

Space Week Zambia - INCREASING AFRICA'S ENGAGEMENT IN SPACE EXPLORATION

Bringing Space into the classroom as a gateway to STEM - Thursday 6th October 2022

- Switch to Space by YouSpace – Dominique Tilmans

How to interest/attract students to study STEM and make a career in space?

YouSpace still not have THE solution but some experiences

I'll explain our experience: How we started and our flagship event "Switch to Space" which maybe can inspire and can help to understand why so few Students do not plan to make a career in Space? This concerns the workforce in Belgium and many countries in Europe and certainly elsewhere as well

First the context: In 2014, the space sector in Europe employed about 40.000 persons.

In that time, the European space industry was faced to a wall: 35% of employees were between 49 and 58 years old, this is the result of the baby boom of the 50's

What it meant ?

- the beginning of a long period of retirements and
- the need to recruit STEM in numbers.

It seemed easy, but it wasn't because the '60s enthusiasm for space wasn't there anymore////

Aware of this, as Chair of the Belgian Senate Space Group, I initiated a reflection with the space sector and

I launched **YouSpace** in 2014, a "Platform to improve interaction between university students and space professionals".

Our goals are to:

- Engage and inform students
- Breaking the isolation of students by organising networks between Students and space professionals

1/ **We started with face-to-face meetings** between students and professionals. The students have 1 min to present themselves, a space experts interested by a candidate raise his hand, to help them recognize themselves later.

After the presentations, we share sandwiches & beer and make networking. We quickly have a lot of success...specially by the beer and the sandwich offered!

2/ **Then, we decided to go in almost all Belgian universities** with 3 space experts: an Engineer, a researcher, a specialist in space applications. Each one has 20 min to explain their path, their job, their company and jobs vacancies

After their statements, we share sandwiches & beer and we make networking.

Very interesting was the discussions with the students during the networking, we became aware of 2 important gaps:

- 1/ Even in the last year of engineering, very few students are thinking about a career in space
- 2/ Students do not know the numerous domains and jobs in the space sector and it's normal there is no overview about this given by universities or industry!

Faced with this observation, we couldn't of course sit on our hands. And ...**we decided to launch «Switch to Space»**

> We started in 2018 - Switch to Space 1 - a one-day event:

- The morning was devoted to a general overview of the space sector: ESA- European Commission, Industry....
- The lunch was dedicated to networking
- In the afternoon, we had seven topics with in each 4 or 5 statements from space experts + questions and answers.

It was an event with 50 Belgian speakers/ more than 450 students from all over the country and 90 space experts were present in the booths.

In 2020, based on the success and enthusiasm of Switch to Space 1, we decided to launch **“Switch to Space 2”** but with the obligation to innovate because the COVID-19 pandemic! We organized the event essentially remotely during 8 days at a rate of 1.5 hours/ day with 1 Topic/per day.

Thanks to the hybrid format, 1.600 students & young professionals from all over the world have registered!

> Today we are preparing the 3d edition, on the theme **“Space exploration: Moon & Mars”**- It's this 19 October- unfortunately, only the Plenaries will be accessible by ZOOM but all the presentations will be available on our website after the event.

The model stays the same:

- A plenary with 3 Panels over:
 - The role of Europe and Belgium in Mars Exploration
 - The place of the Belgian Industry in the Moon & Mars Gateway
 - How can we benefit from Moon & Mars Exploration technologies?
- During the Lunch
 - A CV Corner where the students can pin their CV, the Cies the jobs and internships available
 - A speed dating with 15 Companies
 - Networking with space experts at the booths

- During the afternoon: 7 Topics:

- To the Moon & Mars
- Telescopes: Unravelling the mysteries of the Universe
- Space Technologies for Moon & Mars
- Astronauts 2.0: 21st century Explorers to Mars Using local resources on Planets to live
- Protect & Defend our Planets
- Space humanities /
- Leaving the cradle of Humanity

- Plenary evening

The evolution of Space Exploration - Point of view of 7 Astronauts

A word about what you can find on our website: www.switchtospace.org

- All the presentations of the space experts recorded during Switch to Space 1 and 2. There's nearly 100!! After 19 October, all the presentations of Switch to Space 3. So that students and young professionals who were unable to attend can view the presentations

- A section "Tips & Tricks"

- Short explanations about 46 jobs in space

> We are also on LinkedIn – type YouSpace – we have more than 1.100 followers

My conclusion.

Our dream team of 32 industrialists, university professors, researchers, representatives of institutions and young professionals is proud to realize the somewhat crazy challenge of bringing together passionate and enthusiastic professionals in the space sector in Belgium to help students find their way.

Thank you for your attention.