Content

1. Why work in space?
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4. Where are the jobs?
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6. Getting that first job
“Why Space?"

- Low prestige of engineering jobs
- Salaries are higher for MBA’s
- Science and engineering are difficult!
- Unclear career paths
- BUT…. "We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard.”
European space jobs

Only 14 of these.......

But 35,000 of these.......
## Main space employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Locations</th>
<th>Total ‘Employees’</th>
<th>Contractors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Astrium (inc. Surrey Satellite)</strong></td>
<td>UK, F, D, E, NL</td>
<td>18,000</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Thales Alenia Space</strong></td>
<td>F, I, ?</td>
<td>8,500</td>
<td>significant</td>
</tr>
<tr>
<td><strong>ESA</strong></td>
<td>UK, F, D, I, E</td>
<td>5,000</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Telespazio (inc. Vega)</strong></td>
<td>UK, D, I, E</td>
<td>2,500</td>
<td>?</td>
</tr>
<tr>
<td><strong>OHB</strong></td>
<td>D</td>
<td>2,200</td>
<td>limited</td>
</tr>
</tbody>
</table>
Pros/cons by employer type

- **ESA / EUMETSAT**
  - **Staff:** tax-free salary, can be administrative.
  - **Contractor:** good conditions, mainly technical but also admin.

- **Industry (Primes)**
  - **Staff:** technical challenges, career path
  - **Contractor:** technical challenges, no stability

- **Industry (SMEs)**
  - **Pros:** greatest technical challenges
  - **Cons:** constantly fighting for survival

- **Academia**
  - **Pros:** scientific and technical challenges, variety
  - **Cons:** salary
# Main locations – pros/cons

<table>
<thead>
<tr>
<th>Site</th>
<th>Good Points</th>
<th>Bad Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTEC (NL)</td>
<td>30% tax rule, centre of European space, facilities</td>
<td>Weather</td>
</tr>
<tr>
<td>ESOC/EUMETSAT (D)</td>
<td>Access to Europe</td>
<td>Fluctuating programmes at ESOC</td>
</tr>
<tr>
<td>ESRIN (I)</td>
<td>Location, weather</td>
<td>Relatively isolated</td>
</tr>
<tr>
<td>ESAC (E)</td>
<td>Weather</td>
<td>Isolated site, Spanish-speaking</td>
</tr>
<tr>
<td>Toulouse (F)</td>
<td>Nice city, good location</td>
<td>Must speak French</td>
</tr>
<tr>
<td>Stevenage (UK)</td>
<td>Close to London</td>
<td>Close to London</td>
</tr>
<tr>
<td>Bremen (D)</td>
<td>Pleasant city</td>
<td>Mainly German-speaking</td>
</tr>
<tr>
<td>Portsmouth (UK)</td>
<td>Coastal, nice area</td>
<td>??</td>
</tr>
<tr>
<td>Turin (I)</td>
<td>It’s Italy!, the lakes, the Alps</td>
<td>Salary</td>
</tr>
<tr>
<td>Friedrichshafen (D)</td>
<td>Outstanding location near Alps, Italians happy to move there</td>
<td>Mainly German-speaking</td>
</tr>
</tbody>
</table>
Harwell

- 25% increase in ESA contribution
- Telecomms and Integrated Apps moving to Harwell
- 100 ‘new’ jobs?
- No Brits?
- Also UK-funded Catapult initiative
# Finding a new job

## Vacancies

Make an exceptional career step and send us your application.

### Search for a vacancy

<table>
<thead>
<tr>
<th>Job type</th>
<th>Country</th>
<th>Posting date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>Germany</td>
<td>All</td>
</tr>
<tr>
<td>Operations Engineering</td>
<td>The Netherlands</td>
<td>Last three days</td>
</tr>
<tr>
<td>Science</td>
<td>Spain</td>
<td>Last week</td>
</tr>
<tr>
<td>Management</td>
<td>France</td>
<td>Last month</td>
</tr>
<tr>
<td>Project Control / Finance</td>
<td>Italy</td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>Uk</td>
<td></td>
</tr>
</tbody>
</table>

Clear fields

Start search

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*Jena is a wonderful small city in the__*
Typical jobs

- Open jobs on 15 Feb 2013
- 9 in ESA
- 11 in EUMETSAT
- 11 in Industry
Typical good candidate

- EU national
- Good English
- Specialised Masters degree
- International experience
- Willing to move
- > 3 years industrial experience
- Flexible
- Happy to be technical
Typical unsuccessful candidate

- Non-EU national
- Poor English
- Limited experience
- Job hopper
- Not willing/able to move (family)
- Not thought it through
- Seeking career path
# Hard to find skills

<table>
<thead>
<tr>
<th>Job Type</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Assurance Engineering</td>
<td>Space engineering background</td>
</tr>
<tr>
<td>Optics Engineering</td>
<td>Detector design/calibration</td>
</tr>
<tr>
<td>Thermal Engineering</td>
<td>Consultancy opportunities</td>
</tr>
<tr>
<td>Operations Engineering</td>
<td>Learn on the job</td>
</tr>
</tbody>
</table>
Getting that first job

Most graduates leave their first job within 18 months.

Age distribution

- 25-30
- 31-35
- 36-45
- 46-55
- >55
- <25
Be active

- Get experience for the CV and meet people
- Network at conferences (sit next to a suit!)
- Get involved in societies, eg:
  - UKSEDS - RAeS
  - WIA - SGAC
  - etc
- Social media groups
- Volunteer (local observatory? space centre?)
- Final thesis in a space company?
What type of job?

- Graduate entry space jobs are rare
- Take an internship
  - ESA takes on 80 YGTs each year
- ESA contractor post will need >3-4 years experience
- Industry contractor could be less
- Consider SMEs (not just big Primes)
Get the CV right!

- 2-3 pages maximum
- Use a (good) photo
- Use keywords from job spec
- Don’t claim language ability
- You have ONE chance

“Dear HE Space........”
Get the CV right!

Personal Data
- Full Name: xxxxx
- Date of Birth: xxxxx
- Home Address: xxxxx
- Telephone: xxxxx
- Email: xxxxx
- Citizenship: xxxxx

Professional Experience
- Since 2005, Project Engineer in Bioreactor Srl (Rome) for R&D in bioreactors area
- 2003 in Postdoctoral Position at Crystallography Institute, National Research Council (CNR), dispostion n. 191/2003 MIUR of 31.03.2003 and dated 01.10.2003, 50% of the research program "ESBRP-ENI" project - Research and development of bioreactor based on SPEM and ENI's environmental applications.
- 2002 - 2003 Postdoctoral Position at Crystallography Institute, National Research Council (CNR), dispostion n. 191/2003 MIUR of 31.03.2003 and dated 01.10.2003, 50% of the research program "ESBRP-ENI" project - Research and development of bioreactor based on SPEM and ENI's environmental applications.

PERSONAL INFORMATION
- Name: XXXXX
- Address: XXXXX
- Telephone: XXXXX
- Email: XXXXX
- Date of Birth: 01/01/1970

EMPLOYMENT HISTORY

04/2005 - Present: Administrative Assistant to DIACV (Director Advisor to the DG) - ESTEC
- Providing administrative secretarial support to the Director Advisor.
- Maintaining the DIACV electronic calendar, agenda, and records.
- Managing the DIACV database, files, and records.
- Organizing meetings for the DIACV team.
- Preparing documents and reports.
- Taking minutes during meetings.
- Arranging conferences and workshops for the DIACV team.
- Managing the SAP database.
- Office administration.

03/2006 - 04/2008: Administrative Assistant/Secretary to HESP-EC and the ATV team - ESTEC
- Providing administrative support to HESP-EC and the ATV team.
- Management of HESP-EC electronic calendar, agenda, and records.
- Organizing meetings for the ATV team.
- Preparing documents and reports.
- Taking minutes during meetings.
- Arranging conferences and workshops for the ATV team.
- Managing the HESP-EC database.

03/2009 - 03/2009: Secretary/Administrative Assistant to HESP-GT and team - ESTEC
- Supporting the Secretary to the HESP Division's (HESP-EC) administrative staff.
- Database management and maintenance.
- Undertaking travel arrangements.
- Maintaining HESP-GT agenda.
Before the interview

- Do your research
- Google yourself
- Wear your new suit beforehand
- Prepare questions
- You will be asked about hobbies
At the interview

- Be on time
- Be nice to the secretary
- Dress professionally
- Make eye contact
- Be honest
Typical interview questions

- Introduce yourself
- Why are you interested in this job?
- Which achievement are you most proud of?
- What was your biggest failure and how did you deal with it?
- Main strengths / weaknesses?
- Why are you the best candidate for this job?
Not getting interviews?

- Am I applying for positions that are too junior/senior?
- Is my CV well-presented and professional?
- Does my motivation letter add weight?
- Have I highlighted all my relevant skills?

- Sort out the above, **STAY POSITIVE AND HAVE AN EXCELLENT CAREER!**
Keith Muirhead  
Chief Operating Officer  

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The Netherlands  

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“Dear HE Space........”  

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www.hespace.com