

An aerial photograph of a tea plantation. The tea bushes are arranged in a complex, circular maze pattern that resembles a fingerprint. The tea is a vibrant green. There are several large, rounded trees scattered throughout the maze. A small wooden building is visible in the lower-left quadrant. A dirt path winds through the maze. Two thin white lines cross the image diagonally from the top-left to the bottom-right.

MAKING A DIFFERENCE

Environmental, Social and Governance
(ESG) Report

SES 

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SES is the world's leading satellite operator with over 70 satellites in two different orbits, Geostationary Orbit (GEO) and Medium Earth Orbit (MEO).

We launched our latest 4 MEO satellites in April and we now have a fleet of 20, which is unique in industry.

We provide a diverse range of customers with global video distribution and data connectivity services through two business units: SES Video and SES Networks.

The SES Video portfolio includes broadcasting to over TV 8,000 channels and has the largest DTH television reach in Europe.

SES Networks provides global managed data services, connecting people in a variety of sectors including telecommunications, maritime, aeronautical, and energy, as well as governments and institutions across the world.

The SES Networks portfolio includes GovSat, a 50/50 public-private partnership between SES and the Luxembourg government.

HISTORY HIGHLIGHTS

- 1985** - SES, Europe's first private satellite operator, is founded in Luxembourg
- 1987** - The Betzdorf Satellite Control Facility (SCF), goes operational
- 1988** - Sky TV is the first major private broadcaster to sign up to
- 1988** - SES launches its first satellite, ASTRA 1A, on 11 December 1988
- 1989** - The "Television without Frontiers" Directive comes into force
- 1991** - SES becomes pioneer in 'co-location'
- 1995** - SES goes digital, pioneering digital broadcasting technology
- 1998** - SES is listed in the Luxembourg Stock Exchange
- 1999** - SES takes a 34.10% participation in the Asian satellite operator AsiaSat
- 2001** - SES acquires Americom from GE. SES GLOBAL is established
- 2004** - SES is listed in the Paris Stock Exchange
- 2006** - SES acquires New Skies satellites and coverage of 99% of the world
- 2009** - SES launches HD+ in Germany with <50 channels
- 2009** - SES invests USD 75 M in O3b Networks
- 2013** - SES launches the first 4 MEO satellites
- 2015** - SES launches its first global Ultra HD channel
- 2015** - Creation of GovSat, a PPP between SES and the Luxembourg government
- 2016** - SES forms MX1 and fully acquires O3b
- 2017** - SES launches SES-10 with SpaceX and pioneers reusable technology
- 2018** - SES completes restructuring into SES Video and SES Networks
- 2019** - Launch of 4 MEO satellites, bringing the MEO fleet to 20 satellites



OUR PEOPLE



>2K

employees



68

nationalities



>26

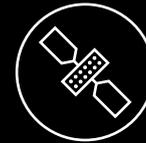
Corporate sites worldwide

OUR SATELLITES



54

satellites in Geosynchronous Orbit (GEO)



20

satellites in Medium Earth Orbit (MEO)



99%

global coverage

SES VIDEO

8,100

channels

355M

homes

SES NETWORKS



Connecting the unconnected

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

DISASTER RESPONSE

>50

emergency.lu



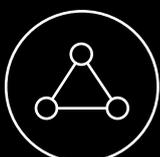
10 SATMED

Leader in

5G

satellite standardisation

EDUCATION



>600

knowledge networking communities at SES



8K

satellite technicians trained since 2012



12

academic collaborations

OUR PURPOSE

We are here to

MAKE A DIFFERENCE

Our purpose is to raise up the human experience. Every individual on the planet should be connected to the world's content. We are part of something bigger and what we do makes a difference.

We are obsessed with

CUSTOMER SUCCESS

Our success depends on our customer success.
Our customers are part of our family.

What we do is

EXTRAORDINARY

We do the extraordinary in space to enable our customers to deliver the amazing on Earth. We challenge ourselves every day to deliver the extraordinary

We use our team & talent to

GIVE BACK

We have a team of talented and committed people at SES inspired to give back. In education, health, in making connections, in bridging cultures, in contributing to our communities and to our society

OUR CULTURE

We are

IN IT TOGETHER

1. We cut across silos and boundaries
2. We focus on solutions instead of problems and processes
3. We build trust and collaborate in teams

We are

PROUD TO BE HERE

1. We get to know and fully understand our business and our customers
2. We do great work for our customers every day
3. We bring energy and positive attitude to every conversation or meeting

What are

TRANSPARENT, HONEST, COURAGEOUS

1. We actively share information
2. We give and accept feedback
3. We are ready to handle difficult conversations



MAKING A DIFFERENCE

What we do at SES meaningfully contributes to making the world and society a better place. This is an important part of who we are and why people choose to work at SES. We believe in the need for content and connectivity everywhere. We believe that access to the world's information is necessary in providing individuals the opportunities that they need to be grow and to flourish. We aspire to be an ever increasingly important part of the content and connectivity ecosystems to provide every person on the planet with equivalent access and opportunity.

It helps that, since our foundation in 1985, we have worked in one of the most exciting industries and in the most challenging of environments – space! We have been pioneering new technologies and business models since the very first idea to launch a pan European satellite and, 30 years

later, we haven't lost the mindset to think of ourselves as a startup. What we do as SES and as an industry is genuinely extraordinary. We do the extraordinary in space to enable our customers to deliver the amazing on Earth. It is important to retain a sense of wonder for what we are collectively achieving as an industry to push us to achieve more. Delivering critical services from 36,000km away, operating complex constellations in the harshest of environments, bringing connectivity to remote populations for the first time, pioneering new technologies to drive social and economic growth globally, saving lives and restoring critical connectivity following natural disasters.

We are proud of our contribution and it drives us to do more, to achieve more and have an even larger impact. Continuous innovation, like for example O3b mPOWER, our next

generation satellite system planned for launch from 2021, or our integration with cloud service providers and the terrestrial service providers will allow us to extend the ways in which our services can bring benefit. As SES and as an industry, our super power is reach and we intend to continue to use our super power for good.

Steve Collar, CEO

ENVIRONMENT

An aerial photograph of a tropical island. The island is elongated and covered in dense, vibrant green forest. It is surrounded by a narrow white sand beach, which is bordered by shallow, clear turquoise water. The water transitions to a deeper blue as it extends into the distance. A small white boat is visible in the upper right quadrant of the image. The word "ENVIRONMENT" is printed in large, bold, white capital letters across the top of the image. Two thin white diagonal lines cross the image from the top left towards the bottom right.

OUR SITES

At SES, we are committed to operating our business in a socially responsible way. We take this responsibility seriously and define ambitious objectives for how we approach the environmental and ecological profile of the business, our educational contributions, charitable activities, human resource management and corporate strategy.

We apply best practices in minimising the environmental impact of our sites across the world. We also ensure that the amount of radiation emitted from earth stations respects or remains below the maximum levels defined by the countries of operation. The company's compliance with this 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 SES's business activities and locations.

The data collection for CDP covers three scopes:

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

In 2017, the company's activities related to operating and commercialising SES's satellite fleet, as well as general administration, finance and marketing, generated approximately 46,883 tons of CO₂ emissions worldwide, an increase of 15% compared to 2016.

Scope 1 emissions increased by approximately 5.4%, or 99 tons. Scope 3, business travel including staff commuting, increased by 3,649 tons to 37.08% overall. This increase was due to the growth of the company in number of employees and sites.

The methodology used follows as closely as possible the guidelines outlined in the Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard and Defra (UK) Guidance on How to Measure and Report your Greenhouse Gas Emissions (September 2009) and the International Energy Agency's 2017 edition of CO₂ emissions from fuel combustion and World energy balances database.

Emissions from Scope 2, electricity consumption, represented the largest component of SES's total emissions (approximately 57.5%). Scope 2 location-based emissions factors were chosen in line with the GHG Protocol recommendations.

For low occupancy sites, assumptions were made based on average electricity, gas and travel data at the main office sites. A data collection questionnaire was circulated to all 42 main SES global sites in order to collect activity data. 58 low occupancy and 71 unmanned SES sites ('colocations') were included in the data collection exercise. In order to calculate GHG emissions, when electrical power consumption was not precisely measured, it was estimated.

In the context of the legal framework in Europe with the goal to save energy, we started to analyse the energy efficiency of the main facilities in accordance with EN 16247. This audit was first performed at SES's site in Munich, Germany, and in 2016 at the headquarters site in Betzdorf, Luxembourg with the goal to identify energy saving potential for further optimisation.

Through these and other initiatives, we have thus implemented a substantial and ongoing carbon reduction plan in our sites across the world.

SES Group CO₂ results

Year	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Scope 1 (t CO ₂ e)	2,517	2,418	5,455	6,546	6,621	6,959	6,464	12,397	17,317	14,432
Scope 2 (t CO ₂ e)	26,980	24,701	24,395	17,080	17,391	20,475	27,758	26,846	32,471	26,507
Scope 3 (t CO ₂ e)	17,386	13,737	12,486	11,460	14,756	5,873	4,937	2,309		
Total emissions (t CO₂)	46,883	40,856	42,336	35,087	38,768	33,307	39,159	41,553	49,788	40,939



WASTE MANAGEMENT

In order to facilitate the recycling of different waste types in Betzdorf (Luxembourg), our Headquarters and biggest site, we separate as much waste generated on site as possible.

In addition to differentiated recycling in each office, we have seven main collection points on site.

We systematically collect data on waste management in compliance with the Ministry of the Environment, Climate and Sustainable Development and ISO14024.

The types of waste are grouped in household waste, paper & cardboard, wood, metal scrap, electronics, dangerous goods and others.

Dangerous goods or hazardous goods are solids, liquids or gases that can harm people, other living organisms, property or the environment.

We encourage each of our employees to do their part in order to limit and eventually reduce the waste produced on our sites.

We are focusing on the following:

- Food Waste: we encourage employees not to waste food in our canteen on site.
- Paper: we have dedicated paper bins in each office and encourage employees not to print any document unless strictly necessary. In addition we no longer print corporate brochures or other publications except in very limited numbers and when strictly required.
- Plastic: we have eliminated plastic bottles from our canteen and we encourage employees to source water from the kitchens available on each floor of our buildings.

SPACE SUSTAINABILITY

World Economic Forum (WEF)

In 2017, we participated in a Space Sustainability Index workshop held by the [World Economic Forum's Network of Global Future Councils](#) in Luxembourg. Representatives from SES, the United Nation Office for Outer Space Affairs, jointly led the project and the discussions on trends and existing options for the index, concept models, challenges and next steps.

The Space Sustainability Index is a concept introduced by the United Nation Space Office, which includes guidelines for the long-term sustainability of outer space activities.

The World Economic Forum's Global Future Councils are the world's foremost interdisciplinary knowledge network dedicated to promoting innovative thinking to shape a sustainable and inclusive future for all.

The network convenes more than 700 of the most relevant and knowledgeable thought leaders from academia, government, business and civil society, grouped in expertise-based, thematic councils. It is an invitation-only community, and members are nominated for a one-year period.

The workshop aimed at creating a joint understanding of existing approaches and gathering ideas on potential options for the index.

Another objective of the workshop was the suggestion of an action plan for the next 18 months, focusing on who would use the index, who will provide the input data, benefits, and how the index would be maintained and by whom.

Discussions covered the main existing initiatives aimed at increasing space sustainability, how a unique and value adding index can be ensured, possible ways of measuring sustainability and key components that would go into the index.

In a break-out session on concept models, participants addressed possible models and next steps around the topics of space debris, space footprint and space resources. For each model, challenges and solutions were discussed and summarised in an action plan. The workshop also established a timeline for the project.

More workshops followed since 2017 and in May 2019, the World Economic Forum (WEF) announced we had been selected in a consortium of companies, universities and agencies to develop a system to rate the sustainability of space systems, one that its backers hope will encourage good behavior in space.

WEF in fact announced that a team from the European Space Agency, together with one led by the Massachusetts Institute of Technology (MIT) Media Lab, will work on development of a Space Sustainability Rating, a metric that will define how well an individual satellite, or satellite system, follows guidelines to ensure the long-term sustainability of space.

At this announcement, Ruy Pinto, our Chief Technology Officer (CTO), commented: "The space industry is going through change. It's growing. There's a lot of disruption. I see initiatives like creating a space sustainability index for what is a scarce resource, space, as a sign of maturity.

Furthermore, SES has been represented at the WEF Space Council for the last few years and influenced the design of the Space Sustainability Index. We are committed to support the Space Sustainability Index in its final form and work with other private companies so that our industry as a whole provides additional transparency on the environmental impact of our space activities."

The rating system will make use of publicly available data, avoiding issues such as access to proprietary or export-controlled information, provided by satellite operators and manufacturers through a questionnaire.

In the coming years, we will continue to collaborate with companies, institutions and academia to foster national and international space legal frameworks towards sustainability.



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 recognised “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 the institutional and industry levels in trying to minimise 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.

In addition, SES follows the most stringent international standards for re-orbiting and passivating our space assets and we have one of the best records in the industry terms of achieving a safe disposal of our satellites.

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.



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.

At 6:27 PM EST on 22 March 2017, we turned the page on the history of the space industry with the successful launch of our SES-10 satellite from a flight-proven SpaceX Falcon 9 rocket.

This made SES-10 the first geostationary commercial satellite to ever launch on a flight-proven firststage rocket booster.

Our partnership with SpaceX on this journey of innovation brought the space industry one step closer to faster, easier access to space and more sustainable business models.

SES's history is a sequence of pioneering milestones.

We were the pioneer of co-locating satellites, the first to launch with Proton in 1996, and more recently, the first to rely on SpaceX for a geostationary mission in 2013 with the launch of SES-9.

> *SES-10 launch video*





ENVIRONMENT MONITORING & SECURITY

The power of satellite enables monitoring capabilities on the ground, at sea and in the air.

Reliable connectivity is critical for timely decision-making during maritime missions, especially for search and rescue operations.

Stable, high-performance connectivity not only enables quick situational assessment, but it also boosts the costefficiency of resource deployment by the national authorities using our services.

This matters even more when critical data is being delivered to and from a moving platform in harsh meteorological conditions where there is no terrestrial infrastructure.

A great example of this application is the connectivity we provide for Remotely Piloted Aircraft Systems (RPAS) services of the European Maritime Safety Agency (EMSA) provided to EU Member States and Agencies.

These maritime surveillance activities supported by SES Networks are aimed at improving maritime security and safety operations, as well as response to pollution caused by ships, oil and gas installations.

In June 2019, we announced that the Icelandic maritime authorities are utilising the EMSA's RPAS portfolio, enabled by our managed connectivity services, to support the country's requirements for environmental protection and fisheries control.

Our managed connectivity services empower multiple Icelandic authorities – such as the Icelandic coast guard, the fisheries directorate, the environment agency, the customs directorate, and the search and rescue association – to remotely follow the missions via a dedicated data centre and to ensure timely decision-making.



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 maximising 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.

SOCIAL

An aerial, top-down view of a residential courtyard at night. The courtyard is surrounded by multi-story buildings with terracotta-tiled roofs. The roofs are illuminated from below, creating a warm, golden glow. In the center of the courtyard, a group of people is gathered, some sitting on the ground and others standing. The scene is framed by two white diagonal lines that cross in the center of the image.

THE POWER OF SATELLITE

In recent years, we've seen a proven link between connectivity and the ability to tackle global economic and societal challenges: reducing poverty, climate change, saving energy, and building access to equal opportunities, disaster relief, education, job opportunities, and improved health services for people everywhere.

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.

Each country has unique challenges and opportunities around the move towards digital and we are at the forefront of this transformation.

Broadcasting

Satellites are assisting in transitioning countries from analogue to digital television.

Across the world, video has gained momentum as one of the most important ways of communicating, educating and entertaining. People are eager to access video on a range of devices in every location and broadcasters are responding to this demand. Those who are succeeding in this growing market are doing so through satellite.

Connecting

The same connectivity used to broadcast video to millions of viewers can be used to provide broadband services and "fiber in the sky" capacity to generate economic growth and contribute to gross domestic product.

Satellite today offers the opportunity to connect and communicate. The connectivity provided by satellites in remote areas can have a positive impact on the productivity of business, governments, and institutions, as well as enhance knowledge exchange, skills, and even health.

Satellite seamlessly bridges the divide between urban hubs and more remote communities. Reliable high-speed connectivity is key to driving digitisation and boosting countries' economies and opening opportunities for their people.

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 multi-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 hybrid solutions. For example, this flexibility is a key enabler of the digitalisation journey in Africa.

SES has been and is at the forefront of the digital transformation, making a difference in the world. SES broadcasting and connectivity services are transforming the lives of millions on the ground, at sea and in the air.

> *Burkina Faso video*



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 longterm 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 satellite 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 kit has been widely used since 2012. To date it has been deployed dozens of times in countries such as Haiti, Nepal, Vanuatu, the Philippines, Nigeria, Sierra Leone and most recently, following a series of devastating hurricanes, in the Caribbean and Mozambique.

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

RESTORING COMMUNICATIONS TO DISASTER-STRICKEN MOZAMBIQUE VIA SATELLITE

The Cyclone Idai that hit Mozambique in March 2019 resulting in the catastrophic landfall, and Cyclone Kenneth that struck a few weeks after, destroyed much of the country's communications infrastructure. According to the UN Office for Coordination of Humanitarian Affairs (OCHA), this was the first time in recorded history that two strong tropical cyclones have hit Mozambique in the same season.

With the death toll of over 600 people and thousands of others injured and displaced, the situation became even more critical as Kenneth made landfall at the end of the rainy season, increasing the risk of flooding as the river levels were already high. Several weeks after, the humanitarian community continues to work hard on the ground, as local life is still far from getting back to normal.

The emergency.lu rapid deployment kits were installed following the request of the Emergency Telecommunications Cluster (ETC), the EU Civil Protection mechanism and activation of the Capacity Donation Charter. Thanks to this, hundreds of humanitarians have been connected to conduct their life-saving activities.

WORLD FOOD PROGRAMME (WFP)

In May 2018, SES expanded its commitment to support the Emergency Telecommunications Cluster's (ETC) global disaster relief efforts. Along with other members of the satellite community, SES signed a contribution agreement with the World Food Programme (WFP), in its role as the global lead agency of the ETC.

The contribution agreements are an important step in operationalising the Crisis Connectivity Charter signed in 2015 between the EMEA Satellite Operators Association (ESOA), the Global VSAT Forum (GVF), the UN Office for Coordination of Humanitarian Aid (OCHA) and the ETC. The Crisis Connectivity Charter will help the humanitarian response community by improving their access to vital satellite-based communications when local networks are affected, destroyed or overloaded after a disaster.

Under the contribution agreements, the Charter signatories are committing satellite equipment and capacity that will be dedicated for humanitarian purposes during emergency responses. The ETC, under the global leadership of WFP, will be able to activate the Charter when disaster strikes and identify which capacity and operator is available and best suited to a given region and need. The contributions will enable network connectivity during emergencies to support humanitarian operations, including logistics, urgent medical care, food delivery and the coordination of relief efforts.



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 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.

At the end of 2017, Alphabet's stratospheric balloons had helped more than 100,000 Puerto Ricans to connect to the internet.

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 (MEO) 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.

e-APPLICATIONS



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.

In the Bangladesh delta, where local people make their homes on small remote islands in order to farm fertile land, SATMED has changed the lives of thousands. There, 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 staff's challenging working conditions changed dramatically once we installed maritime VSATs on their ships to provide connectivity, and enable them to use the SATMED e-health platform.

In 2016 SES deployed SATMED at the CURE Hospital for Children in Niger. Thanks to the platform, CURE Niger is now able to establish communications with national and international doctors to receive medical counselling.

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

> SATMED video





E-LEARNING

e-learning can change lives whereby quality education can be delivered to even the most remote locations. 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, in bridging the digital divide, fuels economic growth and fosters societal development.

Whilst our e-learning programmes are deployed across the world, in the last few years we have focused our efforts on 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 an education development programme.

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

In Nigeria, we have 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.

E-ELECTIONS

Large scale events like national elections require a tremendous spike in stable bandwidth for activities such as gathering votes and interacting with polling stations. This 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 Ouagadougou. 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.

More recently, Burkina Faso and Luxembourg established the Indicative Cooperation Programme to improve the quality, reliability and accessibility of the country's ICT infrastructure.

Set to run from 2017-2021, this project is for a high-speed, flexible and reliable telecommunications network that can bring e-government, education and health to 881 sites country-wide.

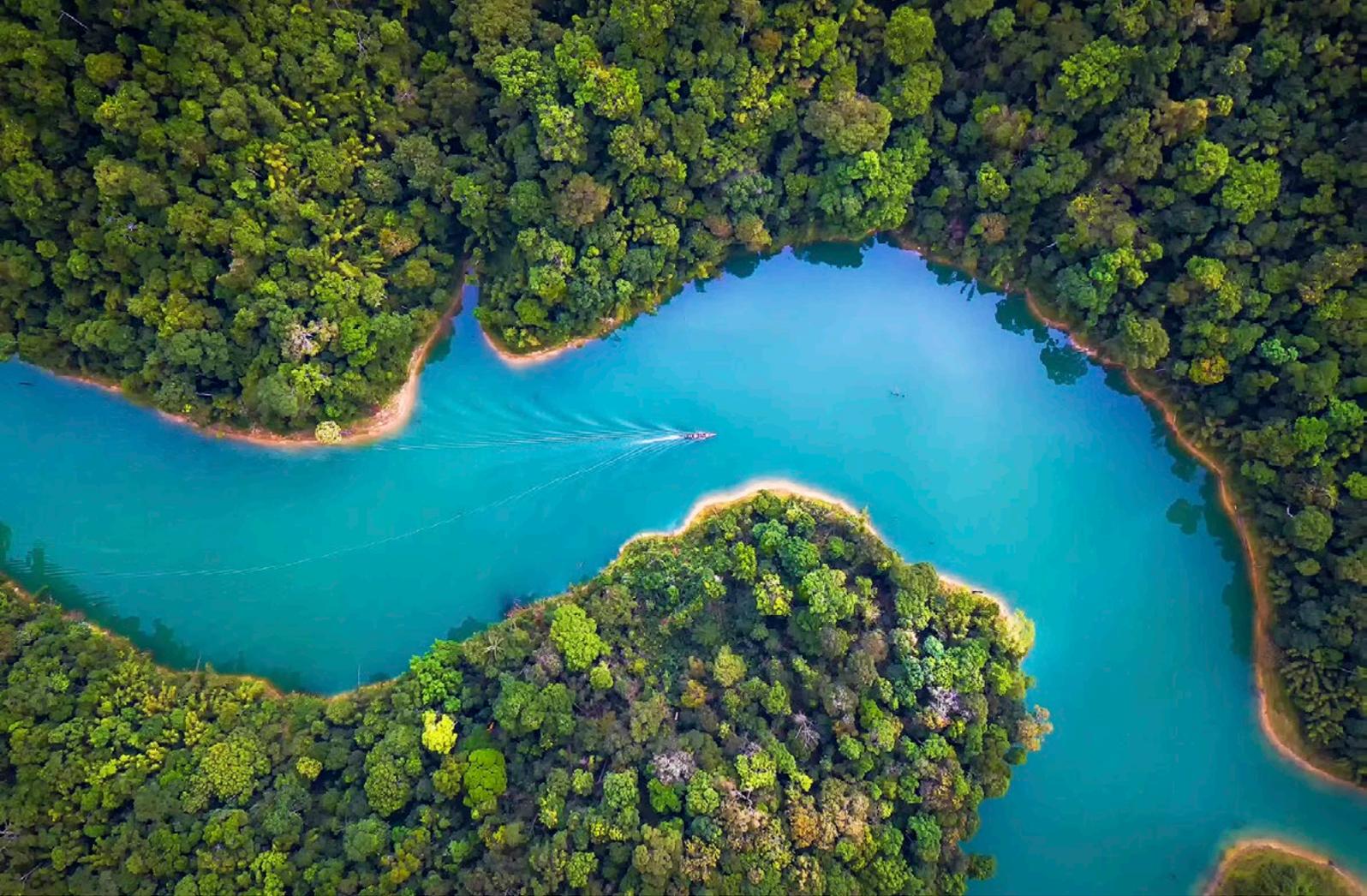
E-BANKING

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.

The SatFinAfrica project was run in collaboration with ESA, supported by Newtec, 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 the 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.

With connectivity projects gaining momentum, satellite networks shall be integral to the delivery of reliable, borderless connectivity across vast regions, without discriminating between villages and cities. By complementing existing infrastructure

with last-mile connectivity, they enable the highspeed Internet to accelerate positive outcomes for development policies, anywhere.

Ultimately, satellite networks empower the people and the nations of Africa with the digital tools, applications and connectivity needed to thrive in the world economy.

EDUCATION & TRAINING



ACADEMIC PARTNERSHIPS

Our education initiatives are based on 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 and legal talent, encourage research 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)
- Lycée Guillaume Kroll, Esch-sur-Alzette, Luxembourg
- The International Space University, Strasbourg, France
- Université Paris-Sud, France
- Politehnica University of Bucharest, Bucharest, Romania
- Stevens Institute of Technology, New Jersey, US
- Princeton University, Princeton, US
- African School of Economics (ASE), Abomey-Calavi, Benin

Luxembourg Institute of Science and Technology (LIST)

In 2018, our partnership with the Luxembourg Institute of Science and Technology (LIST) continued to progress towards developing a European Centre of Excellence to address societal challenges such as climate change, environment, green mobility, security and healthcare in addition to other satellite-related application areas, such as connected cars. SES and LIST continue to work on developing commercial applications in the areas of Internet of Things (IoT), eplatform solutions and optical communications.

The cooperation framework with LIST complemented our existing partnership agreement with the Interdisciplinary Center for Security, Reliability and Trust (SnT) at the University of Luxembourg, where we also finance a chair in Space Law.

We have a close working relationship with the law faculty where students often work at SES as interns.

Our cooperation through our international network of research partners with unique expertise in satellite communications (SatCom) is aimed at transforming basic research into innovative space applications.

LIST is therefore a close technology partner in the development of pioneering SatCom commercial products and services. In addition, this 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 are conducted 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 centres and connectivity and existing service providers.

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 one 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 women learners to join ICT programmes, ELEVATE fits perfectly within that strategy. In fact, many local women 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, Côte D'Ivoire, Uganda, Kenya, Mali, Senegal, Malawi, Tanzania and South Africa.

> Elevate video



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.

We must inspire the new generation towards Science, Technology, Engineering and Mathematics (STEM) and so we engage in global activities in this field. As we promote STEM, we also ensure this is done around principles of diversity. In particular, we encourage gender diversity in engineering.

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 high school students. 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

The Engineering Trainee Days is an initiative of the Association Luxembourgeoise des Ingénieurs (ALI), and the association for young entrepreneurs, Jonk Entrepreneuren Luxembourg, in cooperation with the Ministry of Education and Lifelong Learning.

In October 2018, during the school holidays, we hosted the fifth edition of Engineering Trainee Days on SES's Betzdorf Campus (Luxembourg) with students aged 15-18 years from across Luxembourg.

The workshop featured the 'Stakeholders Centricity - Monumentum Wall' and interactive presentations on SES and the space sector. The Engineering Trainee Days 2018 was particularly appreciated by the participants, as it provided an opportunity to network with industry professionals, broaden their horizons and discover new career opportunities.



SES SPACE SCHOLARSHIPS

On 30 May 2019, at St. James Palace in London, The Air League awarded the recipient of the first [SES & The Air League Space Scholarship](#). The scholarship offers the opportunity to take part in a residential Senior Space School at the University of Leicester and is designed to introduce and inspire young people to experience a wide range of career opportunities in the space industry.

At the Air League Reception, SES announced the opening of two additional scholarships for the Summer 2019. The scholarship includes tuition and an opportunity to be selected for an SES internship.

The SES Space Scholarship is a unique opportunity for students who are between 17 and 18 years old, are interested in the space industry and have completed their studies to take part in a residential Senior Space

School with the University of Leicester in the UK held every August.

The scholarships are designed to introduce and inspire the individual towards the wide range of career opportunities in the space industry.

“The SES Space Scholarship has been such a wonderful opportunity; it has enabled me to meet other people interested in space whom I would never have otherwise had the opportunity to meet.

Additionally, I received hands-on experience like using the university telescope to look at Saturn and Jupiter and building model gunpowder-fueled rockets. It has truly helped me to see why I want to pursue a career in the space sector.

It is important for young people, especially young women, to

understand just how fascinating the prospect of a career in the space industry can be. This scholarship has really helped me to pursue my dreams and I have decided to apply to study physics at university.

I send a huge thanks to SES and the Air League for making such an opportunity possible, and I cannot stress enough how much I recommend applying for this amazing opportunity!” - Chloe Kadir, recipient of the first SES Scholarship.



SES & MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

The partnership between SES and the Massachusetts Institute of Technology (MIT) extends beyond research projects to also include recruiting efforts. In 2018, SES colleagues participated in two events held on the MIT campus.

The first event in May 2018 saw students from the Aeronautics, Electrical & Mechanical Engineering, Computer Science, and Physics departments invited to a recruiting lunch-n-learn seminar that included presentations and a discussion on our talent acquisition process.

A second career and recruitment event was held in September 2018 for Graduate and Postdoc Students. Both events on the MIT campus established long-term recruitment prospects for SES.

GAME OF CODE - HACKATHON 2019

In March 2019, SES and GovSat teamed up to participate in Game of Code Hackathon in Luxembourg, a 24-hour coding event aimed at fostering collaboration, creativity, networking with industry experts, acquire new talent and drive innovation.

The event involved over 100 coders with SES participating with 4 teams and over 50 volunteers across the company.

This will be followed by the creation of an SES Coding Club and the organisation of further events in the near future in partnership with external institutions involved in STEM.

YWCA PRINCETON ROBOTICS

In promoting gender diversity in STEM, our office in Princeton (United States) has actively supported [YWCA Princeton Robotics](#) with teams since 2016. In June 2019, part of the cafeteria in the Princeton SES office was once again turned into a robotics workshop where the participants built and test robots.

The programme is not limited to technical skills but also involves interpersonal and leadership attributes. and it often results in hiring of summer interns.

“These young robotic rock stars are smart, confident, and possess extraordinary communication skills. They embody the entire talent package important to SES and, at a relatively young age, have inspired many of us. Ultimately, they provide a valuable pipeline of skills for SES’s future.” Douglas Clayton, SES senior vice president, human resources.

Activities include a visit of the SES facility in Princeton and a tour of the Space Operations Center. After their presentation to the SES scientists and management, the girls have the opportunity to explore SES’s satellite operations and learn about how satellites are launched and controlled from the ground.

Meetings usually also include women leaders at SES, who share their experience about how they have managed to combine their passions and expertise to have strong careers in men-dominated industries. After all, empowered women empower women.

> *Game of Code video*





ASTEROID DAY

30 JUNE

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 2016, Asteroid Day was sanctioned by the United Nations, as a "global day of education to raise awareness about asteroids."

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 organisation. This resulted in Luxembourg hosting Asteroid Day 2017, which was broadcast across the world via our global satellite fleet and over streaming platforms.

In 2019, SES partnered with Broadcasting Center Europe (BCE) Partner to Broadcast Asteroid Day 2019 Globally in HD. The broadcast featured pre-recorded and live High Definition (HD) content from Asteroid Day's global programmes and events throughout June 2019, building to June 30 with coverage of over 2,000 events occurring in 190 countries.

SES also partnered with the newly formed Luxembourg Space Agency to deliver two days of STEM activities as part of the Asteroid Day programme at Cercle Cité in Luxembourg.

These activities involved a "Meet & Greet with Astronauts" and interaction with SES employees and SES Talent Acquisition representatives.

"Luxembourg is home to a space industry and satellite telecoms infrastructure connecting Europe and the world," said Marc Serres, CEO of the Luxembourg Space Agency. "The expertise and valuable support of leading companies such as SES and BCE play a key role in making Asteroid Day an international success and enable all of us to have a truly global conversation about space and asteroids."

"At SES, we value technology as a tool to positively impact and transform lives," said Ruy Pinto, SES Chief Technology Officer. "We are proud to be a partner in this global awareness campaign to learn about asteroids, both the impact hazards they may pose and the resources they may one day yield. By leveraging multiple satellites, we are using the power of our global reach to deliver this important programming to millions of TV homes."



**World Space
Week** ASSOCIATION

WORLD SPACE WEEK

In June 2019, SES and the World Space Week Association jointly announced that SES CEO Steve Collar will be Honorary Chair of World Space Week 2020.

World Space Week is a United Nations-declared event held each year between 4-10 October. In 2018, World Space Week included 5,400 events in 86 nations. In 2019, World Space Week will feature the Moon, with astronomy groups globally focusing telescopes on our nearest neighbor. In 2020, World Space Week will focus on satellite technology and the key role of satellites in today's world.

Every year, teachers use space during World Space Week to inspire students and a myriad of space events to educate the public about space activities. Collar will encourage the space and satellite industries to participate in World Space Week and will keynote an awards event to recognize top supporters.

"I'm excited to chair World Space Week, the biggest space event on Earth, as it focuses global attention on the broad benefits of satellite technology to humankind," said Collar.

"At SES, we always say that we do the extraordinary in space so that our customers can do amazing things on Earth. We believe passionately in the need for content and connectivity everywhere and this belief aligns perfectly with the focus of World Space Week. Space touches the human experience in so many ways and I am proud to help highlight the impact that we, as an industry, have today and will continue to have in the future."

GOVERNANCE



CORPORATE GOVERNANCE

SES has been listed on the Luxembourg Stock Exchange since 1998 and on Euronext Paris since 2004. The company follows the 'Ten Principles of Corporate Governance' adopted by the [Luxembourg Stock Exchange](#) (its home market), as revised in 2017. SES also complies with the governance rules for companies listed in Paris, where the majority of the trading in SES FDRs takes place. In the instance of conflicting compliance requirements, for example concerning the publication of the individual remuneration of the members of its Executive Committee and its board members, SES follows the rules of the home market by reporting the aggregate amount of the remuneration of the members of the Executive Committee, with the fixed and the variable components of the benefits being separately identified.

SES meets all the recommendations made by the 'Ten Principles' except with regard to Recommendation 3.9, which states that the committees created by the Board should only have advisory powers. The SES Board has delegated some decision-making powers to the Remuneration Committee. For the full details of these powers, see the charter of the Remuneration Committee on the SES website (www.ses.com). After each meeting of the Remuneration Committee, its Chairman reports to the Board about the latest Remuneration Committee discussions and decisions.

The company is continuously increasing the flow of information to its shareholders via the corporate governance section of its website and communicates with its shareholders through the dedicated email address shareholders@ses.com. In line with Luxembourg law, the company allows shareholders to receive all corporate documentation, including the documents for shareholder meetings, in electronic format.

In this context, the [SES website](#) contains a regularly updated stream of information, such as the latest version of the company's main governance documents, including the articles of incorporation, the corporate governance charter (including the charters of the various committees set up by the Board) and the separate sections on the composition and the mission of the Board, the Board's committees and the Executive Committee. This section also contains the SES Code of Conduct and Ethics, the SES Dealing Code, the financial calendar and any other information that may be of interest to the company's shareholders.

The Board of Directors is responsible for defining the company's strategic objectives as well as its overall corporate plan. The Board approves, upon proposal from the Executive Committee, the annual consolidated accounts of the company and the appropriation of results, the group's medium-term business plan, the consolidated annual budget of the company and the management report to be submitted to the meeting of shareholders. It also approves major investments and is responsible vis-à-vis shareholders and third parties for the management of the company, which it delegates to the Senior Leadership Team in accordance with the company's internal regulations.

The Board of Directors meets when required by the company's business, and at least once per quarter.

CONTROL ENVIRONMENT

SES has adopted a robust internal control framework based on a set of guidelines prepared by COSO (Committee of Sponsoring Organisations of the Treadway Commission). This framework provides reasonable assurance that the internal control objectives are being achieved; it is also consistent with the reference framework proposed by the French securities regulator, the 'Autorité des Marchés Financiers' (AMF).

The control environment is an essential element of the company's internal control framework, as it sets the tone for the organisation. This is the foundation of the other components of internal control, providing discipline and structure.

The Board has delegated the design, implementation and maintenance of a rigorous and effective system of internal controls to the SES Senior Leadership Team, which in turn works closely with the other levels of management in establishing control policies and procedures.

Policies and procedures are regularly updated, as appropriate. The aim is to design and implement a common set of policies and procedures that best support the organisation and can be used company-wide. The policies and procedures apply to all employees and officers of the SES group, and where appropriate, to its directors as the general framework for their own business process design.

THE SENIOR LEADERSHIP TEAM

Members of the Senior Leadership Team are appointed by the Board of Directors upon a proposal from the Nomination Committee.



MR STEVE COLLAR
President and CEO



MR ANDREW BROWNE
Chief Financial Officer



Mr RUY PINTO
Chief Technology Officer



MR FERDINAND KAYSER
Chief Executive Officer, SES Video



Mr JOHN-PAUL HEMINGWAY
CEO, SES Networks



MR JOHN BAUGHN
Chief Services Officer



MR JOHN PURVIS
Chief Legal Officer



MRS EVIE ROOS
Chief Human Resources Officer



MR CHRISTOPHE DE HAUWER
Chief Strategy and Development Officer



ETHICAL APPROACH

CODE OF CONDUCT

A group-wide '[Code of Conduct and Ethics](#)', available in the Corporate Governance section of our website, has been in place since 2009 and it was updated in 2018.

The Code, on which all our employees are trained, is designed to enable all employees, officers and directors to take a consistent approach to integrity issues and to make sure that SES conducts its business in compliance with all applicable laws and regulations and observes the highest standards of business ethics.

An SES Compliance Committee, composed of designated Compliance Officers in each main corporate location, is tasked with raising the staff's awareness of the Code and ensures a consistent roll-out and training programme for the Code. The Committee meets regularly to discuss important topics or issues. Reflecting the company's expansion into developing markets, the composition of the Compliance Committee includes representatives from SES's offices in Asia, the Middle East and Latin America.

Our code of conduct and ethics ensures all of us take a consistent approach to issues of integrity – one of our core values – and it provides an overview of applicable laws, regulations and company policies, as well as the procedure to follow in the event of violations or concerns. Topics include confidentiality, fraud, antibribery, corruption, anti-trust, sanctions, export compliance, conflicts of interest, fair employment practices, workplace safety and environmental protection.

With our code of conduct as our base, we aim to sustain a corporate culture where ethical conduct is recognised, valued and exemplified by all our employees.

Key Principles:

- The SES Code of Conduct and Ethics is designed to enable all employees, officers and directors of the company to take a consistent approach to integrity issues
- It provides an explanation of applicable laws, regulations and Company policies relating to SES Employees' conduct and ethics
- The Code also describes the procedures to follow related to concerns or violations, as well as the potential sanctions for violations.

Key elements of the Code are:

- Obey all applicable laws and regulations governing our business worldwide
- Be honest, fair and trustworthy in all company activities and relationships
- Be aware of your risks and responsibilities with regard to confidentiality, fraud, bribery, corruption, anti-trust, sanctions etc.
- Avoid all conflicts of interest between company activities and your personal affairs
- Foster an atmosphere in which fair employment practices extend to every member of the diverse Company community
- Strive to create a safe workplace and to protect the environment
- Through leadership at all levels, sustain a culture where ethical conduct is recognized, valued and exemplified by all SES Employees

SES Employees are encouraged to report suspected violations of this Code, and wrongdoing in general.

Their concerns will be taken seriously and investigated as appropriate. Their confidentiality will be respected as a whistleblower and protected as such. Genuinely held concerns should be raised without fear of reprisals, even if the concerns should turn out to be mistaken.

SES prohibits any SES Employee from retaliating or taking adverse action against anyone for raising or helping to resolve a concern related to the Code.

Retaliation or even the threat of retaliation will be regarded as a violation of the Code. In order to facilitate the raising of a concern, SES has recently introduced a Compliance Hotline, managed by a third-party supplier that allows SES Employees to raise their concerns, in a multitude of languages as well as doing so anonymously.

SES hopes that in many cases an SES Employee raising a concern will be able to raise such concern with their line manager directly.

Of course, submitting false reports or allegations is considered a violation of the Code and will be treated as such.

BRIBERY AND CORRUPTION

We have identified bribery and corruption as one of the risks that SES is facing by doing business in most countries around the world, but also by doing more and more business with governments.

SES takes a zero-tolerance approach to bribery and corruption in all forms and will uphold all laws relevant to countering bribery and corruption in all the jurisdictions in which it operates, even if it costs us business. SES is committed to implementing and enforcing effective systems to counter bribery and corruption.

Providing anti-bribery training, with a focus on GDPR and IT Security, is one way to reduce this risk. We are also conducting external due diligence on our third-party agents upon their appointment.

The level of this due diligence depends on the risk assessment, which itself is based on several elements, including the country of operation and the type of business. Such appointments need to be duly justified and an internal sponsor will be responsible for the relationship with the third-party agent. We also reduce the risk of bribery through a clear process for gifts and entertainment. The relevant policy, which like all compliance policies is available on a dedicated intranet page, contains a dedicated e-mail address that can be used to obtain guidance prior to providing or accepting a gift or entertainment.

In line with best practice, we apply stricter rules when dealing with Government representatives. The overarching principle is that no gift should ever be given or received under any circumstances that might create the appearance of impropriety, that might be construed as a bribe or a payoff, or with the objective to influence a decision.

STATEMENT ON SLAVERY

This statement is made pursuant to Section 54 of the Modern Slavery Act 2015 of the UK and sets out the steps SES has taken to ensure that slavery and human trafficking is not taking place in our supply chains or in any part of our business.

SES is committed to ensuring that there is no modern slavery or human trafficking in its supply chains or in any part of its business. SES will not support or deal with any business knowingly involved in slavery or human trafficking.

The nature of SES's business means that the majority of SES's suppliers are large international companies providing complex technical services relating to the space industry through highly skilled professional employees. SES's 50 largest suppliers account for approximately 80% of procurement spending.

SES does not procure a substantial amount of goods or services in sectors that are considered to be high risk for human trafficking or slavery (such as agriculture or horticulture, construction, textiles, catering and restaurants, domestic work, entertainment and the sex industry).

SES considers that, in its role as customer, it plays a key role in setting the expectation that our suppliers comply with the law at all times. SES has created a Code of Conduct for Suppliers, available in the Corporate Governance section of our website, which clearly outlines SES's stance towards slavery and human trafficking.

SES also includes in its contracts with suppliers a clause requiring the supplier to comply with all laws applicable to the provision of the goods or service.

SES's contracts with its suppliers also often contain a provision stating its suppliers cannot novate or subcontract any right or obligations to any third party without the written consent of SES.

DIVERSITY & INCLUSION



STRENGTH IN DIVERSITY

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

SES respects the legislation to ensure equal treatment of men and women and confirms its commitment to fair employment practices in the SES Code of Conduct and Ethics.

While SES does not have diversity-specific policies, diversity is integrated into our HR processes and we take a structured approach to gender and pro-actively take action in five key areas: recruitment, career development, networking, work-life balance and culture.

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.

Our employees represent a compelling mix of many nationalities, empowering innovation and excellence in all our departments. We will continue our work by analysing and addressing the key drivers for gender diversity and the same approach can and should be used to maximise the commitment of all diverse groups in our workforce.

During Q2 '16, a number of employee round-table discussions focusing on gender diversity took place, with over 10% of SES employees participating. The discussions highlighted some key elements to focus on, which interestingly are also reflected in the latest research on this topic.

Talent Acquisition – The talent pool of women within the technology sector is, unfortunately, somewhat small. Nonetheless, we will do the utmost to have at least one woman on the short list for all vacant executive positions within the group. We have also revisited our job descriptions and job advertisements to ensure they contain a gender-neutral language.

Career Development – Research suggests that women are not as vocal about their career ambitions as men. Progress on gender diversity requires focus on talent review discussions and advancement opportunities. At SES, we will continue to focus on talented women in our High Potential and Mentoring Programmes.

Work Life Balance – For our employees to successfully meet the many demands and challenges of modern life, we understand that flexibility in work conditions is needed. To support this, we will enhance ways to further enrich a progressive and productive work environment. A new and more flexible policy was introduced in 2017. This provides our employees with greater possibilities to balance personal and professional priorities, while remaining fully engaged in and accountable for their work.

Culture – Having policies and procedures in place can go some way towards creating a fully inclusive company culture. Nevertheless, management and employees need to understand how they can contribute to increased inclusion. We will finalise the roll-out of anti-harassment training and also introduce a bias training programme.

ENABLERS FOR INCLUSION

Diversity Council: During 2016, a Diversity Council, sponsored by our President & CEO, was created. The council comprises ten members (5 men and 5 women of various nationalities) representing different departments and global locations. Their role is to champion and spearhead our inclusion programmes and actions worldwide.

Round Tables: In Q2 '16, the Diversity Council facilitated the roll-out of 12 round table discussions where more than 100 employees in seven different locations came together to discuss and brainstorm about gender inclusion. Their valuable feedback provides a solid basis on which to pursue our ongoing work. We will also continue to host forums for discussion, both on a face-to-face level as well as through more formal Voice of the Employee surveys.

HOW WE TRACK AND EVALUATE OUR WORK

We have decided to use Key Performance Indicators, KPIs, rather than implementing strict quotas. Over time, this will allow us to track measure and monitor success. These KPIs include, but are not limited to:

- Recruitment: Women on short lists, women recruited, and nationalities hired
- Career Development: Diversity in High Potential and Mentoring Programmes, and the number of women promoted into leadership positions
- Work-Life Balance: Retention

By systematically applying these principles and actively nurturing an inclusive company culture, together with an appreciation for why it is so important to create a fair and supportive work environment for our people, we will continue to attract, develop and retain the very best talent.

DIVERSITY & INCLUSION

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

Diversity is integrated into our HR processes as we actively aim to achieve a good representation of nationalities and women in areas including recruitment, training, promotions, the high potential programme and succession planning.

HEADCOUNT AND NATIONALITIES

As of 31 December 2018, the Group employed 2,147 individuals worldwide.

82% are located in Europe or US (vs 81% in 2017) including: 584 in the Grand Duchy of Luxembourg, 593 in the rest of Europe, 592 in the United States and 378 in the rest of the world.

SES is a truly international company represented by 78 different nationalities, which is also reflected in the SES Leadership Development Programme.

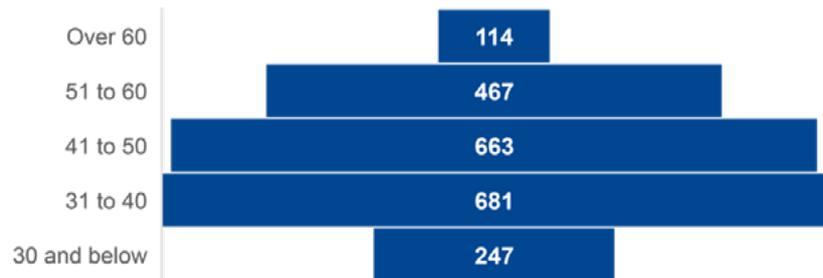
The top five nationalities by number of employees are the US (586 employees), Germany (332), Israel (205), the UK (176) and France (122).

This diversity 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 is so important to create a fair and supportive work environment for our people, we seek to continue attracting and retaining the very best talent.

AGE AND SENIORITY

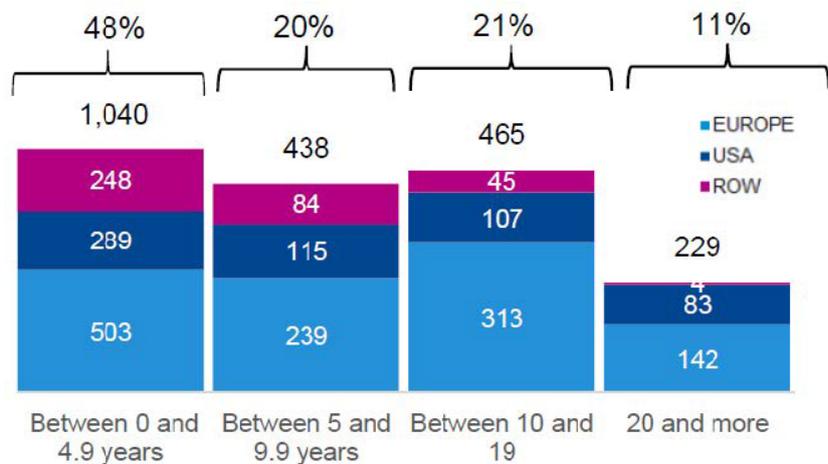
SES has an overall healthy age distribution with an average age of 43.3 (vs 43.8 in 2017). 42% of our employees are aged 40 and below and 11% are aged 30 and below (this is a stable figure compared to 2017).

SES Group Age Pyramid



SES Group Seniority

48% of our employees have been at SES less than 5 years and there is an average seniority of 8 years in the Group (vs 8.8 in 2017).



SES Top Group Nationalities

- United States
- Germany
- Israel
- Great Britain
- France
- Luxembourg
- Netherlands
- Belgium
- Italy
- Romania
- Spain
- Brazil
- India
- Poland
- Sweden

GENDER DISTRIBUTION

Today, women represent 24% of our workforce (vs 23% in 2017) and in the age category below 30 they represent 28% of the workforce.

Women represent around 8% of our top executives. Over 40% of employees below the age of 30 are women and these figures highlight real progress at SES within the area of gender diversity. Furthermore, 25% of the participants in our High Potential Programme are women, which again indicates positive evolution for the future.

Our goal is to continue to increase the numbers of women in areas in which women are less represented.

In terms of recruitment, 28% of all recruitments in 2018 (internal and external) were women (vs 25% in 2017). The number of women entering as interns has also increased and by 92% compared to last year, with women now representing almost 40% of the interns population.

Women are almost equally present in Corporate Functions (47%) but least in Technology & IT (12%).

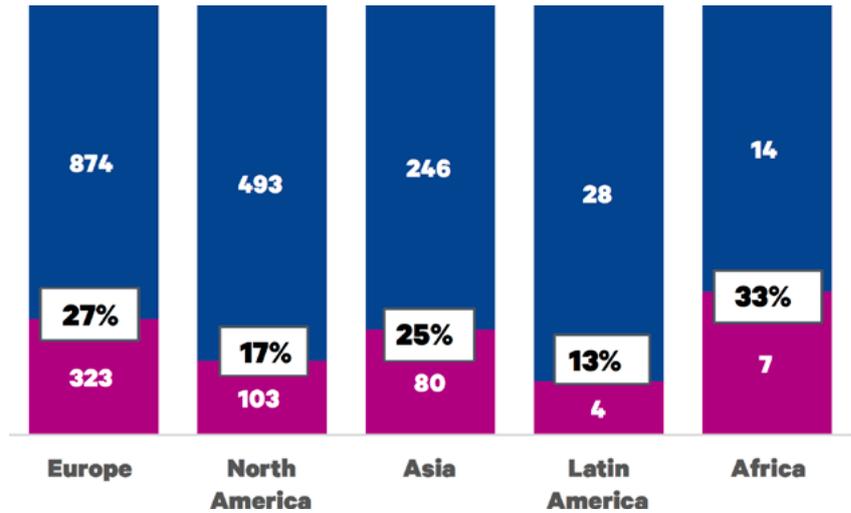
We are determined to continue to increase the number of women in areas where they are underrepresented and to increase the number of women executives.

We acknowledge that there is much work still to be done, as indeed work must be done in the technology sector as a whole.

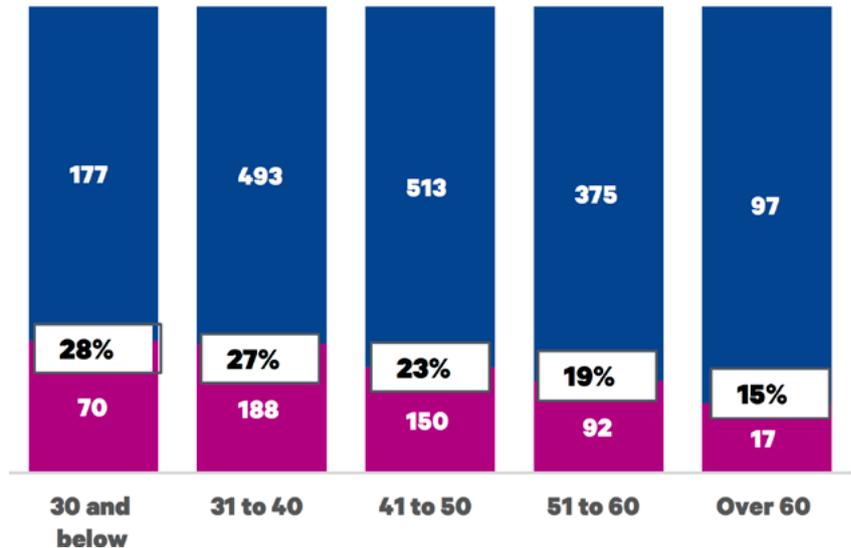
THE SES BOARD

In the context of the SES Board composition, the SES Nomination Committee has considered a diverse Board as adding value to the company, not limiting diversity to gender diversity, but also considering, as far as possible, professional background, experience and age diversity. Today, the SES Board is composed by 13 members, 9 men and 4 women (2 which are Vice-Chairpersons) and a total of 7 nationalities.

Gender Distribution by Region



Gender Distribution by Age



■ Women
■ Men

FROM GENDER DISTRIBUTION TO GENDER INCLUSION AND BALANCE

“Diversity is a source of strength. The more diverse our teams are, the more insights we have into different customers and local environments, the better our innovation and risk management will be through our diverse ideas and experiences, and the more value we can bring to our customers.” - CCS Diversity & Inclusion

In order to achieve Gender Inclusion and Gender Balance, we are introducing systematic and supportive practices in recruiting, retaining, developing a pipeline of talented women that will sustain long-term gender inclusion.

Recruitment

Job descriptions have been updated to ensure they attract a diverse pool of candidates: women are much less likely to apply for a job if they don't meet 100% of the criteria, compared to men who apply even if they only meet 60% (source: Hewlett Packard Internal Report). With this in mind, job descriptions today emphasise the opportunity to learn, team work and other elements which will attract a diverse range of candidates.

Training

Unconscious bias - making a decision based on prejudice without realising – is present in most businesses and our daily lives, it is a human trait. We have in place training to minimise or avoid any risk of discrimination and promote equal opportunities and gender balance.

Retaining

Today women leave at a slightly higher rate than men compared with the overall employee population. On one hand we are increasing training and mobility opportunities for all to answer development requirements and on the other we need to offer a flexible environment that facilitates juggling between life and career developments, for women and men.

Flexible Working

Since 2017, all employees can 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.

Culture

In 2018 we started the SES Culture Transformation initiative. Our culture defines who we are and how we work together. Having established our aspirational culture of IN IT TOGETHER, PROUD TO BE HERE, and TRANSPARENT, HONEST & COURAGEOUS, we are collectively focusing on bringing Strategic Clarity, Role Clarity and Personal Ownership and making sure that we are aligned to improve our culture.

Ultimately, we are implementing a High Performance Culture and it is proven that this is linked to Diversity. We are therefore making diversity and inclusion a key aspect of the SES Culture Transformation programme and available through:

- a. Unconscious bias training for all employees
- b. Reinforcing strong antidiscrimination and anti-harrassment policies
- c. The SES Code of Conduct which includes diversity and inclusion.



TALENT ACQUISITION

In 2018 we created a new global inhouse Talent Acquisition function with dedicated personnel and developed a new Strategic Plan aligned to business imperatives.

Marketing and Internal and External Communications teams collaborate on the Employer Branding and Social Recruiting strategy that was implemented in 2019.

We upgraded and increased the systems and tools to enable recruiters to hire effectively whilst maintaining a strong focus on generating a best-in-class candidate experience.

We also introduced direct hiring capability to attract and engage passive candidates, designated Recent College Graduates (RCG) in line with the new and changing skill classification and our target is set as required by the business, and to generate a more even split in the gender diversity of candidate pipelines.

As a result, in 2018 we filled 392 positions (73% men, 27% women).

28% of new hires fall within the newly designated Recent College Graduates (RCG) classification and our target is to increase this to between 35-50% in 2019.

51% of the positions were filled in Europe, 28% in North America. 30% were hired by SES Networks and 25% were hired by SES Video.



LEARNING AND DEVELOPMENT

We offer a comprehensive portfolio of learning and professional development programmes to all our employees.

In 2018, we logged 8,160 participations in training for a total of 16,849 hours of learning, with participation up by 155% from 3,196 in 2017. This was facilitated by the increase in e-learning offerings. In fact, 6,309 of participations (77%) were in e-learning format.

Top learning events in terms of hours delivered in 2018:

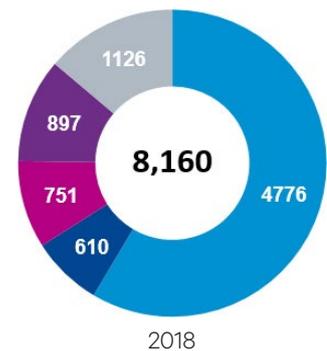
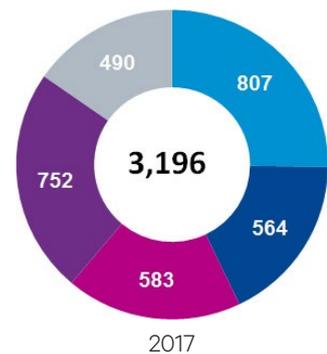
- Insights based selling: A different approach to complex B2B sales
- The EU General Data Protection Regulation (GDPR)
- Continuing Education Institute Europe (CEI) Satellite Communications Systems
- IT Security - Computer Security and Phishing
- Code of Conduct E-Learning

- SES-12/14 Satellite Manufacturers' Training (Airbus)
- Anti-bribery E-Learning
- IT Security Awareness - Protect SES
- Stevens Institute of Technology - Business Engineering
- Harassment Prevention ELearning Course
- Stress Management the Shaolin Way
- FranklinCovey "The 5 Choices"

We also managed a global Mentoring Programme last year with 70+ participants mentored by SES executives and introduced a monthly global Executive Lunch and Learn education session.

- Compliance
- Customer (incl. Language)
- Leadership
- Professional Development
- Technical

Participants by Category





GIVING BACK

SES's entire team focuses on charitable work. These activities engage and motivate our colleagues, who then inspire each other to give back to the community where we work.

We are proud of our commitment to serve the local communities where we operate. Many of our employees regularly volunteer independently and within the activities organised at company-led events.

Matching donations

SES matches employee donations to charitable organisations including the Red Cross, the Red Crescent, Oxfam, Unicef, Médecins Sans Frontières/ Doctors Without Borders, and Telecoms Sans Frontières.

Time Out to Give Back

In March 2019, Steve Collar, our CEO, announced that all SES employee now have the opportunity to ask for an additional two days per year in addition to their holiday entitlement, to 'give back' to society.

This initiative is fully endorsed by management: it is accepted, respected and promoted but not administered. This means that employees have freedom of choice on how to Give Back and make a meaningful contribution.

The process to book the two days is fully integrated into the standard request for flexible working arrangements and standard paid time-off.

Employees can then share their experiences on our social media channels and our Intranet.



SHARITY

In 2018, a group of SES volunteers developed SHARITY, an employee-based charity designed to support small and tailored development projects around the world. SHARITY collected over EUR 10,000 through its “1 charity per month” programme.

“We are happy to announce that in 2018, we opened a new hospital and pharmacy which will provide much needed medical services and traditional Tibetan medicine to a remote area of eastern Tibet, that has limited access to health care.” - [Golog Support Foundation Luxembourg](#)

“From our hearts, the single word ‘thank you’ is not enough to express your generosity in extending a helping hand for our Shine Special School for mentally and physically challenged children and support for parents.” - [SHINE Educational Trust, India](#).

“Your contribution will assist us to feed over 100 children each day, provide educational materials and most importantly give hope to each child of Lethoteng.” – Lethoteng Community Centre, South Africa

GEAR UP!

In 2019, a group of SES employees started GEAR UP!, which is an internal shop aimed at raising funds for charities around the world.

The shop provides all employees the opportunity to buy corporate SES items and apparel at a fair market price for comparable products. By doing so, it collects funds for charity.

In addition, SES matches all profits generated by purchases, increasing the impact of their charity contribution.

The GEAR UP! team collaborated with volunteers involved in the SHARITY initiative to direct funds collected to selected charities.

The first charity receiving GEAR UP! donations is Small Acts of Kindness.

Habitat for Humanity

Habitat for Humanity is a global, non-profit housing organisation with over 40 years of experience.

The organisation empowers people in the world’s poorest communities to overcome the chronic lack of decent, affordable housing

In 2018, SES in Princeton (United States) continued the partnership with Habitat for Humanity and our employees volunteered to help build homes for members of the local community.



Alpe d'HuZes Fundraiser

In June 2019, SES supported the [Alpe D'HuZes](#), a Dutch initiative to raise money for cancer research and to improve the quality of life of people with cancer.

This is a unique sporting event that takes place in Alpe d'Huez, the legendary component of the Tour de France, famous for its steep climbs, chaos and drama.

Under the motto 'giving up is not an option', more than 5000 participants biked, hiked or ran the 21 hairpin bends to support the cause. As part of the 'SES Giving Back' initiative, we donated free capacity on our Astra 2F satellite so that the event could be broadcasted to several regional and national Dutch TV stations and be streamed to social media platforms, thus helping to raise awareness and funds for this cause.

Sourland Conservancy

In June 2019, SES in Princeton (United States) continued the partnership with [Sourland Conservancy](#) with SES employees volunteering to plant trees and shrubs in the Sourland Mountain Region.

This project will provide a forested riparian buffer along a degraded section of Moores Creek in Hopewell Township, Mercer County.

Planting the area on either side of the Creek with native trees and shrubs would reduce erosion and therefore sediment entering waterways, as well as act as a filtering buffer between runoff from the active agriculture and livestock present upslope in the watershed, and the impervious surface of the road on the other side.

SES

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REGIONAL OFFICES

Accra | Ghana
Addis Ababa | Ethiopia
Bogotá | Colombia
Bucharest | Romania
Dubai | UAE
The Hague | Netherlands
Istanbul | Turkey
Kiev | Ukraine
Lagos | Nigeria
London | UK
Manassas | US
Mexico City | Mexico
Miami | USA
Moscow | Russia
Munich | Germany
Paris | France
Princeton | USA
Reston | US
Riga | Latvia
Rio de Janeiro | Brazil
São Paulo, Brazil
Singapore | Singapore
Stockholm | Sweden
Tel Aviv | Israel
Warsaw | Poland
Washington DC | USA

For more information about SES, visit www.ses.com
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SES▲