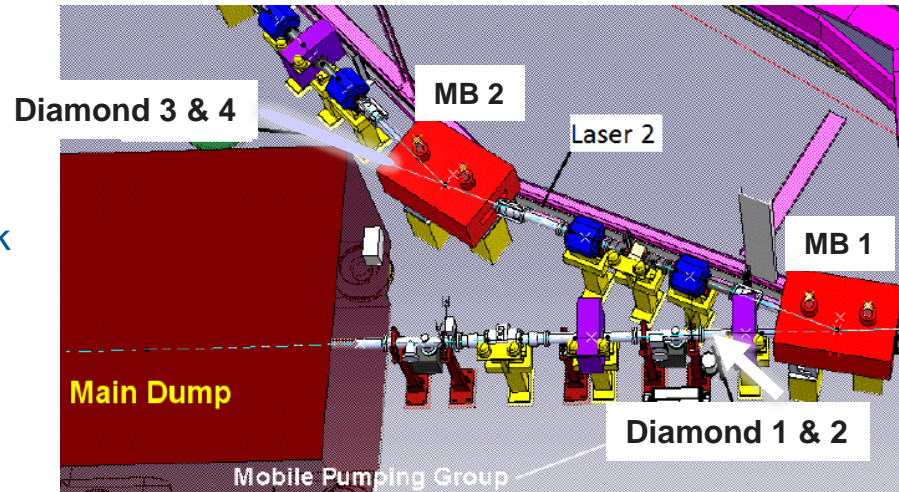
# Layout: Laser Emittance Meter

- 2 Laser Emittance systems, each of them consisting of
- Laser station
  - 2 Diamond detectors on actuators  
(downstream few meters, after bending dipole)

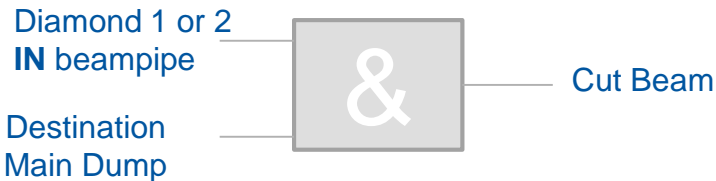


# Interlock functionality for Diamonds

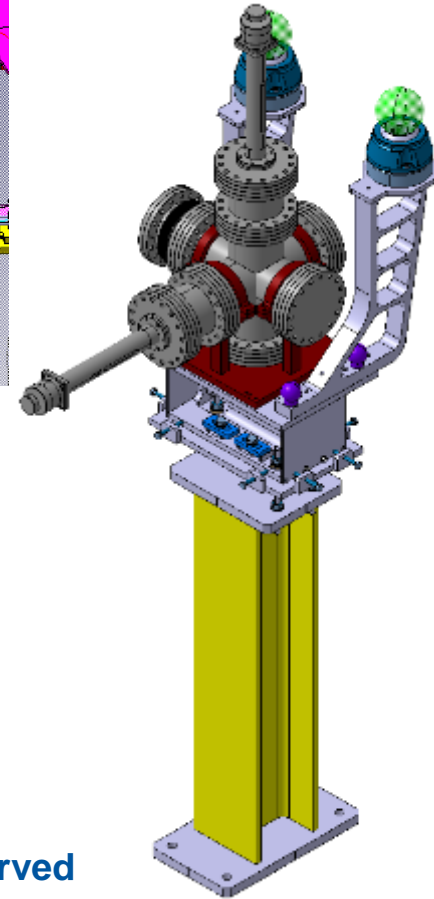
- Diamond 3 & 4:
  - **No interlock needed,**
  - secured by interlock of main bend



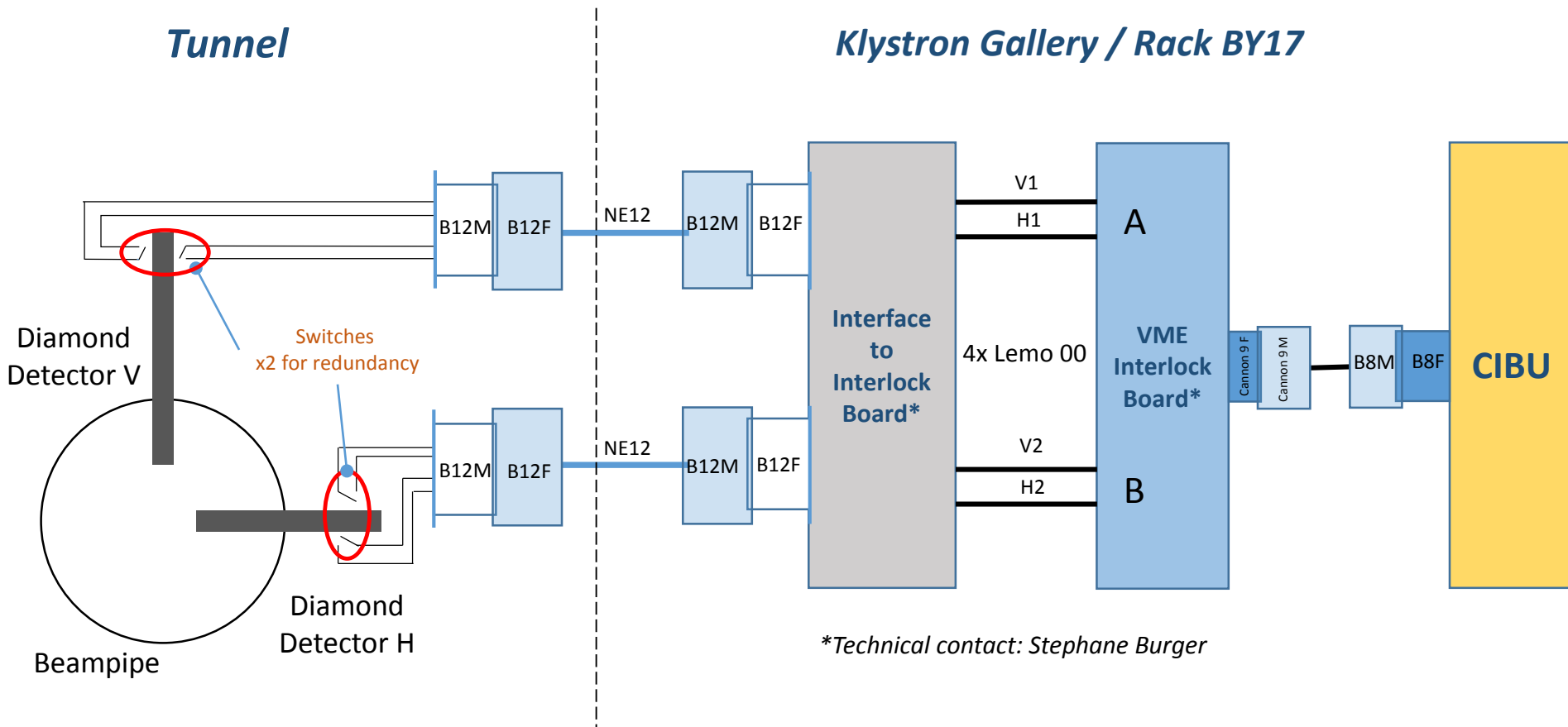
- Diamond 1 & 2:
  - **Hardware interlock needed**
  - Logic:



- **Additional input for positions of diamond detectors in BIC L4Z reserved**  
(Ref: A. Apollonio)



# Position Monitoring Diamond Detectors



# Status

- Laser Emittance Meter will be installed in first half of 2017
- To be done for interlock system:
  - Acquisition electronics developed by S. Burger
  - DIC for required cables in preparation
  - Validation planned after installation (4/2017)

