Careers at the European Space Agency
- Be a Star in ESA's Universe -

Switzerland, Geneva, 7 November 2018

Torsten Bieler – Head of Learning & Development Service, ESA/ESTEC
Agenda

About ESA
Possibilities / Opportunities
More Info
History of ESA

ESRO
European Space Research Organisation

ELDO
European Launcher Development Organisation

Formed in 1975

11 founding member states signed the original Convention:
France, Germany, Italy, United Kingdom, Belgium, Denmark, Netherlands, Spain, Ireland, Sweden, Switzerland
The Space of ESA

22 Member States:
20 states of the EU (AT, BE, CZ, DE, DK, EE, ES, FI, FR, IT, GR, HU, IE, LU, NL, PT, PL, RO, SE, UK) plus Norway and Switzerland.

Seven other EU states have Cooperation Agreements with ESA: Bulgaria, Cyprus, Latvia, Lithuania, Malta and Slovakia. Ongoing discussions with Croatia.

Slovenia is an Associate Member.

Canada takes part in some programmes under a long-standing Cooperation Agreement.
The Space of ESA

- 2300 staff
  - 73% male
  - 27% female
- ≈140 (!) Young Graduate Trainees
- ≈50 Research Fellows
- + ca 800 contractors

>50 years of experience
>80 spacecraft designed, tested and operated in flight
22 Member States
Eight sites/facilities in Europe
5.6 billion Euro budget (2018)

3.98B€ → Member States
1.62B€ → EU, Eumetsat & other
Geo-Return

≈2300 staff
≈140(!) Young Graduate Trainees
≈50 Research Fellows
+ ca 800 contractors

Member States
1.62B€ → EU, Eumetsat & other
Geo-Return

Switzerland: 149.4 M€ 3.9%

ESA HQ (Paris)
ESOC (Darmstadt)
EAC (Cologne)
ESRIN (Rome)
ESAT (Harwell)
ESEC (Redu)
ESAC (Madrid)

22 Member States
Eight sites/facilities in Europe
5.6 billion Euro budget (2018)
Agenda

About ESA
Possibilities / Opportunities
More Info
The way to ESA – A random example

- Battlestar Galactica
- Challenger Disaster
- "You can study Space Engineering"
- What is this ESA?
- From Internship to ESA staff
What we can offer...
(apart from astronauts)

...to become a star in ESA’s universe
What do we offer?

- Inspiring work
- Intellectually stimulating
- Team-oriented/international
- Social/sports clubs
- Competitive conditions
ESA Astronauts – app. 10,000 applicants in 2008

- Timothy Peake (British)
- Samantha Cristoforetti (Italian)
- Andreas Mogensen (Danish)
- Alexander Gerst (German)
- Luca Parmitano (Italian)
- Thomas Pesquet (French)
- Matthias Maurer (German)
## Technical & Scientific Disciplines

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Location</th>
<th>ESTEC</th>
<th>ESOC</th>
<th>ESRIN</th>
<th>ESAC</th>
<th>ECSAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied mathematics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earth observation &amp; environmental science (geophysics, meteorology, climatology)</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Electrical engineering</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground segment systems &amp; operations</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Life &amp; materials sciences, materials &amp; processes engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mechanical engineering</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product/quality assurance &amp; safety</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Planetary &amp; space science (astronomy, astrophysics, solar &amp; heliospheric physics)</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Software Engineering</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Systems Engineering</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Telecom &amp; integrated applications</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Non-technical disciplines at ESA

Finance
- Project control
- Cost analysis / audit

Law
- Contracts
- Procurement
- International public law

Communications & Public Relations

Other
- IT
- Facility management
- Human resources
Learning & Development

- Key to ensure that competencies/skills remain aligned with ESA's vision
- Help staff move forward in their career

300+/- training courses on offer
What are we looking for?

- Masters or PhD level
- Professional curiosity & expertise
- Passion for space
- Language skills/multi-cultural aptitude
- Industrial experience
Traineeship Programmes @ ESA

- Young Graduate Trainees
- National Trainees Programmes
- Research Fellowship Programme
- Students Placements
- Network/Partnering Initiative
Young Graduate Trainees (YGT) (1/2)

Recent Masters Degree graduates, with limited professional experience

Preparation for a job in Europe's space industry and research institute

Rich personal and professional experience of living and working in another country in a diverse and international environment

1 year, with possibility for 1 additional year
Trainee Opportunities

- Advertised mid-November on the ESA web site
- Interviews February/March
- Start date between May/Sept

140+ traineeships in 2018(!) – all establishments

2016:
- 3000 applications,
- 27% female

34% women recruited – Gender policy for women in technical and scientific roles
YGT secondment to Industry

Follows the ESA traineeship

**Who:** YGTs who excel in performance

Assignment agreed between ESA and hosting company

We are looking to expand the scheme – develop more co-operations with space companies

1 year secondment in European Space Sector

Better investment of our best young talents

Who: YGTs who excel in performance

Assignment agreed between ESA and hosting company

We are looking to expand the scheme – develop more co-operations with space companies
National Trainee Programmes

Bilateral agreements: ESA ↔ national entities for example DLR, Swiss Space Office...

Target: Young, recent master graduates from Belgium, Germany, Luxemburg, Portugal and Switzerland

On-the-job training – tutor supervision and guidance

2 years, with an evaluation at the end of the 1st year

25 national trainees every year
Research Fellowship Programme

- Recently attained **doctorate (PhD)** in a relevant field
- Carry out advanced research related to space science, space applications and space technology
- **2 year** contract – can exceptionally be extended for a third year
- Approximately **50** Research Fellows every year
Students Placements (Intern)

Students in their last or penultimate year of a Master's degree

Space Sector experience as part of the studies
- Filling internship requirements for graduation
- Final Thesis contribution

3 - 6 month placement, can be split into two parts

Students can apply from 1 Sep - 31 Oct indicating their area of interest

Around 100 students each year → 75 at ESTEC
Network/Partnering Initiative (NPI)

- Co-funding of research projects up to 50% or max. €30K/year for doctorate degree investigations
- Access to the ESA laboratories & facilities - for 6 - 12 months
- Technical support – collaboration with ESA experts to discuss proposal concepts and verify potential for space applications
- Networking – can search for industrial partners for further cooperation and to build 'innovation networks' through ESA links
- Selection of proposals takes place twice a year
After an ESA Traineeship...

≈15% of ESA staff have been either a YGT or Internal Research Fellow

≈10% of YGT's and Research Fellows become on site contractors

Research Fellows in fields of astronomy, planetary sciences, helio-physics and instrumentation pursued their career in Research Institutes and Universities

Most YGT's find a job in European Space or non-space Industry

Many YGT's pursue a Ph.D.
Agenda

About ESA
Possibilities / Opportunities
More Info
ESA Career Web Page

STUDENT OPPORTUNITIES

Post Docs: Research Fellowship
PhD students: Network/Partnering Initiative
Graduates: Young Graduate Trainees
Graduates: National Trainees
Student Internships

PEOPLE OF ESA

Vacancies
HR Marketing in Social Media - Facebook

Visit ESA Facebook

ESA – European Space Agency
HR Marketing in Social Media - LinkedIn

Visit ESA LinkedIn Careers At ESA

YouSpace has launched a LinkedIn group! YouSpace is dedicated to the Space sector to share innovations, events, success stories, job opportunities, dialogues, internships... between Students, Academics, Researchers, Industrials, Institutionalists (Space Agencies, EU Commission,...) and everybody involved in this fascinating sector!

Check it out! https://lnkd.in/gr7gTW2

81 Likes • 6 Comments

Organic Reach
Targeted to: All followers

25,380 Impressions
937 Clicks

4.06% Engagement
94 Social Actions

Sponsoring an update allows your company to reach non-followers.

Learn More
Be a Star in ESA’s Universe

- Work space – inspiring & lot of space
- “Pushing boundaries of the Universe”
- There are many possibilities
- You can be a part of it
Thank you for your attention

More information:
HR-Marketing@esa.int