



# Instituto de Astrofísica de Canarias

David Jones

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# ERASMUS +

## Per aspera ad astra simul

- A strategic partnership between IAC and various Czech and Slovak institutes
- Opportunities:
  - Students/postdocs spend ~6 months at the IAC/GTC
  - Short-term stays at IAC for more senior staff
  - Host researchers from the IAC
  - Schools on modern astronomical instrumentation/ observations



# Las Islas Canarias





# Instituto de Astrofísica de Canarias



## Public research consortium

- ◇ Central Administration (Ministry of Economy and Competitiveness, MINECO)
- ◇ Canary Islands Autonomous Community
- ◇ University of La Laguna
- ◇ Higher Council for Scientific Research (CSIC)

# IAC

- Severo Ochoa centre of excellence
  - Solar physics
  - Cosmology
  - Stellar physics
  - Exoplanets
  - Solar system bodies
  - Instrumentation
  - ....

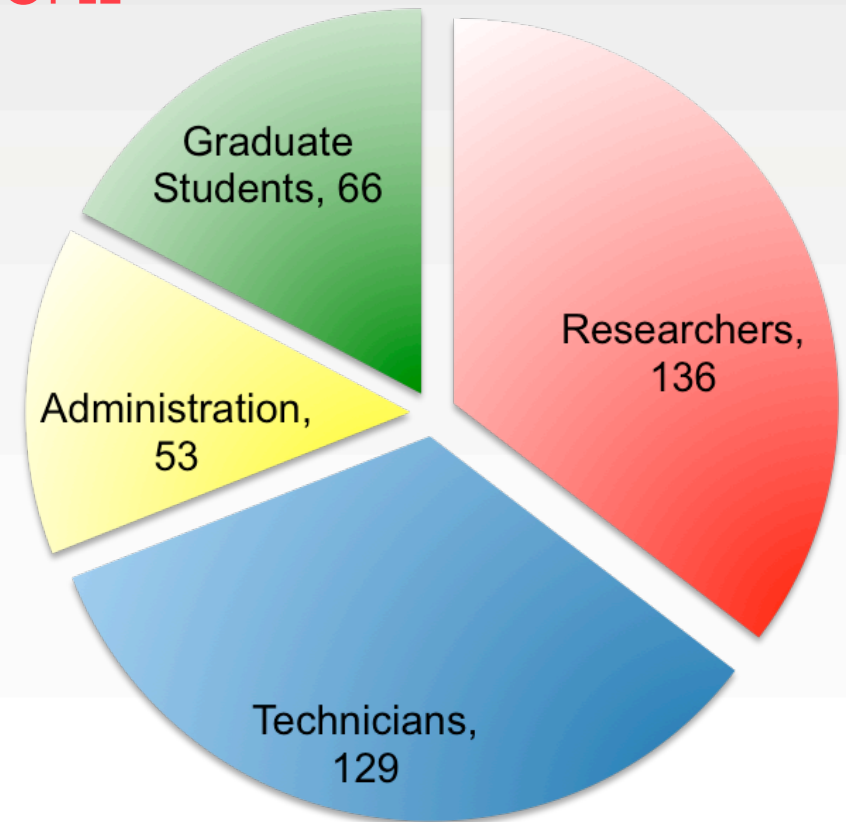
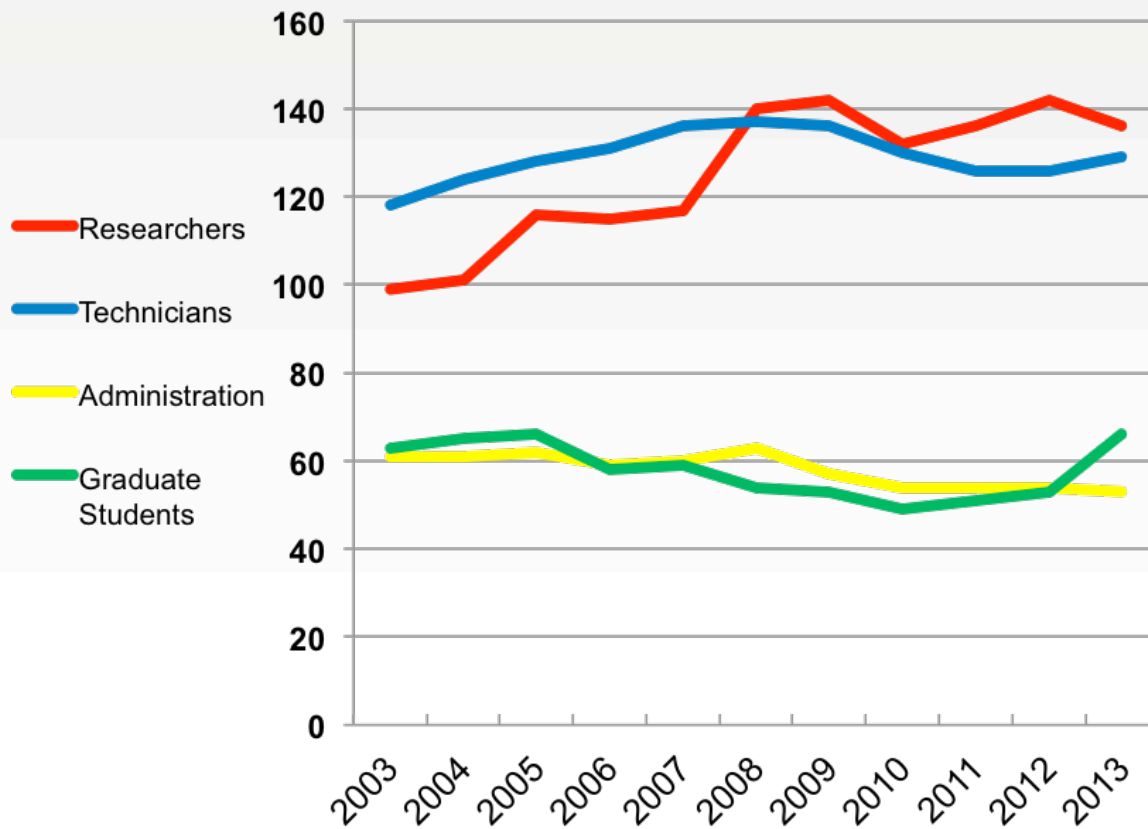
## 2 headquarters and 2 international observatories



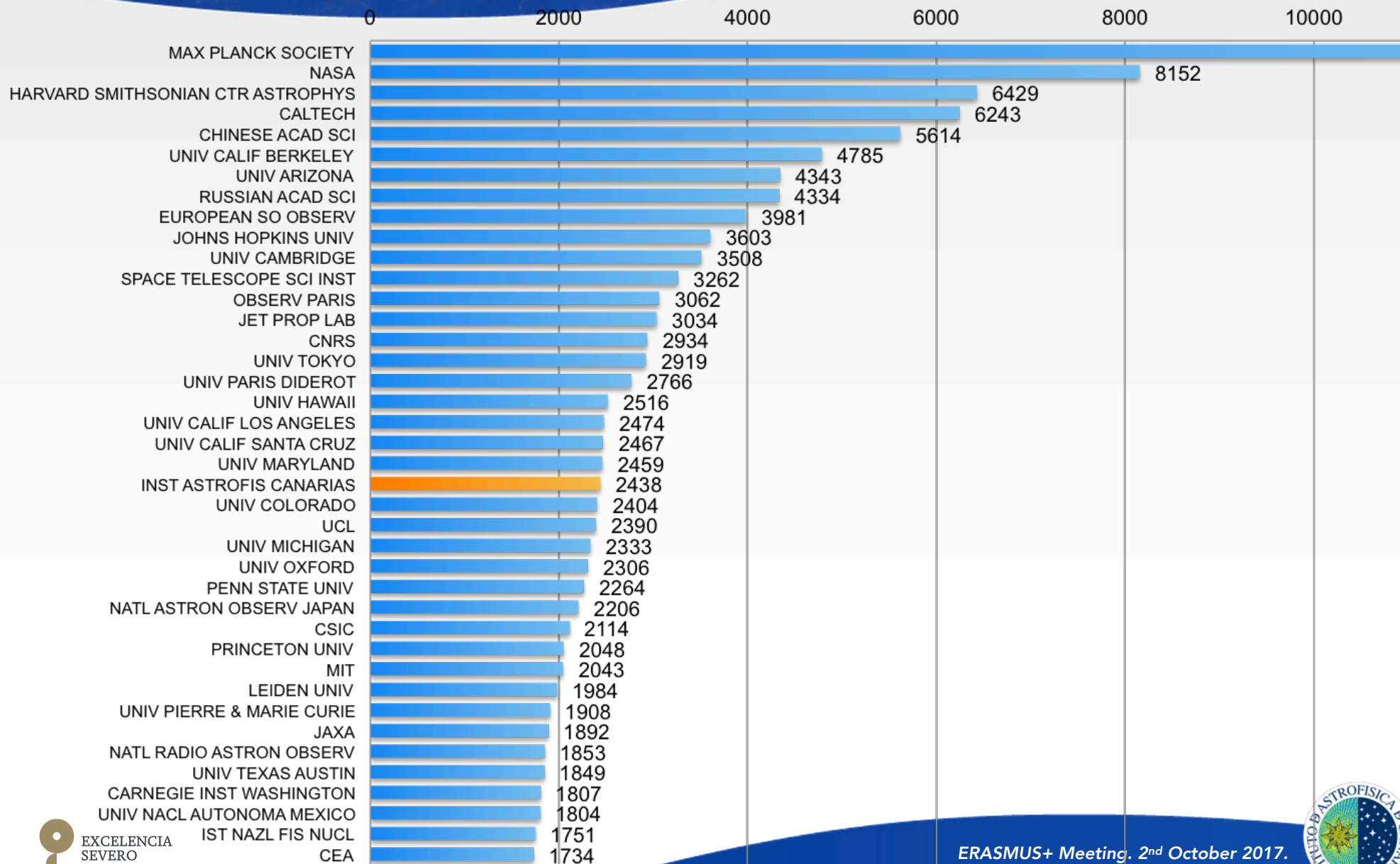
International agreements with more than 60 institutions that operate facilities at the IAC's observatories

# The IAC human resources

IAC PERMANENT AND TEMPORARY STAFF ~400 PEOPLE



# Number of papers during the last 10 years



# Astronomical Instrumentation Projects

	DETAILS	Type	Telescope	PI Institution	Present Phase
<b>PROJECTS IN DEVELOPMENT</b>					
EMIR		GTC	IAC		
MIRADAS		GTC	U Florida		
FRIDA		GTC	UNAM		
GTCAO-LGS		GTC	IAC		
HORUS		GTC	IAC		
EST-SOLARNET-GREST		EST	IAC		
QUIJOTE		QUIJOTE	IAC		
ESPRESSO		VLT	O Geneva		
HARMONI		E-ELT	U Oxford		
EDIFISE		OGS	IAC		
AOLI (&FASTCAM)		WHT	IAC		
WEAVE		WHT	ING		
SOPHI (SOLAR ORBITER)		SOLAR ORB.	MPS		
NISP (EUCLID)		EUCLID	IA Paris		
PLATO		PLATO	CAB/IAA		
SUNRISE-3		SUNRISE	IAA		
HIRES		E-ELT	OA Brera		
HARPS3		INT	U Cambridge		
NIRPS		ESO 3.6	U Montreal		
OPTICON H2020		-	UK ATC		

Total of 20 projects



# Observatorio Roque de Los Muchachos



- Home to >10 different telescopes.
- Optical, IR, Solar, Robotic, Gamma-ray Cherenkov...
- World's biggest optical telescope!
- Access to 5 available through OPTICON
- Others only through IAC staff, national TACs or telescope consortia





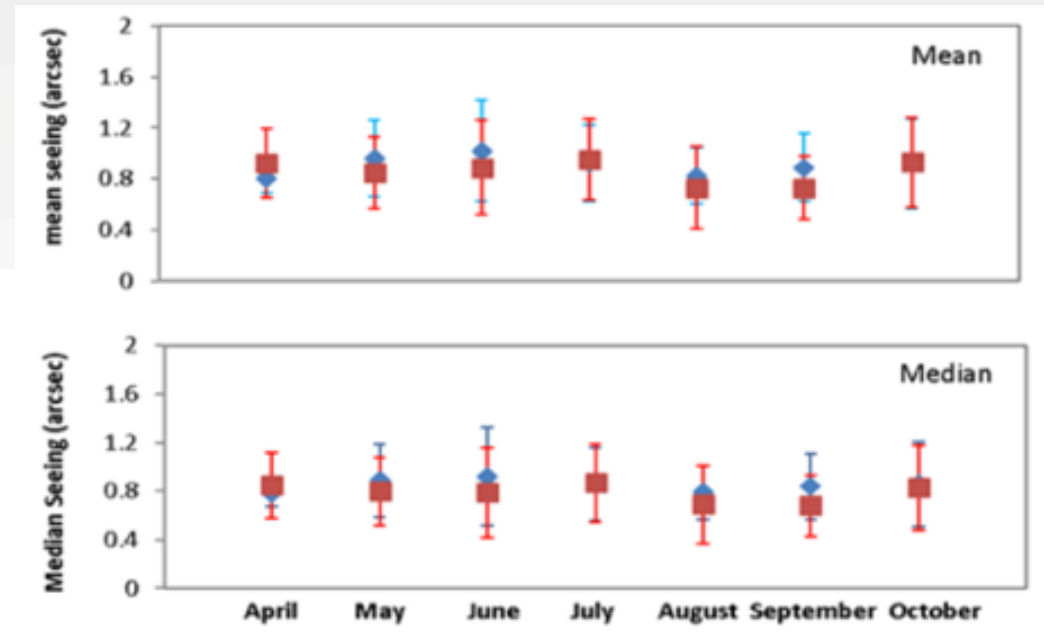
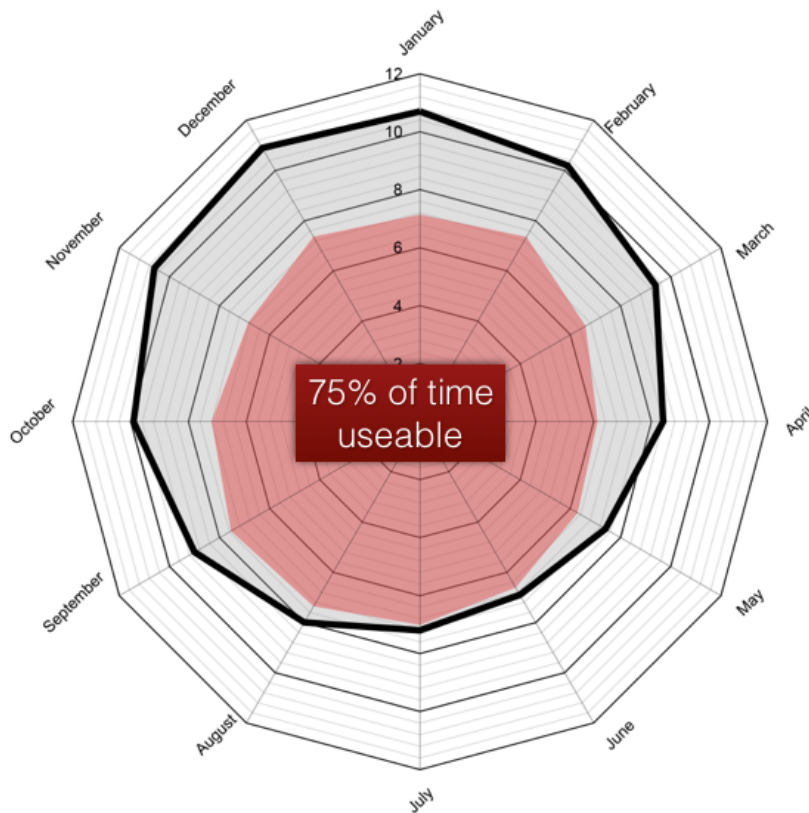
# Observatorio del Teide

- “Sister” observatory on Tenerife
- Access to another IR telescope via OPTICON
  - 1.5m Telescopio Carlos Sanchez

# La Palma

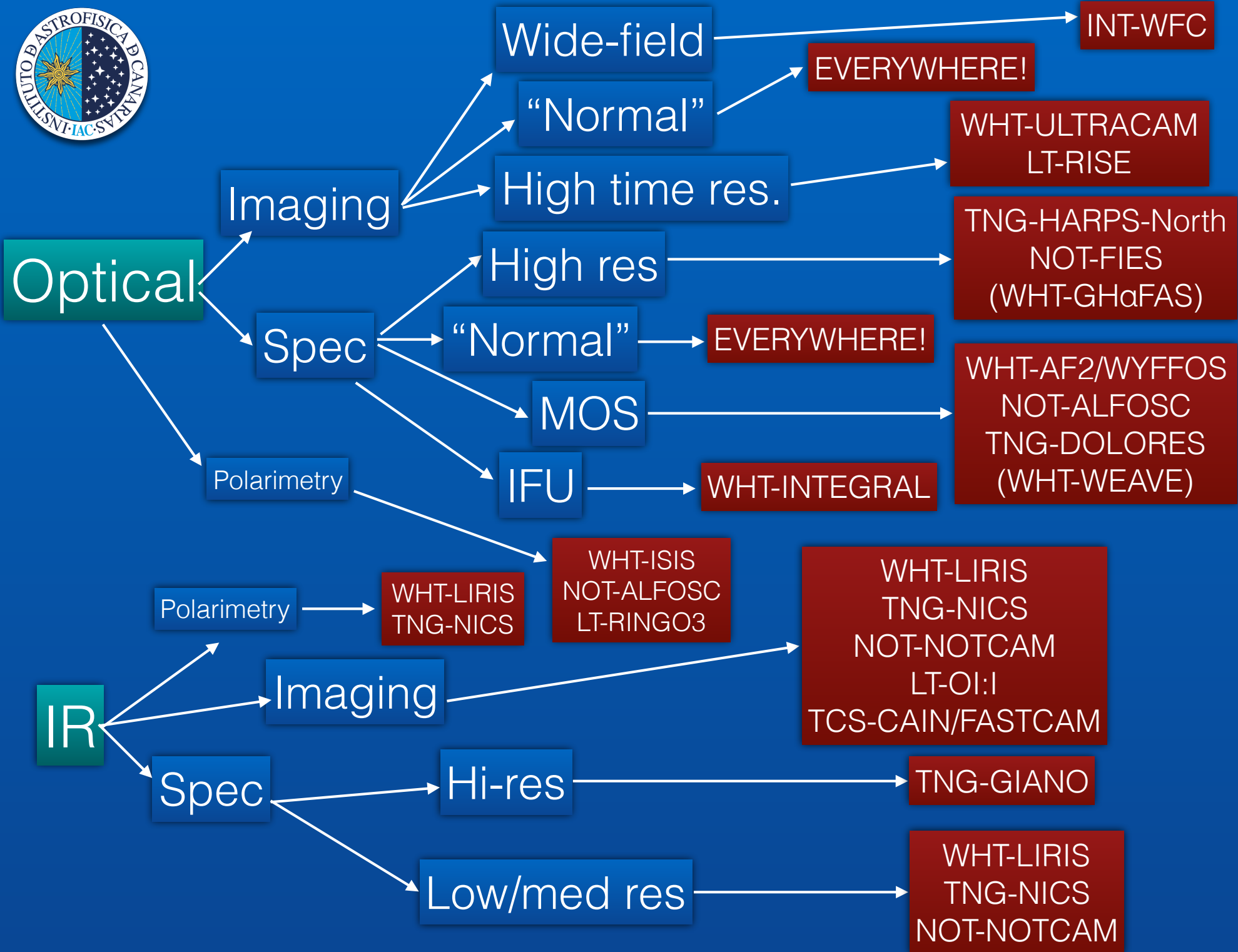
“Sky Law” protects observing conditions:

- Light pollution
- Radioelectrical pollution
- Atmospheric pollution
- Aviation routes



Median seeing ~0.8”

Varela et al. (2014, CUpS 2-2014)





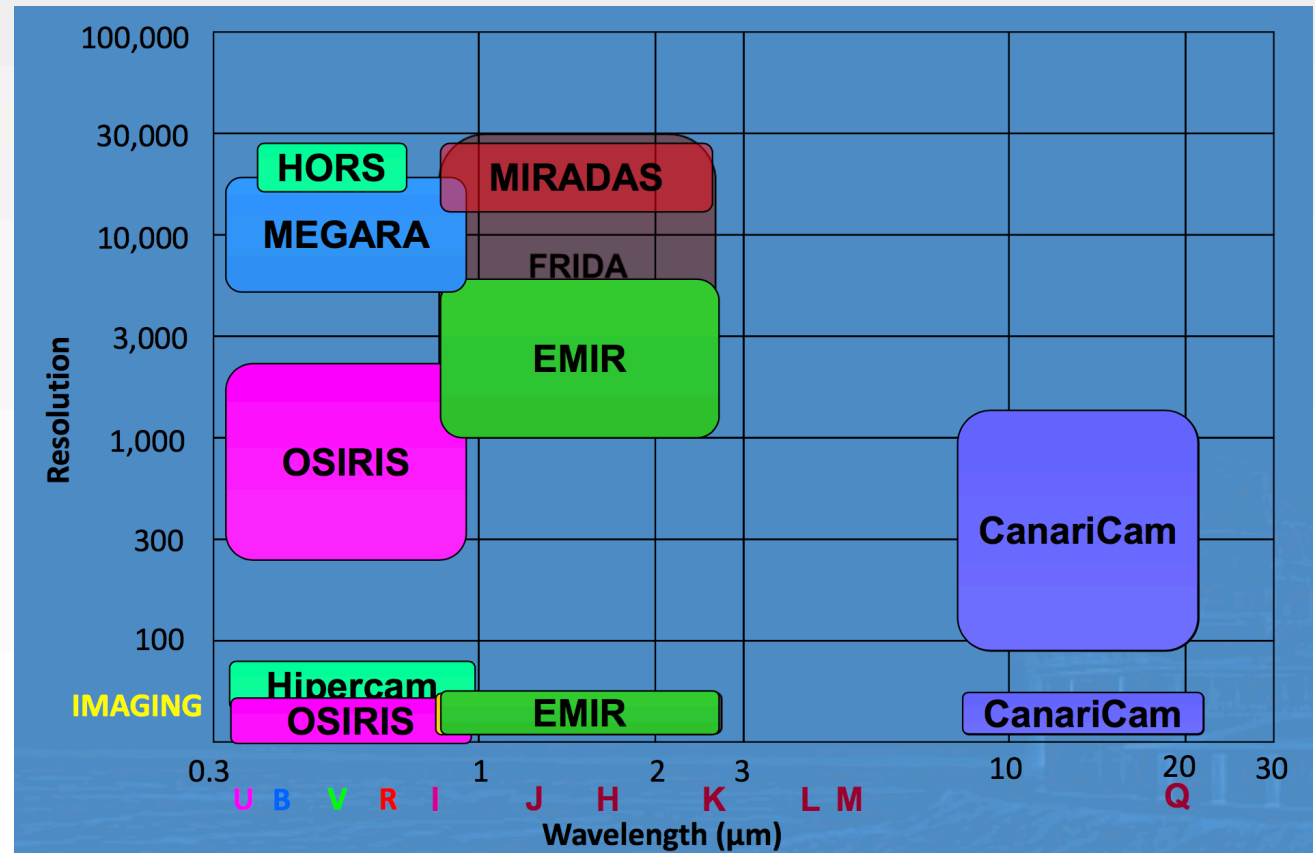
# 10.4m GranTeCan

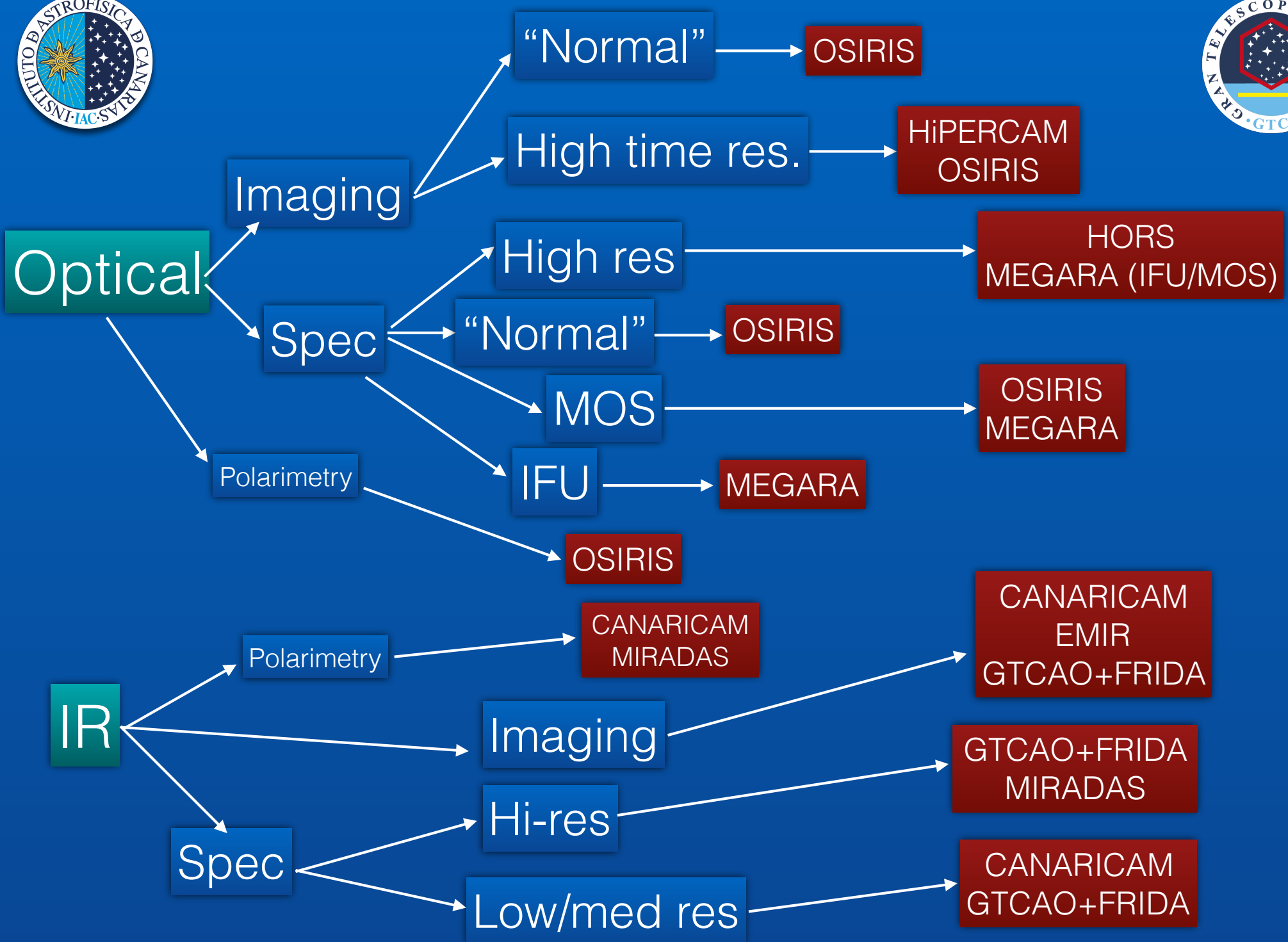




# 10.4m GranTeCan

- 90% service mode
- 10.4m primary mirror made of 36 segments
- 1.2m secondary - adjusted at 50 Hz
- 9 useable foci (only 4 currently occupied)
- 400+ tonnes





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# GTC Opportunities

- Science operations
  - Night and day astronomer duties
- Interaction with the GTC community
  - Phase I and II preparations
- Pipelines
- Observing scripts



# ERASMUS +

Per aspera ad astra simul

- Archive school planned in Slovakia 2018/19
- GAIA-related school planned in Czech Republic 2019/2020

**Stay tuned for more info!**

# Contact in Tenerife:

Jorge García-Rojas  
jogarcia@iac.es

Severo Ochoa Postdoctoral  
Fellow in Stellar and Interstellar  
Physics

Interests:

- Nebular chemistry
- Galactic chemical gradients
- High-resolution spectroscopy
- S-element abundances



# Contact at GTC:

Peter Pessev

[peter.pessev@gtc.iac.es](mailto:peter.pessev@gtc.iac.es)

GTC staff astronomer

Interests:

- Transients
- Stellar mergers
- IR astronomy
- Adaptive optics



# Contact in La Palma:

David Jones  
djones@iac.es

## Interests:

- Binary stars
- Planetary nebulae
- Common envelope evolution

## Possible projects:

- Characterisation of chemically polluted binaries
- Search for binary stars in planetary nebulae

