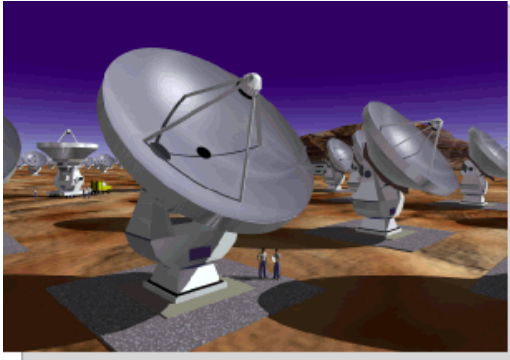




**Atacama
Large
Millimeter
Array**

ALMA Introduction

R. Kurz

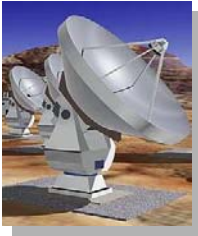
ESO-Wide Review
13-17 February 2003



ALMA Project

Status of ALMA Approvals

- **Jul 2002** - ESO Council approved proceeding to Phase 2 and authorized DG to sign the ESO/NSF/NRC Agreement
- **Aug 2002** - US National Science Board gave final approval
- **Oct 2002** - ESO/Chile Supplementary Agreement signed, discussion on parliamentary approval continues
- **Dec 2002** - NSF received US State Department clearance to sign ESO/NSF Bilateral Agreement
- **Dec 2002** - ESO Council authorized DG to sign ESO/Spain Agreement and the ESO/NSF Agreement
- **Jan 2003** - ESO/Spain Agreement signed



ALMA Project

Status of Approvals (cont'd)

- **Feb 2003** - NSF/ESO Agreement signing ceremony and first formal meeting of the ALMA Board
- Negotiations with Chile advancing
 - Land concession and purchase process advancing rapidly
 - Environmental Impact Statement approval process in final stage
 - Final approval for access expected by **Apr 2003**
- Discussions with Japan continue
 - Japan producing a detailed and costed proposal for enhancements
 - ACA - compact array of 12 x 7m antennas plus 4 x 12m antennas
 - Up to 3 additional receiver bands
 - ACA correlator and second generation correlator
 - If Japanese government approves, will join in **Apr 2004**



ALMA Project

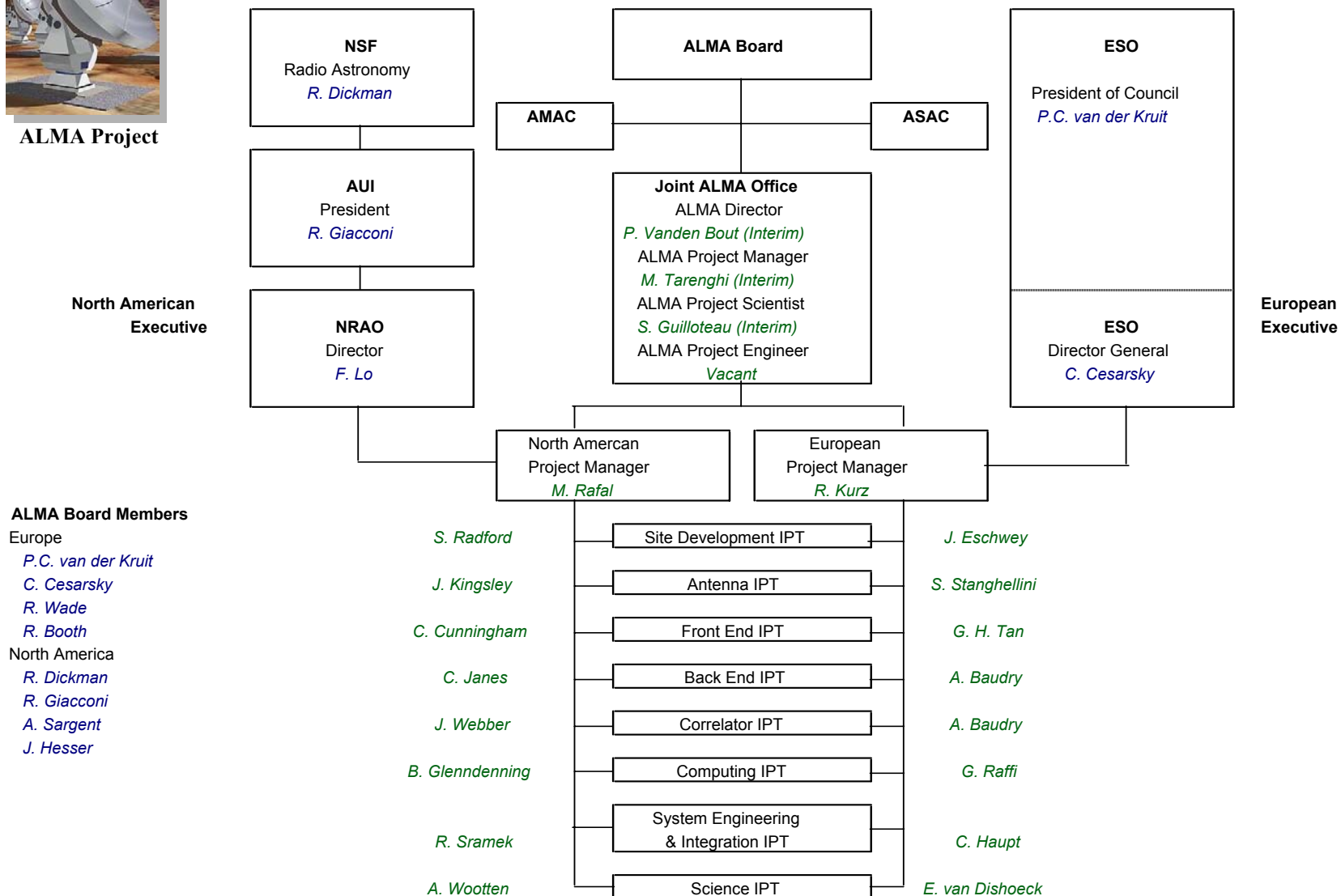
ALMA Management Structure

- Unified project leadership in the form of Joint ALMA Office (JAO) established in Jun 2002 with interim key personnel
 - Director - P. Vanden Bout, Project Manager - M. Tarengi, Project Scientist - S. Guilloteau
- Recruitment of permanent key personnel ongoing
 - Joint search committee established in Aug 2002
 - Selection of ALMA Director imminent
 - Selection of Project Manager, Scientist, and Engineer will follow ASAP



ALMA Project

ALMA Management Structure



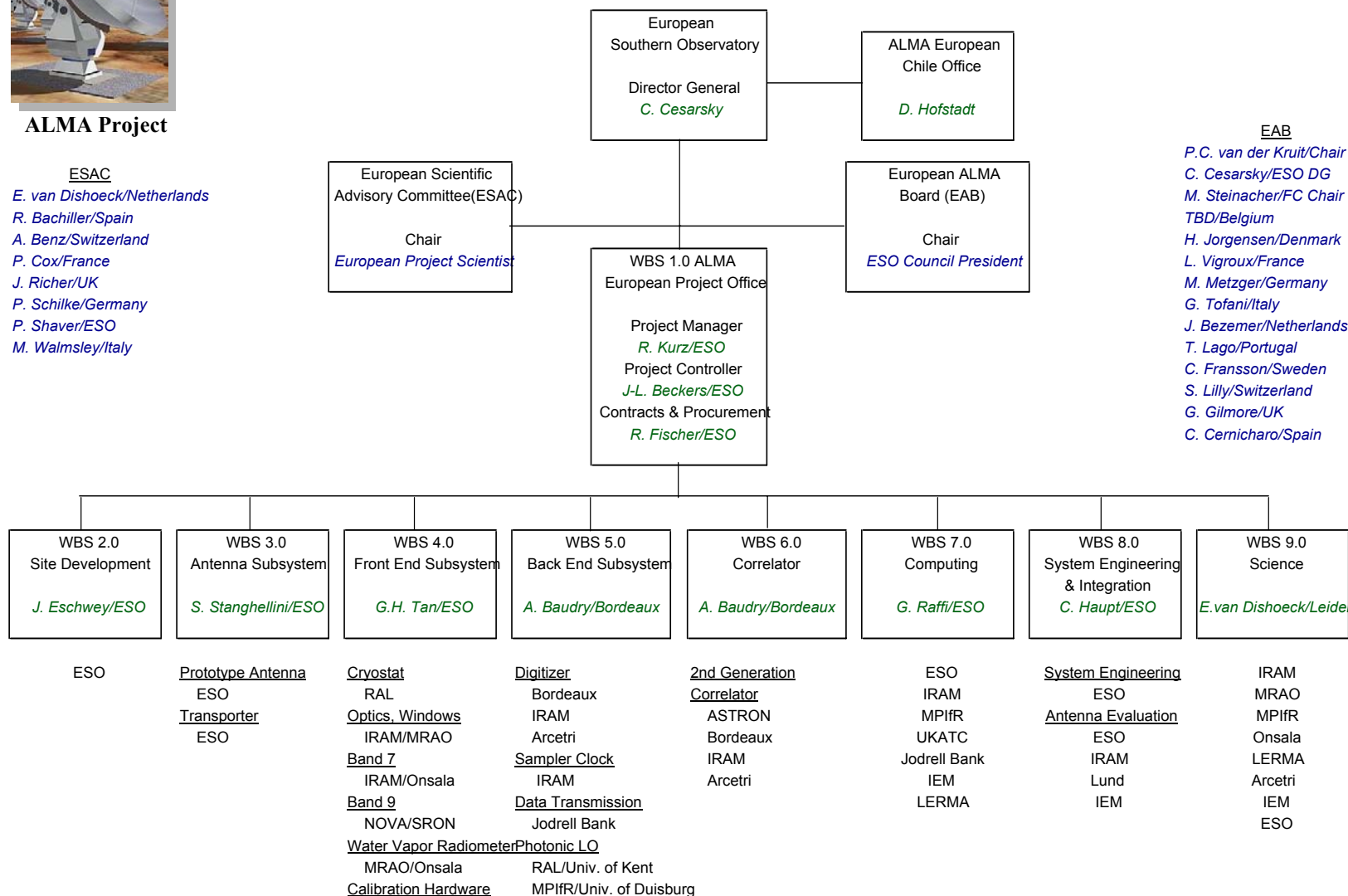


ALMA Project

ESAC

E. van Dishoeck/Netherlands
R. Bachiller/Spain
A. Benz/Switzerland
P. Cox/France
J. Richer/UK
P. Schilke/Germany
P. Shaver/ESO
M. Walmsley/Italy

ALMA European Organization





ALMA Project

ALMA Division

- ESO Council approved formation of an ALMA Division effective Jan 2003, with R. Kurz as Head of Division
 - ALMA European Project Manager (EMA001) R. Kurz [A. Neves]
 - Project Secretary (EMA003) E. Zuffanelli
 - Site Development Manager (EMA009) J. Eschwey
 - Construction Supervisor (PMA005) G. Medves
 - Antenna Subsystem Manager (EMA015) S. Stanghellini
 - Front End Subsystem Manager (EMA005) G. H. Tan
 - Front End Subsystem Engineer (EMA010) H. Rudolf
 - Computing Subsystem Manager (EMA013) G. Raffi
 - Software Architecture Manager (EMA004) J. Schwarz
 - System Engineering & Integration Manager (EMA012) C. Haupt
 - System Engineer (EMA011) E. Pangole
 - European Project Engineer (PMA004) J. Baars
 - Field Supervisor (LMA003) A. Otarola
 - European Project Scientist (EMA014) NN - 2003
 - Senior Astronomer (EMA002) P. Shaver
 - Site Tester (LMA008) M. Rivera



ALMA Project

Organization of Work in the ALMA Division

ALMA WBS	ESO WP	WPM	Title
1.0	390	Tarenghi	Joint ALMA Office (not in ALMA Division)
	391	Kurz	European Project Office
	365	Hofstadt	Chile Office
2.0	392	Eschwey	Site Development
3.0	394	Stanghellini	Antenna Subsystem
	364	Kraus	Transporter
4.0	361	Tan	Front End Subsystem
5.0 and 6.0	362	Kurz	Back End Subsystem (including Correlator)
7.0	395	Raffi	Computing Subsystem
8.0	393	Haupt	System Engineering & Integration
	363	Baars	Prototype Antenna Evaluation
9.0	367	Shaver	Science
	366	Nyman	Site Characterisation



ALMA Project

Division of Tasks in Europe

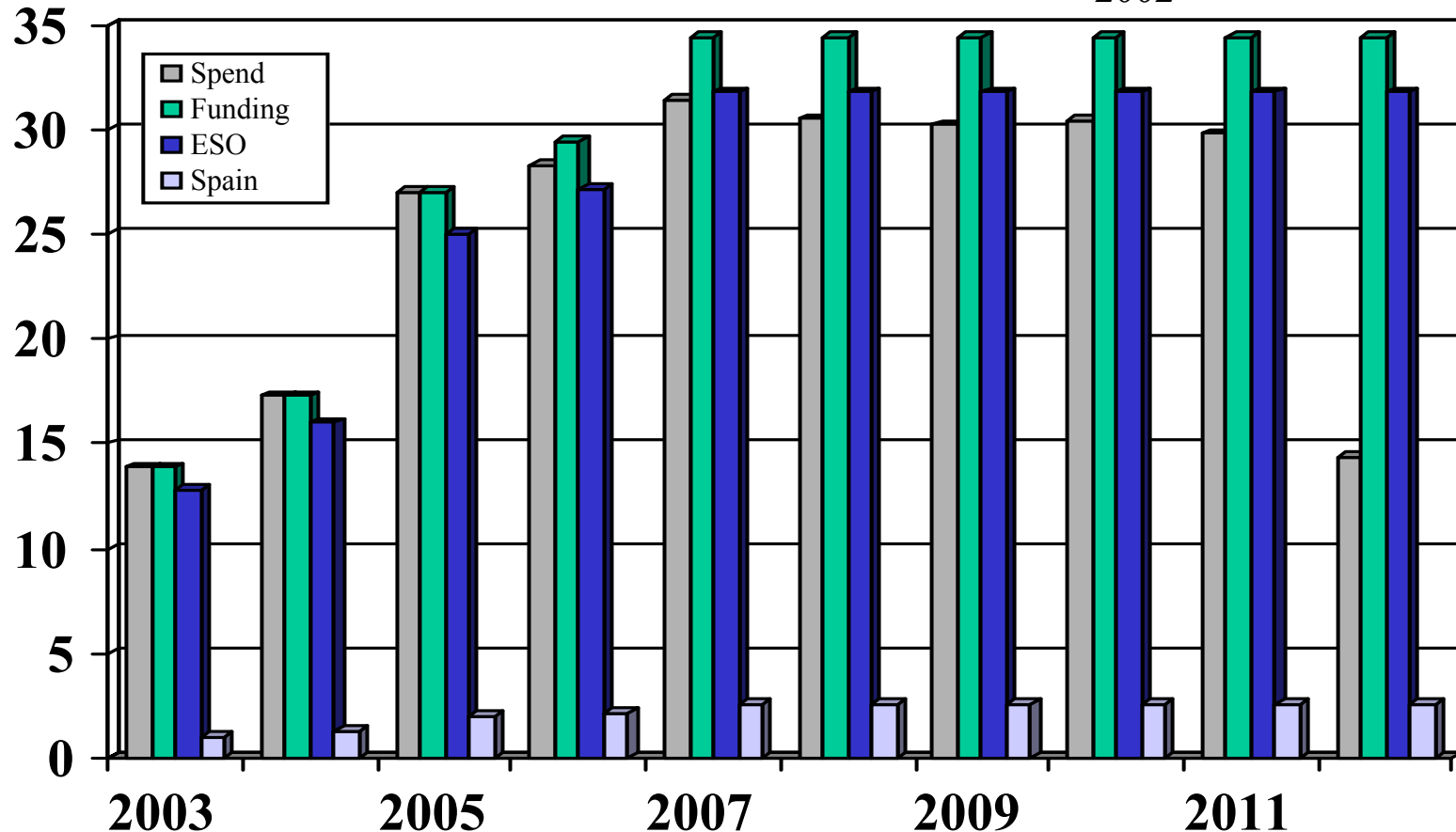
- **Aug 2002** - ESO issued a Call for Proposals for ALMA Phase 2 Work Packages to European institutions participating in ALMA
 - 6 Front End and 4 Back End development work packages
 - Preliminary proposals for 13 production work packages
- **Oct 2002** - 12 development and 15 production proposals received
- **Nov 2002** - Technical evaluation of development proposals completed
- Currently negotiating development work packages to include delivery of 8 pre-production units



ALMA Project

European Phase 2 Construction Cost Projections

- European funding schedule (M€₂₀₀₂/year)

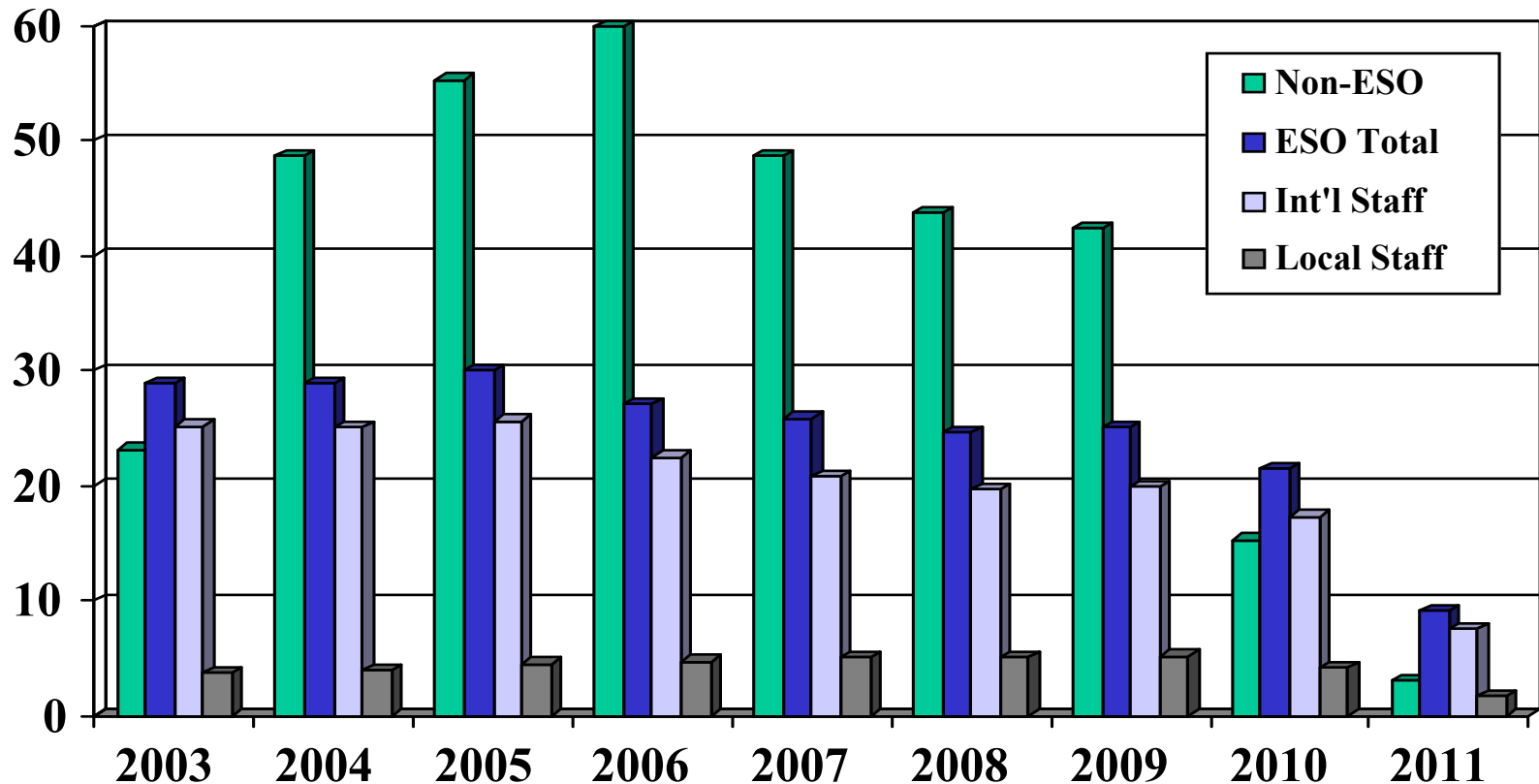




ALMA Project

European Phase 2 Construction Staffing Projections

- Total European staffing = 561 FTE-yrs

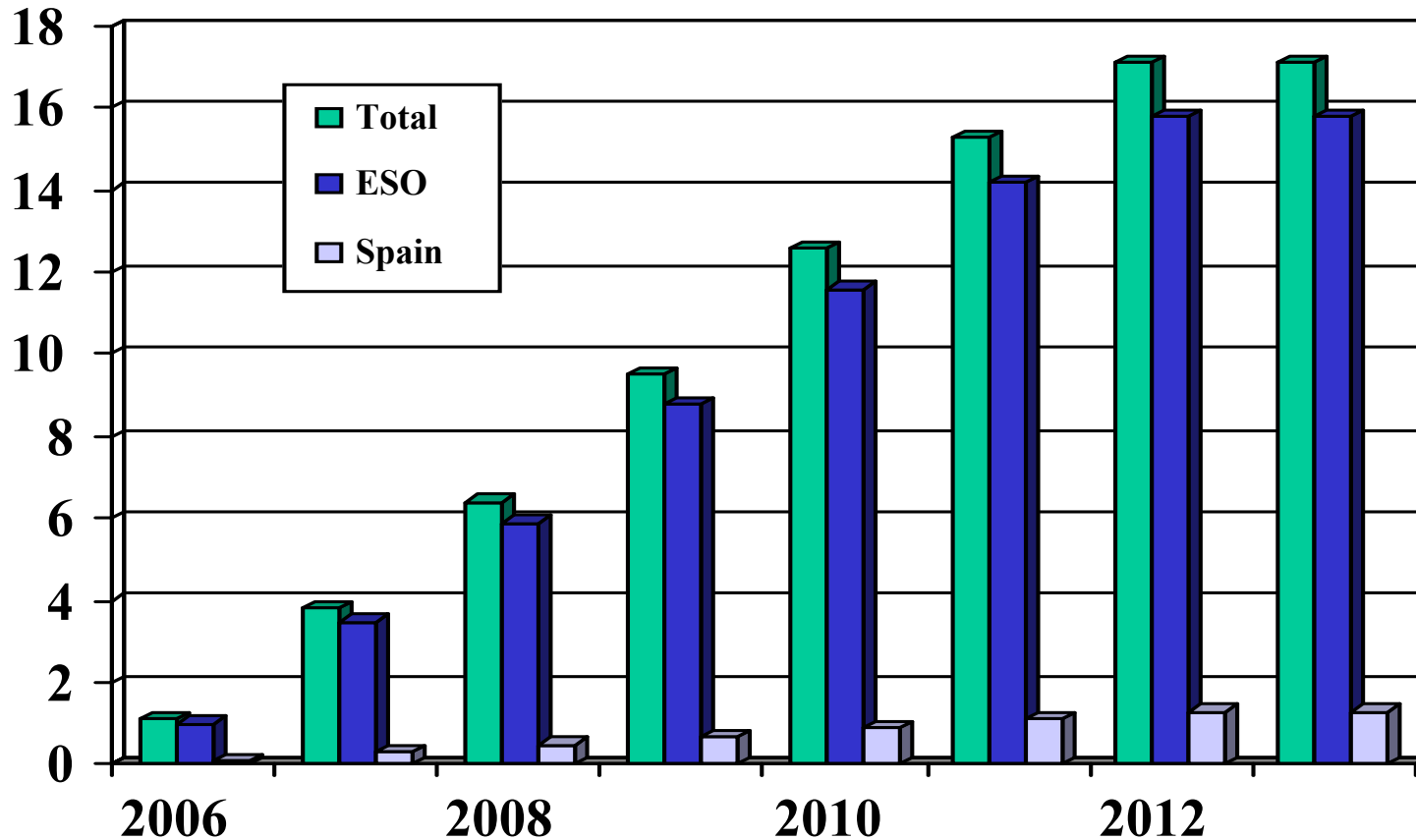




ALMA Project

European Phase 2 Operations Cost Projections

- European funding schedule (M€₂₀₀₂/year)





ALMA Project

European Phase 2 Operations Staffing Projections

- European operations staffing (FTE)

