



60  
years

FEET ON THE GROUND

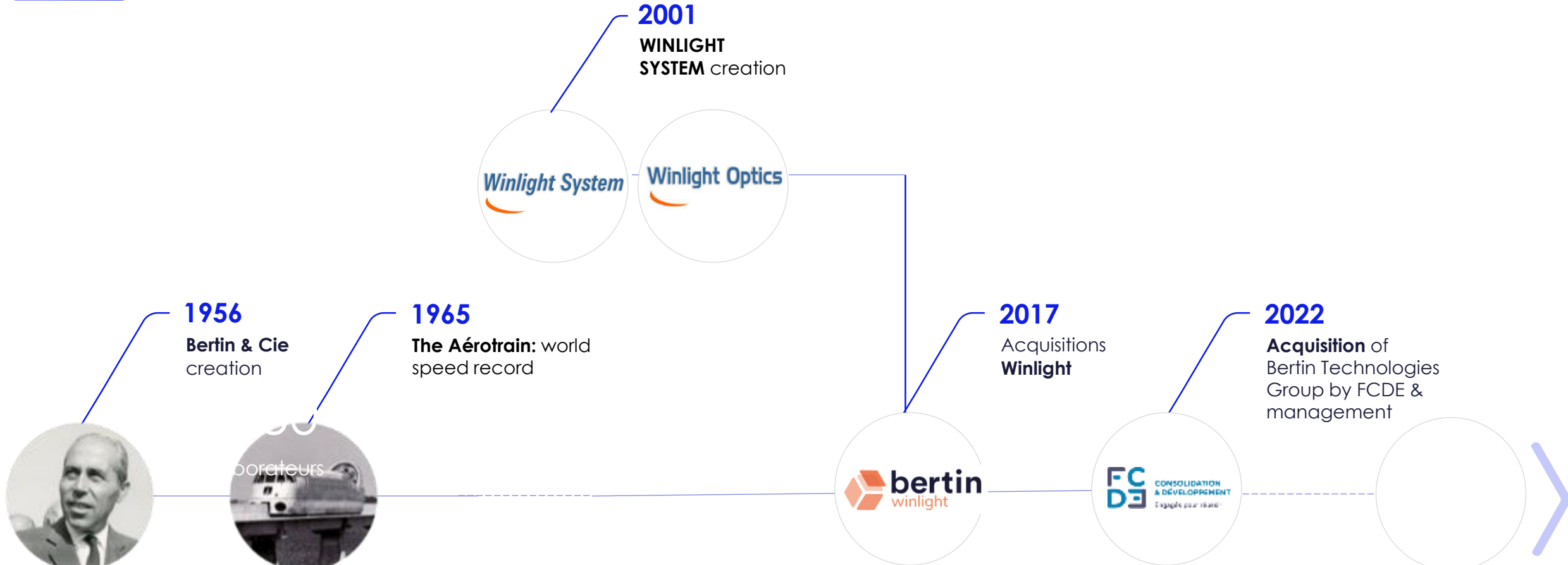


EYES ON THE SKY

**BERTIN WINLIGHT**  
**20 YEARS OF OPTICS FOR ESO**



# 65 YEARS OF INNOVATION & INDUSTRIAL ADVENTURE



# SCIENTIFIC INSTRUMENTATION FOR CRITICAL APPLICATIONS



Scientific instrumentation in the fields of Life Sciences, Nuclear & Health Physics and CBRN.



45 Me Turnover

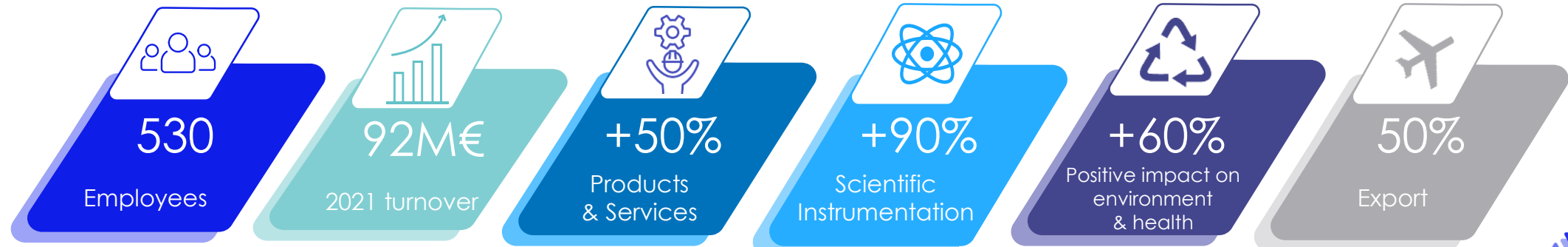
High performance optical components & systems, optronic solutions & surveillance systems.



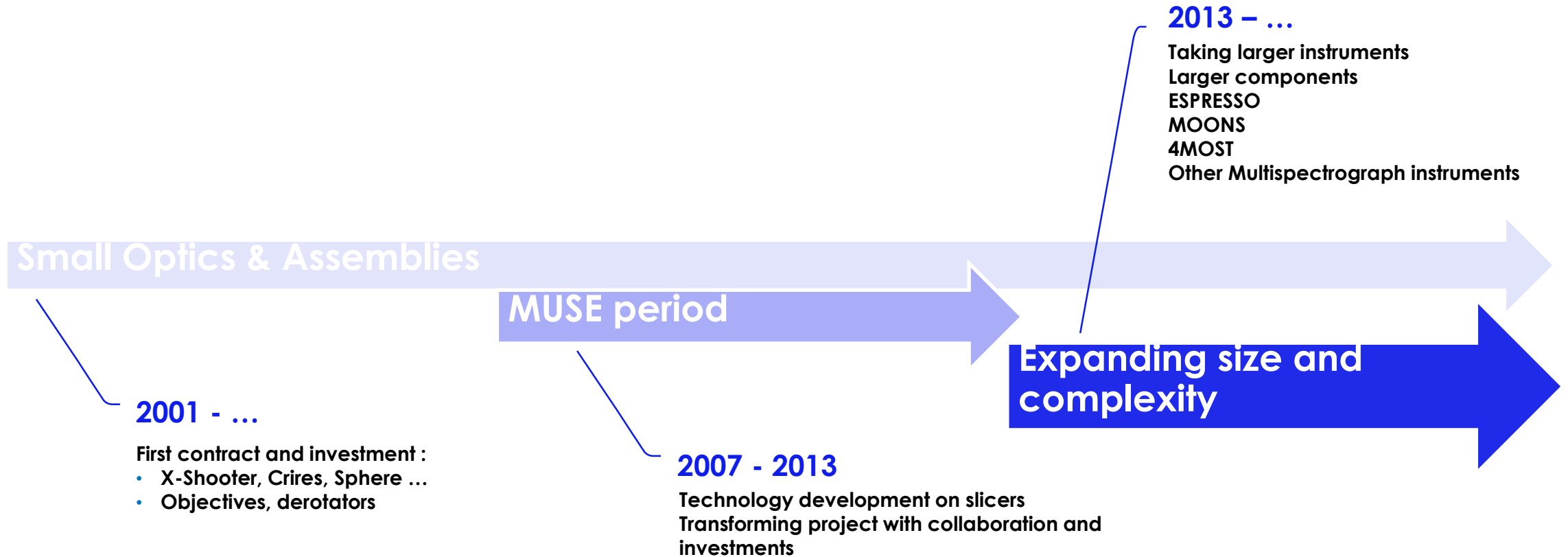
200 peoples



Hospital waste management solutions for hospitals and healthcare facilities.

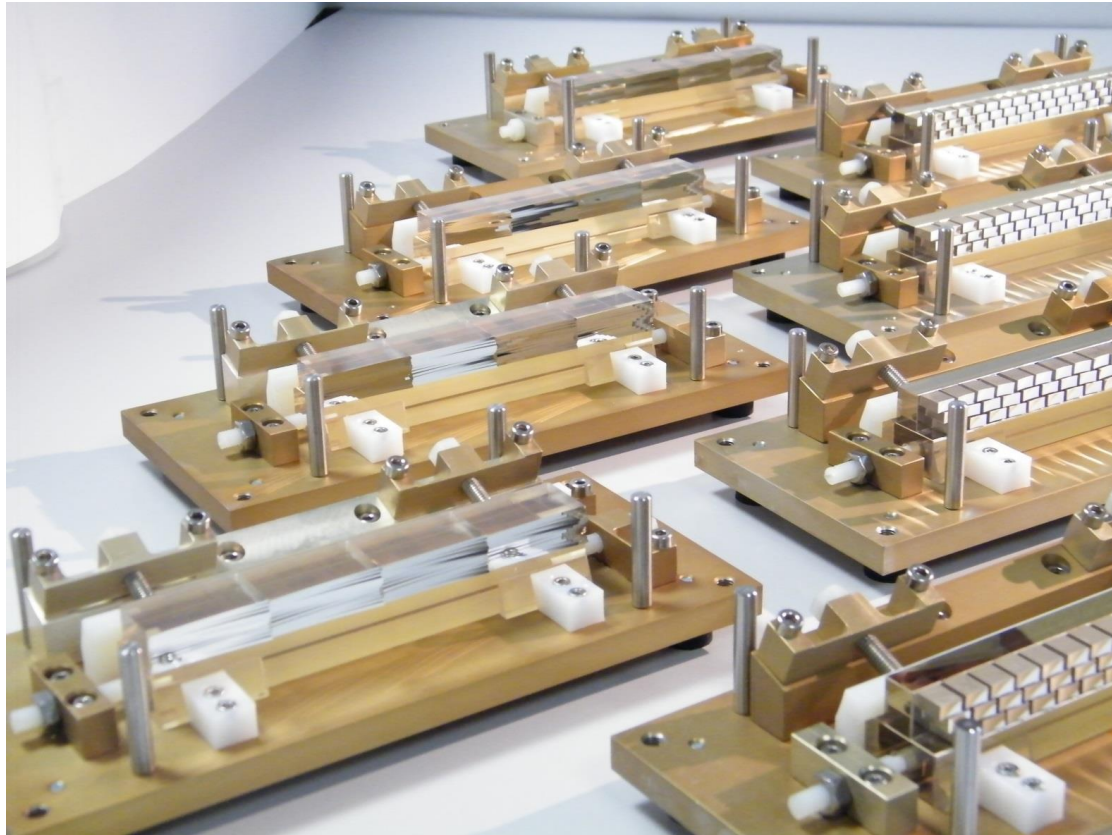


# ESO PROJECTS HISTORY @ BERTIN WINLIGHT

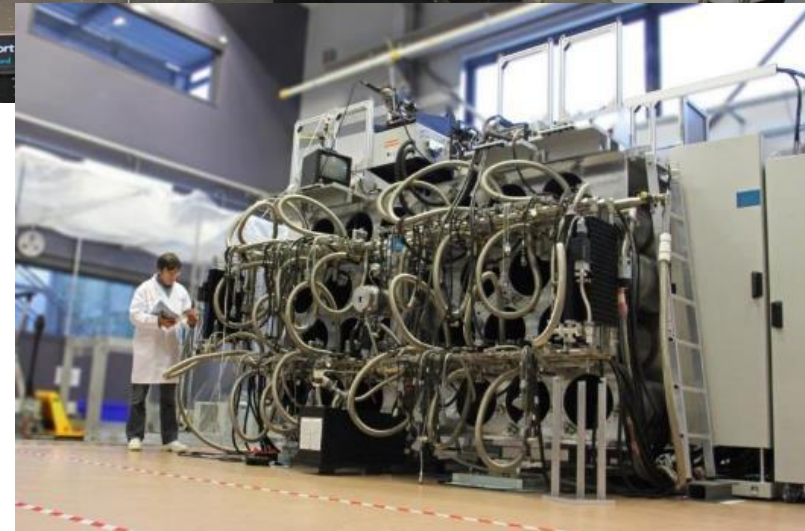
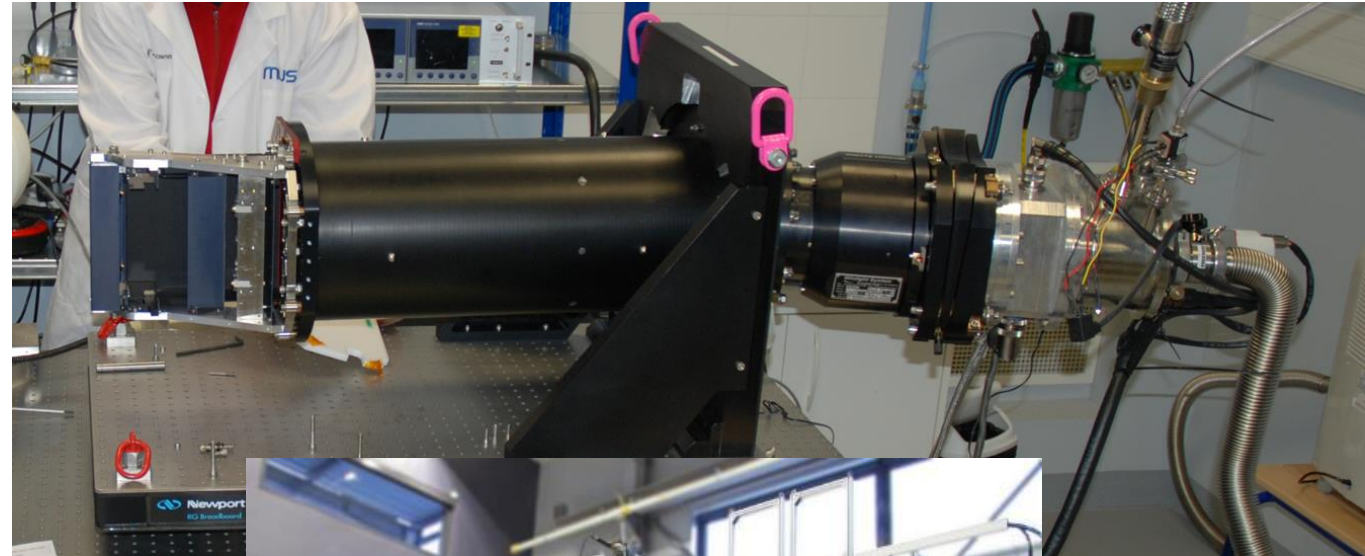


# MUSE ADVENTURE : A STRUCTURING PROJECT FOR WINLIGHT

24 images slicers (1 148 slices)



24 spectrographes



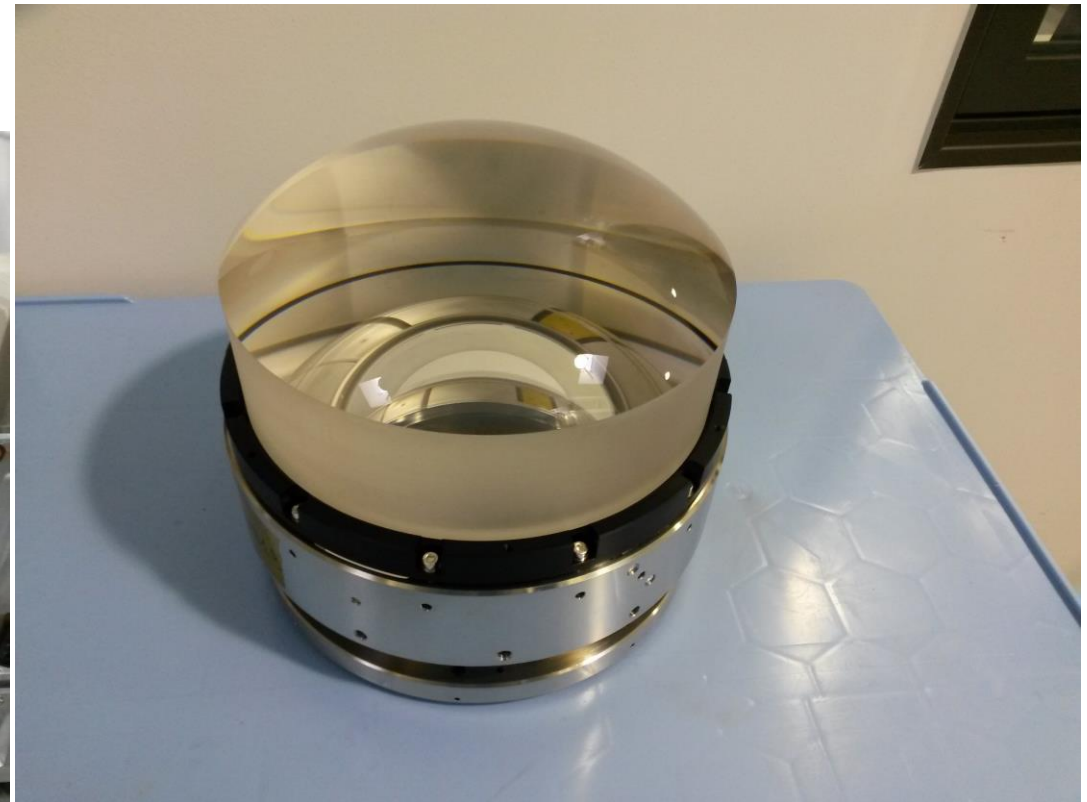
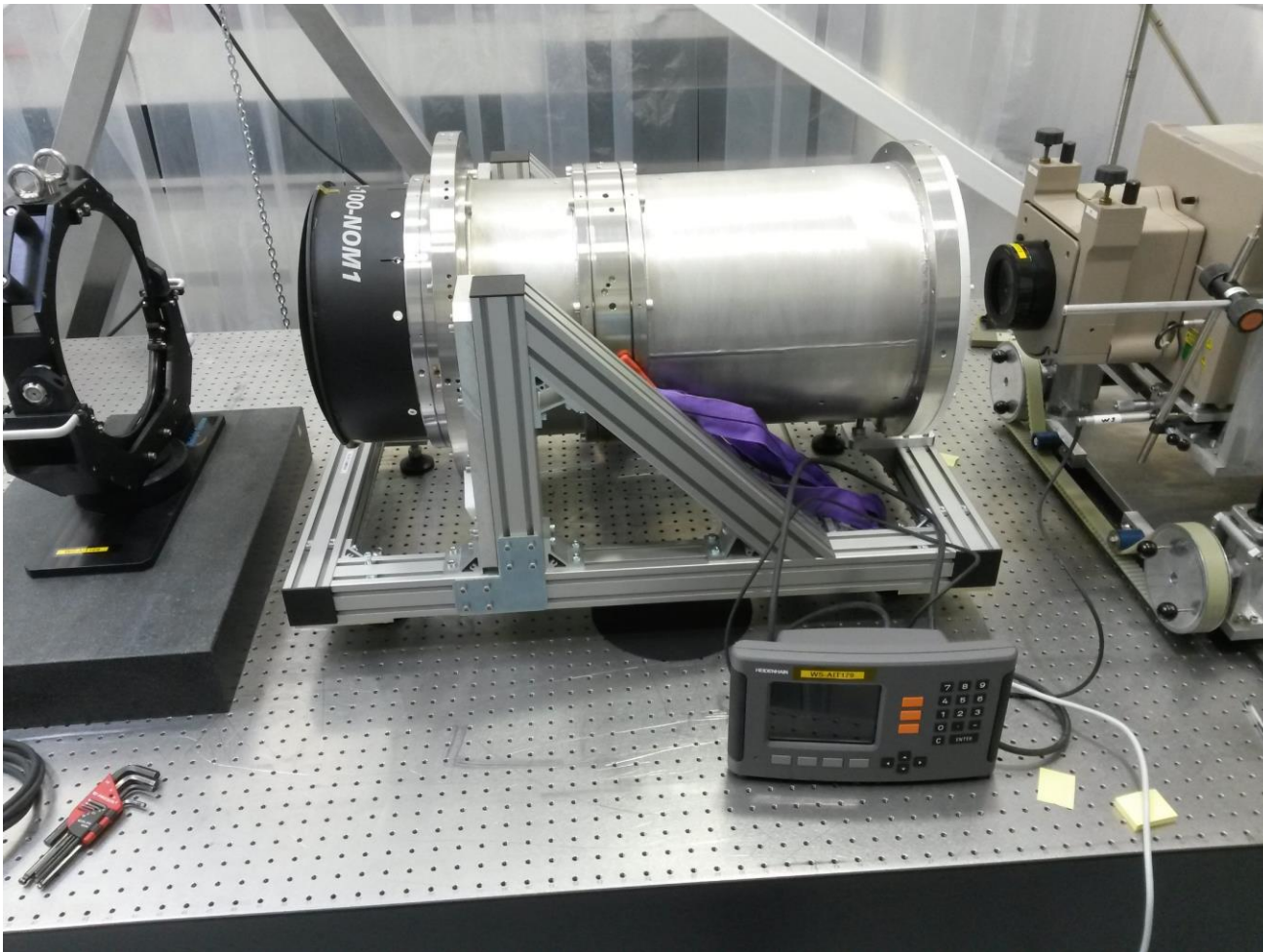
## ... MUSE

- ❖ 24 slicers
- ❖ 24 spectrographs
- ❖ 2x24 transport optics
- ❖ Fore optics with ADC
- ❖ FSO

**More than 2500  
optical pieces**



# ESPRESSO



2 cameras with  $\varnothing 300$  mm lenses

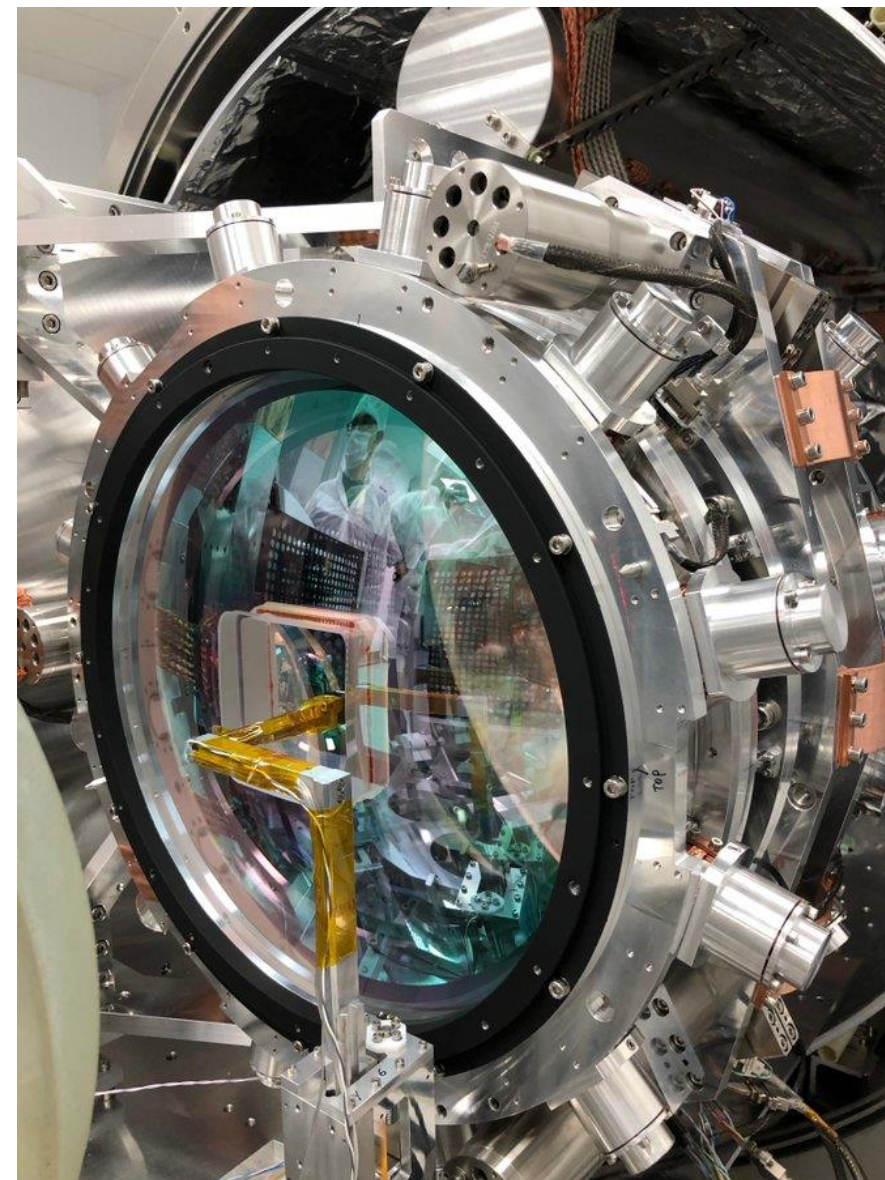
# MOONS



6 sets of :

Ø400 mm Mirrors

Lenses L1+L2 (Ø400 mm )

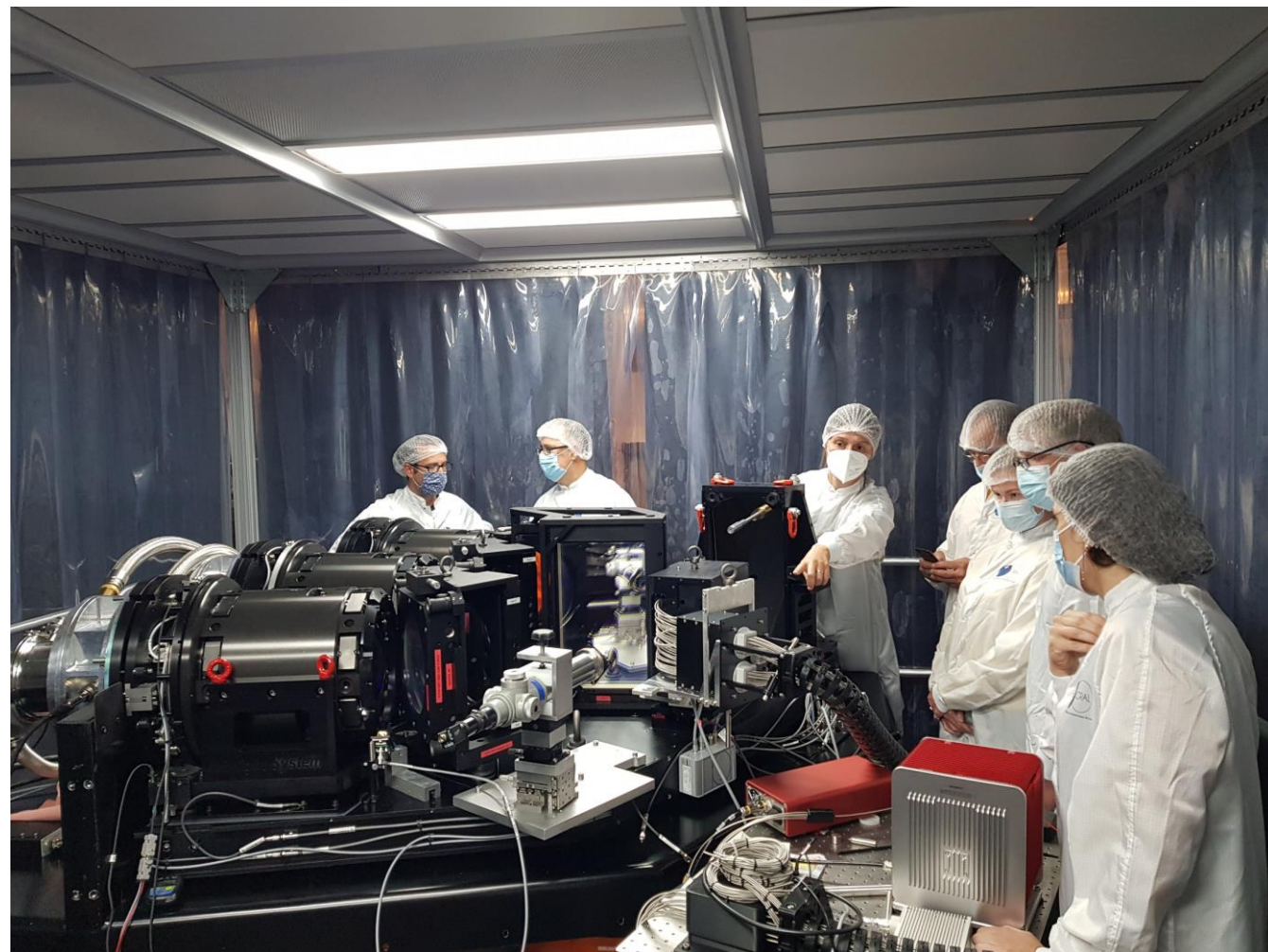
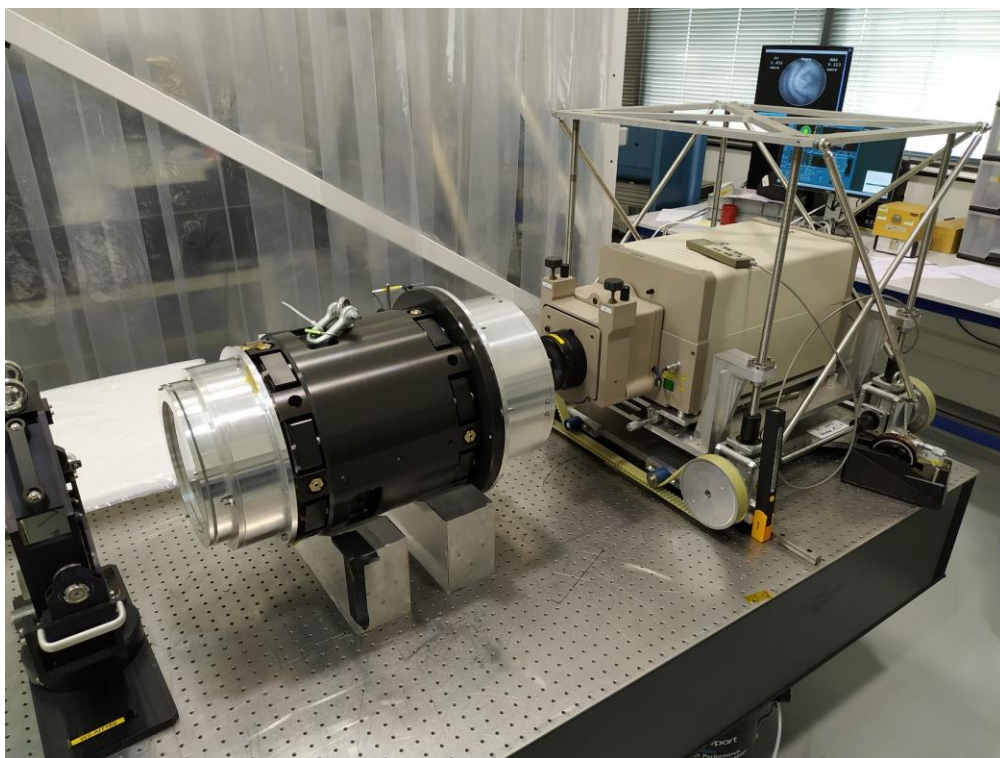


UK ATC courtesy



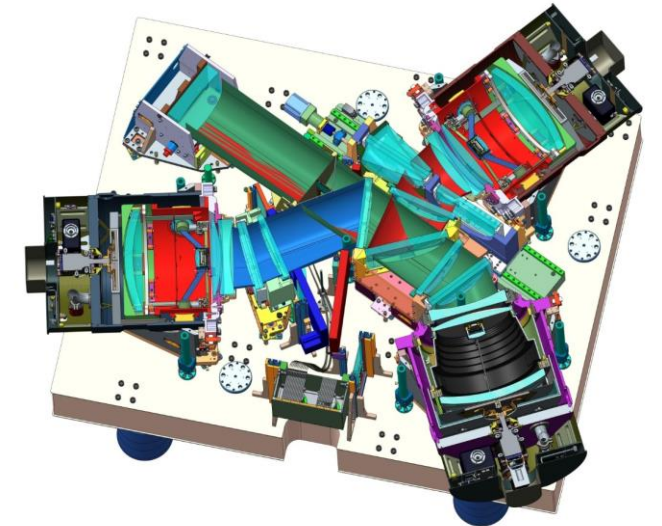
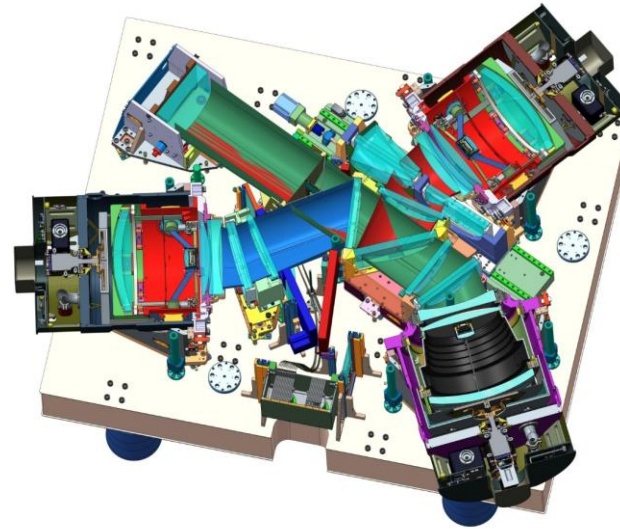
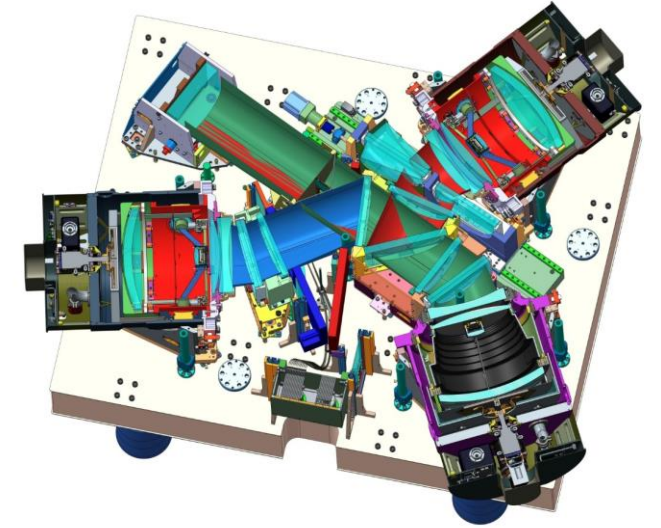
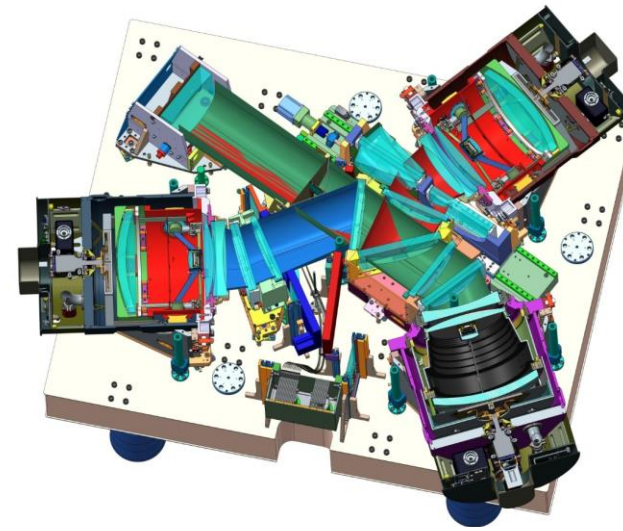
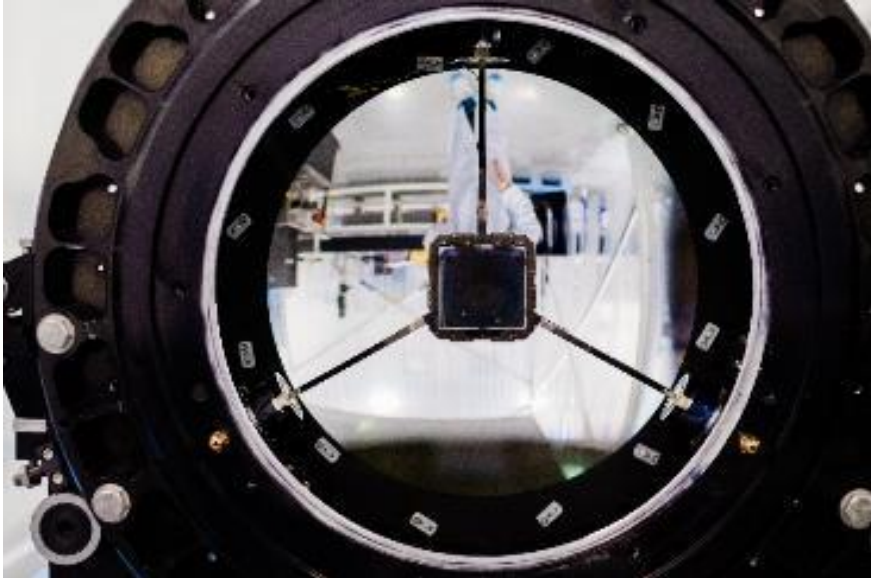
# 4MOST

- Cameras
- Collimators
- Correctors

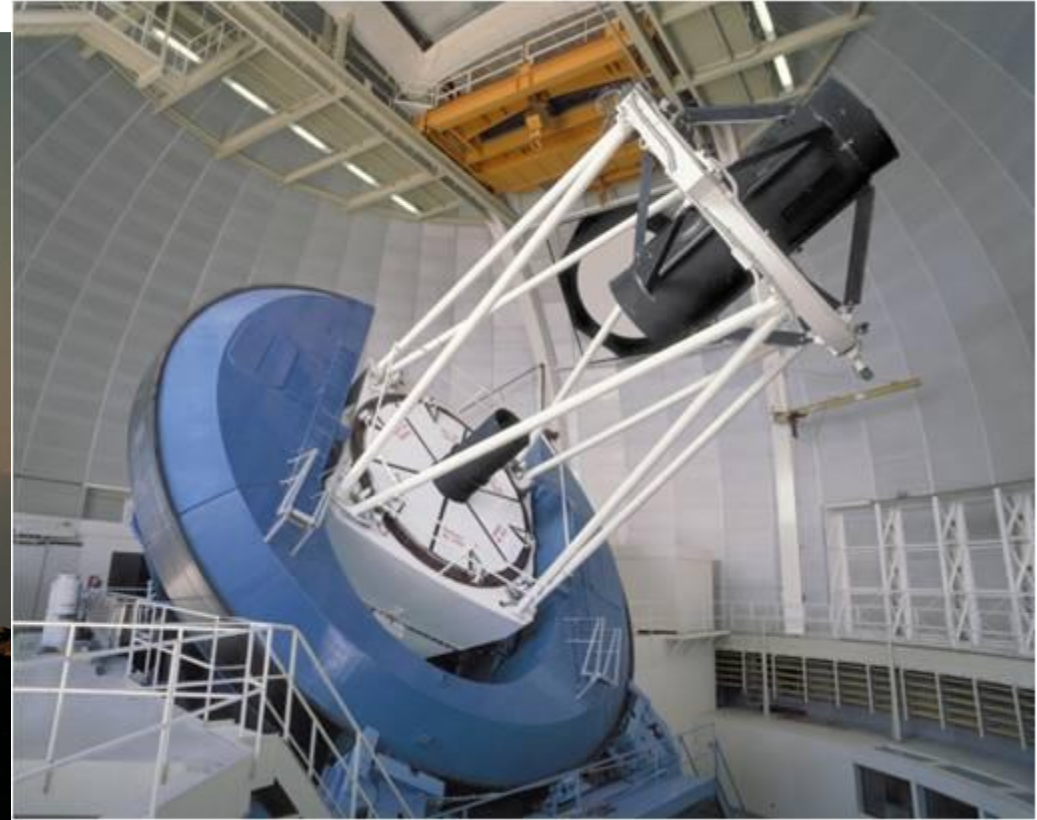
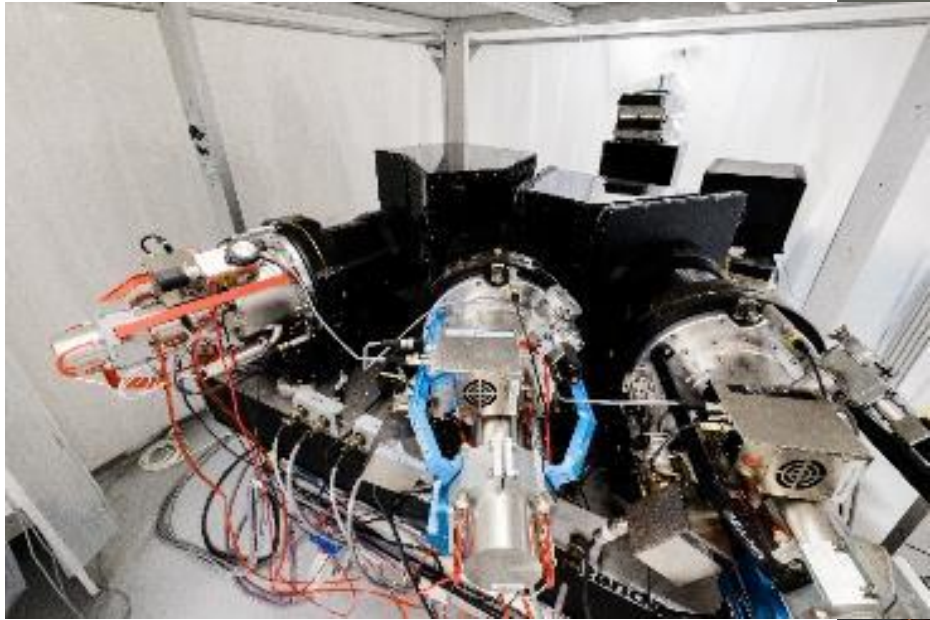


CRAL courtesy

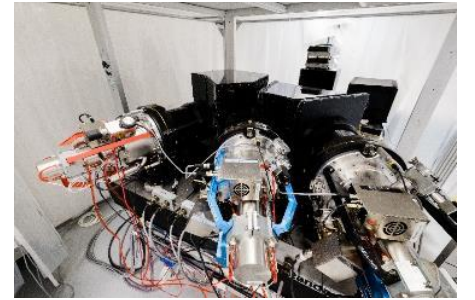
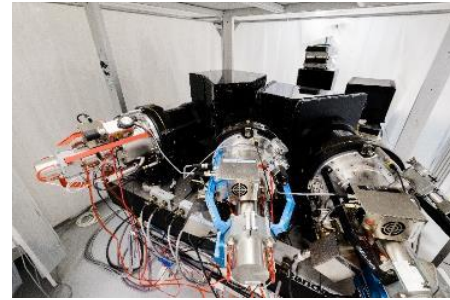
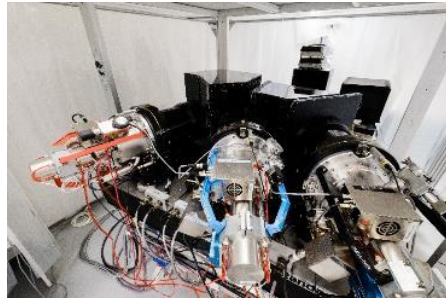
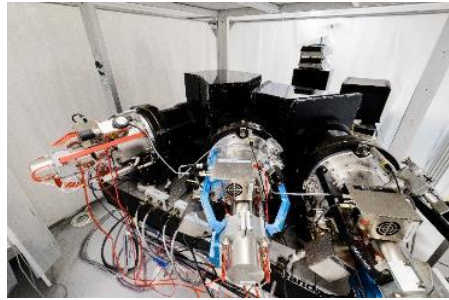
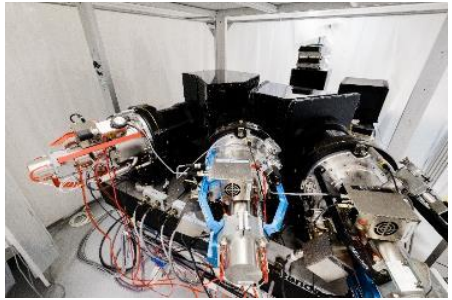
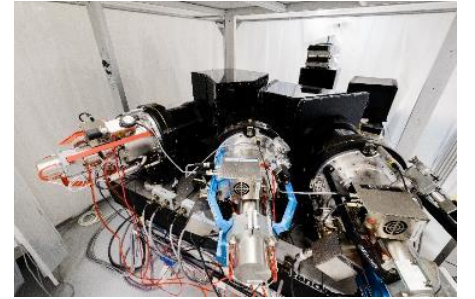
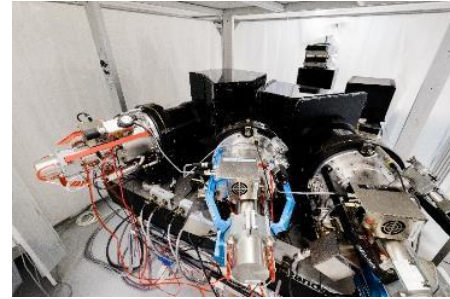
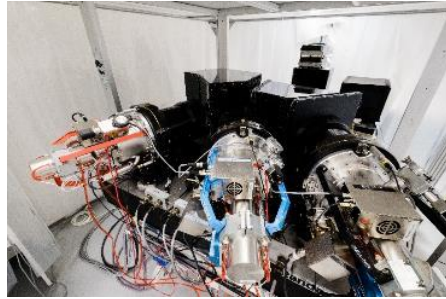
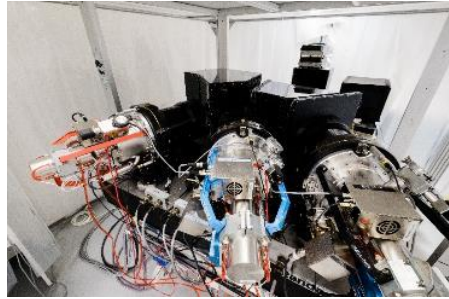
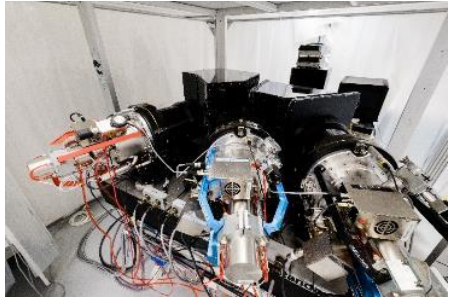
# MUSE POSITIVE IMPACT ON CREDIBILITY FOR MULTISPECTROGRAPH INSTRUMENTS : PFS SUMIRE



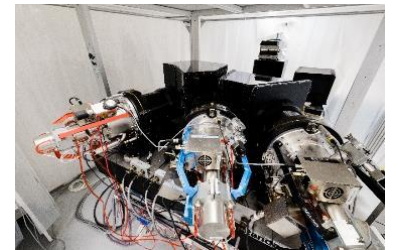
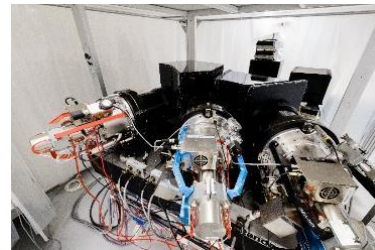
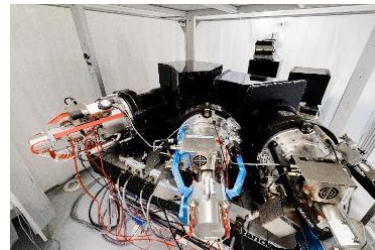
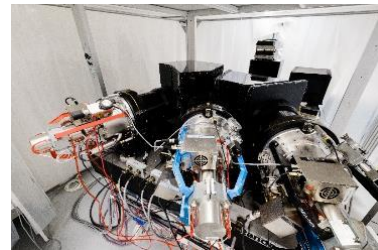
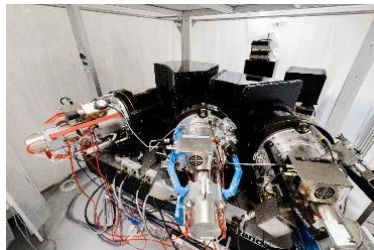
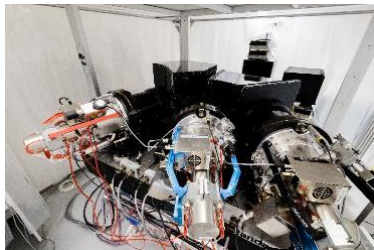
# MUSE POSITIVE IMPACT ON CREDIBILITY FOR MULTISPECTROGRAPH INSTRUMENTS : DESI



# MUSE POSITIVE IMPACT ON CREDIBILITY FOR MULTISPECTROGRAPH INSTRUMENTS : DESI



+ (LVM for SDSS-V)





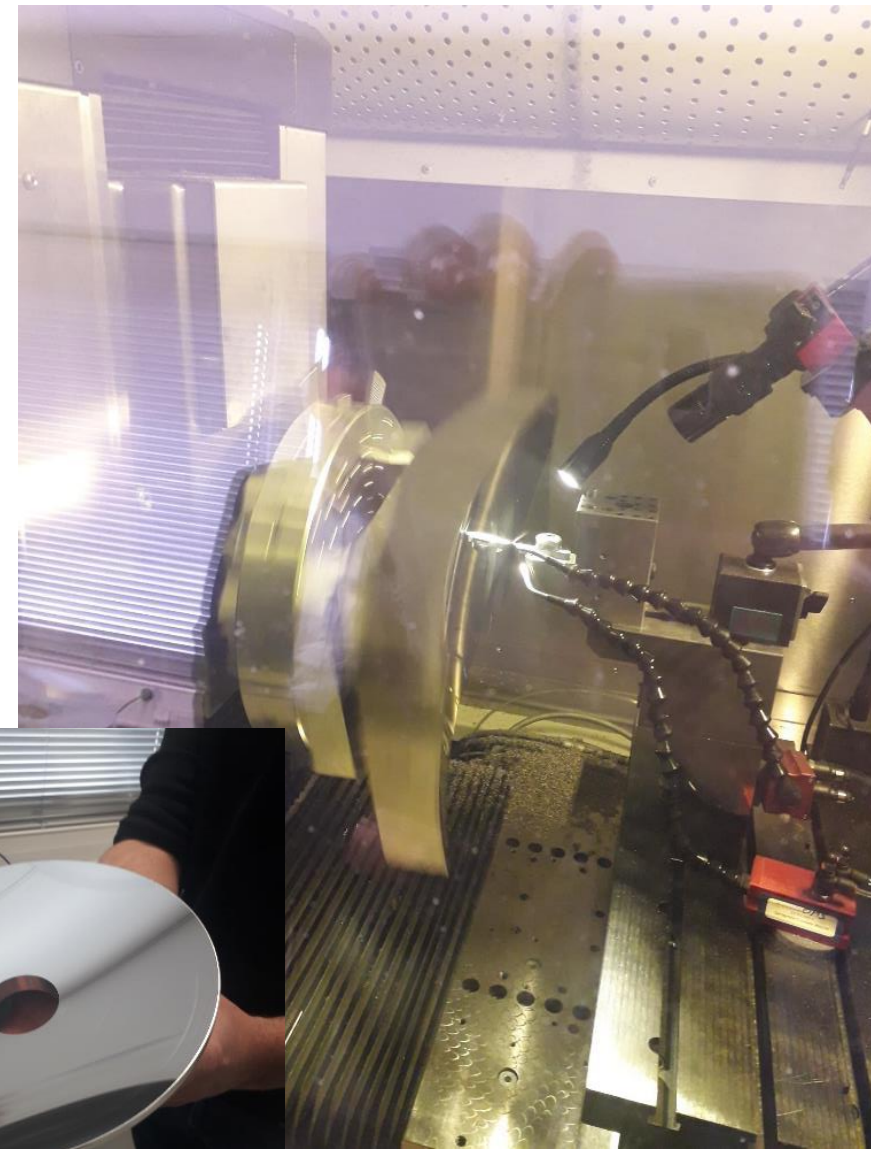
# FUTURE : OUR AMBITION FOR BERTIN WINLIGHT

- ❖ Bertin Winlight to continue to provide cutting edge **instrumentation** for ESO needs
  - Harmoni ? , BlueMuse ? , Micado ? , Cubes ? , Mosaic ?
  - ...
- ❖ Bertin Winlight to continue to operate **throughout the complete value chain**, from engineering through production and AITV
- ❖ Bertin Winlight to continue to focus on **high performance solutions** and more and more deterministic processes (less operator dependent)

# NEW CAPABILITIES

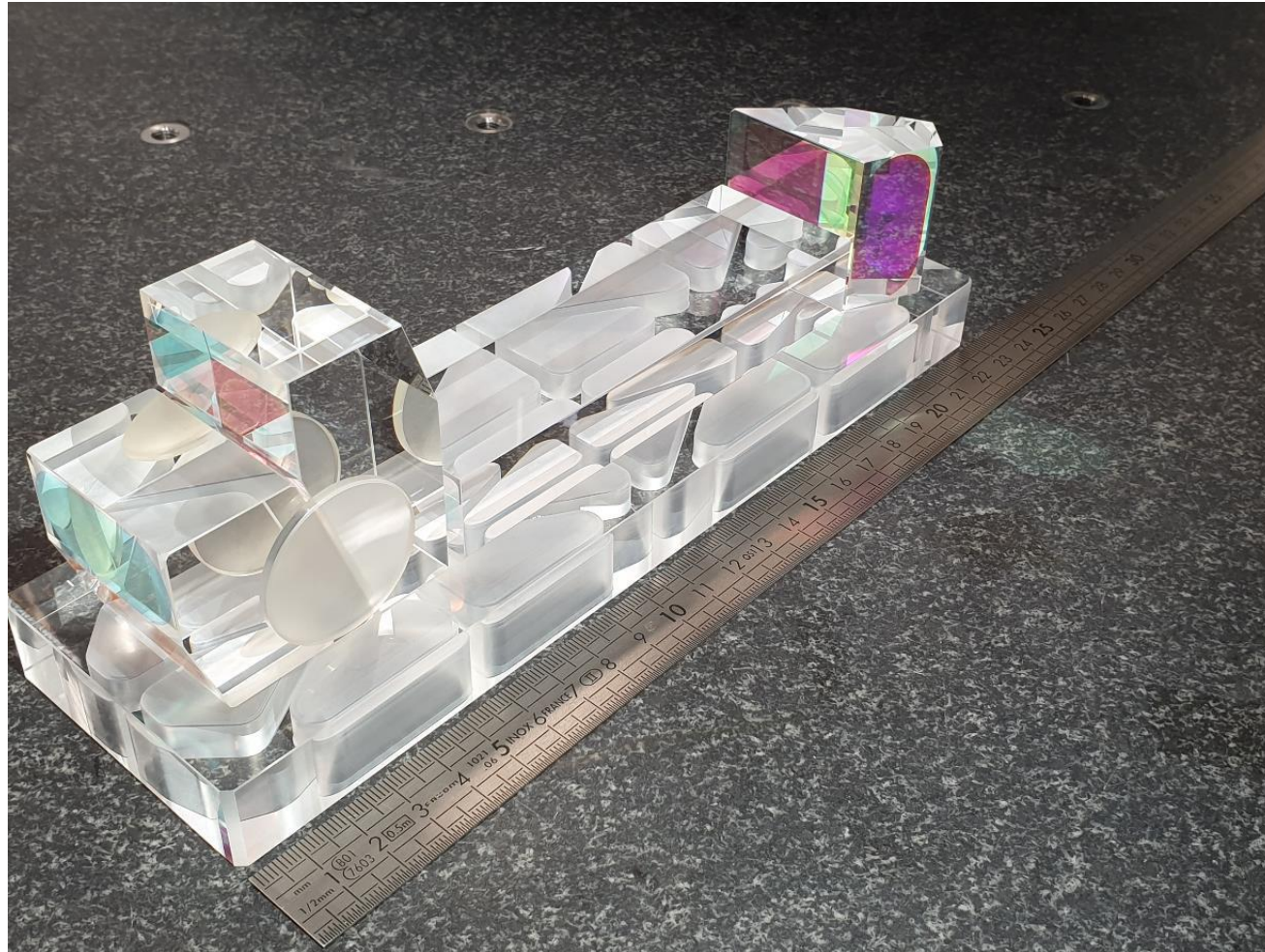


Expanding AIT  
capability by 2000 m<sup>2</sup>



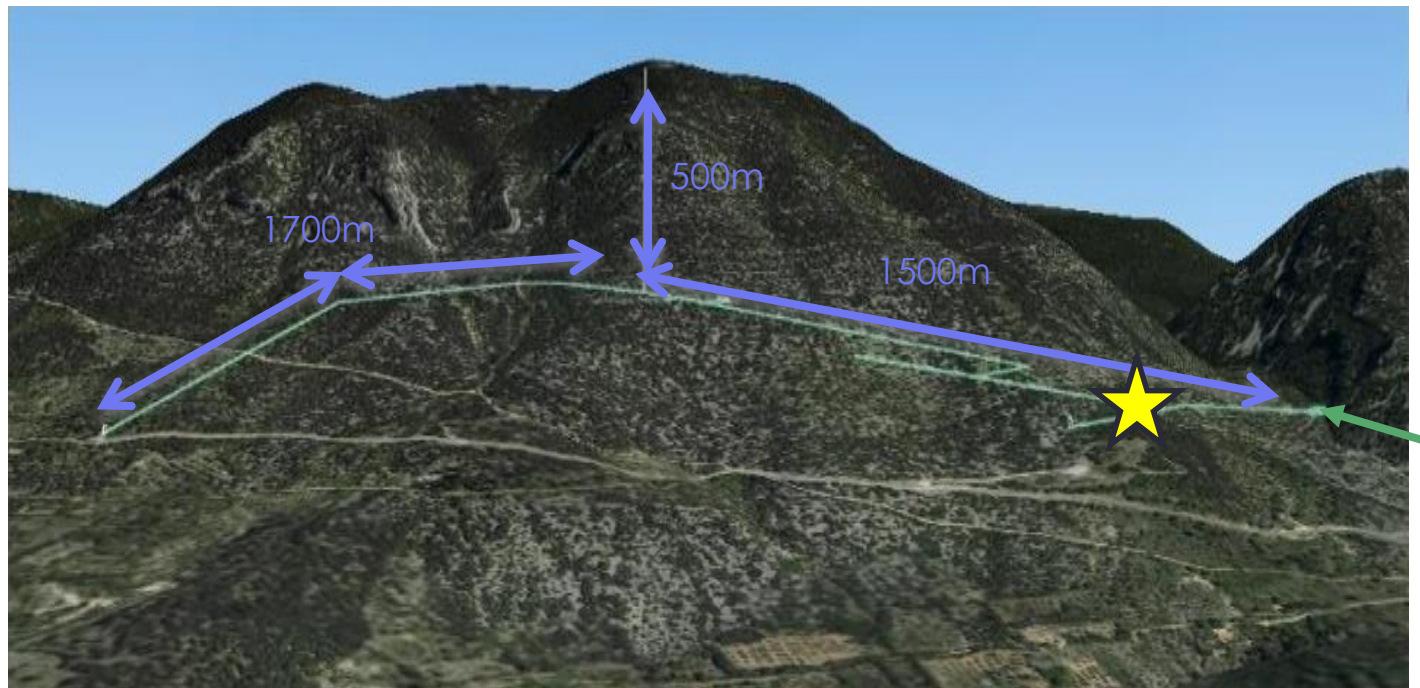
Diamond turning  
capability

# NICE OPTICS FOR FUN...



Optical contacted Mach-Zender interferometer

# NICE PLACE TO BUILD FUN OPTICAL PIECES



BERTIN WINLIGHT future underground optical laboratory (-60 meters)

