WIA-E Newsletter

Q3/2019: Jul-Sept



Space makes you dream, and we dream of a modern society with gender equality and inclusion

Dear Friends,

The first half of our Anniversary year was an exciting one. I am pleased to look back at several successful WIA-E activities and events as much as I am looking forward to upcoming opportunities to meet members of our association, exchange ideas, and form a common vision for the next 10 years of WIA Europe!

This year we are not only celebrating the achievements of our members and partners, we also see WIA-E transforming into a large organisation – a process that comes along with important structural changes, new additions to our Board and Team as well as a visual redesign of our organisational identity.

I'm convinced that these changes will ensure our success in the next 10 years to come.

Yours sincerely,

Luisella Guilicchi



President Women in Aerospace Europe

GENERAL ASSEMBLY 2019

We are delighted to announce that the WIA-E General Assembly will be held this year on 12^{a} October in Amsterdam.

All members (Individual and Honorary) are invited to join this meeting.

The General Assembly is a great opportunity for everyone to help shape the organisation by sharing your vision. It will also give you the possibility to meet other members of the association.

We warmly invite you to let us know whether you will be able to participate before 4th October.

Venue: OBA Central Library, Oosterdoksstraat 143, Amsterdam. Time: 13:30 – 15:30 Contact address for all inquiries: <u>secretary@wia-europe.org</u>

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WIA Europe at the XXV International Congress of the Italian Association of Aeronautics and Astronautics (AIDAA).

"Space makes you dream and we dream of a modern society with gender equality and inclusion". With these inspiring words **WIA Europe** opened the symposium "Space economy: women as game changers and innovators" in the framework of the XXV International Congress of the Italian Association of Aeronautics and Astronautics (AIDAA).

The first part of the symposium was devoted to paper presentations selected in the AIDAA conference as an example of women's role in space companies, and presented by Elisa Carruba PhD (Project Manager Kayser Italia) titled "Commercial Exploitation of flight-proven hardware for life science investigations in space".

During the second part of the symposium, "Inspiring Talk: Women and Men in leading Space", seven panelists shared their insights and experiences on the theme of space economy, which they have gained as experts in their respective professional fields. The presentations were followed by an engaging discussion on the role of women in this competitive and challenging environment.

The list panelists included Prof. Amalia Ercoli Finzi, Dr Maria Cristina Falvella, Prof. Maria Sabrina Sarto, Dr Maria Luisa Riccardi, Prof. Andrea Sommariva, Dr Ersilia Vaudo Scarpetta, and Dr Eugenia Finocchiaro.



Annamaria Nassisi moderating



Luisella Giulicchi during her presentation at the ESA Centre for Earth

WIA-E at the ESA Phi Week

On 10 September, during the ESA Phi Week conference dedicated to the future of Earth Observation, WIA-E held a special event at the Award Ceremony at the ESA Centre for Earth Observation, Italy.

On this occasion, WIA-E president Luisella Giulicchi gave а presentation on the achievements of the past decade and future plans of the organisation. She was joined by Simonetta Cheli, Head of Strategy, Programme & Coordination Office at the ESA Directorate of Earth Observation, who gave an inspirational talk on the role of space to reach some of the UN Sustainable development Goals (SDGs).

During the Award ceremony, moderated by Christina Giannopapa, WIA-E Director for Professional Development, and Juan de Dalmau, Chair of the WIA-E Awards and Grants Committee, we had the pleasure to

distinguish three women:

Outstanding Achievement Award: Grazia Vittadini, Chief Technology Officer at Airbus Young Professional Award: Aloisia Russo Student Award: Veronica Bandini.

The event was closed by Josef Aschbacher, Director of ESA Earth Observation Programmes, who highlighted the importance to promote Diversity and Inclusiveness in space and to stimulate the young generation to undertake careers in science and

technology.

Enjoy full report reading



Juan de Dalmau, Veronica Bandini, Aloisia Russo, Christina Giannopapa and Luisella Giulicchi during the Award Ceremony

SPOTLIGHT: RESEARCH

Last year, the WIA-E board has appointed **Paola Belingheri** as Director of Research. The Director will provide the European aerospace community with insights on gender inequalities and gaps in the workforce, the contributing factors and effective solutions to improve women's representation at all levels.

In each newsletter, we will therefore have a spotlight on an issue with women in the workforce and a discussion of what has been discovered by researchers. In the next few newsletters, we will tackle what it takes to create and maintain a healthy pipeline of women in the aerospace sector.

THE MYTH OF THE PIPELINE

Research has amply shown that having a gender-diverse workforce leads to better performance of teams and ultimately firms. However, gender equality is still not achieved and progress is slow. One of the most heard arguments that companies bring forward when confronted with the lack of women in their ranks or boards is that there is not enough pipeline and that if only they could find the *right* women they would gladly hire or promote them. Research has however shown that the socalled pipeline problem isn't entirely independent from the companies themselves. It is multifaceted and involves several steps which different pose challenges that are tricky to overcome for many different reasons. Some reasons can be directly controlled by firms, others are in the hands of society and policy-makers, but all are interesting to examine for those interested in contributing towards gender equality. The pipeline is made up of several different steps:

STEM and higher education to create an initial group of women with the qualifications required to apply to a certain field and job class

Job advertisement and application which should be able to attract a diverse set of candidates with the required skills for the advertised position

Hiring the best candidate

Retention of candidates, ensuring they are comfortable in the work environment and can have a good worklife balance

Appraisal and promotion of diverse profiles to ensure a balanced representation of diverse candidates at all levels of the company hierarchy

In the next few newsletters I will be highlighting interesting and sometimes counter-intuitive research identifying the pitfalls that need to be overcome in each of these phases, as well as attitudes and issues that impact more than one phase.

The first necessary step in ensuring a pipeline of women entering a specific field is to have the proper gender balance in higher education, in the case of aerospace especially in STEM-related fields. This will ensure that there is a talent pool that can apply to specialised and technical jobs, as well as managerial and financial ones.

It's however a less-known fact that the more a country becomes wealthy and gender-equal, the less women have incentives to study STEM subjects, particularly inorganic sciences such as physics and mathematics. This socalled gender-equality paradox, studied by the university of Missouri, happens for two reasons. First, women are on average better in reading and literature than they are at sciences.

This doesn't mean that women are less good at sciences than men! Instead, scientific subjects, they are on average more capable than their male counterparts in non-scientific subjects. In addition to this, because in more gender-equal societies women are more comfortable in choosing a career according to their personal inclinations or favourite subjects, rather than in the fields that will give them a good salary or better job opportunities, they will spread themselves out between scientific and non-scientific fields. Instead, in countries where less employment opportunities exist or women have less opportunities in society, STEM subjects can really make a difference in a woman's life and therefore also tend to attract

proportionately more women.

This has implications as WIA-E and other associations strive to make our societies more gender equal. It means that as the gender balance straightens out, even more active efforts will have to be made towards encouraging women to enter STEM fields and to feed the pipeline, which is needed to keep a balance in the aerospace sector.

Research has also shown that how women perform in STEM related subjects is closely linked to how society perceives their capabilities in these sectors, and therefore we as aerospace professionals need to

Are you interested in volunteering to contribute to our original research? Please contact <u>research@wia-europe.org</u>

SPOTLIGHT: GRANTS & AWARDS

We are pleased to announce the Grant winners for the 2nd Semester 2019:

Shambo Bhattacharjee, Harriet Brettle, Sara Khan, Greta de Marco, Eleonor Frost, Merel Vergaaij

Congratulations to all! More information on the winners will be presented in our next newsletter.

SPOTLIGHT: WIA-E LOCAL GROUP

Do you have any questions or would you like to be put on the list for a local group, or propose to start on in your area? Feel free to suggest your idea and play an active role in creating the events you most want to see happen! All local groups are free to organise a program that matches the expectations of the local WIA-E community. Our local group are strong, every growing and expanding units that meet regularly for networking events, training and lectures. These events include professional trainings and workshops with qualified trainers and coaches, company visits, mentoring evenings or simply chatting over drinks and dinner.

As any professional will tell you, interpersonal connections form the very cornerstone of a successful and fulfilling career. Among WIA-Europe's goal is building our members' careers through our network, and what better network to nurture than one you are already in?

Let us know!

Diana Pueyo

Director Regional Development

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WIA-E ROME

WIA-E Rome invited to One-day Workshop "Cross-cultural communication and Management" On 12th July 2019, at Telespazio S.p.A., in Rome, WIA-E Rome Local Group

actively participated to the one-day workshop "Cross-cultural communication and Management", which selected and funded together with the Rome Business School, an international training and research institute of excellence in Rome.

The Head of Executive Education Gerlie Saura and the multipreneur Natalie De

Broux from Rome Business School warmly welcomed the participants during the breakfast refreshment.

Cristina Valente and Annamaria Nassisi, leader and co-leader of Rome Local Group,

gave an introductive speech to the participants. They pointed out that WIA-E is envisioning and supporting an inclusive representation of diversity in the aerospace sector and stressed the importance of diversity as a strength and an added value.



Enjoy full report reading

WIA-E BREMEN

On 20 September 2019, WIA-E Bremen offered its members a tour of the Center of Applied Space Technology and Microgravity (ZARM), an internationally recognized research center with multidisciplinary expertise in fluid mechanics, space technology and space science.

The main research activities at ZARM were introduced, followed by the visit to the two main facilities: the Drop Tower (a unique laboratory in the world, used for short-term experiments under highquality microgravity conditions), and the MaMBA (Moon and Mars Base Analog), which faces the challenge of allowing astronauts to live, work, and research the surface of these celestial bodies.



SPOTLIGHT PLATINUM CORPORATE: THALES ALENIA SPACE



Euclid Service Module

How to explore dark energy and penetrate the mystery of dark matter?

ESA Euclid mission on track in Thales Alenia Space' clean room

Euclid is an ESA (European Space Agency) astronomy and astrophysics mission designed to help us better understand the nature of dark energy and dark matter. Thales Alenia Space, Joint Venture between Thales (67 %) and Leonardo (33 %) is the prime contractor for the satellite and leads a European industrial consortium with scientific contributions. Euclid will map the general structure of the Universe over 10 billion light years to show its expansion and growth during the last three-quarters of its history. Slated for launch in 2022, Euclid satellite will use a Soyuz rocket from the Guiana Space Center, Europe's Spaceport in French Guiana, for a six-year mission orbiting around the L2 Lagrange point.

All about Euclid mission

Euclid satellite will study dark energy and dark matter, essential but unknown ingredients in today's "standard model" of physical cosmology. In this model, only about 4% of the mass-energy of the universe is made of ordinary matter (protons, neutrons etc.). The rest is invisible (dark matter) and the universe seems to be expanding at an accelerated pace under the impetus of the so-far unknown "dark energy".

Euclid on the tracks

Mid-2018, ESA approved the detailed design of the satellite and all subsystems at the Critical Design Review (CDR). The structural and thermal model (STM) recently completed its thermal qualification tests at Thales Alenia Space's plant in Cannes, and will undergo mechanical qualification tests in the coming weeks. At the same time, the flight telescope and service module have already started the integration and testing process at the Airbus plant in Toulouse and the Thales Alenia Space plant in Turin, respectively. The two modules will be mated in 2021, and the complete satellite will undergo acceptance tests prior to launch, scheduled for 2022.

"After the integration and testing of the Euclid service and

payload modules , the structural and thermal model of the satellite have now completed its thermal qualification tests in Cannes," said Paolo Musi, Director of Science Programs at Thales Alenia Space in Italy. "The satellite is in flight like configuration, ready to start mechanical qualification tests. The Euclid program reflects Thales Alenia Space's expertise, with outstanding contributions by our teams in Italy, Spain, Belgium and France. This extraordinary mission highlights Europe's ability to undertake complex, cutting-edge science programs and confirms our role as a key partner in Europe's leading science and exploration programs."



EUCLID © Thales Alenia Space

SPOTLIGHT SILVER CORPORATE: ASI

"Mediterranea - Visions of an ancient and complex sea" inaugurated in Matera on september 19th

Italian Space Agency and Telespazio want to increase public awareness about important issues associated with the Mediterranean Sea

From ancient port cities to mythical islands, from the typical olive tree and wheat cultivations to the efforts made in the North African territories to wring cultivated fields from the desert :the Mediterranea exhibition - Visions of an ancient and complex sea - represents the story of a past oriented towards the future and combines ancient tradition and a place of great technology. Emphasizing the contrast between a rocklike place like the Sassi and a high-tech facility like the Space Geodesy Centre of the Italian Space Agency, "Mediterranea" intends to tell the story, the beauty, the populations and the myths of this marine continent, but also the hazards and the conflicts threatening it today. The retrospective, through which Telespazio and ASI want to increase public awareness about important issues associated with the Mediterranean Sea, has been organised by Viviana Panaccia at the "Domenico Ridola" National Archeological Museum in Maters, and will be open to the public from 20 2019 September to 19 January 2020.

The initiative, an integral part of the Matera European Capital of Culture 2019 programme, has been promoted by the Matera Basilicata 2019 Foundation and by the Basilicata Superintendency together with the Italian Space Agency (ASI) and Telespazio, a joint venture between Leonardo (67 %) and Thales (33%).

The satellite images lead us to the places that have marked the history and evolution of our sea, and draw attention to the emergencies it is facing, first of all the environmental one. The exhibition is part of the many initiatives promoted by Leonardo and characterised by contamination between scientific and humanistic disciplines. The exhibition itinerary offered to visitors represents, in fact, the Mediterranean in all its complexity, through the narration of its history with sitespecific unpublished satellite images, elaborated by e-GEOS (an ASI/Telespazio company), photos, videos and installations of extraordinary emotional impact, in a perfect synthesis between science and art, between past and present. The exhibition summarises these states of contrast that represent the overall essence of the Mediterranean basin, which is our cradle, the sap of our culture that we must preserve and protect. Space, through its technologies, can field and support the actions and activities required for the sustainable development and protection of the whole area. in fact, the Mediterranean in all its complexity, through the narration of its history with site-specific unpublished satellite images, elaborated by e-GEOS (an ASI/Telespazio company), photos, videos and installations of extraordinary emotional impact, in a perfect synthesis between science and art, between past and present.

The exposition includes three elements of important continuity with respect to the Matera 2019 program: it consolidates the relationship of the Foundation, the Museum Centre and the city of Matera with ASI and ESA. After the exhibition on Mars and the activities for the fiftieth anniversary of the descent of the first man on the Moon, "Mediterranea" certifies that Matera is the most appropriate place to discuss about present, innovation and Earth observation. It also demonstrates that the decision to talk about the remote future was more than appropriate and also, finally, that among the main aims of a European capital of culture there is permanent education through unusual and effective tools such as interactive exhibitions.

The exhibition highlights the potential of satellite observation, and in particular of the COSMO-SkyMed constellation, for the study of environmental problems and as a privileged tool for different management of the land and the soil and to counter their degradation: for a sustainable and more productive agriculture, for an intelligent use of water resources, for the study of phenomena arising from climate change. Satellite images also provide extremely useful data about sea surface temperature, water acidification, soil moisture and plant health; they help navigation by providing accurate positioning data and also represent an essential tool for civil protection agencies in the relief management in case of environmental emergencies.





QUESTIONS

If you want to learn more about Women In Aerospace Europe, please do not hesitate to contact

us at

info@wia-europe.org

or take a look at our website

www.wia-europe.org

WANT TO JOIN?

Please fill in our registration form or visit:

www.wia-europe.org/join CONTACT INFORMATION

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