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# SPACE2016

# Approaches to aerospace education

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## SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD

- Goal 4: Ensure inclusive and quality education for all and promote lifelong learning.
- Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all.

The list goes on including climate change, partnerships, infrastructure and industrialization and peace and justice.



## The bigger educational picture

From my experience of new and disruptive Remotely Piloted Aircraft Systems (RPAS) technology perspective the international, regional and national educational aspects and needs are generally thought out and taken into consideration unfortunately rather retroactively. When it comes to emerging new space activities it is about time to start to spread awareness and build common educational strategy and roadmap.

There is obvious and concurrent need to concentrate not only on the politics, policy, technical and operational side of the emerging aerospace activities, but also the necessity of rethinking educational focus and curriculum.

The new space is partly about paradigm shift i.e. the air and space are in a way merging into aerospace and we need to take it into different level of educational considerations.



## IAASS approach

- The effective education of professionals in the space safety field depends on the availability of relevant and up-to-date academic courses in all areas related to space safety. The association will undertake surveys of University officials and professors to determine what courses are already available and to seek to initiate wider and more comprehensive academic programs in space safety worldwide.
- The key to effective space safety is the availability of well-trained and current professionals in the space industry that have the right skills and current knowledge of the latest space and safety technologies. The IAASS will further develop its offer of the best, most current training courses in the space safety field.
- Although on-site training with quality instructors is a key element of such programs, the association will also seek to develop effective and interactive e-learning courses that can allow professionals worldwide to obtain just-in-time, affordable training that meet their individual needs.
- Critical to the success of progress in space safety around the world is the collaboration and exchange of ideas among professionals and academic, governmental and industrial researchers in the field.



## A new example; ESA Academy

- Starting in March 2016, European university students will be able to access a unique set of opportunities to enrich their space science and engineering education: the ESA Academy.
- The ESA Academy will provide a new perspective on the learning of space disciplines. It will be run in close collaboration with European universities and is designed to complement academic education.
- It will enhance the students' educational experience by Hands-on Space Projects and new Training and Learning Programme in order to allow them to benefit from an unprecedented transfer of ESA's practical and theoretical know-how. This will range from space sciences to engineering, spacecraft operations, product and quality assurance, project management and much more.
- The Academy will help university students become acquainted with the standard professional practices applied nowadays across the whole space sector, and better prepare them for the future labour market.



## Education mainly to whom?

- **Millennials**, by 2025, 3 out of every 4 workers globally will be considered a Millennial: What do we do with them? How will we train them? Are they ready for Leadership?
- “We 40+” enjoyed and learned through lectures. We liked detailed hand-outs that provided us with a full break down. We also enjoyed taking notes to keep for reference.
- Millennials are visual learners, they need to see it in order to believe it. They are active learners, who are driven by curiosity and (might) have a short attention spans. They are considered to be digital native, for they have grown up using technology their entire lives.
- But we need to engage both groups. Millennials are active learners, we understand or I hope so. Whatever the educational strategy may be, we should structure it in a way that is inclusive of both groups.



## A new educational "picture" ?

- **Sharing of roles and responsibilities (inter alia when it comes to ICAO and UNOOSA)**
- Obvious need for international as well as national educational cooperation and close collaboration in order to support and even bolster the future implementation and execution of new emerging space activities and policies.
- From international and regional educational point of view the objective should be the promotion and realization of truly level playing field.
- We truly need a new kind of mode and spirit of sharing, communicating and pooling knowledge and best educational practices.

**CFO asks CEO: "What happens if we invest in developing our people and then they leave us?"**

**CEO: "What happens if we don't, and they stay?"**





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# THANK YOU

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