



ESO's Approach to Impact Reporting

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ESO's impact areas



**Science and
engineering**



**Economy and
innovation**



**Talent
development**



**Education
and outreach**

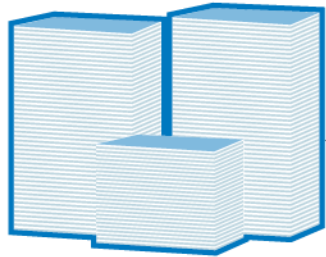


**International
collaboration
and policy**

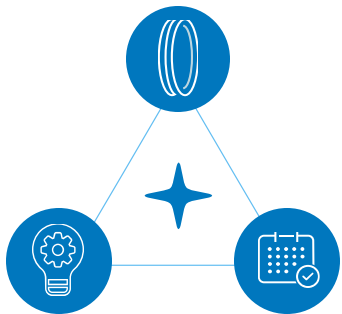
Indicators of Impact: Science & Engineering



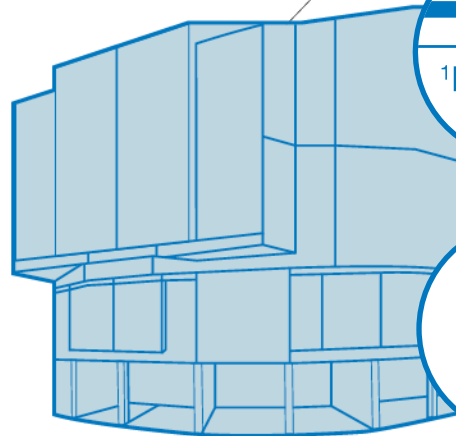
Over 2500



proposals each year for the use of ESO telescopes



ESO develops telescope technologies and engineering & managerial capacity



Nobel Prizes



in Physics in **2011** and **2020** for research with ESO telescopes

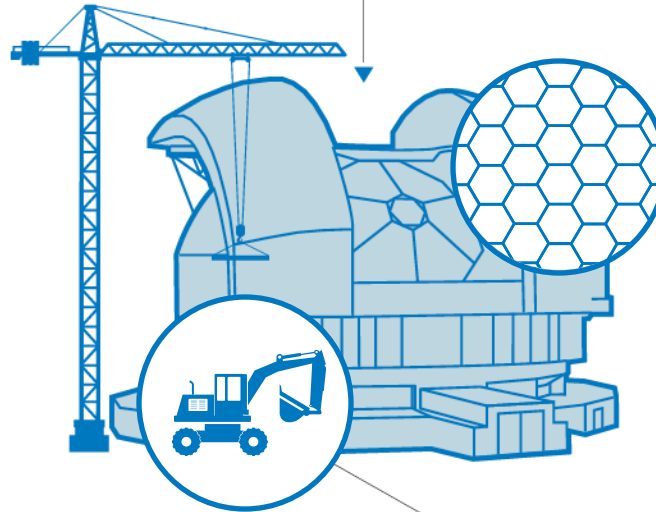
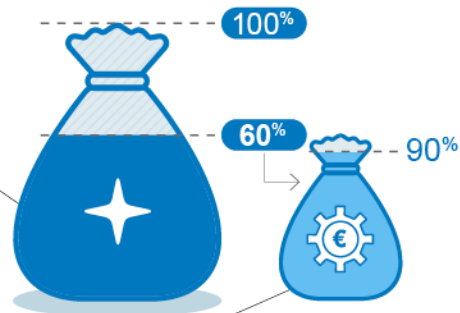
ESO enables **over 1000 peer reviewed publications** each year

8000 astronomers downloaded **1600 terabytes** of data from ESO science archive

Indicators of Impact: Economy & Innovation



60% of ESO budget for design and construction of telescopes and instruments



ESO technologies applied in optics, intercontinental data transfer, medicine, imaging, sensor and detector technology

80% of the €1.3 billion ELT construction budget for contracts with industry

90% for high-tech innovation led by industry and research in Member States

Indicators of Impact: Talent Development



260 students

from more than 40 countries
in science and engineering



150 postdoctoral fellows

from more than 30 countries



90 interns

in astronomy,
engineering,
communication
and administration



800+ ESO alumni

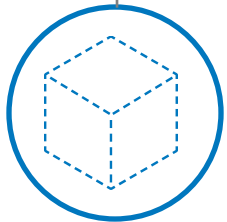
work in astronomy, space exploration,
engineering, information technology,
education, business development, project
management, and communications



International Collaboration and Policy



Open data and standards in astronomy



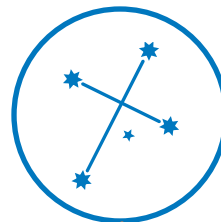
United Nations Committee on the Peaceful Uses of Outer Space



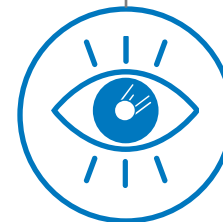
Ethical review processes in science



Impact of satellite mega-constellations



Safeguarding the dark sky



Protecting the Earth from asteroids



EIROForum



Where we are...

Current state of things..

Not starting from nothing...but building on the foundation of existing work.

- ESO has collected and maintained a lot of data on its impacts and benefits since inception- with some commissioned impact study.
- The nature of this data has varied, through the different stages of the organisation, and purpose.
- The data has been used to:
 - Respond to queries and surveys by ESO Member states
 - Engage with our host state Chile
 - Contribute to reporting to the EU- such through EIROforum
 - Pitch ESO to prospective MS.

Where we want to go...

- We are considering a more robust system of collecting, holding, analysing and reporting data on ESO's Impact and Benefits across the board.
- Why now?
 - Need to make data easier to manage
 - Make reporting more efficient i.e reduce time it takes to get data ready when MS want to see it
 - Evolving stakeholder requirements
 - Publish/make available impact information with some cadence our stakeholders can anticipate
 - Become more proactive and less reactive.



Now navigating..

- Adopting a standard/consistent strategic approach to data collection
- Staged implementation approach
- Multiple internal data sources; and ways to harmonize to streamline reporting
- Varied stakeholders with varied data needs
- Ways to collaborate more with similar institutions
- Resource constraints
- Culture shift with internal stakeholders around data collection for impact reporting

Thank you!

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