



SOCIS – The ESA Summer of Code in Space

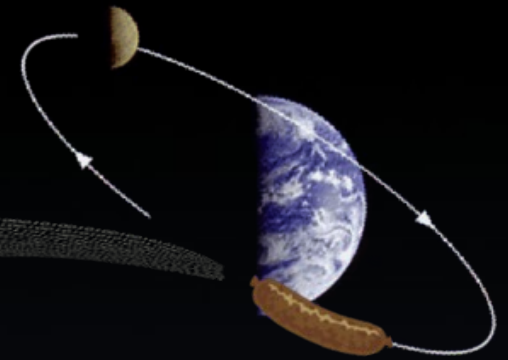
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www.esa.int

What is SOCIS ?



- Most people in the software area know GSOC : the Google Summer of Code
- The ESA Advanced Concept Team decided in 2011 to launch a European « Space » summer of code – SOCIS was born : <http://sophia.estec.esa.int/socis/>
- SOCIS already ran 4 editions, and is now managed by the software division at ESA
- The objectives : promote the space sector, attract young software engineers, promote open-source

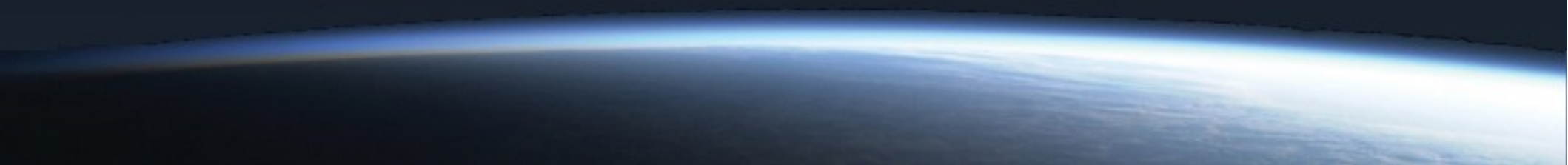
How does it work (1) ?

- Each year a call is made by ESA to find
 - Space-related open-source software
 - Ideas to improve it
 - Mentors willing to help a student during the summer period
- ESA selects up to 23 projects each year
- Then a call for students is made



How does it work (2) ?

- Students from all over ESA-contributing countries can apply to one or several projects
- Contact is made with mentors to elaborate a project and find a match
- Student selection and dispatching is eventually made by ESA
- Students start coding and work from June to September (3 months)



Evaluation and payment

- Selected students get 1000 euros when they start coding
- An evaluation of their work is done by the mentors at the end of the coding period
- ESA reviews the evaluations and decides for the payment of the second part : 3000 euros

Past SOCIS editions

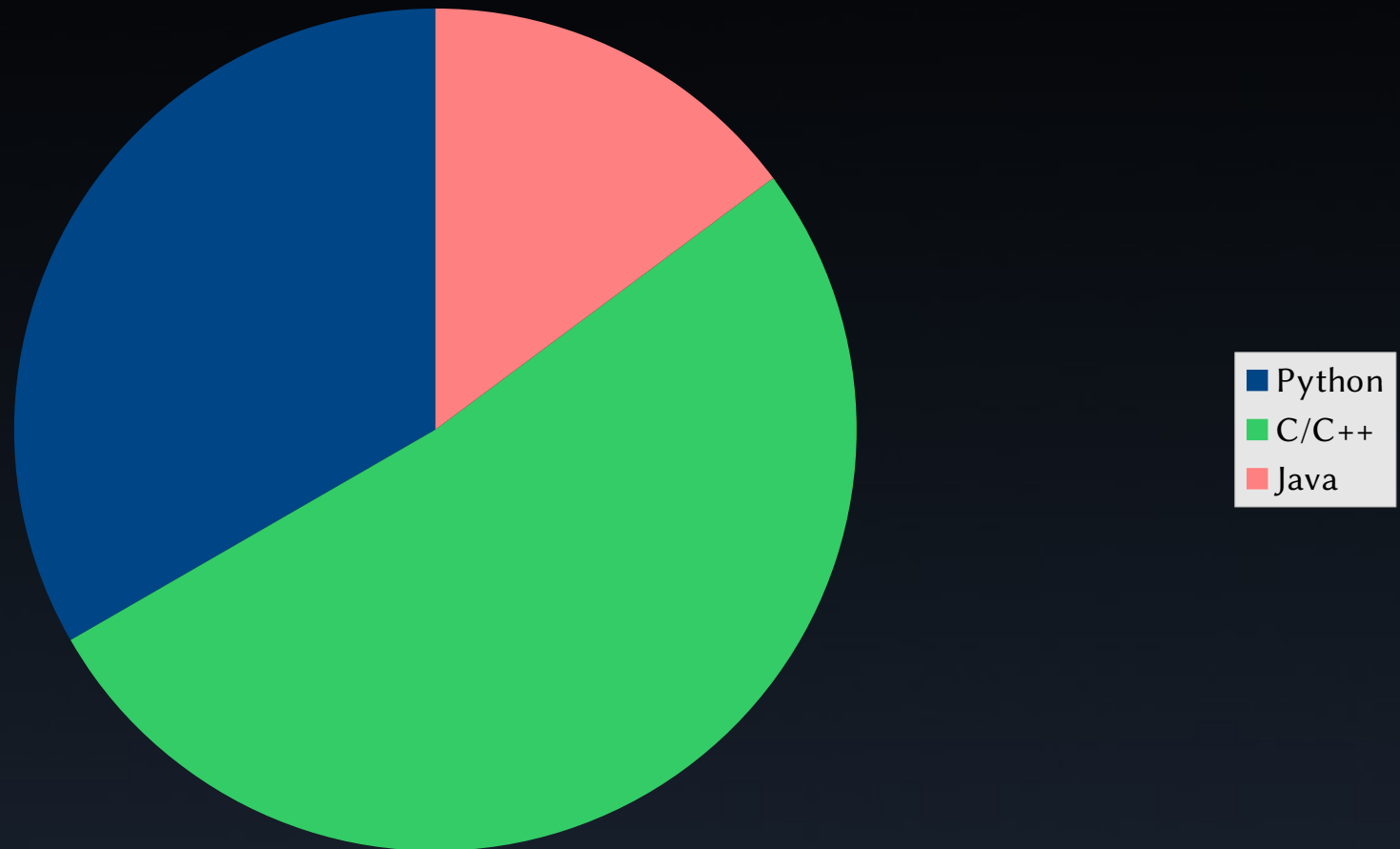
- From 2011 to 2014, about 100 students already participated to SOCIS
- We receive around 90 student applications each year
- But not more than 25 project proposals
- Projects range from development of low-level software layers (operating systems) to astronomy programmes
- Success rate is good (21 successful students per year on average)



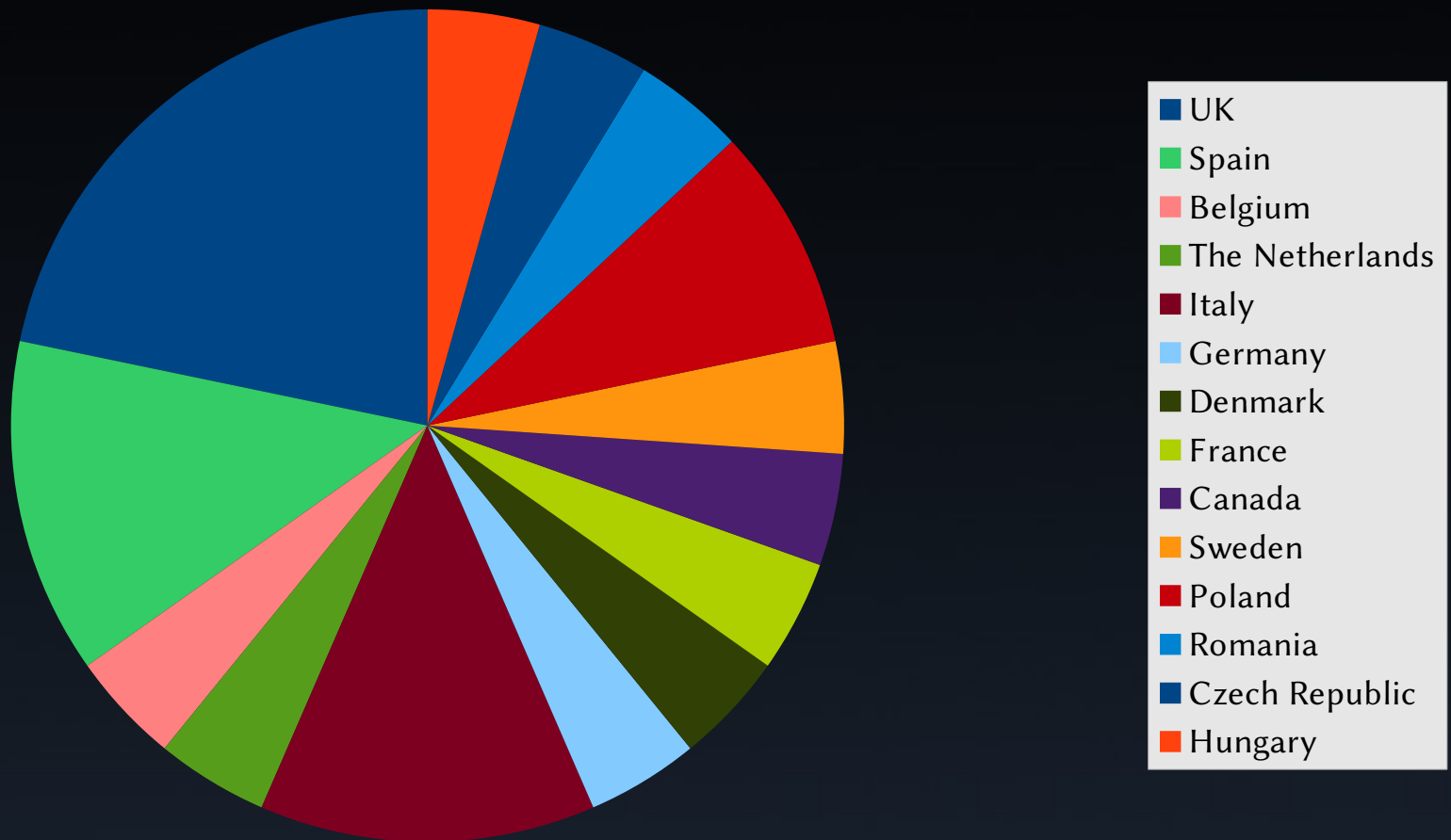
Projects (2014)

- Spacecraft Sim
- Kstars
- BRL-CAD
- Stellarium
- GNSS-SDR (GNU Radio)
- SunPy
- RTEMS
- Pocket Mission Control
- MLAB
- OpenGEODE
- EOxServer
- NS-3 Network simulator
- Orekit
- AerospaceResearch.NET
- GNU Octave
- DUNE
- Next ESA SAR Toolbox
- Scilab
- Marble Virtual Globe
- Gerbil
- PaGMO / PyGMO

Statistics (2014) - Technologies



Statistics (2014) – Student per countries



What next ?



- We want to get bigger
- Looking for sponsors
- Provide additional funding to support more students and possibly more projects
- In return you get :
 - Promotion on the SOCIS website
 - The CV of successful students
- Contact us !