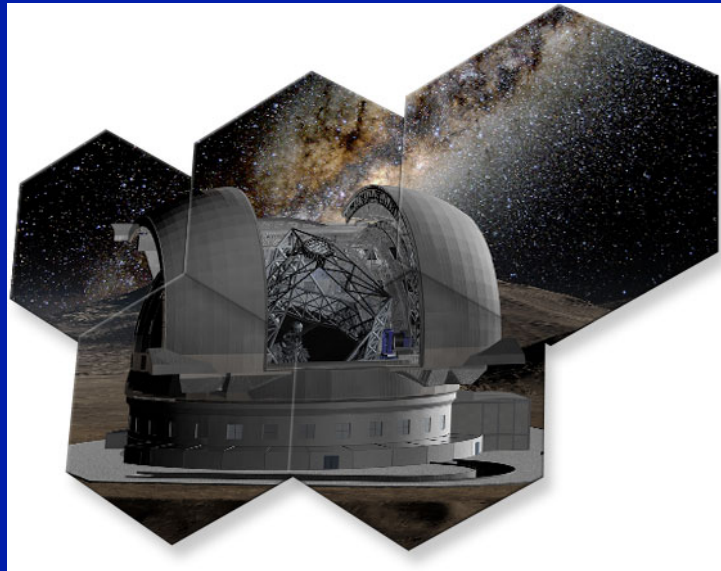


# T-REX: Italian technologies for E-ELT



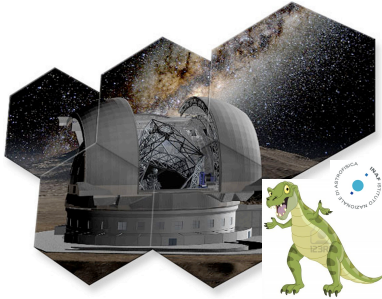
**INAF *progetto premiale* awarded by MIUR**

Monica Tosi

INAF – Osservatorio Astronomico di Bologna

Sexten, July 20<sup>th</sup> 2015

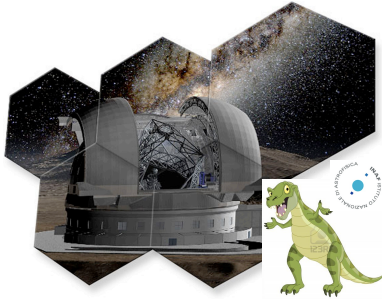




# *Progetti premiali*

Following a decision taken by Berlusconi's Government, every year MIUR takes 7% of their budget out of all its Research Institutes (EPR: INAF, INFN, CNR, etc.) and is supposed to redistribute that money to national projects presented by the EPRs, and selected on a competitive, peer review basis. These projects are dubbed *progetti premiali*.

The selection is made by a MIUR committee made of VIPs of heterogeneous expertise (one astrophysicist, at most ...).



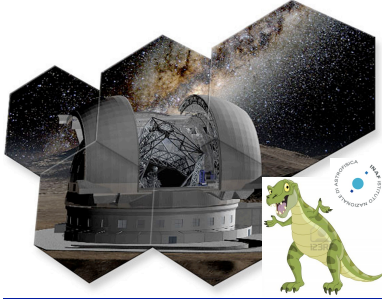
# *Progetti premiali 2011*

At the end of 2011 MIUR issued the first call for *progetti premiali*; deadline January 2012.

INAF presented 4 such applications and got 3 approved (E-ELT, LBT, VLT).

The total allocation to INAF (10.6 Meuro, approved in June 2012, actually assigned at the end of 2012) turned out to be fairly higher than 7% of its budget (FOE~80 Meuro)

INAF applied an overhead of 10% to each *premiabile* to support research in general (e.g. PRINs, PhD grants, institutes).



# *Progetti premiali 2012*

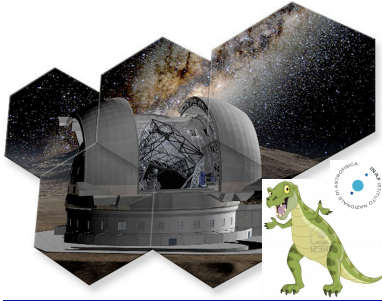
The second MIUR call was issued on 19/12/2012; deadline February 2013; this time for 3 types of projects:

- 1) Projects already approved in the past or part of joint European proposals,
- 2) interdisciplinary/transversal projects,
- 3) Projects to support/upgrade European/international infrastructures.

INAF presented 8 applications and got 5 approved (E-ELT, LBT, CTA, ALMA and WOW) for a total 15.9 Meuro (again much more than our 7%). Funds arrived in May 2014.

**INAF overhead raised to 15%.**



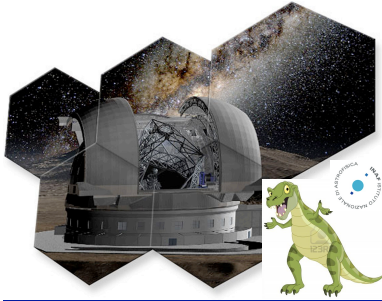


# *Progetti premiali 2013*

In 2013 MIUR has decided to skip the *premiati's* call, and allocate the “7% funds” on the basis of the ANVUR-VQR results. This was called *premiatità* in analogy with the *progetti premiali*.

The allocation to INAF has been 13.7 Meuro, approved in March 2014 (higher than 7% of its budget, but not as higher as with the actual *premiati*).

INAF uses the *premiatità* to support research in general (e.g. PRINs, PhD grants, institutes) and pay what is needed for our share in e.g. LBT, E-ELT.

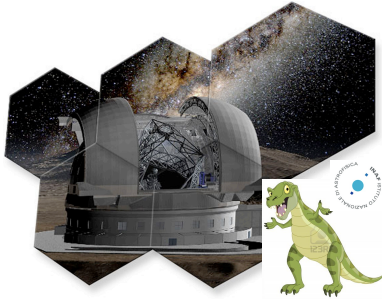


## *Progetti premiali 2014? 2015?*

In 2014 MIUR said it would devote 30% of the 7% budget to a new call for *premiali*, and allocate the remaining 70% on the basis of the ANVUR-VQR results.

As of today, no call or guidelines have been issued by MIUR, either for the 2014 or the 2015 7% funds (which, however, have been indeed subtracted to the Institutions' budgets each year!).

To be ready when the call is finally issued, INAF's CdA has asked its Science Council to prepare a call for ideas, likely to come out soon.



# *Progetto premiale on E-ELT: T-REX-1 and T-REX-2*

PI: M. Tosi

Requested duration: 3 years

Requested budget: 3.9+3.5+... M€

Financed duration: each time 1 year

Allocated budget: 3.9 M€ (-10% 1<sup>st</sup> year) + 2.7 M€ (-15% 2<sup>nd</sup> year)

Kickoff meeting T-REX-1: 28/9/2012

National meeting (open to whole community + ESO): 14/1/2013

Kickoff meeting T-REX-2: 28/5/2014

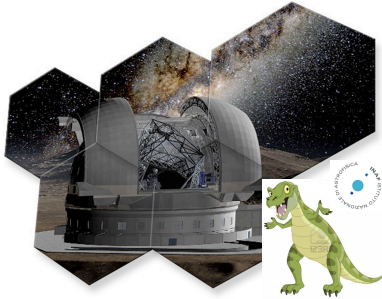
**This is (presumably ?) the final meeting**

**T-REX participants:**

more than 100 researchers, distributed over most of the  
INAF institutes and 6 universities.

[www.bo.astro.it/premiale.elt](http://www.bo.astro.it/premiale.elt)

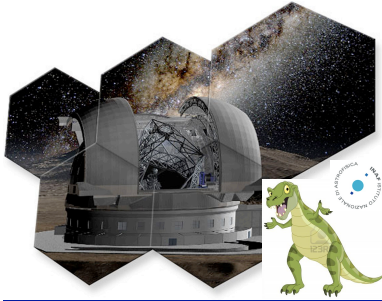




# Kickoff meeting T-REX-2

Merate 28-5-2014

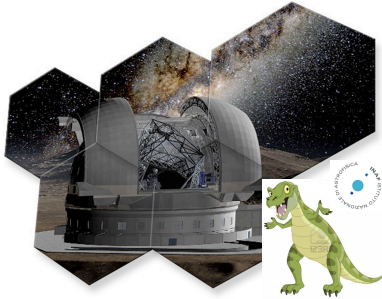




# T-REX: Main Objectives

- **Strengthen the position and role of INAF and Italian Universities in the international consortia**, currently under development, for the realization of the E-ELT instruments.
- **Support the executive design phase of the E-ELT instrumentation**, strengthening facilities and laboratories.
- **Promote the formation of young researchers to be employed in the design and construction of instrumentation for the E-ELT** via training by highly qualified personnel.
- **Develop new technologies to ensure the feasibility of the E-ELT instruments.**  
Ensure the maintenance/enhancement of scientific and industrial know-how.
- **Promote integration processes between research institutes, universities and industry.**
- **Promote the transfer of technology from the field of astronomical instrumentation to other fields such as renewable energy, medical technologies, information technology and communication and to technologies aimed at nano-electronics using lithographic techniques.**



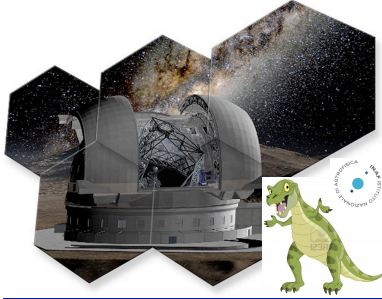


# T-REX: Main Objectives

- Strengthen the position and role of E-ELT in the international consortia, currently under development of the E-ELT instruments.
- Support the execution of the scientific program, strengthening the scientific and industrial know-how.
- Promote the development of scientific and industrial know-how and qualified personnel in the field of astronomical instrumentation, design and manufacturing of large-scale instruments.
- Develop the scientific and industrial know-how of the E-ELT instruments. Ensure the transfer of technology from the field of astronomical instrumentation to other fields such as renewable energy, medical technologies, information technology and communication and to technologies aimed at nano-electronics using lithographic techniques.
- Promote the transfer of technology from the field of astronomical instrumentation to other fields such as renewable energy, medical technologies, information technology and communication and to technologies aimed at nano-electronics using lithographic techniques.

**Maximize Italian contribution to E-ELT technology and corresponding return**

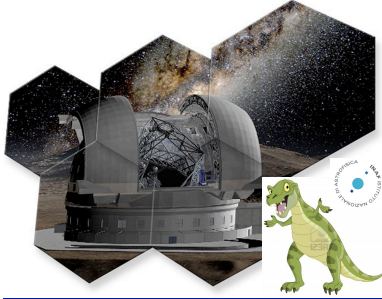




# T-REX

## Operating Units (and coordinators)

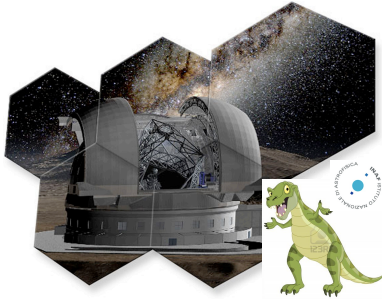
- OU-1 ELT-INAF COORDINATION (M. Tosi)
- OU-2 ELT-MIRRORS (G. Pareschi)
- OU-3 ELT-CAM (E. Diolaiti)
- OU-4 ELT-HIRES (E. Oliva)
- OU-5 ELT-MOS (B. Garilli)
- OU-6 ELT-PCS (R. Gratton)



# Management <sup>(1)</sup>

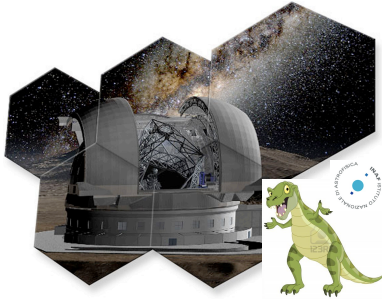
T-REX is managed in tight connection with the INAF Science Directorate

- We discussed with the Science Director all the major issues/needs.
- We have decided together how to distribute the funds awarded to T-REX
- Hence, we have given more support to the OUs with higher chances of Italian success



# Management (2)

- The OU coordinators are in charge of the activities of their OU, of their financial and FTE requests, and are responsible for the allocated resources.
- The members of OU1 are in charge of the coordination of the OUs and of discussing the allocation of resources.



# Distribution of resources

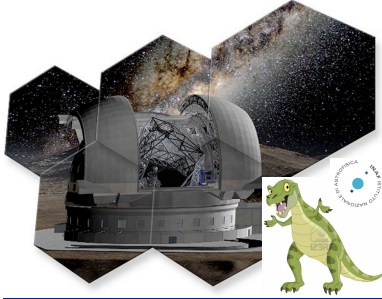
For h/w investment we have given highest priority to activities related to E-ELT first light:

- **OU2-MIRRORS** (mostly for Metrology Lab)
- **OU3-CAM** for Maory

Considerable funds have been assigned also to **OU4-HIRES** to strengthen the Italian role in the **HIRES Consortium**

**Smaller amounts were allocated to OU5-MOS (Italy cannot be leader) and OU6-PCS (longer-term schedule)**

We allocated about 1/3 of all resources to all OUs for FTE and mobility



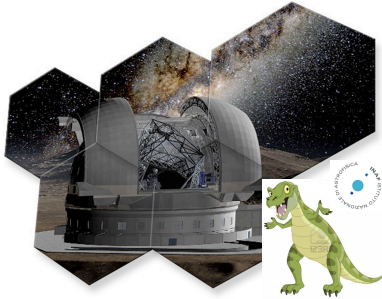
# Achievements

**I'm proud to acknowledge that:**

- The ESO – ADS-Microgate contract for M4 is in place
- The ESO – INAF contract for Maory has been approved by the ESO Finance Committee
- The HIRES consortium has a solid configuration and A. Marconi as PI

Coordinators and members of the OUs will describe their major results and achievements.





Thank you

