NASA PM Challenge 2010
Developing the International Program/Project Management Community
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“To provide for and promote, for exclusively peaceful purposes, cooperation among European states in **space research** and **technology** and their **space applications**.”

[Article 2 of ESA Convention]

**ESA is one of the few space agencies in the world to combine responsibility in all areas of space activity.**

- Space science
- Human spaceflight
- Exploration
- Earth observation
- Launchers
- Navigation
- Telecommunications
- Technology
- Operations
ESA FACTS AND FIGURES

- Over 30 years of experience
- 18 Member States
- 2080 staff, thereof 880 in Program Directorates, 790 in Operations and Technical Support and 410 in other Support Directorates
- 3 500 million Euros budget
- Over 60 satellites designed and tested
- Over 60 satellites operated in-flight and 8 missions rescued
- 16 scientific satellites in operation
- Five types of launcher developed
- More than 180 launches made
ESA Locations

ESTEC (Noordwijk)
Satellite technology development and testing

ESA HQ (Paris)

ESAC (Villanueva de la Cañada)
Space Astronomy Centre

ESRIN (Frascati)
Earth Observation Centre

EAC (Cologne)
Astronaut training

ESOC (Darmstadt)
Satellite operations and ground system technology development

Harwell
Brussels
Toulouse
Oberpfaffenhofen
Salmijaervi
Europe’s increasing Role in Earth Observation

1990 - 2010

- **METEOSAT**
  - M-1, 2, 3, 4, 5, 6, 7

- **METEOSAT Second Generation**
  - MSG-1, -2, -3

- **METOP-1, -2, -3**

- **ERS-1, -2**

- **ENVISAT**

- **GMES**

- **Cryosat 2** (Polar Ice Monitoring)
- **GOCE** (Gravity and Ocean Circulation Explorer)
- **SMOS** (Soil moisture)
- **ADM/Aeolus** (global wind profiles)
- **EarthCARE** (clouds, aerosols)
- **SWARM** (Earth’s magnetic field)

**Science**

- **Earth Explorers**

**Applications Services**

- to better understand the Earth
- to initiate long term monitoring systems and services

**Third-Party Missions:** European access to non-ESA missions

- ALOS, SPOT-4, Landsat, MODIS, SeaWifs, Scisat ...

**European users**
Number of ESA staff: **2080**, thereof **880** in Program Directorates, **790** in Operations and Technical Support and **410** in other Support Directorates

Number of ESA Program Managers end 2009: **14**

Number of ESA Project Managers end 2009: **43**

VNVs for Program/Project Managers in 2008/2009: **24**

Thereof filled internally: **23**

ESA program and project managers are usually recruited internally. They grow into their roles:
Program/Project Management in ESA

**Program Manager**
- Selection
- Training
- Lessons learned

**Project Manager**
- Selection
- Training

**Payload manager**
- System manager
- Spacecraft operation manager
- PA/QA staff

**Project team members**
- Support staff

**Ensure sufficiently large “pool of potential”**

**Identify the potential to become**
**project/program manager**

**Close the gap between current competencies and competencies needed**

**Exchange lessons learned**
Project Management Courses

Basic knowledge on project management for technical officers, study managers, (new) managers of small projects. Courses based on those certified by the Association for Project Management (UK) and customised for ESA.

Project Management Principles: Level 1 (4 days)
Tools and techniques

Project Management Principles: Level 2 (4 days)
Communication and people management in projects
Management Development Program

Module 1: Understanding Self (2 days)
the role of ESA people manager, objective and priority setting, MBTI, coaching, peer support networks

Module 2: Understanding Others (2 days)
360 degree feedback, stakeholder analysis, Thomas Kilmann tool on assertiveness, coaching

Module 3: Managing Performance (2 days)
Beck performance analysis tool, situational leadership, setting smart objectives, understand reactions to stress, giving effective feedback, managing workload, managing expectations

Module 4: Managing Diversity (1 day)
Understanding cultural values, cultural intelligence, mental programming, Schwartz Personal Value Survey, dealing with conflicts in diverse teams, communication
## Program/Project Management in ESA

### “Pool of potential”
- Recruitment Marketing
- Young Graduate Program

### Selection
- Quality of applications
- Nationality constraints
- training on negotiation skills
- how to train for acting in a “political environment”
- opportunities to move between programs / projects?
- sufficient evaluation of soft skills?

### Training
- on the job
- role models / mentoring
- Management Development Program / Leadership Program

### Lessons learned
- Lessons learned system in technical support Directorate / Operations
- Extension of lessons learned system across the Agency
For more information:
www.esa.int