# ENGAGEMENT BEYOND FRONTIERS

and Corporate Social Responsibility

SES

beyond frontiers

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# LEADERSHIP MESSAGE

**By Karim Michel Sabbagh, President and CEO**

A key opportunity of our times is to connect everyone on the planet.

Optimizing the use of digital skills and technologies could generate $2 trillion of additional global economic output by 2020 and generate significant social benefits. Universal connection offers us a chance of dealing with key global challenges: reducing poverty, protecting the environment, conserving energy and building access to social justice, education and health for people everywhere.

Connectivity can in fact fuel life changing applications such as e-emergency, e-health, e-learning, e-elections and e-banking. The reach of satellites then offers the power to bring these resources to people anywhere in the world, even in the most remote areas. This is what we at SES do.

We are the world's leading satellite-enabled solutions provider. Our global network is built on a foundation of a growing fleet of more than 60 satellites and an expansive ground infrastructure. Our network reaches almost 100% of the world's population: we connect and enable broadcast, telecom, corporate and government customers, powering the development of connectivity across the world. Our network bridges the digital divide by delivering connectivity to people and businesses across the planet, wherever they are.

We continually support new and innovative technologies, such as reusable launchers, satellite refueling and in-orbit satellite payload exchange and technology innovation.

We play a leading role in the communities where we live and work. We harness the skills and experience of our people, our partners and financial resources to make a difference in the world. At SES, we're committed to operating our business in a social and responsible way. We go above and beyond what is compulsory, and set our own targets for how we approach the environmental and ecological profile of the business, our educational contributions, charitable activities, human capital and corporate strategy.

Our goal is to create a universal digital highway that is reliable, scalable, sustainable, flexible and ecological. Our mission is to connect, enable, and enrich. We reach beyond frontiers.

**Karim Michel Sabbagh**

# SES ENGAGEMENT

in numbers

## OUR PEOPLE

**>20** Corporate sites worldwide

**2K** employees

**65** nationalities represented at SES

## OUR SATELLITES

**54** satellites in Geosynchronous Orbit (GEO)

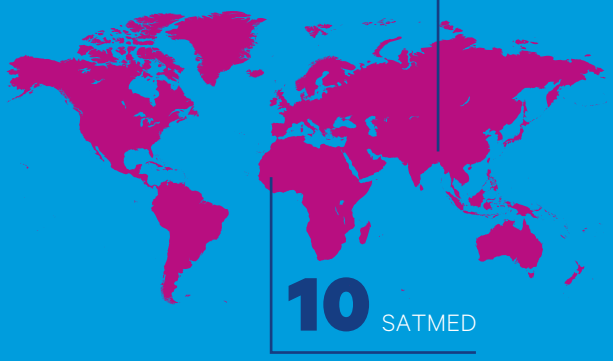
**12** satellites in Medium Earth Orbit (MEO)

**33** orbital locations

**15** satellites under procurement

## DISASTER RESPONSE DEPLOYMENTS

**>50** emergency.lu



**10** SATMED

Connecting the unconnected

SES Networks provides more than **10 Gbps** to remote islands around the globe

Participant in

**>5 PPP's***

- **GovSat**
  **50%** SES
  **50%** Luxembourg Government
- European 5G PPP
- Electra
- emergency.lu
- SATMED

**28** countries


**24** Europe
**13** US served by SES GS**
**12** Africa
**4** Middle East
**4** Other
**3** Asia
**2** UN

* Public Private Partnership

** SES Government Solutions

## EDUCATION

**1K** knowledge networking communities at SES

**5K** satellite technicians trained since 2012

**>15** academic collaborations

# OUR PLANET

# ENVIRONMENTAL IMPACT

## OUR SITES

We apply best practices in minimizing the environmental impact of our sites across the world and outsourced activities, such as the manufacturing and launching of spacecraft. Our compliance is checked through yearly audits that are conducted both by internal and by third-party accredited organisations that specialise in the field of industrial safety.

Since 2008, we have officially reported the CO2 emissions of our operations through participation in the Carbon Disclosure Project (CDP), which collects the data of all our business activities and locations.

The data collection for CDP covers three scopes:

- Scope 1: Direct Combustibles (such as chemical fuels and gas, refrigerant leakage, car fleet)
- Scope 2: Indirect Energy consumption (purchased electricity or heat)
- Scope 3: Other Emissions (business travel, commuting, waste, water consumption).

In the context of the legal framework in Europe , we started to analyse the energy efficiency of the main facilities in accordance to EN 16247.

This audit was first performed at the SES's site in Munich, Germany, and in 2016 at the head quarter site in Betzdorf, Luxembourg.

We are particularly focused on carbon reduction initiatives. In fact, billions of items of data exchanged by satellite through teleports are analysed in computer servers located on the Betzdorf site in Luxembourg. These servers emit a lot of heat and need to be constantly cooled.

Since 2010, our headquarters in Betzdorf, Luxembourg, have been using electricity sourced from hydropower. The same technology was applied to our operations in Sweden.

Through these and other initiatives, SES has thus implemented a substantial and ongoing carbon reduction plan in its sites across the world.


# PRINCESS ELISABETH ANTARCTICA

Antarctica is the most remote continent on Earth. The “Drake passage”, between Antarctica and the nearest populated continent, South-America, is around 1,000km wide. There are no undersea telecommunications cables connecting the continent.

International interest in the Antarctic, which is larger in surface than Europe and Australia combined, is growing quite considerably. Each year, Antarctica is visited by a few thousand explorers, adventurers and scientists, who look to share their discoveries instantly with their home base.

In a multi-year plan, we donate bandwidth to the International Polar Foundation and thus enable the foundation's Princess Elisabeth research station in Antarctica to communicate via satellite. We provide satellite capacity, and also designed and implemented the satellite communications infrastructure, as well as a counter hub station in the UK.

Princess Elisabeth Antarctica was designed as a “zero emission” facility, requiring the use of sustainable technologies and services, yet functional in the challenging natural habitat of Antarctica. The Antarctic operator for the station, the International Polar Foundation (IPF) uses satellite technology for its communications infrastructure. The station’s design and construction seamlessly integrate passive building technologies, renewable wind and solar energy, water treatment facilities, monitored power demand, and a smart grid for maximizing energy efficiency.

The success of Princess Elisabeth Antarctica demonstrates how climate challenges can be tackled through goodwill and collaboration between civil society, business and governments.

# DISASTER RESPONSE

Enabling communications at the earliest possible time can be a matter of life and death in disaster areas, as intelligence and coordination are critical to bring aid to the survivors. That's why we collaborated with others to develop a satellite service based on a balloon antenna, making it possible to be transported and deployed anywhere in the world, even in crisis areas, and be operational that much faster.

This project was the first in what is now a broad range of short and long-term solutions to support humanitarian and disaster relief efforts across the globe.

## emergency.lu

Effective disaster response offers a solution to economic disruption. When disaster strikes, one of the top concerns is establishing fast and reliable means of communication. First responders, government services and humanitarian organisations rely on their link to the world to coordinate effective relief efforts and satellites technology, immediately deployable, can provide the answer. SES collaborates with the Luxembourg government, HITEC Luxembourg, Luxembourg Air Ambulance, the World Food Programme and the Emergency Telecommunications Cluster to provide emergency.lu, a satellite based communication platform to deliver connectivity during disaster response.

The satellite communications kit for emergency.lu includes a lightweight antenna that is easy to assemble, extremely robust – and small enough to fit in an Air Ambulance jet plane. The kit has been widely used since 2012, at one point in South Sudan to help coordinate aid efforts for those displaced by ethnic violence. Currently it is deployed by the Luxembourg government at the request of humanitarian organisations, for example the lead agency for the Emergency Telecommunications Cluster of the World Food Programme.

Emergency.lu is offered by Luxembourg to the global humanitarian community and to date it has been deployed dozens of times in countries such as Haiti, Nepal, Vanuatu, the Philippines, Nigeria, Sierra Leone and most recently in the Caribbean following a series of devastating hurricanes. Each deployment contributed to restore connectivity, saving thousands of lives and ensuring the continuity of businesses and institutions.


# INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

In November 2016, we were selected by the International Organization for Migration (IOM) to create a digital emergency manual, in a project funded by the Luxembourg Government.

IOM, which carries out humanitarian operations globally to address the most urgent needs of displaced populations, updated its emergency manual in 2016 to further support its crisis response operations. To ensure this information can be regularly updated and shared effectively with field staff, IOM has also created an electronic platform which can share information with all stakeholders in real-time.

We were chosen to create the digital platform for the emergency manual due to our expertise in delivering similar emergency manual digital platforms for crisis response and humanitarian operations.

The manual is now accessible through a website or mobile application, in both an online and an offline mode, ensuring emergency staff has access to the latest information and guidance, wherever they are in the world.

# SES & PROJECT LOON

SES Networks' high throughput and fibre-like satellite connectivity service, the stratospheric balloons operated by X, Alphabet's self-described "moonshot factory", and local telecommunications expertise played a key role in restoring 4G/LTE connectivity in disaster-affected Puerto Rico in October 2017.

In May 2017, we collaborated with Project Loon and local technology partners to provide connectivity to communities recovering from floods caused by 'El Nino'.
This weather produced nearly 10 times the typical rainfall, causing widespread flooding and heavy damage to telecommunications infrastructure.

Loon balloons float in the stratosphere at an altitude of 20km, and can get connectivity where it's needed regardless of the situation on the ground.

Via our Medium Earth Orbit satellite network we were able to provide fiber-like throughput and latency to support 4G/LTE connectivity restoration efforts.

Each deployment contributes to restore connectivity, saving thousands of lives and ensuring the continuity of businesses and institutions.


# RAPID RESPONSE VEHICLE (RRV)

In March 2017, we unveiled our new SATCOM-enabled rapid response connectivity platform, Rapid Response Vehicle (RRV).

Using a combination of GEO (Geostationary Earth Orbit) and MEO (Medium Earth Orbit) satellite connectivity, the RRV can enable wireless internet access for refugee camps and communities, reinforce downed public infrastructure, and provide IP backhaul for mobile networks and long-term connectivity for agencies on the ground.

Whether these are aid missions in response to natural or technological disasters or humanitarian operations, the SES RRV platform can provide tailored connectivity to support virtually any situation imaginable, anywhere in the world.

SES's plug-and-play modular RRV solution can easily integrate and deploy an array of communications technologies and devices aboard its mobile vehicle, including the emergency.lu disaster recovery platform, SES persistent surveillance aerostat, or the SATMED telemedicine service.

# ECONOMIC AND SOCIAL DEVELOPMENT

Satellite technology is critical to the creation of new applications and e-inclusion activities.

With the ability to beam reliable and flexible bandwidth anywhere on earth, satellites help progress initiatives across geographical barriers to far flung communities, bringing infrastructure to fragile economies and isolated communities, or aiding humanitarian efforts in disaster-hit areas.

The digitisation of businesses is fast becoming a necessity for surviving in competitive environments and satellites play a key role in providing the infrastructure needed to accomplish this.

Each country has unique challenges and opportunities around the move towards digital.

The key to success in the digitalisation process is cooperation between governments, regulators, society, and private and public sectors. Satellites offer solutions to many of these challenges.

We provide underserved populations with inclusive connectivity – from critical satellite capacity to the deployment of platforms and applications. Our capabilities allow us to improve ICT infrastructure on a country-wide scale.

One such example is our effort in Burkina Faso. Supported by the Government of Luxembourg under the development cooperation project, we devised a viable, future-proof infrastructure to deliver high-speed communications to connect government entities of Burkina Faso, enabling better coordination and quality services to the residents.

The innovative solution we are deploying under a muti-phased project, integrates wireless terrestrial communications and available fibreoptic networks into a satellite-enabled infrastructure. It will connect over 880 sites across the country. Furthermore, we are also helping to develop local expertise to support the project, and created several jobs. Local Burkinabe engineers based in Ouagadougou are now part of our SES team.

Supporting the information, technology and communications sectors provides a major boost to economic growth, productivity and employment. The technology can also support other infrastructures providing for hybrid solutions. For example, this flexibility is a key enabler of the digitalisation journey in Africa.

# E-HEALTH - SATMED

For medical professionals working in remote areas, connectivity can make a real difference in their patients' care. Satellites can offer the solution. With the valuable cooperation of e-Medical Communication (eMC), and funding from the Luxembourg Government, SES was able to go beyond connectivity and create the SATMED, an innovative cloud-computing based e-health platform. SATMED was developed with the support of innovative technologies established by leading universities and IT companies, and in close cooperation with five NGOs: Friendship, ArcheMed, Fondation Follereau Luxembourg, German Doctors and CURE.

SATMED enables communication between medical professionals, thus propagating the transfer and exchange of medical knowledge, as well as providing support tools for medical e-learning and e-teaching. An IT cloud infrastructure, accessible around the globe, further facilitates the data exchange between professionals and supports the setup of a medical infrastructure such as electronic medical records and tele-radiology systems. SATMED is also aimed at supporting regional development programmes and humanitarian operations in cooperation with both governmental and non-governmental organisations.

Once deployed, the platform delivers a fully-managed service that includes a helpdesk, maintenance of terminals, and continuous user training.

One SATMED success story can be found in the Bangladesh delta, where local people make their homes on small remote islands in order to farm fertile land. The only way to reach these isolated communities is by ship; which is why a local NGO, Friendship, operates three floating hospitals. As they cruise along the rivers these ship board hospitals enable approximately 80 medical specialists to provide permanent healthcare for up to 200,000 patients per year. In the spring of 2016, the Friendship staffs' challenging working conditions changed dramatically once we installed maritime VSATs on their ships to provide connectivity, and enable them to use the STAMED e-health platform.

SATMED has been successfully deployed in Sierra Leone, Benin, Niger, the Philippines, and Bangladesh where it has improved the health and quality of life of thousands of people.

In September 2016, SATMED won the "Changing Lives Award" at the VSAT Global Event held in London.

www.satmed.com

# E-LEARNING

Being able to access online teaching material is a vital part of modern education. As the world's leading satellite-enabled solutions provider, we are the ideal partner to empower communities and people everywhere on the planet. Our e-learning initiatives bring education and knowledge-sharing solutions, as well as provide Internet connectivity that works to bridge the digital divide, fuel economic growth and foster societal development.

Whilst our e-learning programmes are deployed across the world, in the last few years we have focused our efforts in the African continent, where satellite technology is best placed to reach rural and isolated areas. We have therefore worked with governments and public institutions in Africa to encourage them to embrace satellite technology to accelerate education development program.

This has initiated broadband policies that address digital inequality, promote investment in infrastructure, and encourage economic and social development.

In Nigeria, we've leveraged our satellite technology and infrastructure to run e-learning programmes since 2015. By partnering with the Nigerian Government to implement a number of Information and Communications Technology (ICT) projects, we are bridging the digital and information gap that exists in rural areas and providing more e-learning facilities to underserved communities.

e-learning can mean that students around the world can access courses in any field, and governments or institutions can generate programmes aimed at specific learning goals. The recent e-agriculture deployment in the Netherlands is a particularly good example of the latter. There we supported farming communities with broadband Internet and up-to-date information about their industry and operations.

# E-ELECTIONS

Large scale events that require a tremendous spike in stable bandwidth and gathering votes and interacting with polling stations can be difficult with limited communications access.

In such situations, satellite technology has the potential to transform the election process. By securely transmitting information from polling offices and displaying provisional results online in almost real time, elections can become transparent and efficient.

In 2012, at the request of the Burkina Faso Commission Electorale Nationale Indépendante (CENI), we worked with local partners to deliver an e-election solution for their municipal elections. With no rural terrestrial connections, Burkina Faso needed to collect electoral data from isolated regions and enhance the transparency of its elections. The challenge was to use cost effective digital technology to transfer data and biometric voter validation on a short timeline and in a way that showed clear benefits for the whole population.

This engagement was repeated during the Burkina-Faso presidential elections in 2015. We provided satellite broadband to the 45 electoral offices over six weeks, and connected them to the CENI central office in Ougadougou. Each office was outfitted with a satellite terminal and dish, with a modem connected to a standard PC or local network to provide voice-over-IP (VOIP) and videoconferencing, as well as providing for quick, secure transmission of electoral data. This ensured transparency, enabling the rapid delivery and dissemination of election results, and reduced the risk of political unrest.

Two ballots were organised to select candidates for 127 National Assembly seats and 18,698 local government posts. The central collection centre in the capital Ouagadougou was set up as a hub for the 368 polling stations across the nation, all enabled with VSAT terminals. Citizens could access provisional results on the Internet and over public TV broadcast, allowing them to follow the election as it unfolded, with the numbers published the day after the election ended – a first in Africa and the benchmark for future elections.

# E-BANKING

Our satellite connectivity is providing fast and reliable e-banking and facilitating microfinancing services in remote and isolated areas in developing countries, making improved financial services available. Whilst the market for microfinance is growing fast, remote sites often lack vital telecommunication services. The local mobile network is not suitable for business-critical transactions as it is usually congested and the quality of service is poor.

SatFinAfrica project was run in collaboration with ESA, supported byNewtec, and led by pan-African ISP SatADSL. In this framework, money transfer offices and Automatic Teller Machines (ATMs) in remote areas were connected through SES bandwidth. The Astra Connect service was adapted by SatADSL to grant a reliable and secured communication system to money transfer companies or ATMs.

After the successful completion of SatFinAfrica, in 2014 the project team launched SatCorpAfrica project. SatCorpAfrica is aimed at providing dedicated satellite services to Oil & Gas operators, the Mining and Banking industries, and more generally to Larger and Medium-Sized African companies with multiple sites located in remote areas of West Africa.

# E-AGRICULTURE

Over the last decade, the European Union has contributed to the development agenda in Africa with €32 billion, and another €82 billion have come directly from the member states.

Moving the development agenda towards digital is essential. In fact, beyond finance, digital technologies also have the potential to transform agriculture and contribute to economic and social development.

Agricultural and rural development can be enhanced through improved information and communication; yet this requires connectivity to ensure that farmers can benefit from useful applications and information related to their agricultural business.

Through e-Agriculture applications, some African farmers even in the most remote areas are now able to get information about market prices and thus increase their revenue by up to 20%.

In under-served and remote agricultural environments, our satellite technology is thus the ideal solution. SES addresses this demand by establishing broadband internet connectivity via GEO and MEO satellites, wherever it is needed.

# EDUCATION

# ACADEMIC PARTNERSHIPS

Our education initiatives entail collaborations and partnerships across the world.

We partner with universities to foster technological innovation, contribute to the development of mission critical technical capabilities, advance satellite-based business solutions, develop engineering talent, and support PhD research.

Our academic partners include:

- Luxembourg Institute of Science and Technology (LIST)
- Center for Security, Reliability and Trust (SnT) at the University of Luxembourg
- The Faculty of Law, Economics and Finance (FDEF) at the University of Luxembourg
- Jack Welch College of Business, Sacred Heart University, Luxembourg
- Massachusetts Institute of Technology (MIT)
- The Lycée Technique d'Esch, Esch-sur-Alzette, Luxembourg
- The International Space University, Strasbourg France
- The University Politechnica, Bucharest Romania
- The Stevens Institute of Technology, New Jersey US
- Princeton University, Princeton US
- The African School of Economics (ASE), Abomey-Calavi Benin

In March 2017, we signed a partnership agreement with the Luxembourg Institute of Science and Technology (LIST). The new cooperation framework with LIST complemented our existing partnership agreement with the Interdisciplinary Center for Security, Reliability and Trust (SnT) at the Luxembourg University, where we also finance a chair in Satellite, Telecommunications and Media Law within the Faculty of Law, Economics and Finance.

The agreement involves cooperation through our international network of research partners with unique expertise in satellite communications (SatCom), to transform basic research into innovative space applications. LIST has therefore become another close technology partner in the development of pioneering SatCom commercial products and services.

In addition, this new partnership agreement further enhances Luxembourg's technology ecosystem by attracting start-ups to develop their businesses in Luxembourg, and will facilitate the transfer of new technologies stemming from national public and private research. Those activities will be done in close coordination with the existing national funding initiatives, such as the Digital Tech Fund, of which we are a key stakeholder.

The current focus of research is the 'Smart Space' initiative, which includes research and development of applications in the context of High Performance Computing (HPC), aiming to establish a unique space ecosystem by building on Luxembourg's competitive advantages, including global satellite communications and telecommunications networks, data centers and connectivity, and existing service providers.

The parties will develop a European Centre of Excellence to address societal challenges such as climate change, environment, green mobility, security and healthcare. SES and LIST will also work on developing commercial applications in the areas of Internet of Things (IoT), e-platform solutions and optical communications. In addition, we will jointly assess the development of competences in other satellite-related application areas, such as connected cars.

Our cooperation agreement with Sacred Heart University Luxembourg covers both educational services for SES employees and student visits.

We also provide ongoing funding for a scholarship programme at the International Space University (ISU) in Strasbourg, France, to support students studying advanced space applications.

In Benin, we fund scholarships for students from the African School of Economics (ASE) to attend Princeton University, another of our partners in the US.

In the US, we also support the Master's Programme at the Stevens Institute of Technology, a coeducational research university located in Hoboken, New Jersey.


# ELEVATE

The development of business and industrial skills is key to economic and social development.  Therefore, education and training should evolve at the right pace to support demand through the right technology and infrastructure.

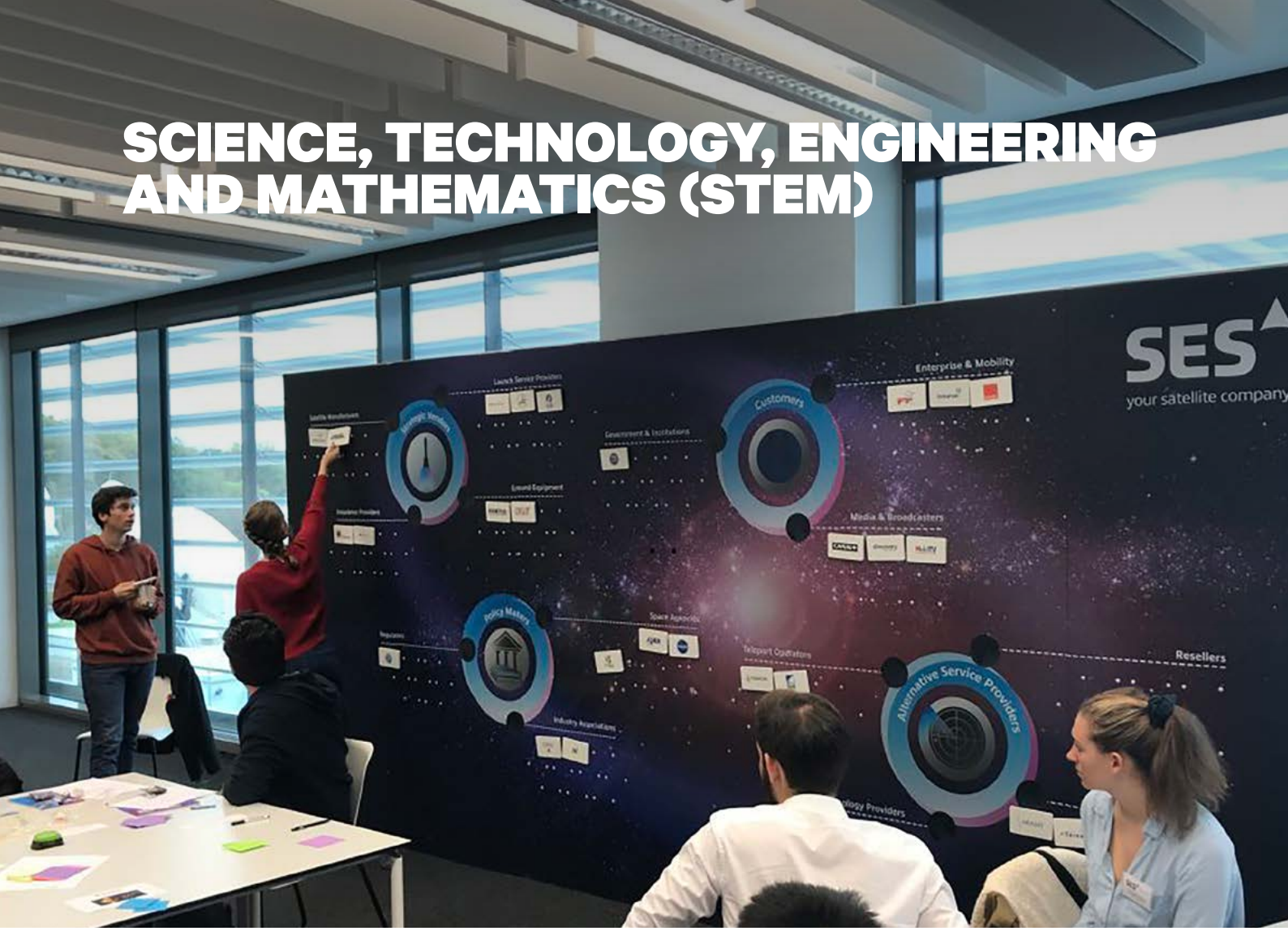
The establishment of our Elevate training in Africa is another example of what satellite technology can do to support economic development. Our aim is to impart as much knowledge as possible to our trainees to open up job opportunities and help them develop small businesses.

Evolving from simple technical training to an advancement and self-development programme, Elevate helps graduates set-up their businesses within the direct-to-home (DTH) satellite industry. Launched in 2012, the programme includes an impressive set of vital business and marketing skills, as well as health and safety precautions and competencies. The two-day course requires trainees to perform practice scenarios on the second day. The practical modules are about setting up an installation, or engaging in dialogue with a customer.

Given how governments throughout Africa are targeting female learners to join ICT programmes, ELEVATE fits perfectly within that strategy. In fact, many local female entrepreneurs have completed the training to further strengthen their skills, give them the opportunity to target additional revenue streams, and get more involved in the industry.

To date, the programme has trained over 5,000 installers across the African continent, including the Democratic Republic of Congo, Cameroon, Ghana, Nigeria, Dote D'Ivoire, Uganda, Kenya, Mail, Senegal, Malawi, Tanzania and South Africa.

# SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM)




**We recognize that we must inspire the new generations towards Science, Technology, Engineering and Mathematics (STEM) and we invest in considerable resources to get involved in local and global activities in this field.**

## HELLO FUTURE

In Luxembourg, we support Hello Future, an initiative launched in 2017 by the Luxembourg Government via the Fedil (Federation Des Industriels Luxembourgeois).

The aim of this collaboration is to promote scientific subject studies and inspire careers in the industry to students at high school age. As part of this initiative, we participate in roadshows in schools and institutions and we have so far engaged with over 1,000 students.

## ENGINEERING TRAINEE DAYS

Every year we participate in the "Engineering Trainee Days" project, the result of a collaboration between the da Vinci Association and Jonk Entrepreneuren Luxembourg.

The initiative aims to promote the profession of engineer and scientist by allowing students (16 to 19 years old) to experience their daily work and their professional, linguistic and relational requirements.

During the "Engineering Trainee Days" the student accompanies the engineer in his daily work for two days. This is followed by an event in which the students receive a certificate.

# REUSABLE TECHNOLOGY


For over 60 years, the design of rockets has associated spaceflight with high costs. Rockets cost tens to hundreds of millions to be built and launched, and traditionally were only flown once and would fall into the ocean, never to be used again.

In March 2017 we turned the page on the history of the space industry with the successful launch of SES-10 satellite from a flight-proven SpaceX Falcon 9 rocket.

SES-10 is the first ever geostationary commercial satellite to ever launch on a flight-proven first-stage rocket booster. Our partnership with SpaceX on this journey of innovating and using reusable rockets will make access to space more efficient in terms of cost and manifest management.

# SPACE DEBRIS

Protecting the environment on Earth is important and, as a satellite operator, we understand that protecting the environment beyond our planet is equally important.

The United Nations General Assembly has recognized “that space debris is an issue of concern to all nations”, and that the likelihood of future accidental collisions is “expected to increase as more objects are placed into orbit”.

Space debris can be defined as “all manmade objects including fragments and elements thereof, in Earth orbit or re-entering the atmosphere, that are non-functional.” When they are launched, satellites can experience explosions and collisions that result in space debris. Launch vehicles also end up breaking up into tens of thousands of small fragments as they re-enter the atmosphere.

International space agencies are trying to reduce or remove space junk completely and several states are developing space debris protocols. As the world-leading satellite service operator, we are involved in such activities at institutional and industry levels in trying to minimize this issue.

We are among the founders of the Space Data Association (SDA), a formal nonprofit association of civil, commercial, and military spacecraft operators that support the controlled, reliable and efficient sharing of data that is critical to the safety and integrity of satellite operations.

SDA has a legal structure and agreements that provide protections and enforcement mechanisms to ensure data is only used for intended purposes and it relies on the Space Data Center (SDC) operated by AGI for flight safety data exchange and processing.

SDA includes 33 participating operators and monitors 614 satellites, of which 279 are GEO satellites, which is about 70% of all active GEO satellites.

# ASTEROID DAY


As part of our support in monitoring space debris and contributing to finding solutions, we have engaged with the B612 Foundation, a non-profit formed for planetary defense against asteroid and other near-Earth object (NEO) impacts. The B612 Foundation is named for the asteroid home of the eponymous hero of Antoine de Saint-Exupéry's The Little Prince.

In 2015, the B612 Foundation contributed to the launch of Asteroid Day, an annual event sanctioned by the United Nations under the leadership of Dr. Brian May, astrophysicist and lead guitarist of QUEEN. The event is dedicated to education and awareness about asteroids, and in particular the protection of Earth from dangerous impacts. Annual activities are focused around the June 30 anniversary of the 1908 Tunguska asteroid impact, the largest in recorded history.

In April 2017, the Government of Luxembourg and executives of Asteroid Day announced the selection of Luxembourg as the official headquarters for the Asteroid Day organization. This resulted in Luxembourg hosting Asteroid Day 2017, which was broadcast across the world via our global satellite fleet and over streaming platforms.

In preparation for this event 187 regional coordinators worked across 114 countries involving almost 500,000 participants. Beyond Luxembourg, key events were held at Imperial College London, The National Science Center in South Korea, the Copernicus Museum in Warsaw, and the University of Arizona, USA, among 16 premier events across the globe.

# OUR PEOPLE


At SES, we believe that people are our most important asset and we take pride in implementing initiatives that foster diversity, development, wellbeing, and compliance to ethics and regulations.

Our Code of Conduct is designed to ensure that SES's suppliers, agents, consultants and other representatives take a consistent approach to integrity issues and provide an explanation of applicable laws, regulations and SES policies relating to SES suppliers' conduct and ethics. The code is signed and endorsed by 100% of SES employees.

In 2017 we have introduced flexible working. Employees can now enter into a formal telecommuting arrangement where they may work from another SES office, from home or from another location for up to a max 20% of the contractually agreed working time.

Further options for flexible working today include job sharing, part-time work, phased return from leave and reduction in work time.

# DIVERSITY & INCLUSION

At SES, we pride ourselves on bringing the best to our customers, wherever they are and whatever their needs and challenges. To do this we are committed to bringing together an SES team of diverse individuals with different life experiences, different backgrounds, and from different geographies and cultures. This approach is paramount to serving our customers today and helping us decipher the world's communication needs of tomorrow.

By actively nurturing an inclusive company culture, and appreciating why it's so important to create a fair and supportive work environment for our people, we hope to continue attracting and retaining the very best talent.

We also acknowledge that there is much work still to be done, as indeed there is in the technology sector as a whole. As an industry leader, we are fully committed to increasing the number of colleagues from underrepresented groups and to creating a more diverse SES for the future. We have begun by analyzing and addressing drivers for female inclusion, which is an approach that is also be used to maximize the commitment of all diverse groups in our workforce.

Currently our workforce consists of 23% women, a figure that has been stable over the last four years but that we expect to grow as part of our diversity strategy.

Also, whilst currently 9% of our executives are female, more than 40% of our employees below 30 years are female, representing more than one third of the executive succession plan and 25% of the participants in our High Potential Program.

Our goal is to continue to increase number of women in areas where they are underrepresented and we have committed to increase the number of female executives by 2020. In order to achieve this goal we will need to introduce systematic and supportive practices in building a female talent pipeline that will sustain long-term gender inclusion.

As of 31 December 2017, the SES group employed 2,033 individuals worldwide. This breaks down to 533 in our Luxembourg headquarters, 554 in the rest of Europe, 555 in the US, and 388 in the rest of the world.

We are a truly international company represented by 68 different nationalities. Our leadership team consists of 26 different nationalities at the executive level, with employees from 24 different nationalities in our high potential programme.

The top five nationalities by number of employees are the US (546 employees), Germany (319), Israel (230), the UK (179) and France (113).

# GIVING BACK

Our entire team focuses on charitable work, including charitable activities that benefit from our donation-matching programme, SES social clubs, and charity projects endorsed by our HR Learning and Development team.

We make annual contributions to charities, one-off contributions to disaster-stricken areas in the context of the 'SES Gives Back!' programme, and a site-based charity run. These activities engage and motivate our colleagues, who then inspire each other to give back to the community where they work.

In 2017, we matched employee donations to charitable organisations including - the Red Cross, the Red Crescent, Oxfam, Unicef, Médecins San Frontières/Doctors Without Borders, and Télécoms Sans Frontières.

In addition, we are proud to see our employees take on independent initiatives to give back to society. In 2015, our teams volunteered their time or donated funds, clothing and food to the Singapore Cancer Society, the Leukemia and Lymphoma Society and Martha's Table in the US, a clothing donation drive, dragon boat racing for breast cancer research, the construction of the Green Village in Manila, building a primary school in Tanzania, helping Syrian refugees relocate to Germany, a scholarship for Burkina Faso kids, the Fondation Lëtzebuerger Kannerduerf/ SOS Village d'Enfants/SOS Children's Village, Fondation JED Belgique, and the Royal Academy of Dramatic Arts (RADA). And in 2017 our employees' independent initiatives took a more formal shape with a '1 charity per month' programme. This gives a platform where employees can join forces in support of particular charities and disaster relief activities.

# IMPRESSUM

 It is our policy to produce the document with a minimum impact on the environment. To this end the paper used is 100% chlorine free woodpulp from sustainable forests, using thinnings and waste from the timber industry and is totally recyclable and biodegradable. Our printers are fully accredited to the ISO 14001 environmental management system. They utilise vegetable based inks and operate a direct computer to plate repro system, eliminating the need for film with its chemicals such as developer and acid fixers. This report is printed on Heaven 42, an environmentally responsible 100% recycled paper made from 100% post–consumer waste and bleached chlorine free (PCF).

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