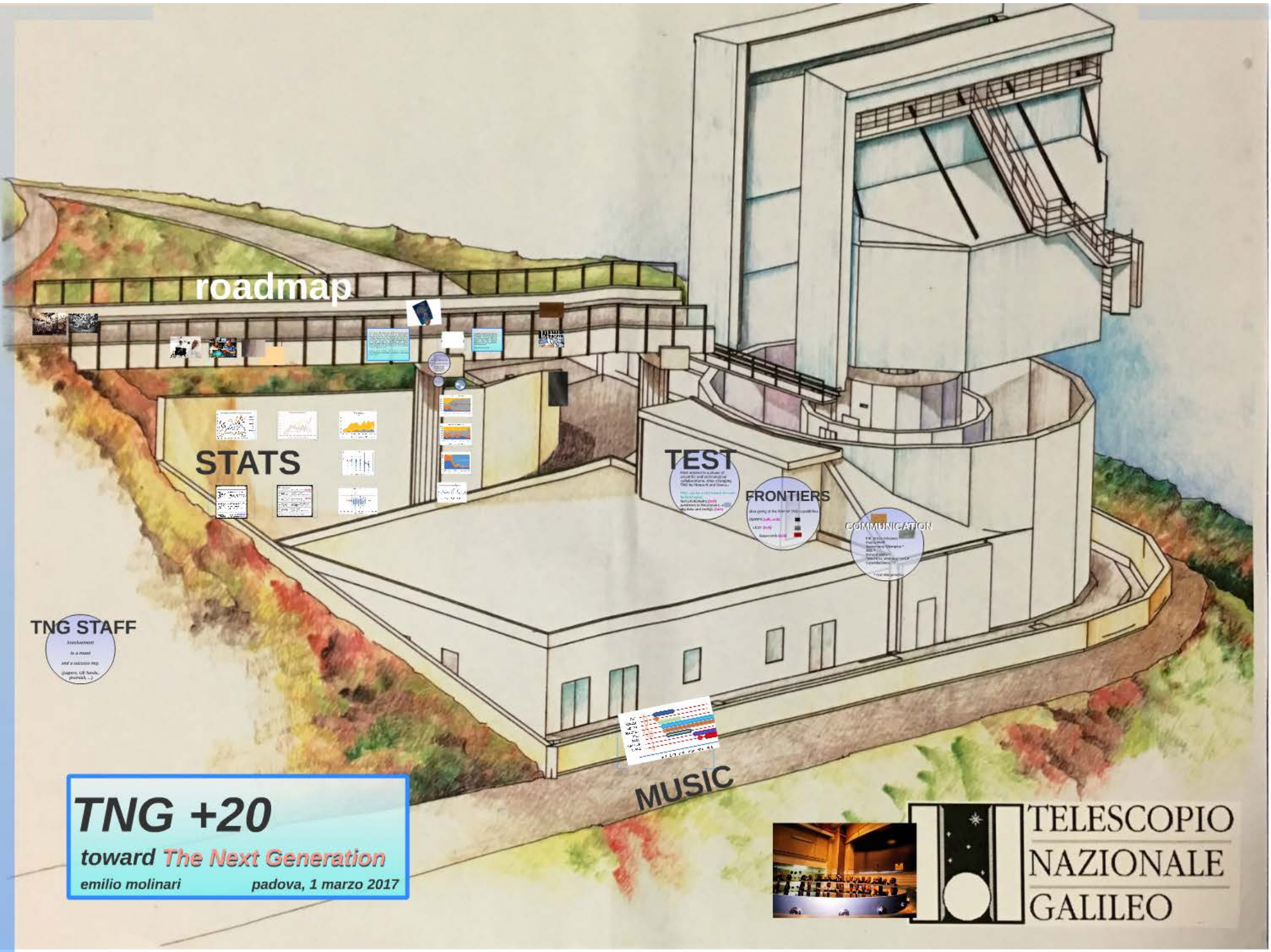
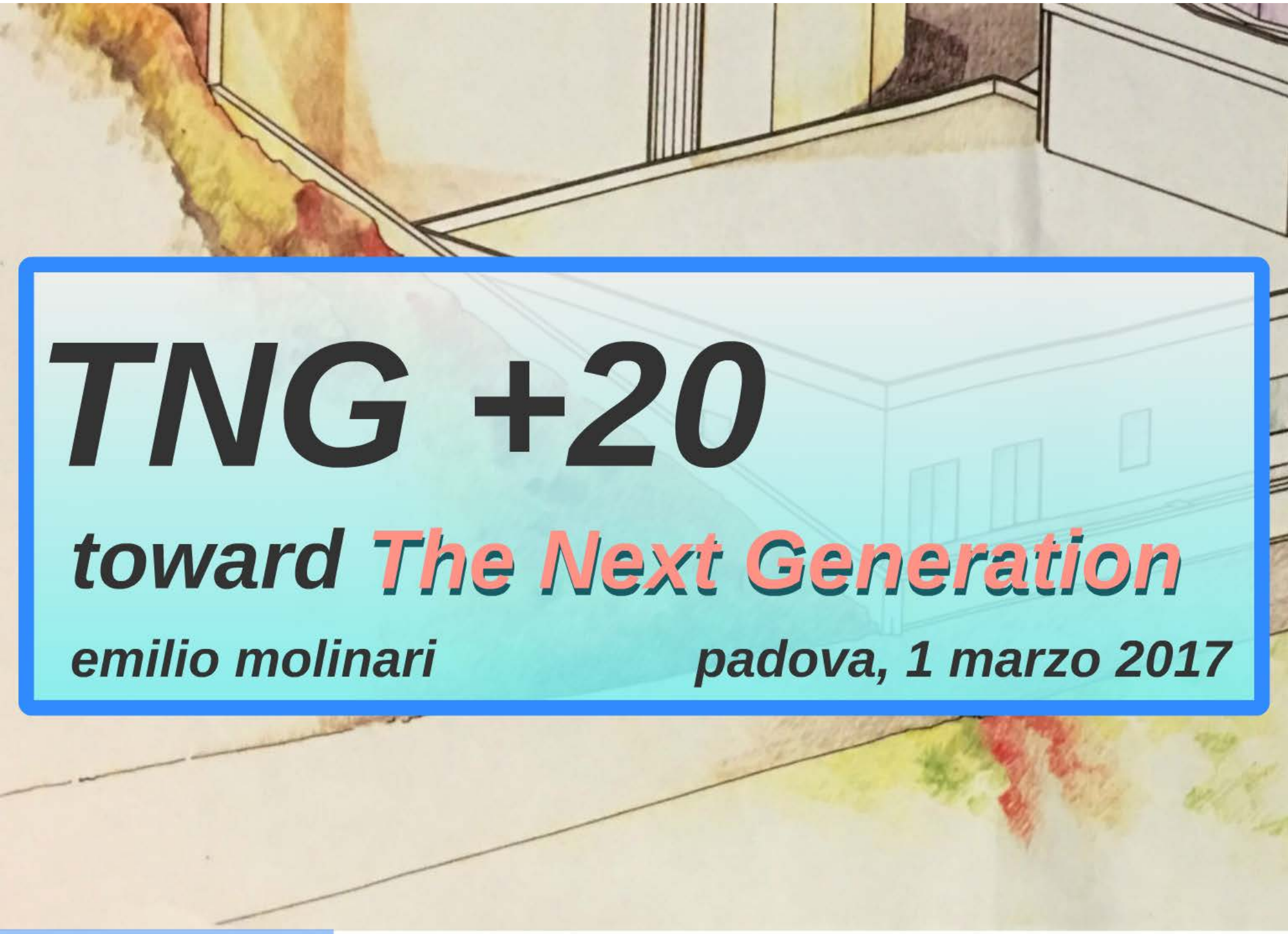


TNG +20

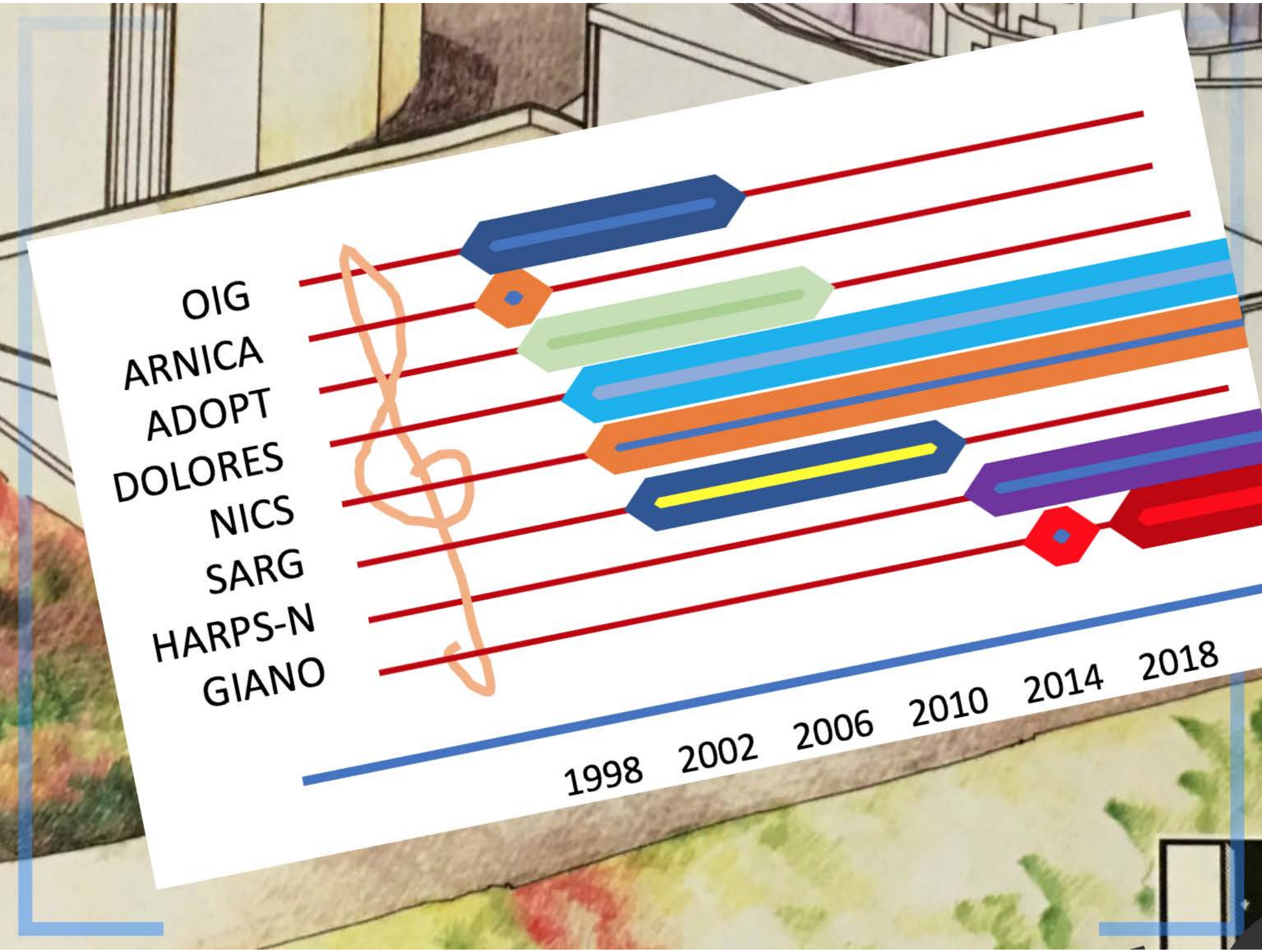
toward The Next Generation

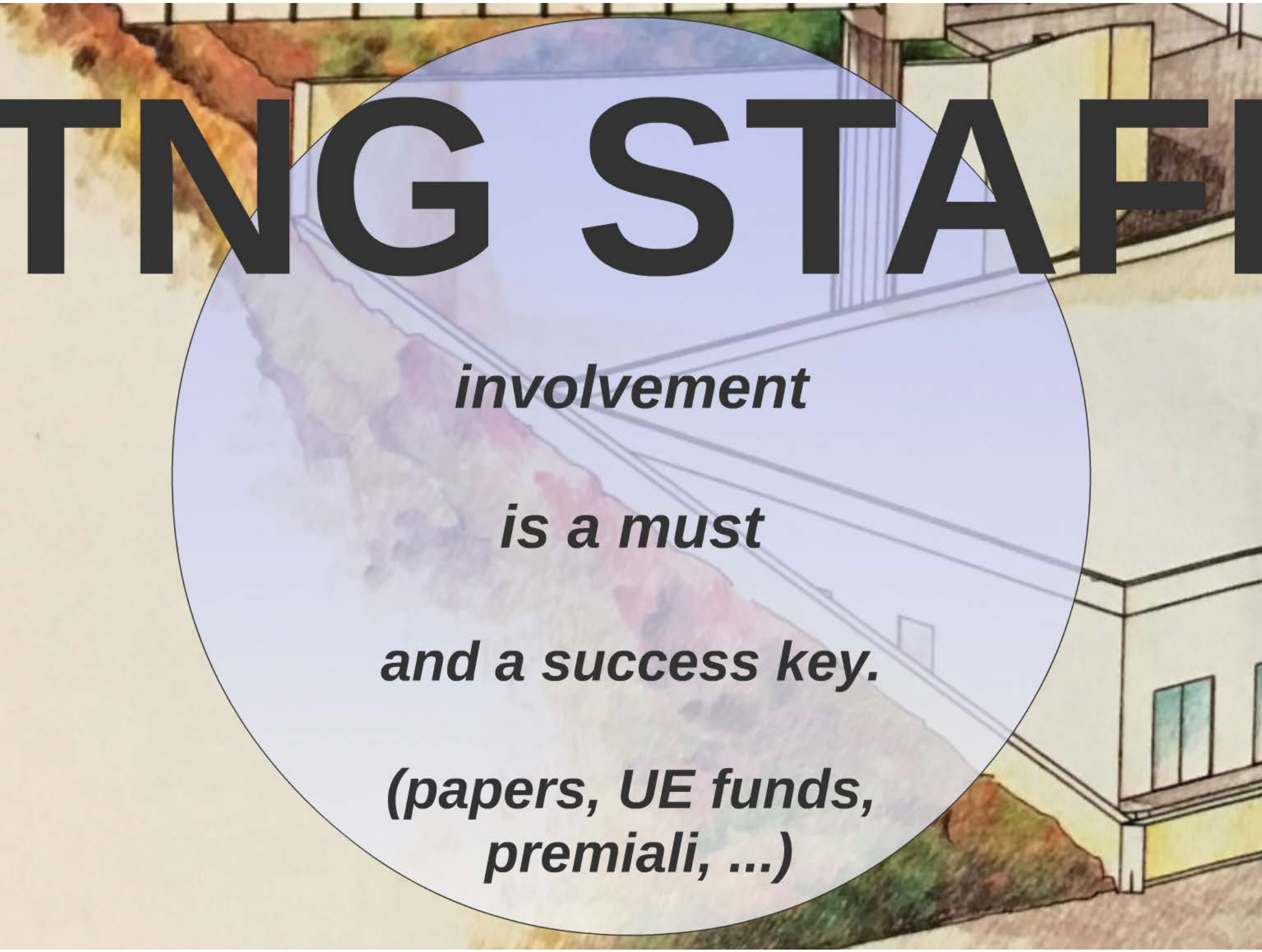
emilio molinari padova, 1 marzo 2017

TELESCOPIO NAZIONALE GALILEO

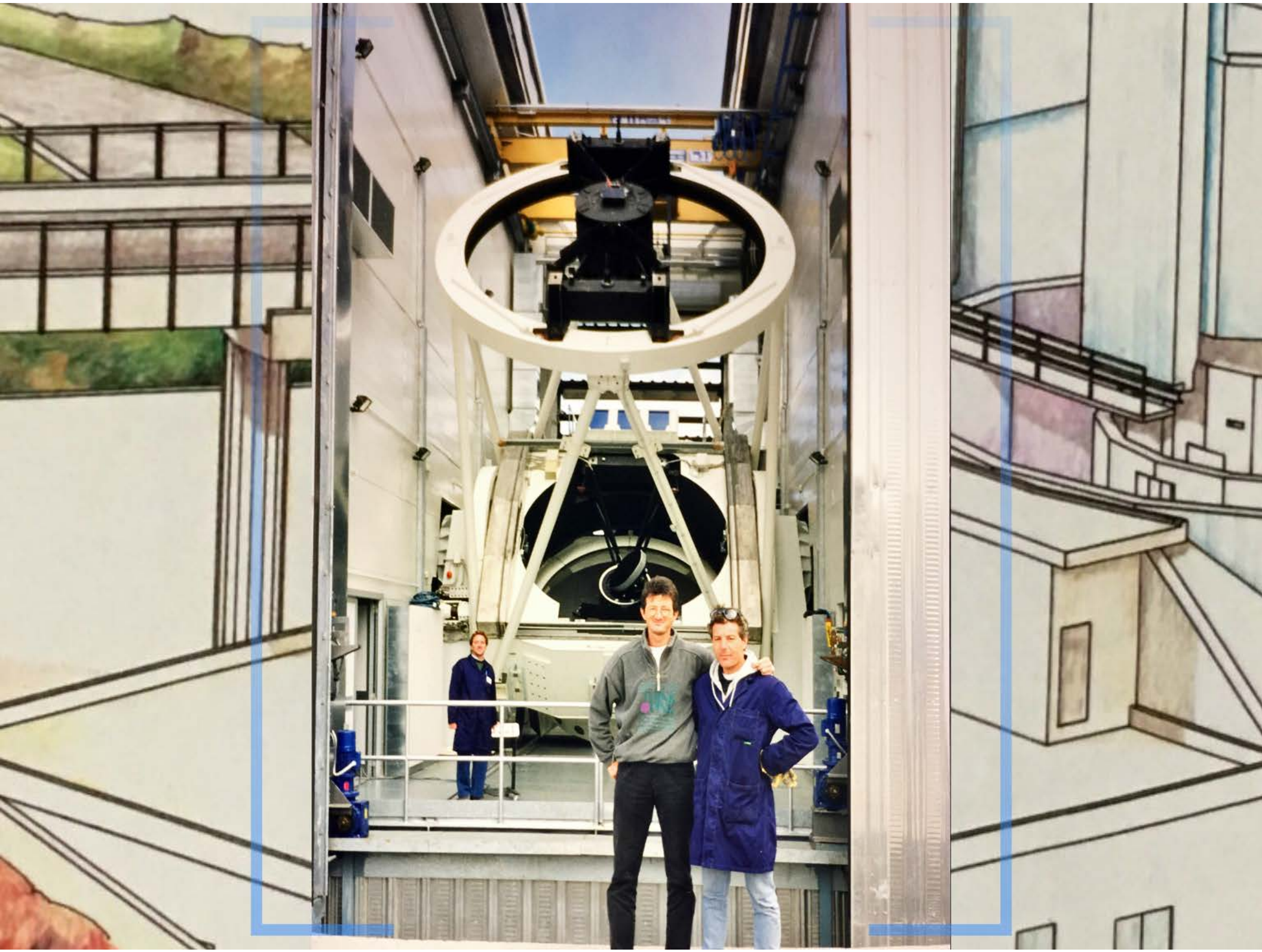

TNG +20
toward The Next Generation
emilio molinari
padova, 1 marzo 2017


T N G


OIG
ARNICA
ADOPT
DOLORES
NICS
SARG
HARPS-N
GIANO
1998
2002
2006
2010
2014
2018


TNG STAFF
involvement
is a must
and a success key.
(papers, UE funds,
premiali, ...)


TON. 12.5
OMIS SPA
SANDRIGO
VICENZA - ITALY
Frigerio
Frigerio

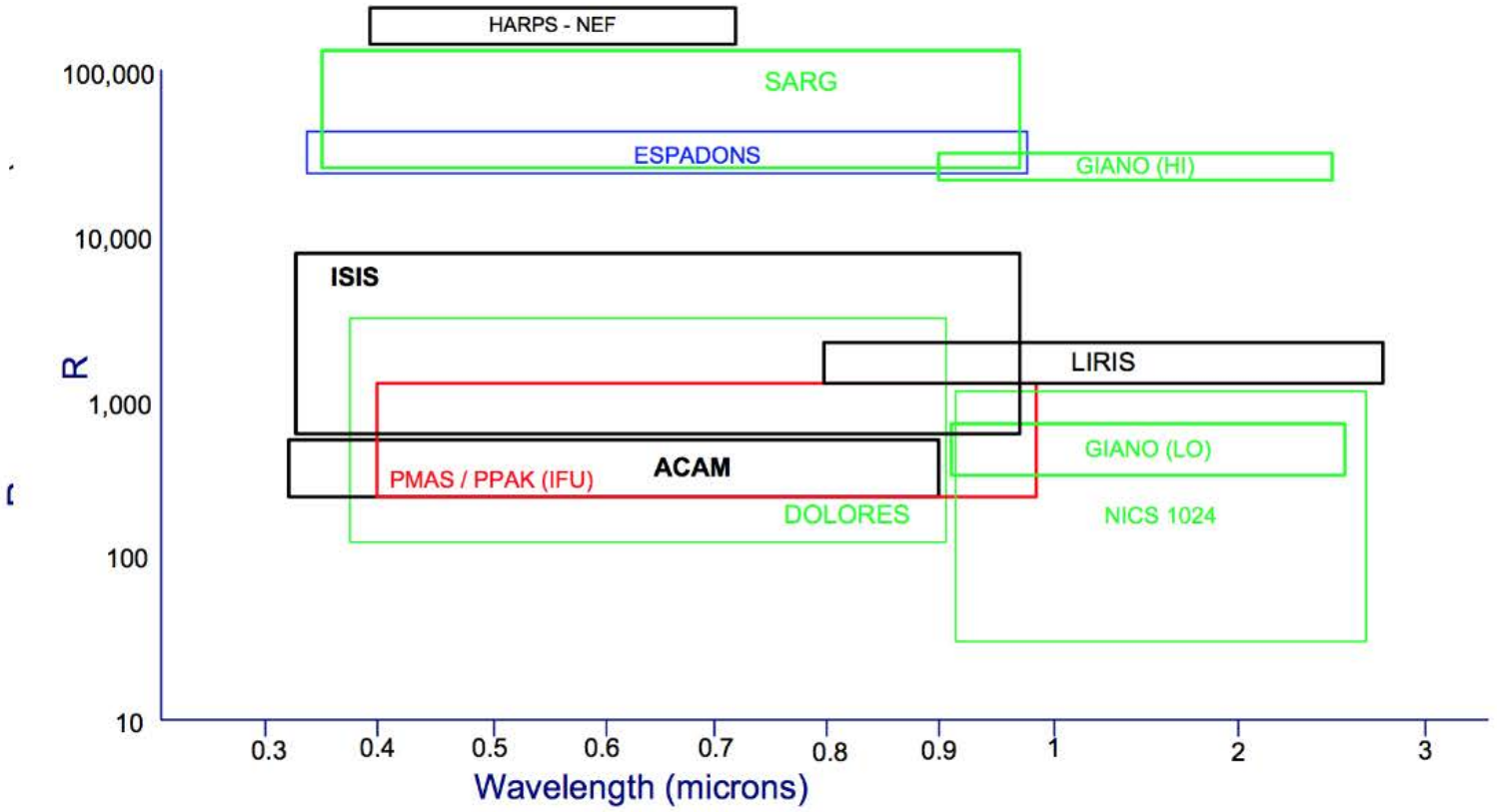



Report by the
European Telescope
Strategic Review Committee
on Europe's 2-4m telescopes
over the decade to 2020

"La Palma's site characteristics fall in between these two extremes, but clearly offers an opportunity of economy of scale (5 2-4m telescopes) and is home to the largest telescope in this mid-range (the WHT 4.2m), as well as the 10.4-m GTC. **The two 4-m telescopes in La Palma should be operating with clearly complementary instrumentation by mid-decade,** as should the three 2-m facilities (which in the case of the LT is already specialised).

A strong recommendation of this report is that uniting and simplifying the operation of this group of telescopes is now urgent."

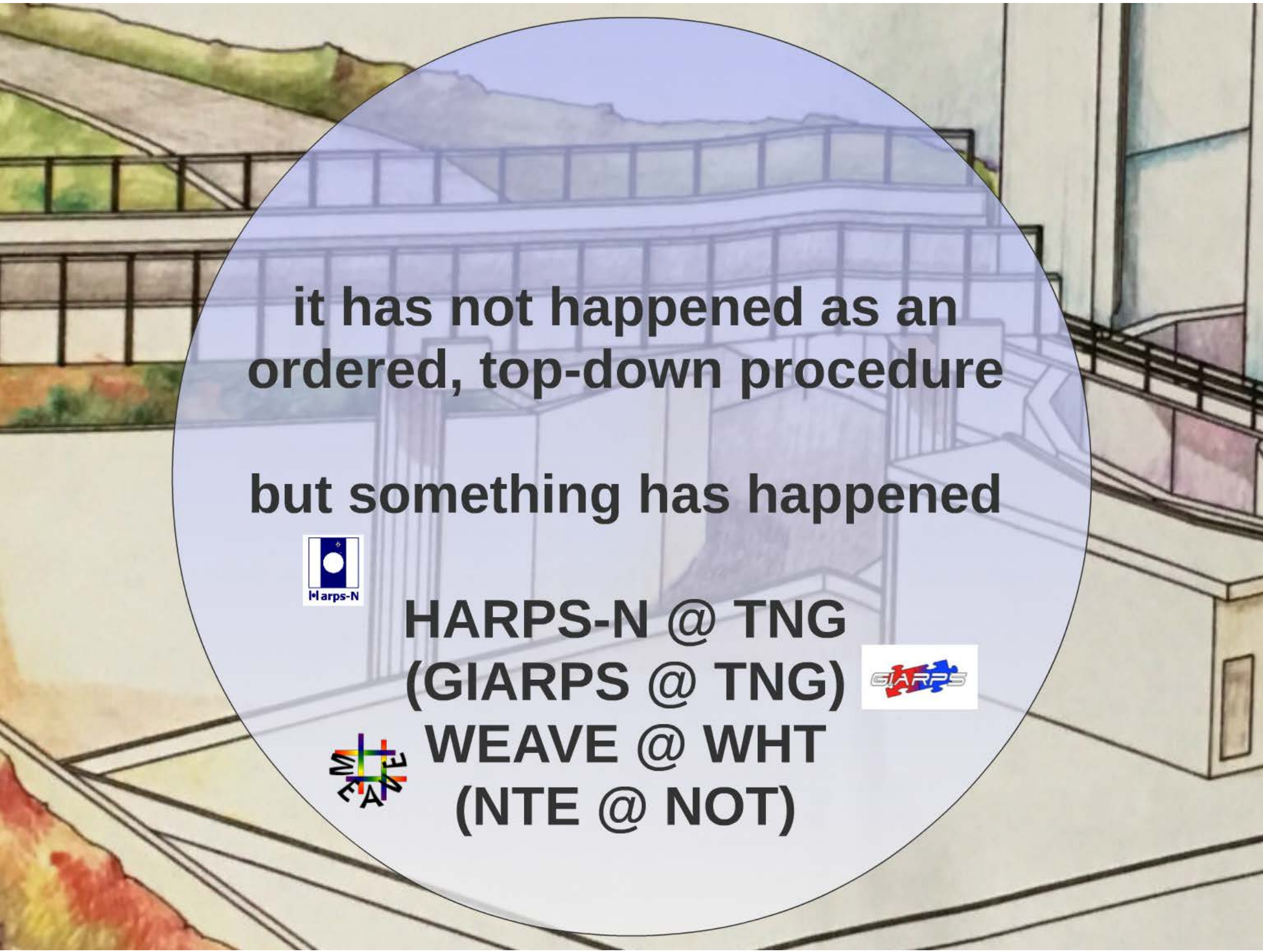
Spectroscopic Instruments on 4m Telescopes – 2012+ optimal suite

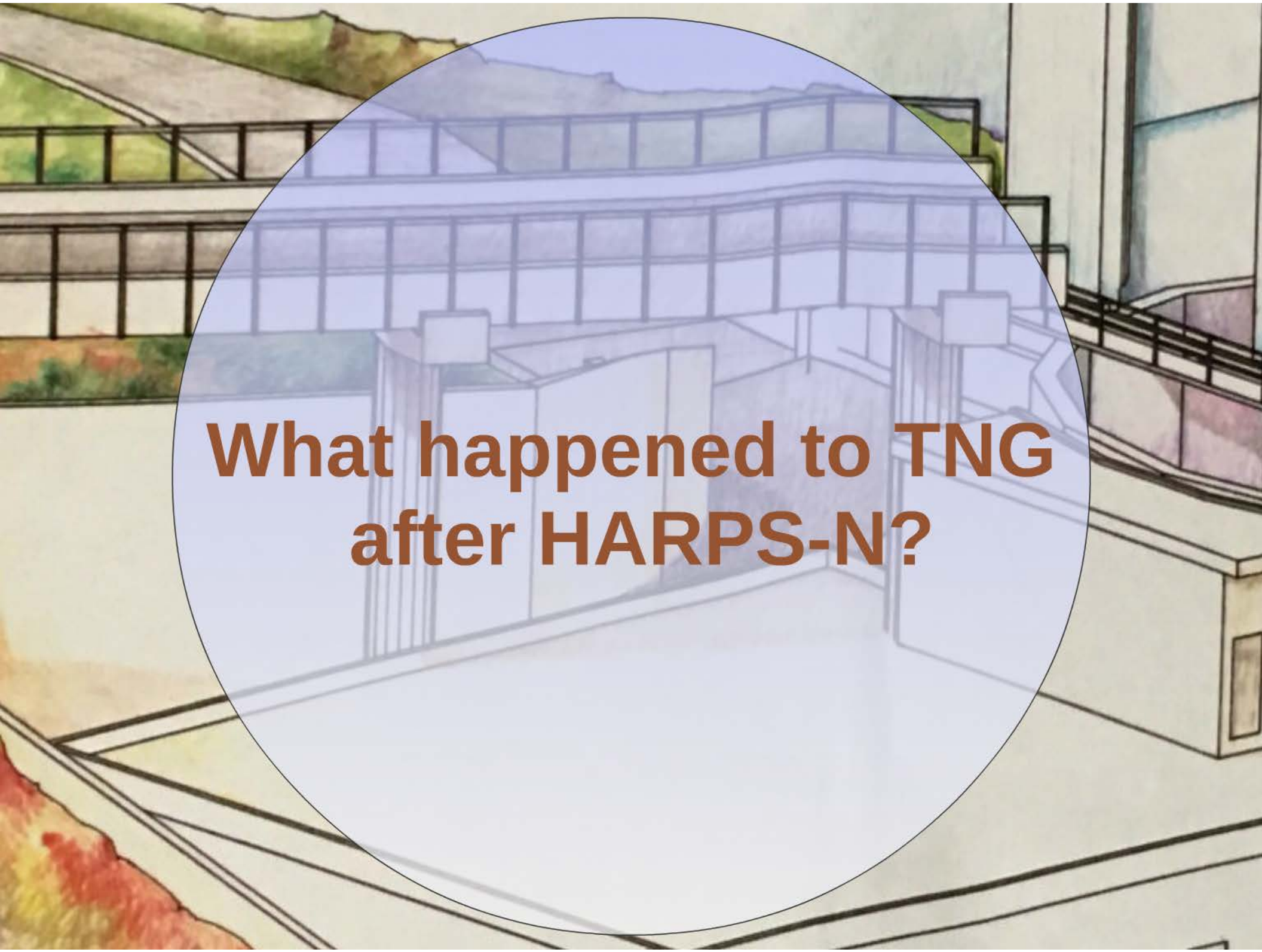


- Colour coding: WHT: Black TNG: Green CAHA: red CFHT: Blue

"A significant feature post-2015, it is hoped, will be the commissioning of a northern massively-multiplexed wide-field spectrograph. This is an important investment, of very broad interest across the European community. The fact that the CFHT is shared between ...

It would not be enough. "


it has not happened as an ordered, top-down procedure
but something has happened
HARPS-N @ TNG
(GIARPS @ TNG)
WEAVE @ WHT
(NTE @ NOT)


What happened to TNG
after HARPS-N?

The Agreements


Date : December 1st, 2010

Harps-N

Agreement

For the exchange of TNG observing nights for the full access to HARPS-N

Creation of the HARPS-N Consortium: CH+US+UK+IT

Definition and agreement on values and commitment

Co-PI, Exec Board: PI + 4 countries

Co-I, Science Team, 6+6+3+3

Pubs+Data policy ...

Exchange of full use of HARPS-N and Guaranteed Time

80 nights/yr (for 5 years, renewable) and commitment to keep TNG up-n-running

HARPS-N, DRS at TNG and IA2, commitment to maintain


Date : December 1st, 2010

Harps-N

Agreement

For the exchange of TNG observing nights for the full access to HARPS-N

e : December 1st, 2010

Agreement

or the exchange of TNG observing nights for the full access to HARPS-N

Creation of the HARPS-N Consortium: CH+US+UK+IT

Definition and agreement on values and commitment

Co-PI, Exec Board: PI + 4 countries

Co-I, Science Team, 6+6+3+3

Pubs+Data policy ...

Date : December 1st, 2010

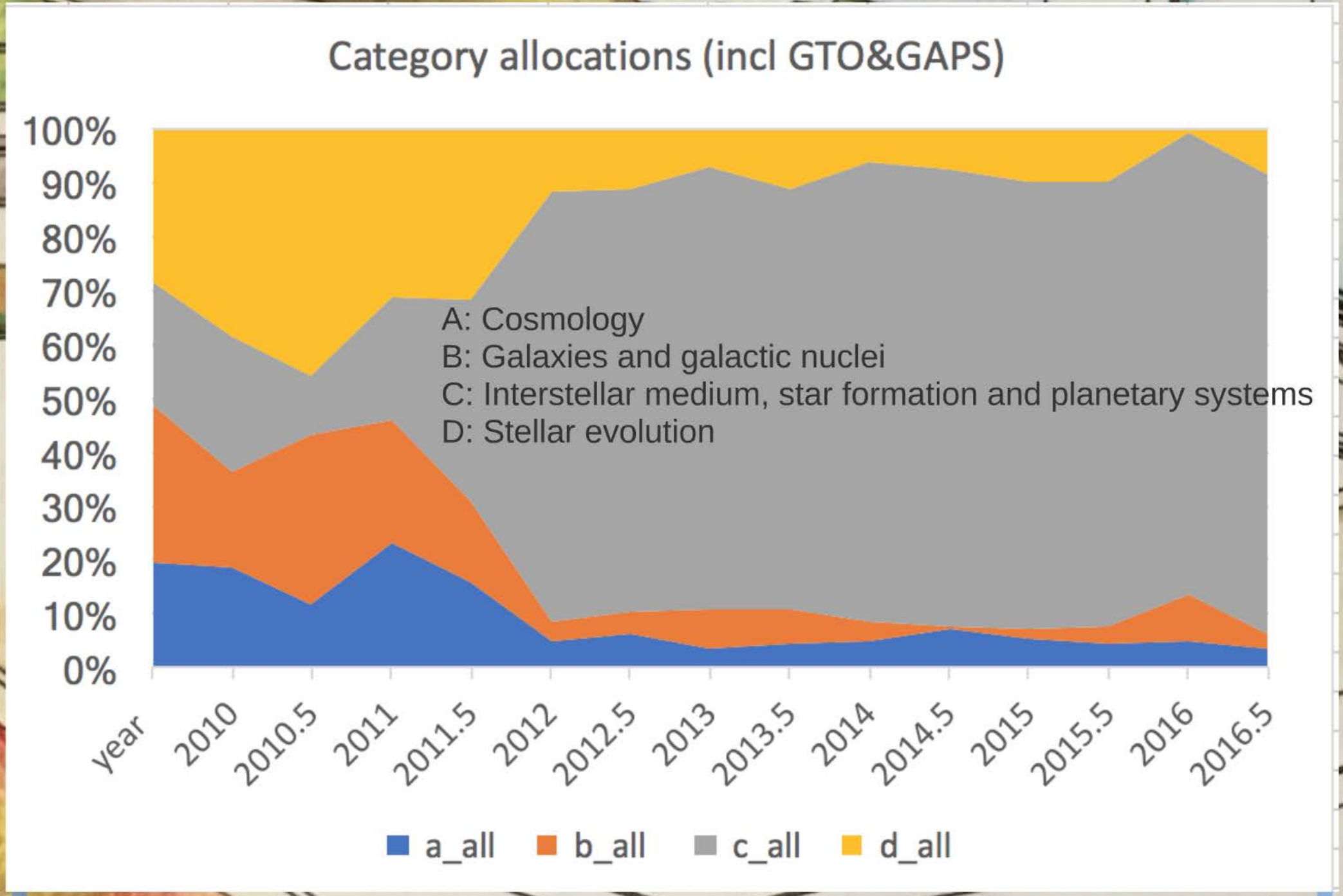
Agreement

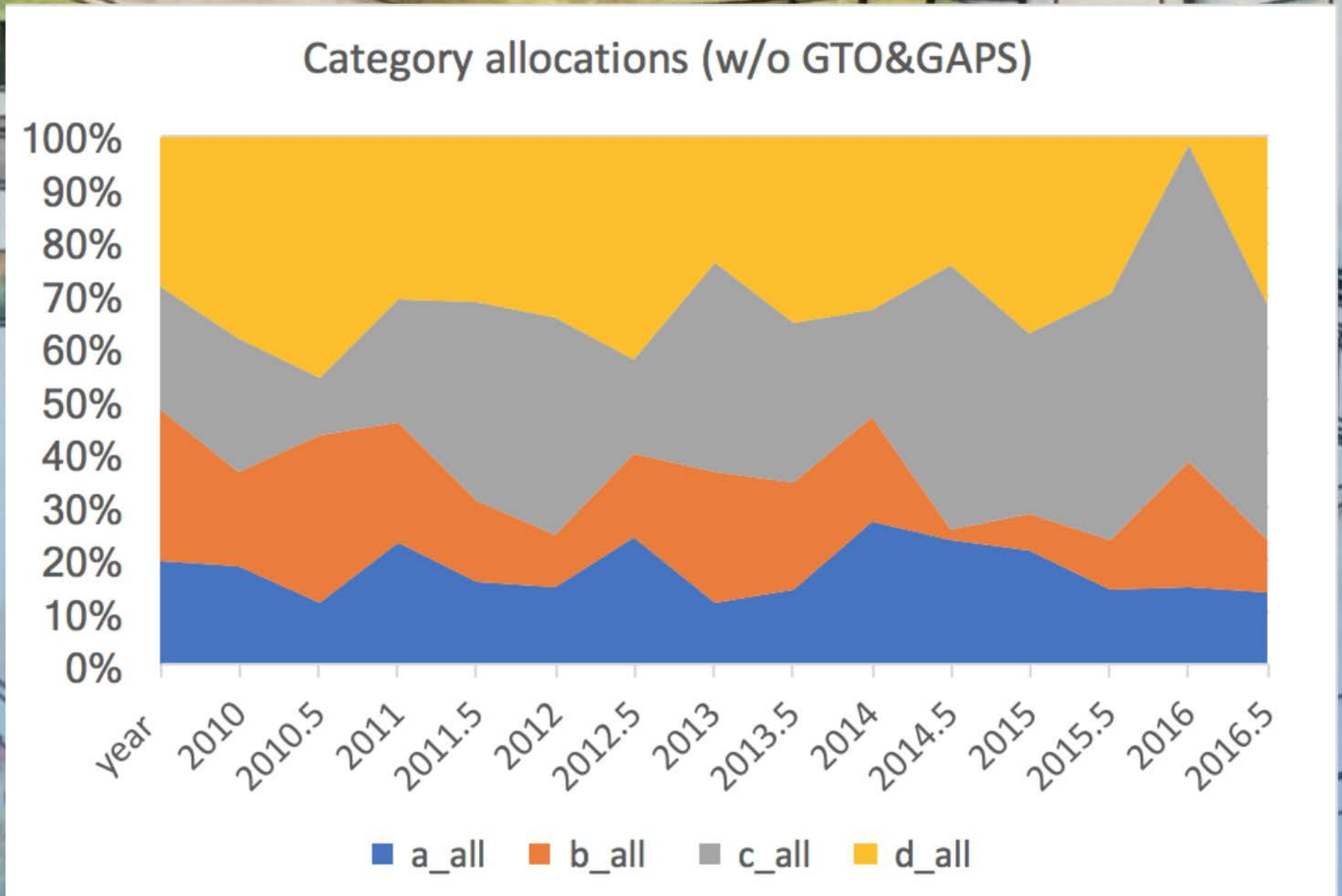
For the exchange of TNG observing nights for the full access to HARPS-N

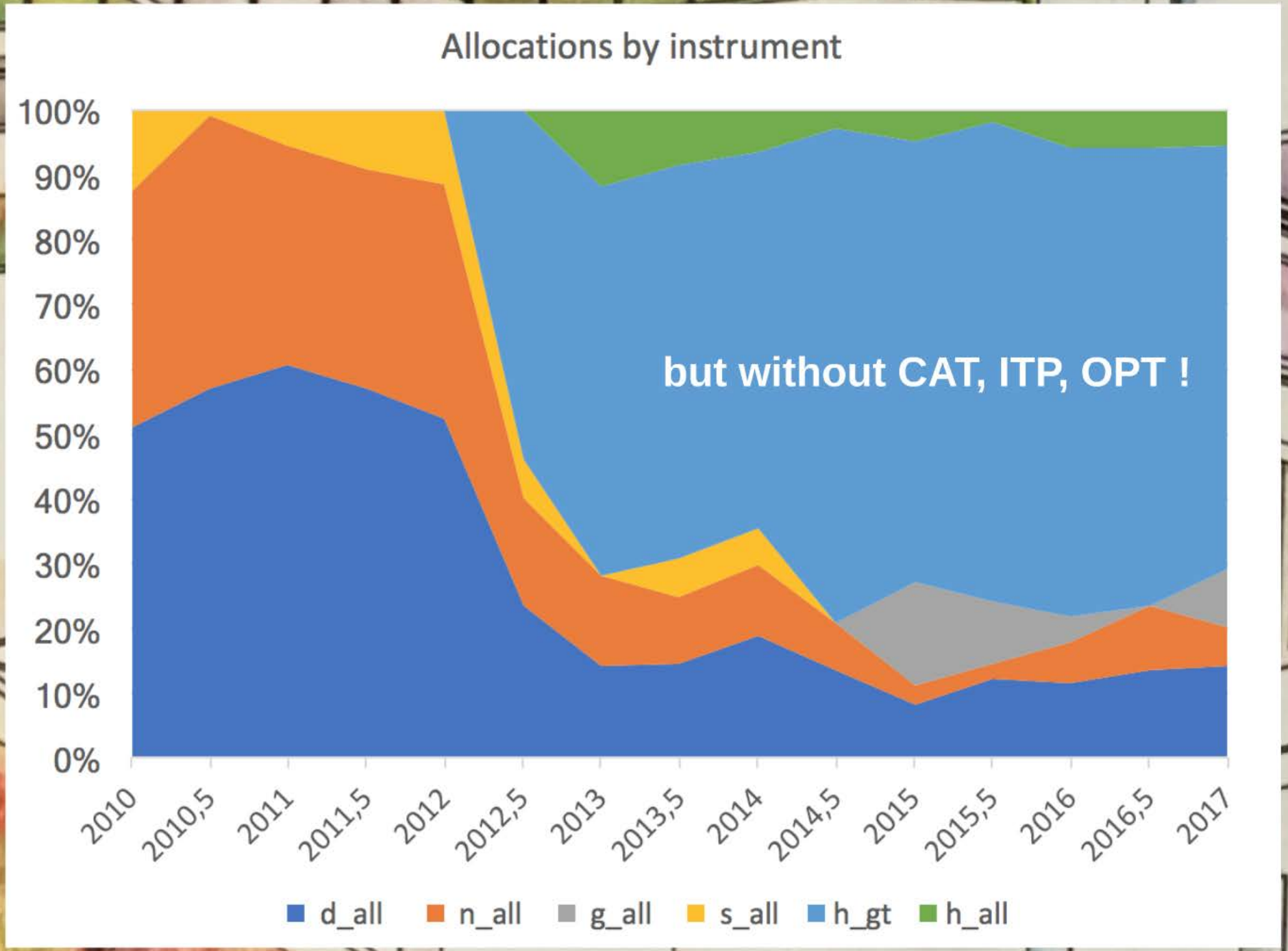
Exchange of full use of HARPS-N and Guaranteed Time

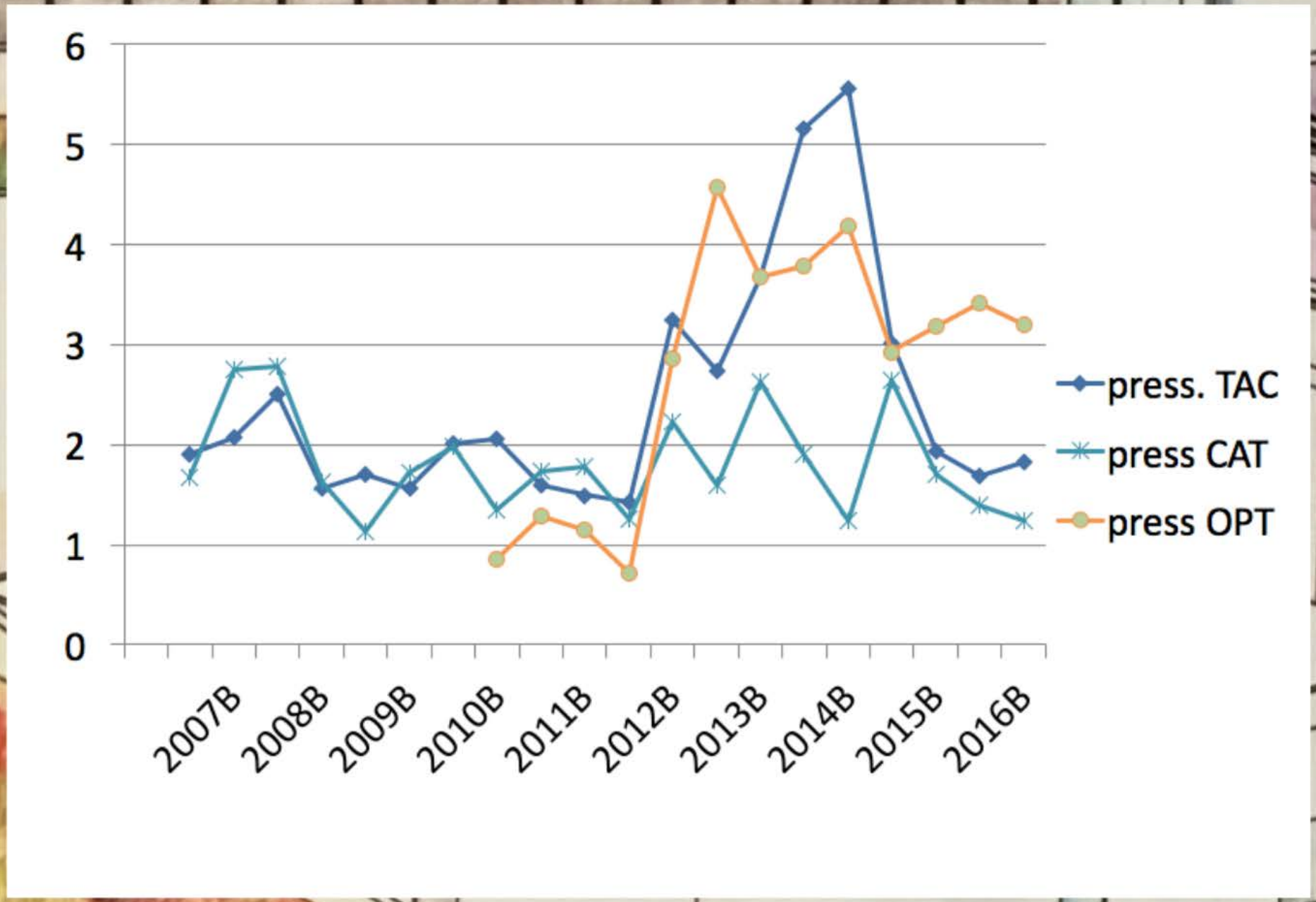
80 nights/yr (for 5 years, renewable) and commitment to keep TNG up-n-running

HARPS-N, DRS at TNG and IA2, commitment to maintain


Category allocations (incl GTO&GAPS)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
A: Cosmology
B: Galaxies and galactic nuclei
C: Interstellar medium, star formation and planetary systems
D: Stellar evolution
year
2010
2010.5
2011
2011.5
2012
2012.5
2013
2013.5
2014
2014.5
2015
2015.5
2016
2016.5
a_all
b_all
c_all
d_all


Category allocations (w/o GTO&GAPS)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
year
2010
2010.5
2011
2011.5
2012
2012.5
2013
2013.5
2014
2014.5
2015
2015.5
2016
2016.5
a_all
b_all
c_all
d_all

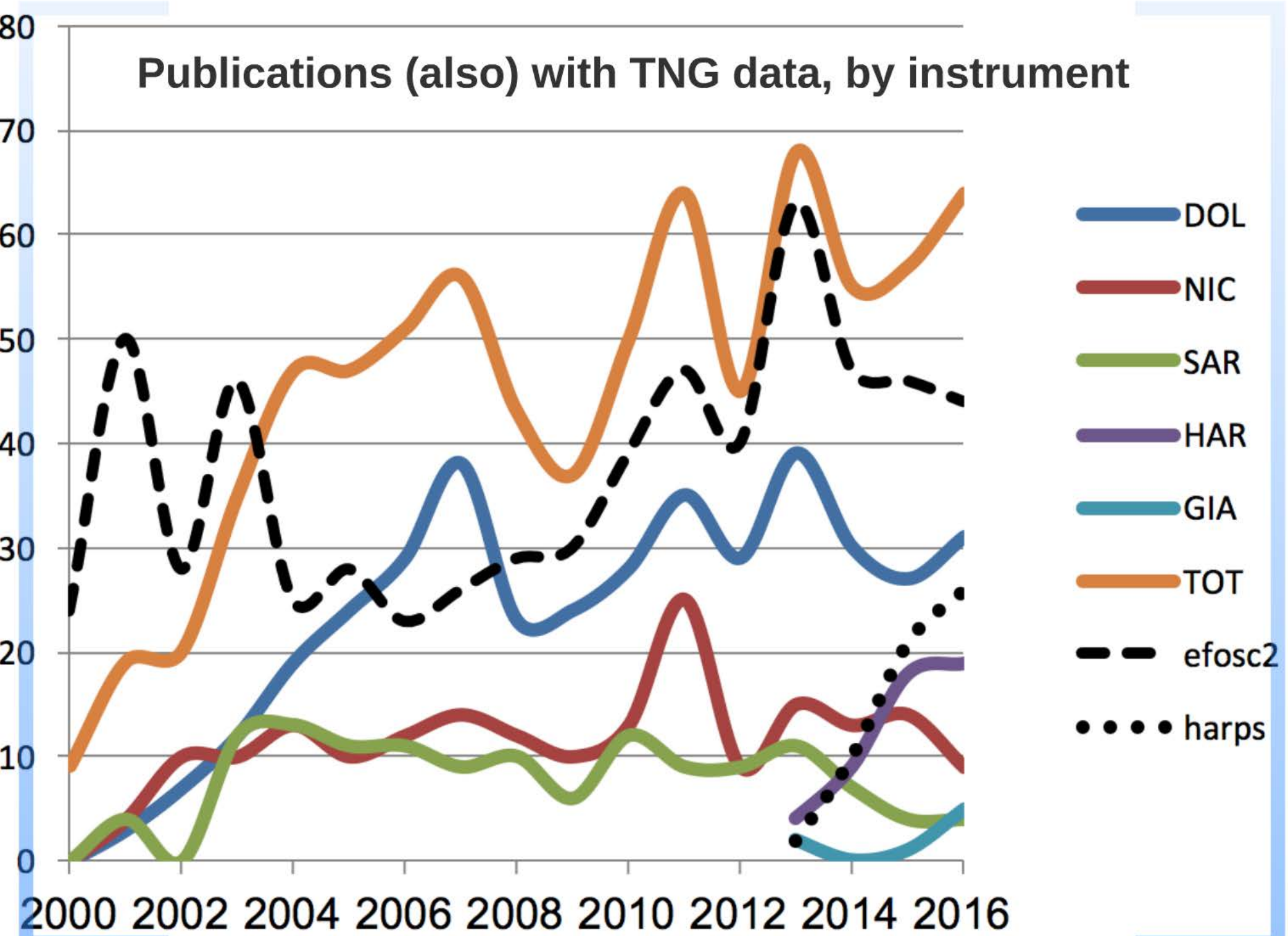

Allocations by instrument
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2010
2010,5
2011
2011,5
2012
2012,5
2013
2013,5
2014
2014,5
2015
2015,5
2016
2016,5
2017
but without CAT, ITP, OPT !
d_all
n_all
g_all
s_all
h_gt
h_all

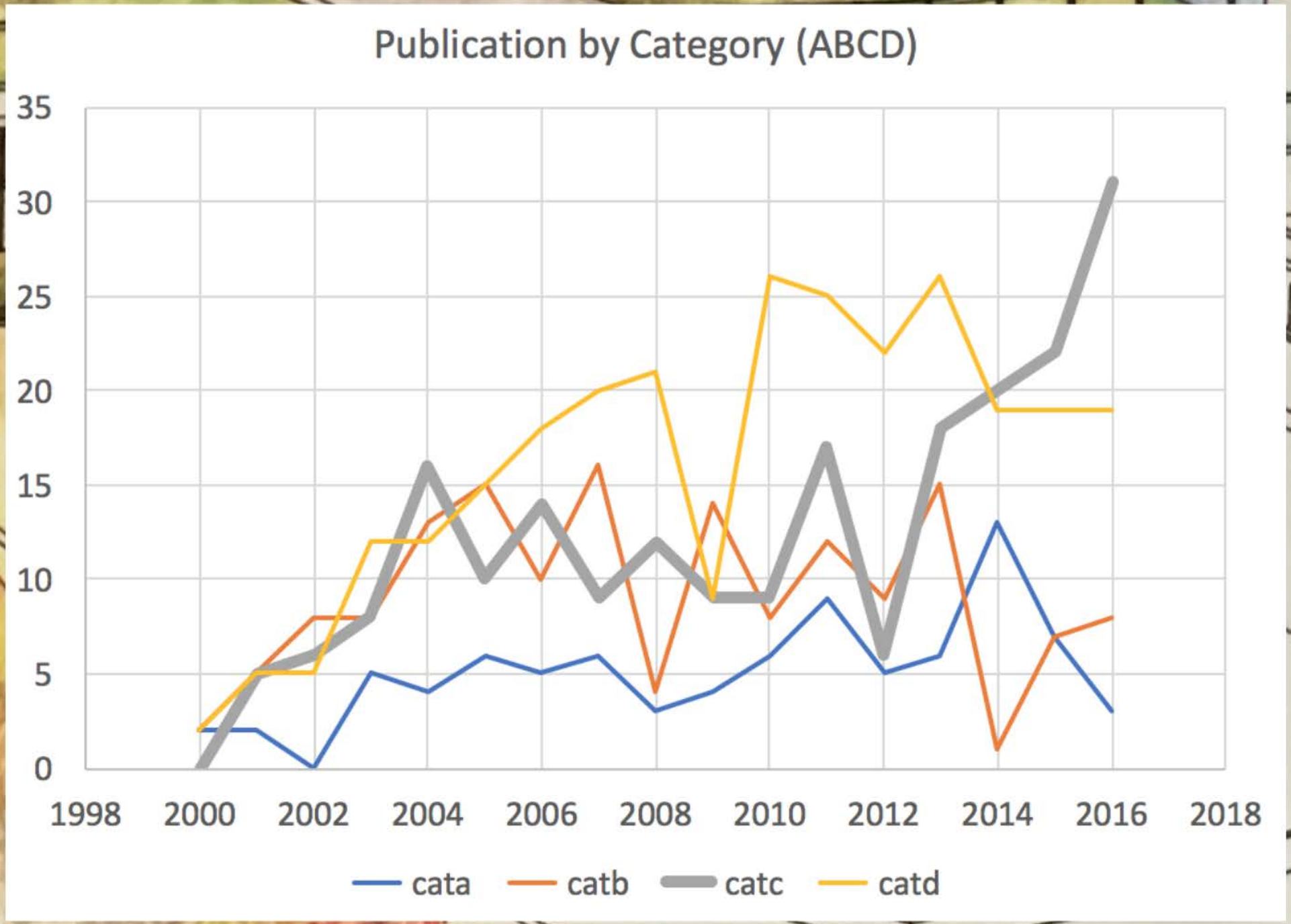

6
5
4
3
2
1
0
2007B
2008B
2009B
2010B
2011B
2012B
2013B
2014B
2015B
2016B
press. TAC
press CAT
press OPT

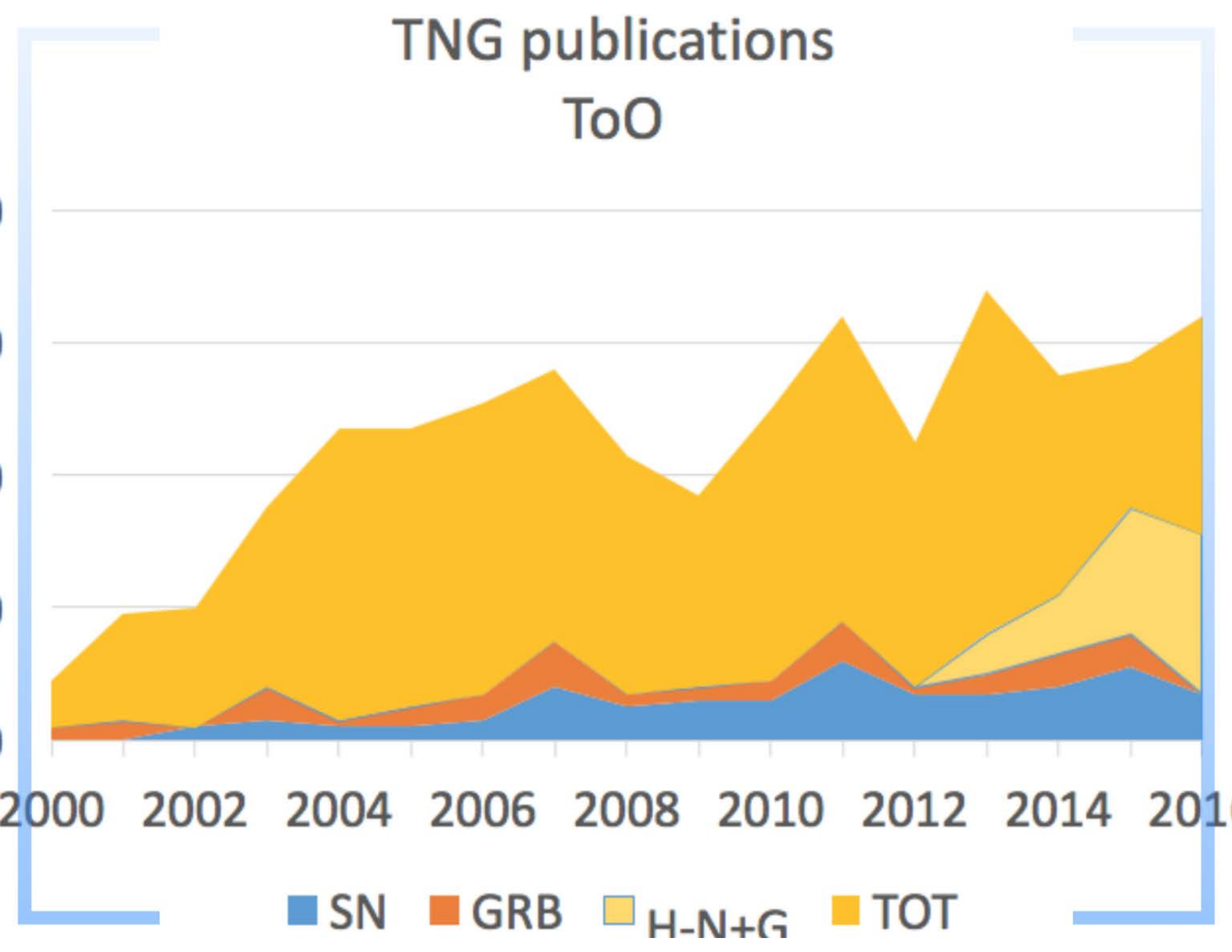

papers!
schedule
030 ENCIC. DICC. LEX.
001 SCIENCE AND KNOWLEDGE IN GENERAL
004 COMPUTER SCIENCE
005 ADM
FORMULARIOS LABORALES
CONTRATACIÓN LABORAL 2004
SEGUROS SOCIALES
GALACTIC ASTRONOMY
Planet Formation
Apache Tomcat 6
Oracle PL/SQL Programming
Perl Best Practices
Practical mod_perl
J2EE Patterns
PC HARDWARE
Drupal

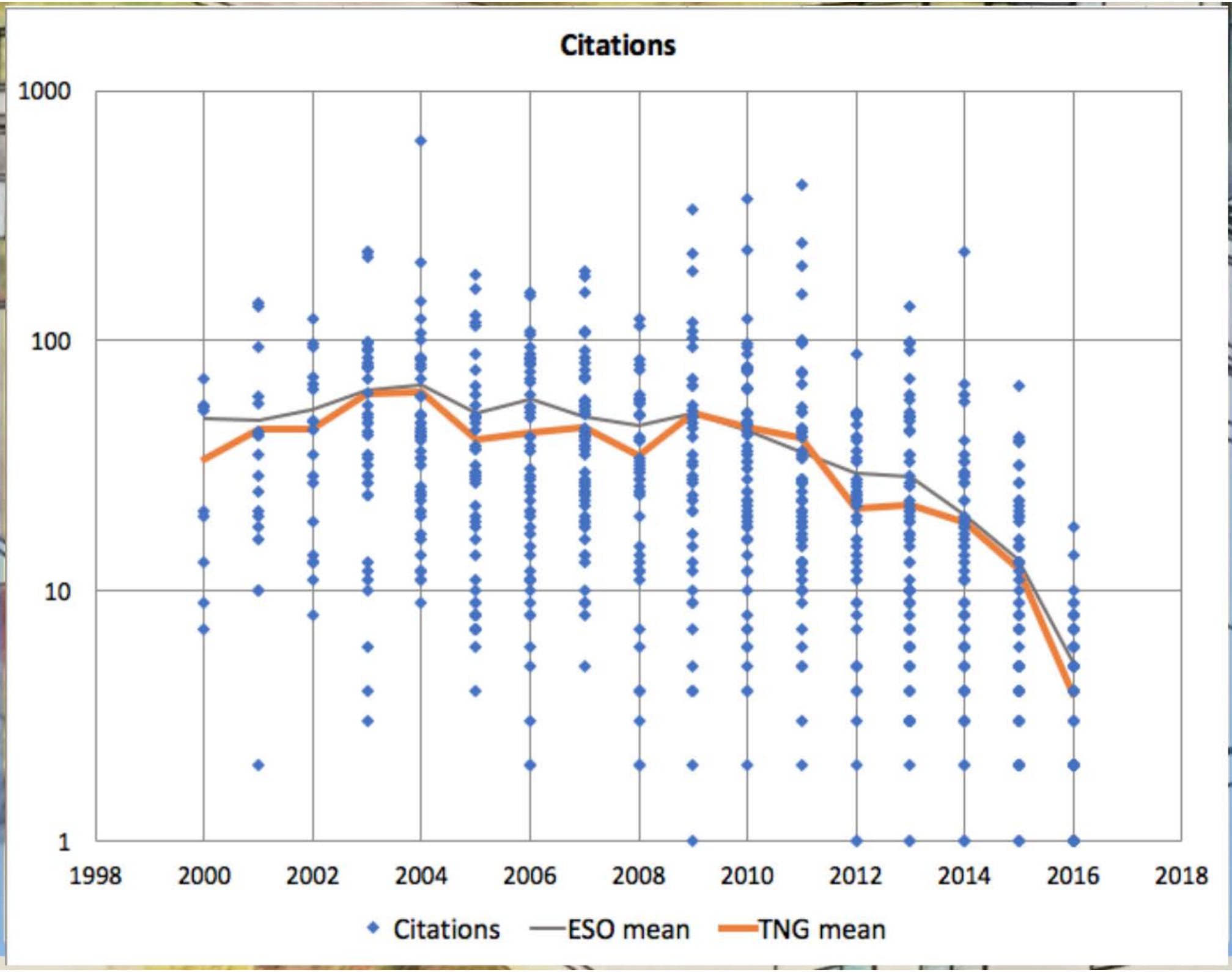
large programs impact:

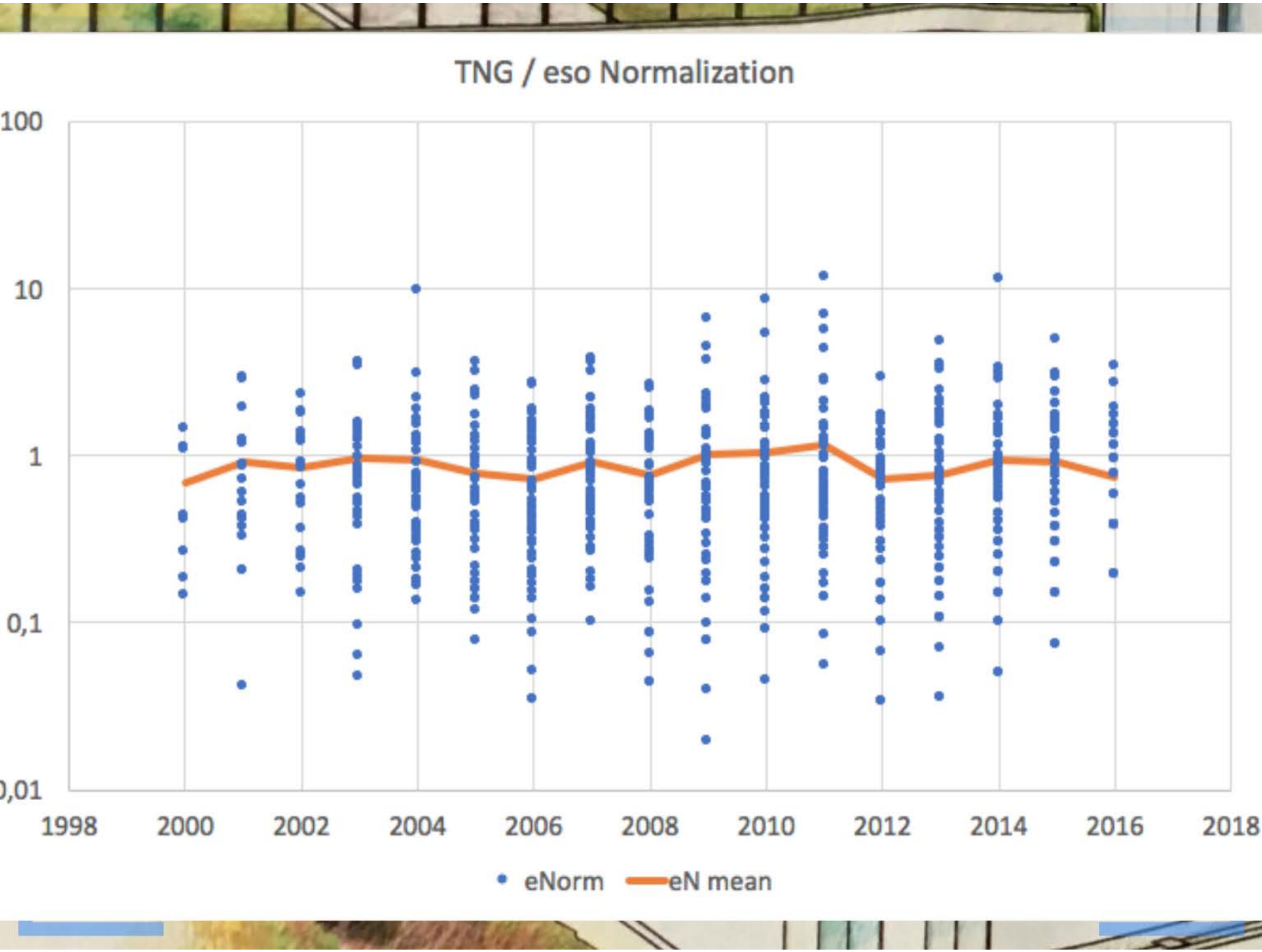
*** NO MORE QUEUING**
*** harder for heavy monitoring**
*** easier for ToO**
----> *ask magic AM* **!**


Publications (also) with TNG data, by instrument
80
70
60
50
40
30
20
10
0
2000 2002 2004 2006 2008 2010 2012 2014 2016
DOL
NIC
SAR
HAR
GIA
TOT
efosc2
harps


Publication by Category (ABCD)
35
30
25
20
15
10
5
0
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
cata
catb
catc
catd


TNG publications
ToO
2000
2002
2004
2006
2008
2010
2012
2014
SN
GRB
H-N+G
TOT


Citations
1000
100
10
1
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
Citations
ESO mean
TNG mean


TNG / eso Normalization
100
10
1
0,1
0,01
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
eNorm
eN mean

TNG TOP 10
Number of citation as per 02/2017

SARG

NCIS

2004	Santos N. C., Israelian G., Mayor M.	635	Spectroscopic [Fe/H] for 98 extra-solar planet-host stars: Exploring the probability of planet formation
2011	Ackermann M., Ajello M., Allafort A., et al.	418	The Second Catalog of Active Galactic Nuclei Detected by the Fermi Large Area Telescope
2010	Abdo A. A., Ackermann M., Ajello M., et al.	372	The First Catalog of Active Galactic Nuclei Detected by the Fermi Large Area Telescope
2009	Salvaterra R., Della Valle M., Campana S., et al.	336	GRB090423 at a redshift of z~8.1
2011	Burrows D. N., Kennea J. A., Ghisellini G., et al.	248	Relativistic jet activity from the tidal disruption of a star by a massive black hole
2010	Kann D. A., Klose S., Zhang B., et al.	232	The Afterglows of Swift-era Gamma-ray Bursts. I. Comparing pre-Swift and Swift-era Long/Soft (Type II) GRB Optical Afterglows
2003	Fiore F., Brusa M., Cocchia F., et al.	227	The HELLAS2XMM survey. IV. Optical identifications and the evolution of the accretion luminosity in the Universe
2003	Gratton R. G., Carretta E., Claudi R., et al.	226	Abundances for metal-poor stars with accurate parallaxes. I. Basic data
2014	Planck Collaboration, Ade P. A. R., Aghanim N., et al.	226	Planck 2013 results. XXIX. The Planck catalogue of Sunyaev-Zeldovich sources
2009	Mannucci F., Cresci G., Maiolino R., et al.	225	LSD: Lyman-break galaxies Stellar populations and Dynamics - I. Mass, metallicity and gas at z ~ 3.1

TNG TOP 10

esoNormalised citations as per 02/2017

2011	Ackermann M., Ajello M., Allafort A., et al.	11.7	The Second Catalog of Active Galactic Nuclei Detected by the Fermi Large Area Telescope
2014	Planck Collaboration, Ade P. A. R., Aghanim N., et al.	11.3	Planck 2013 results. XXIX. The Planck catalogue of Sunyaev-Zeldovich sources
2004	Santos N. C., Israelian G., Mayor M.	9.6	Spectroscopic [Fe/H] for 98 extra-solar planet-host stars. Exploring the probability of planet formation
2010	Abdo A. A., Ackermann M., Ajello M., et al.	8.5	The First Catalog of Active Galactic Nuclei Detected by the Fermi Large Area Telescope
2011	Burrows D. N., Kennea J. A., Ghisellini G., et al.	6.9	Relativistic jet activity from the tidal disruption of a star by a massive black hole
2009	Salvaterra R., Della Valle M., Campana S., et al.	6.6	GRB090423 at a redshift of z~8.1
2011	Levan A. J., Tanvir N. R., Cenko S. B., et al.	5.5	An Extremely Luminous Panchromatic Outburst from the Nucleus of a Distant Galaxy
2010	Kann D. A., Klose S., Zhang B., et al.	5.3	The Afterglows of Swift-era Gamma-ray Bursts. I. Comparing pre-Swift and Swift-era Long/Soft (Type II) GRB Optical Afterglows
2015	Dressing C. D., Charbonneau D., Dumusque X., et al.	4.9	The Mass of Kepler-93b and The Occurrence of Terrestrial Planets
2013	Inserra C., Smartt S. J., Jerkstrand A., et al.	4.8	Super-luminous Type Ic Supernovae: Catching a Magnetar by the Tail

HARPS-N

TEST

FGG entered in a phase of scientific and technological collaborations. After changing TNG for Harps-N and Giano...

TNG can be a test bench for new technologies:

fast photometry (talk)

μ-mirrors in focal plane ->

big data and noSQL (talk)

F

als

Gl

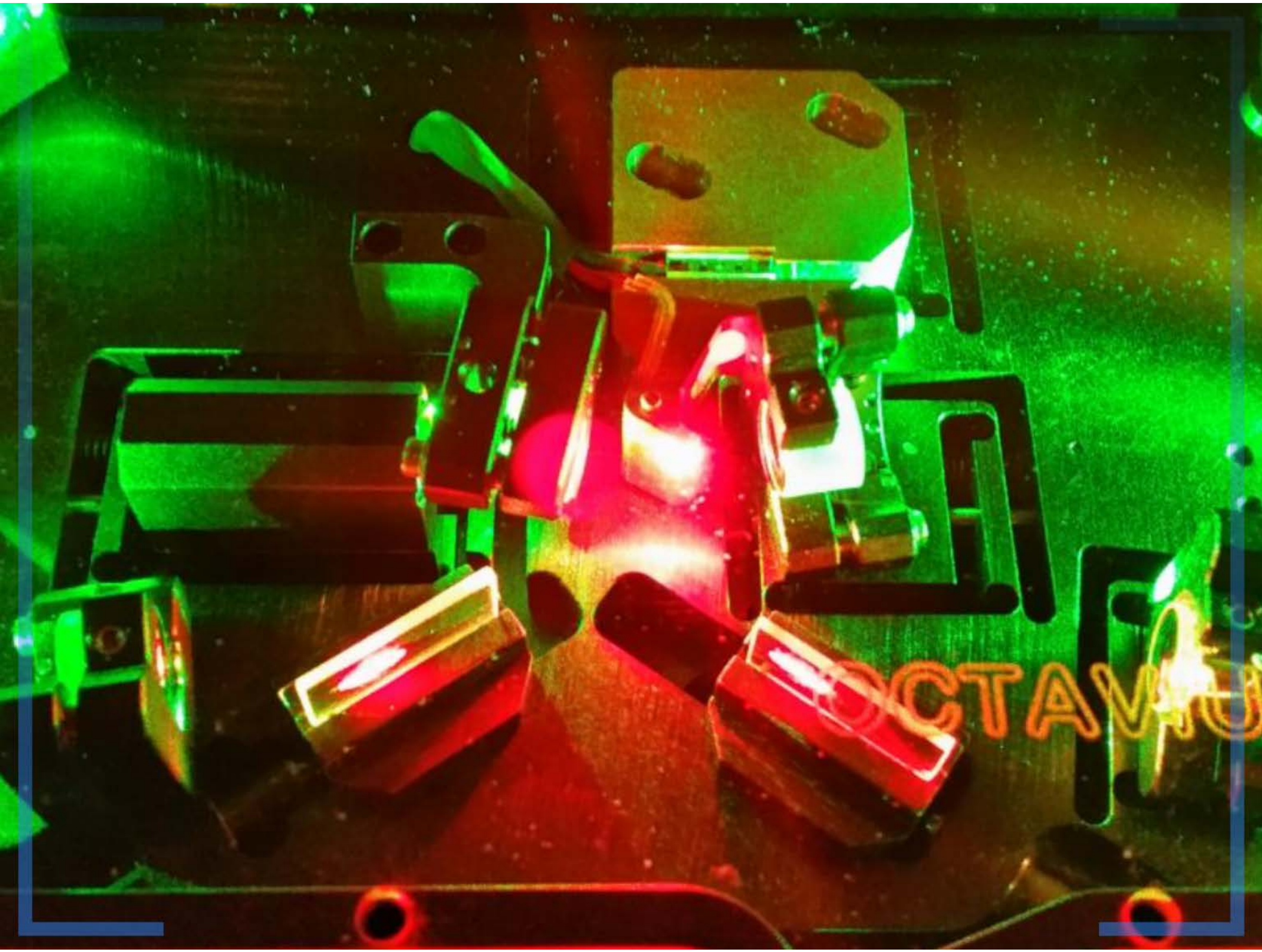
FRONTIERS

also going at the limit of TNG capabilities

GIARPS (talk, talk)

LCST (talk)

lasercomb (talk)

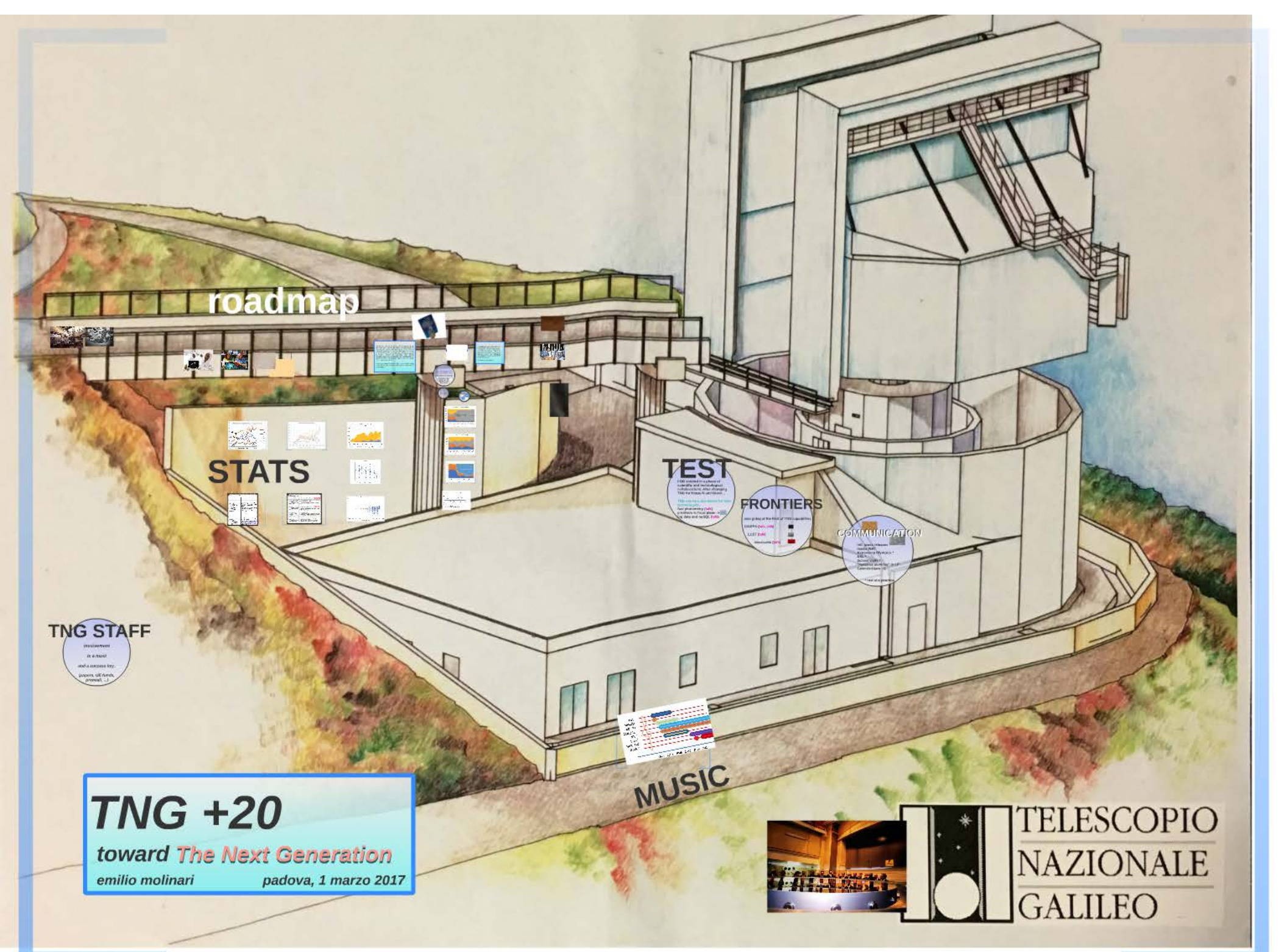

OCTAVIO


THORLABS

COMMUNICATION

intl. press releases
media INAF
Astronomy Olympics *
ASL *
School visits *
"*nuestros alumnos*" in LP
CalendarStars :-)

* real obs practice



TNG +20

toward The Next Generation

emilio molinari

padova, 1 marzo 2017

TELESCOPIO NAZIONALE GALILEO

GRACIAS A TOD@S