

EVALSO
a
Bochum View

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(AIRUB / OCA)

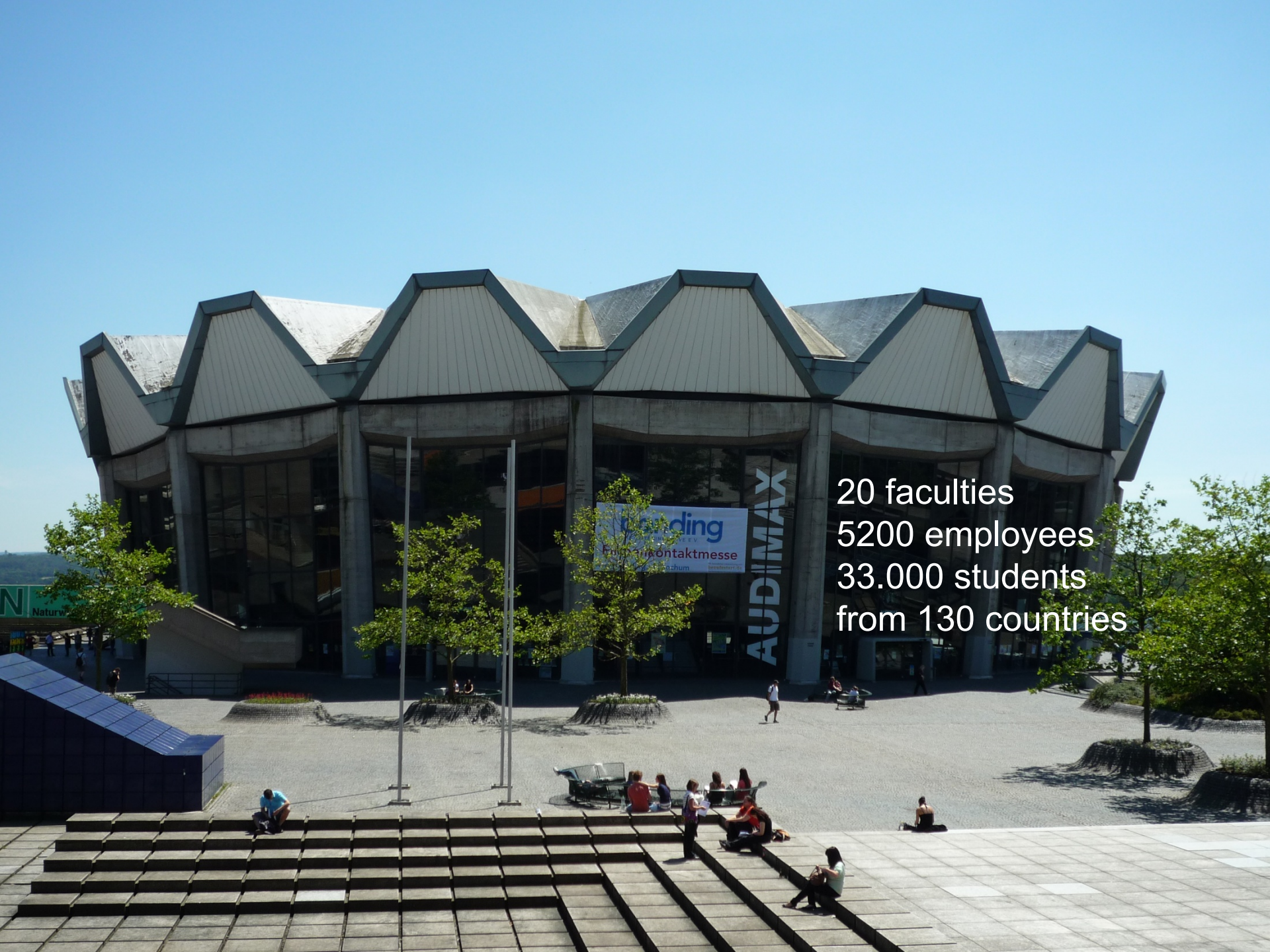


Ruhr-University
Bochum

Ruhr-University



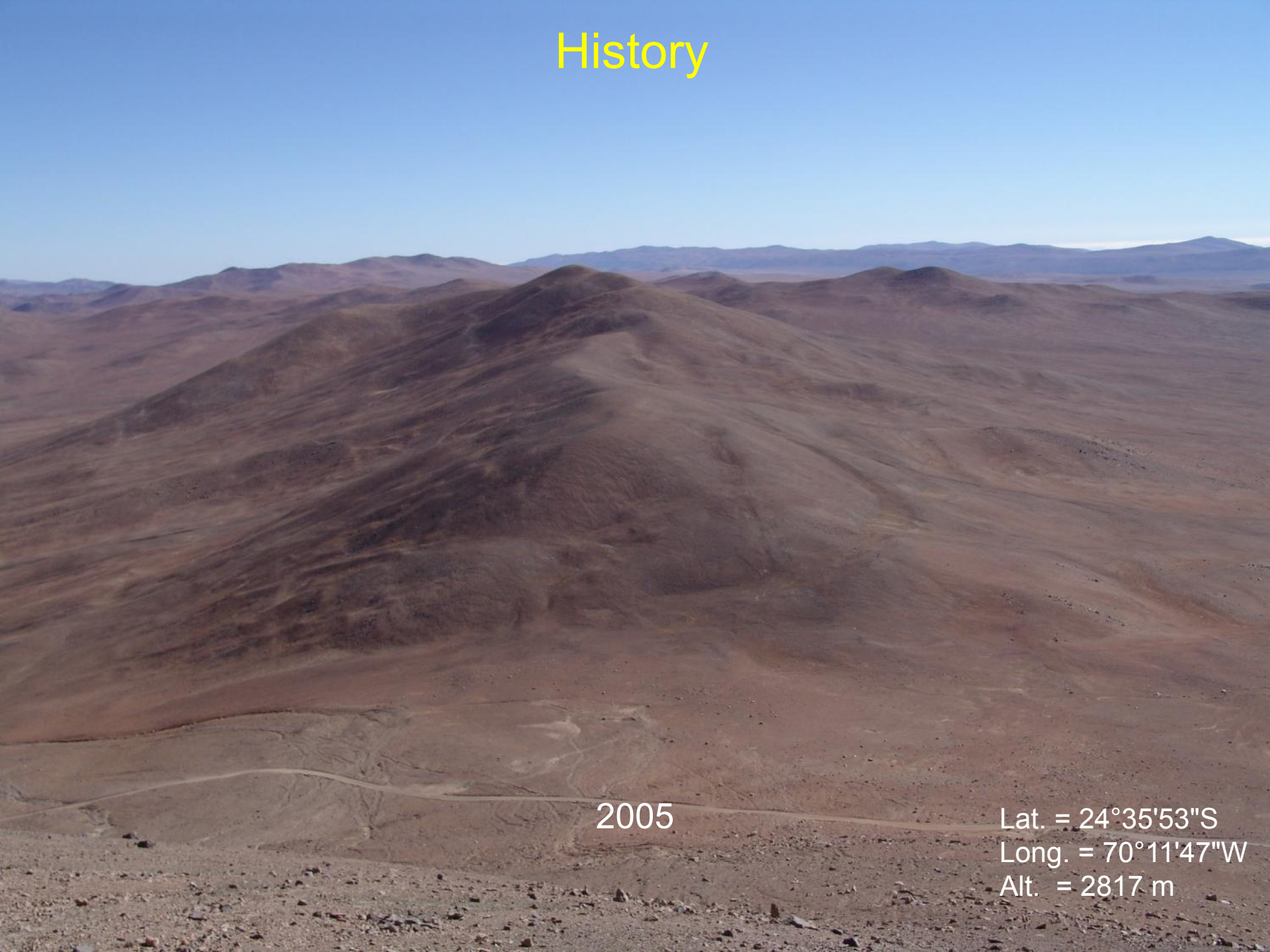
founded 1962



20 faculties
5200 employees
33.000 students
from 130 countries

Observatory
near
Cerro Armazones

History



2005

Lat. = $24^{\circ}35'53''\text{S}$
Long. = $70^{\circ}11'47''\text{W}$
Alt. = 2817 m

History

2006

Lat. = $24^{\circ}35'53''\text{S}$
Long. = $70^{\circ}11'47''\text{W}$
Alt. = 2817 m



present

Lat. = $24^{\circ}35'53''\text{S}$
Long. = $70^{\circ}11'47''\text{W}$
Alt. = 2817 m

Telescopes

Hexapod-Telescope

1.5 m active M1

Fiber- Echelle-Spectrograph
 $\Delta\lambda = 3700\text{\AA} - 8600\text{\AA}$
resolution $\lambda/\Delta\lambda \sim 50.000$

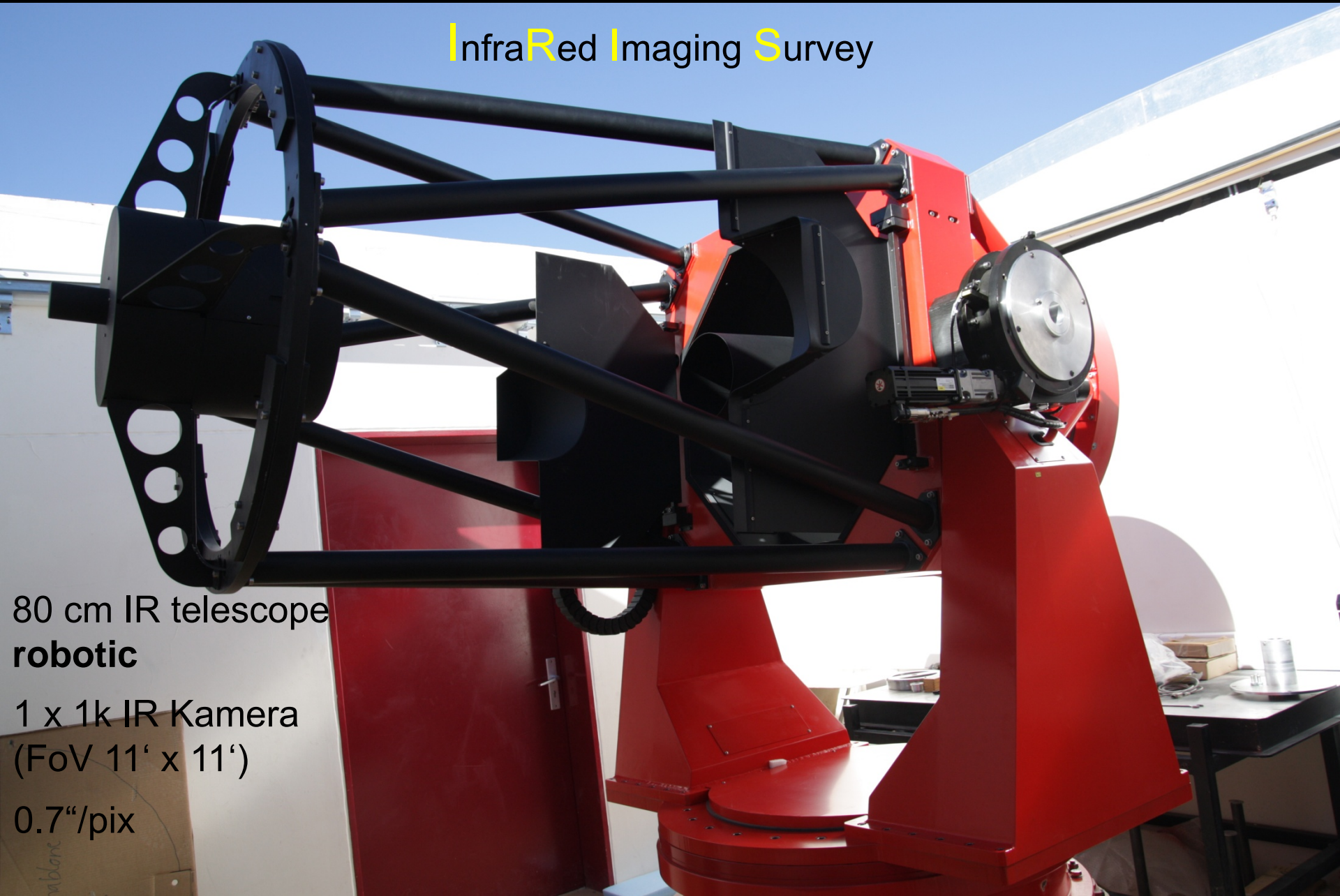
IRIS

InfraRed Imaging Survey

80 cm IR telescope
robotic

1 x 1k IR Kamera
(FoV 11' x 11')

0.7"/pix

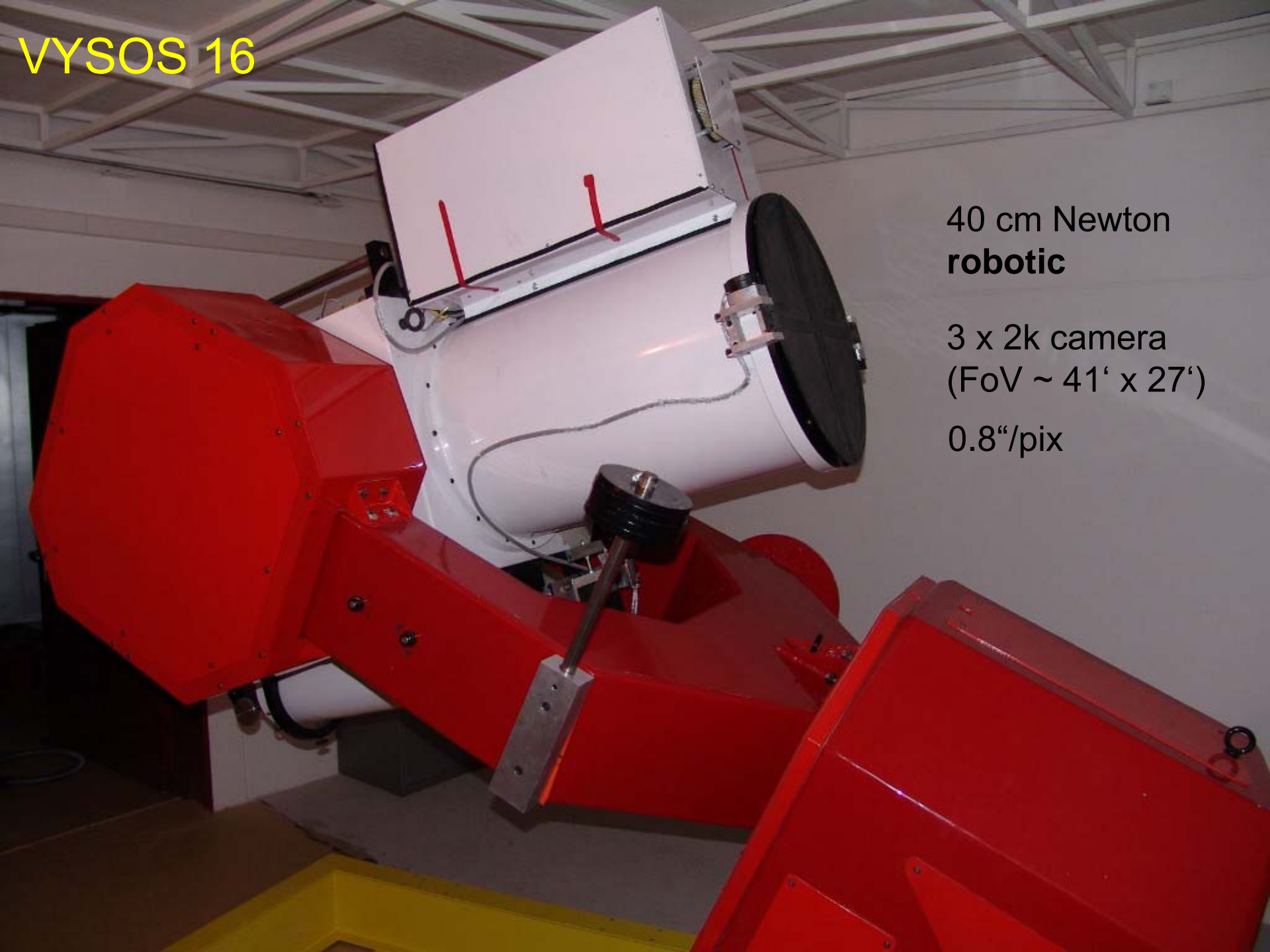


VYSOS 16

40 cm Newton
robotic

3 x 2k camera
(FoV ~ 41' x 27')

0.8"/pix



VYSOS 6 A&B

two 15 cm refractors
robotic

two 4 x 4k cameras
(FoV $\sim 2.5^\circ \times 5.0^\circ$)

2"/pix



BEST II

Berlin Exoplanet Search Telescope

25 cm telescope
robotic

Support for CoRoT mission



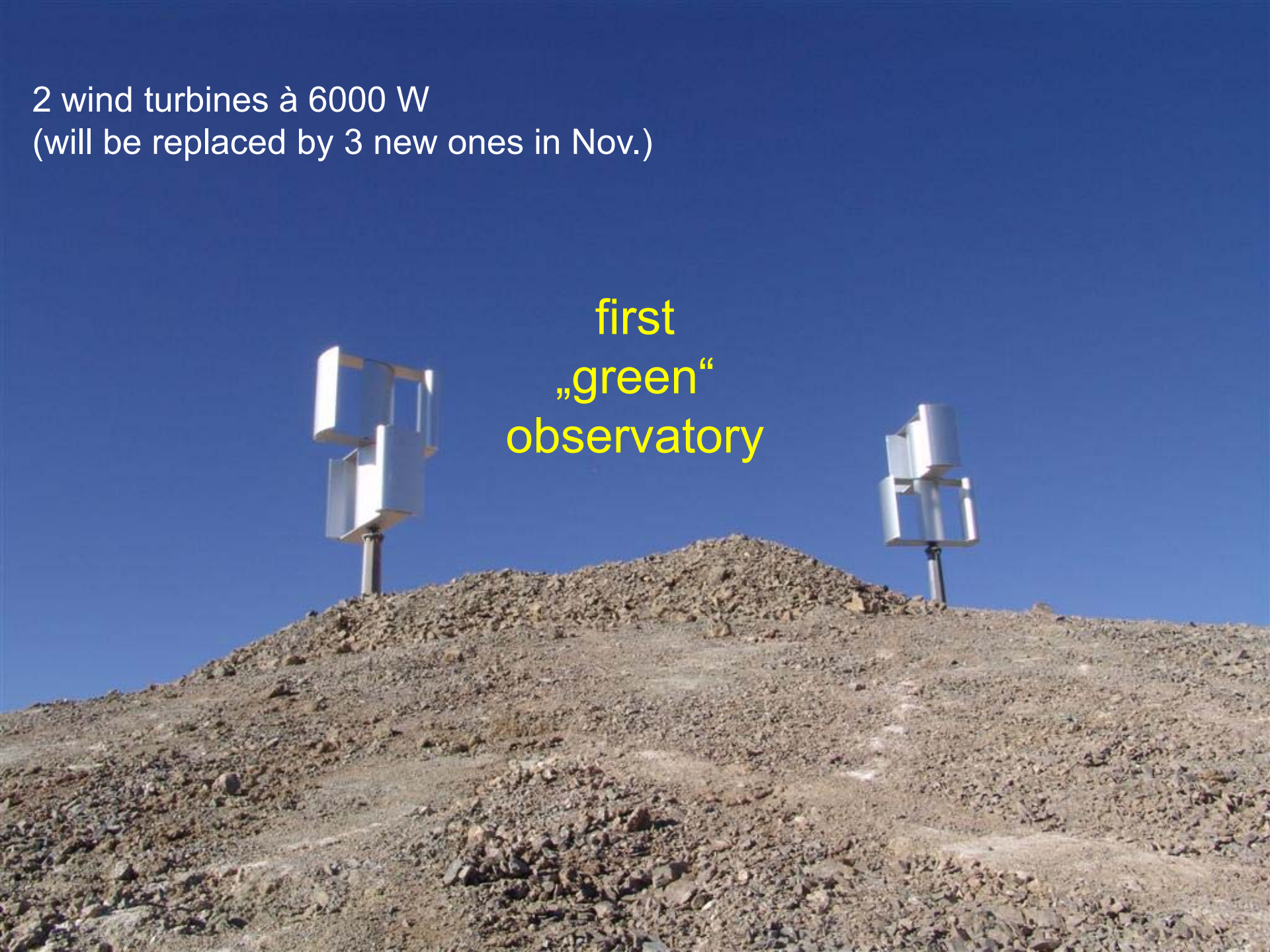
Energy

100 photovoltaic modules à 130 W



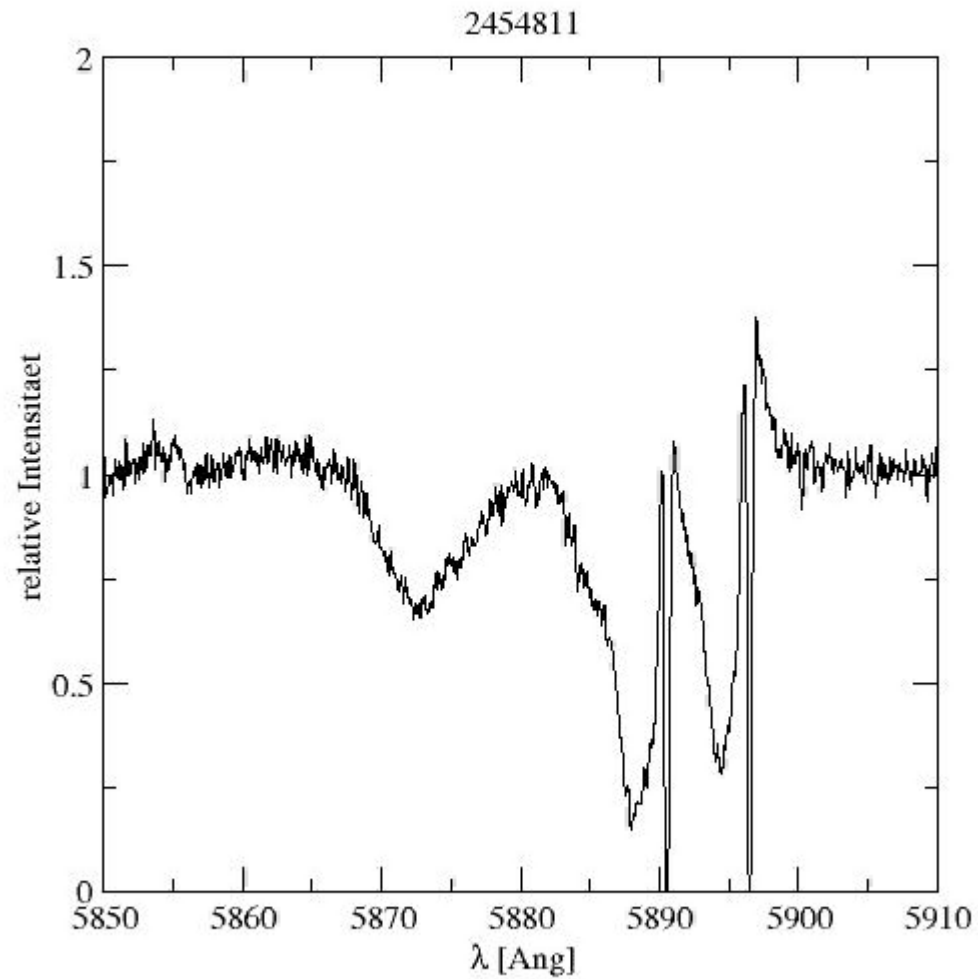
2 wind turbines à 6000 W
(will be replaced by 3 new ones in Nov.)

first
„green“
observatory

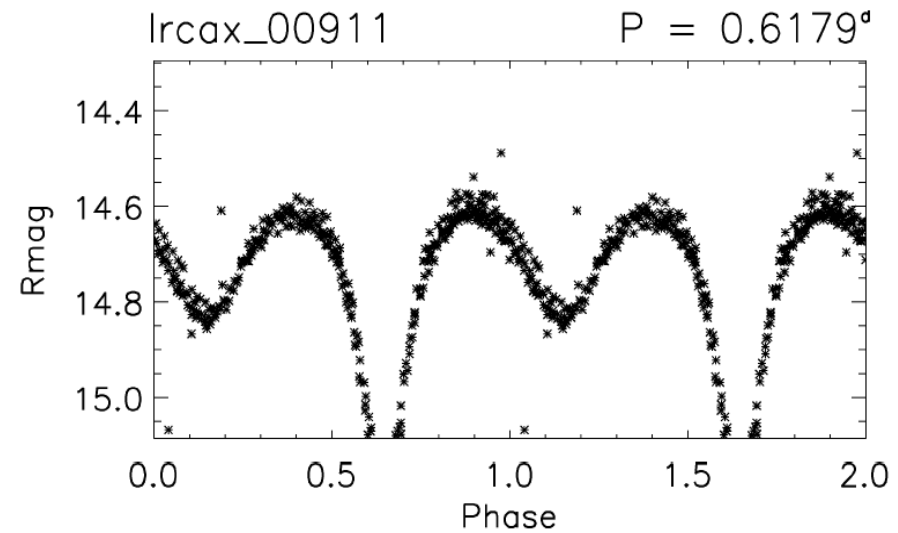
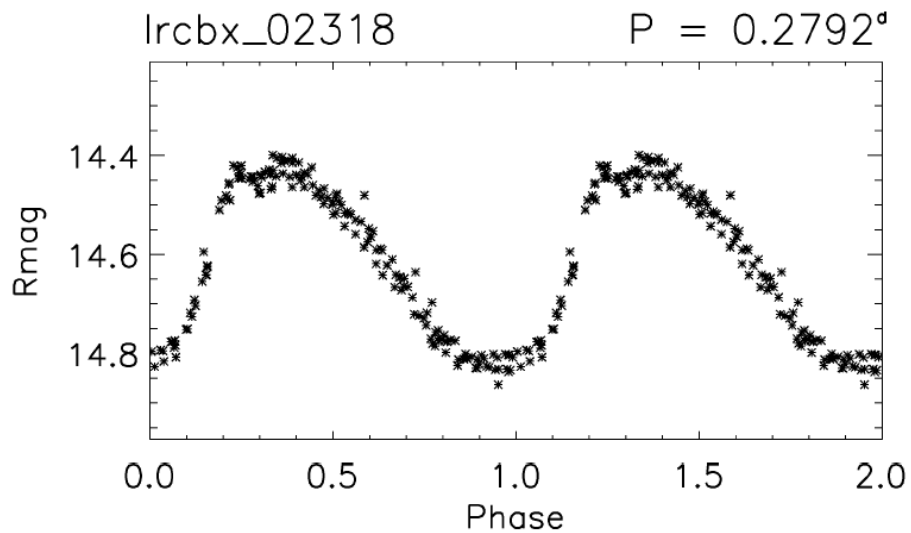
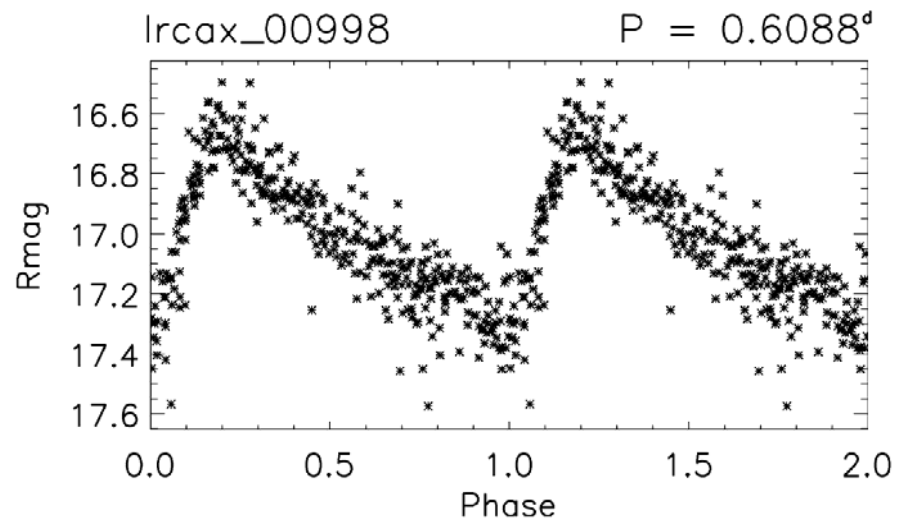
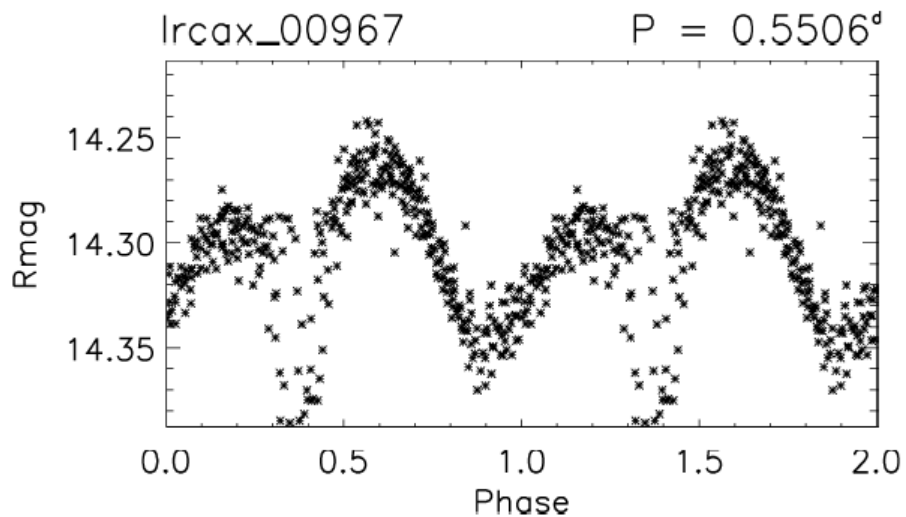


Benefits from EVALSO

almost real time access to variable phenomena



immediate response to newly discovered variable objects



remote real-time control of telescopes



robotic operation



The availability of high bandwidth communication
to the observatory infrastructure
will allow AIRUB to:

- reduce travel waste (people time, money, CO₂)
thanks to remote real-time control of telescopes and robotic operation
- reduce data transfer costs by replacing shipping over hard disks
- allows immediate response to newly discovered variable phenomena
- use remotely controlled telescopes with good video and audio quality links
as part of the educational process (teaching and/or training)
without need for expensive traveling
and therefore more affordable for the students/university