We help Earth benefit from space

SUSTAINABILITY SUMMARY 2017

History

2017	ATS was transferred to FMV. ECAPS was divested to Bradford Engineering Inc.
2016	Nanospace was divested to Gomspace
2014	SSC acquired all shares in PrioraNet Canada, now SSC Space Canada, and is the full owner of the Inuvik Satellite station. SSC's Airborne Systems was divested to Sjöland & Thyselius.
2013	SSC implemented a new strategy and vision; to become the leading global provider of advanced space services.
2012	ECAPS signed its first commercial contract with the American company Skybox Imaging for the construction and manufacture of a complete green fuel propulsion system
2010	LSE Space acquired the Dutch engineering company Aurora Technology. The Prisma satellites, developed by SSC, were launched. HPGP and a micropropulsion system from NanoSpace were flown for the first time onboard Prisma.
2009	SSC acquired all shares of Universal Space Network. PrioraNet Canada, a joint venture between SSC and Blackbridge was established with a satellite station in Inuvik, Canada.
2008	SSC acquired Santiago Satellite Station from the University of Chile, Santiago.
2005	SSC acquired NanoSpace, a company that develops and markets miniaturized compo- nents and sub-systems for space applications.
2004	SSC acquired the German space engineering company LSE Space. ESA's moon probe SMART-1, developed by SSC, was launched.
2001	SSC formed the company ECAPS for further development of HPGP. The scientific satellite Odin, developed by SSC, was launched.
2000	SSC acquired 10% of the shares in Universal Space Network. The establishment of what is to become one of the largest commercially available multi-mission ground station network, PrioraNet, begun.
1998	The scientific microsatellite Astrid-2, developed by SSC, was launched.
1996	The U.S. based company, Universal Space Network (USN), was founded by the third man to walk on the Moon, Pete Conrad. SSC started the development of HPGP (High Performance Green Propulsion).
1995	Aurora Technology was founded in the Netherlands.
1992	The scientific satellite Freja, developed by SSC, was launched.
1990	The German space engineering company LSE Space was established. ESA's satellite station in Salmijärvi was inaugurated. SSC has operated the station since then.
1986	Sweden's first scientific satellite, Viking was launched. SSC was the prime contractor.
1978	The Landsat satellite station was inaugurated at Esrange.
1977	SSC's first microgravity experiment payload was flown on a sounding rocket.
1974	The first balloon was launched from Esrange.
1972	SSC was founded by the Swedish government.
1966	The first sounding rocket was launched from Esrange.
1958	The first antenna was installed at Santiago Satellite Station to support NASA.

CEO report 2017 - Sustainability

Trends and market

The space industry continues to change at a rapid pace, and this year has been no different. Increasingly competent, cost-efficient and miniaturized technology has resulted in various types of smaller, larger and more competent satellites today, offering a wider range of new features for the benefit of humans and sustainable global development. Outer space has also become available to more people, with new actors in traditionally strong space markets, but also in new markets and in new segments. Overall, increased development is bringing about more opportunities, but also increasing global competition and new challenges.
For SSC, operations in 2017 have continued to adapt to the new opportunities and challenges that the market entails. In these work efforts, the role of space, and thus the role of SSC for sustainable global development, has been an important guiding principle.

Space activities positively contribute to the solution to humanity's critical challenges and crucial future issues such as climate change, peace, freedom, democracy and economic development. The space industry creates global opportunities for research, innovation, competitiveness, jobs and growth. Other examples are new solutions for digital communication, navigation and positioning, as well as different types of observation of the Earth's surface, the oceans and the atmosphere. Space services are therefore considered important and in some cases crucial for following up on and meeting the 17 Global Sustainability Objectives (SDG:s). Our business is beneficial in this perspective.

For SSC, rapid development means great opportunities, but also challenges. They have to do with adapting operations to the increasingly faster-paced market, the rise in actors and increasing global competition which prompts higher requirements on efficiency.

Requirements on safety are also increasing, especially given the increasingly complex global security policy arena. As space services increasingly become an important part of society's functionality, the demands for safe delivery increase, which further tightens the requirements. During this year, we have further strengthened our efforts in the field of security. A number of external and internal security audits have also been conducted, both by customers and at our own initiative, where expert and specialist companies respectively have been invited to verify our abilities. These have provided us with a good basis for further improvements in an area where they are constantly needed.

New technology means that new services need to be developed in conjunction with improving the services that we already currently deliver. All in all, investments, new skills and more effective ways of working are required. Balancing all this has also resulted in continued work in 2017 to achieve long-term financial stability through increased sales, in parallel with an increased market presence, streamlining and investment for the future. In order to better utilize opportunities and meet the challenges, we have implemented a new strategy during the course of this year.

SSC:s business operations

The financial result for 2017 is good and some segments are at their best ever. The readjustment to becoming a global provider of advanced space services was completed through the sale of technology development company ECAPS. Their propulsion system with environmentally friendly fuel will have better opportunities, due to the new owner, to develop in the global market, while SSC can focus on its core business.

During 2017, several important business contracts have been signed, contributing to the sustainable development of our planet. We have also continued to provide services within the framework of already entered business contracts. These services include satellite services such as data reception that concern areas such as weather, environment, agriculture and community planning, as well as avoiding and managing humanitarian disasters. They also include delivering support for research and technology development and delivering services in several of the major European space programs. Examples of business conducted by SSC are described in the report.

Europe has, through ESA and EU funded programs, greatly expanded capacity in space. SSC delivers services in most of these programs, and the forecast for an increase in deliveries is good. The Galileo positioning system is becoming increasingly operational over the next few years. The Earth observation system, Copernicus, has world-leading capacity in strengthening Europe and the world's ability to achieve the sustainability goals set out by the UN, and more satellites will be added in the next few years. The result has been that our European operations have grown and are expected to continue to grow.

The US business is characterized by major change and development of new technologies and business models. SSC has also signed important contracts and built long-term new customer relations. In this market, too, it is clear, in both commercial and institutional initiatives, that there is a driving force to utilize space to solve the challenges of the world.

In Asia, the development of Chinese space operations has gained increasing commercial importance. Institutional initiatives have been identified to address extensive environmental issues, as well as weather and geographic data for community planning. The desire to increase market share in the global space market is evident. Our contacts with Chinese actors have continued to develop positively, including dialogues about sustainable business and solutions as well as cooperation on internationally important issues.

During this year, we also initiated increased business in Brazil, Japan and India, countries with strong space actors and space programs where our services fit in well. In Brazil, with the support of the owner, we conduct dialogues about space services for the sustainable development of the Amazon as part of our business development.

A new strategy - SSC 2.0

In order to meet this extensive development, SSC started the process of implementing a new strategy for profitable growth in 2017.

The company's management has previously stated that SSC should have a sustainable strategy rather than a sustainability strategy. The new strategy meets this requirement and provides good conditions for achieving the strategic goal of our sustainability efforts. Implementation of our new Code of Conduct, as determined by the Board at the end of 2016, is important in this context, as well as compliance with operational sustainability goals. The new strategy's focus on developing our business to contribute to increased global sustainability has, together with increased external communication and stakeholder dialogues, led to the development of a number of new long-term business development opportunities during the year in dialogue with various institutional and government stakeholders.

Risks and a new code of conduct

International developments in space can contribute very positively, but also involve risks. The industry as well as the international community and ourselves, therefore, need to learn how to exploit opportunities while managing the risks it implies.
Such a risk is that applications are used to violate human rights. Therefore, in dialogue with other Swedish companies and with experts in the field of human rights, we have interpreted and implemented the UN's Guiding Principles on Human Rights and Business, which contributed to a better understanding of how to handle these complex issues.

During the year, we have further enhanced our ability to conduct customer and supplier analyzes, to ensure that the actors we work with share our values. We have also strengthened procedures regarding both sales and supplier processes through further development and implementation of our sustainable business analysis model. Successful implementation of our new Code of Conduct, which includes a global anti-corruption training, has further enhanced our ability in these respects.

Continued modernization of Esrange Space Center - SmallSat Express

Modernization work on Esrange Space Center has continued. The focus has been on increased opportunities to support both Swedish and international research and technology development, as well as the ability to deliver services through the company's global network of ground-based satellite stations.

One of the company's most important projects to meet future opportunities, while further contributing to cost-effective access to space, is the ability to launch small satellites from Esrange. In close collaboration with the company's owner and with the Swedish National Space Agency, important steps were taken during 2017 towards realization of the capability - this would mean a significant strengthening of the company's range of services that would further contribute to sustainable global development.

Goals, goal completion and challenges

During the year, SSC has adhered to the operational sustainability targets approved by the Board at the end of 2016. All goals except one have been met. At the end of 2017, the Board decided their new goals for 2018. The focus is customer and supplier analysis to ensure that we do business with customers and suppliers who share the values described in our Code of Conduct.

SSC:s main challenge regarding sustainability over the next few years is to understand how space technology and our services are linked to human rights risks. A proportionality principle between risks and positive effects is being developed internationally, with parallels to the Internet and telecom industries. We therefore need to continue to encourage and have dialogues about space opportunities and risks, with a particular focus on the consequences of technology and information from satellites in the wrong hands.

A bright future in an important industry

Space activities are increasingly contributing to solving humanity's crucial future issues, such as climate change, peace, freedom, democracy and economic growth. There is therefore no doubt that an increasing part of the socially important functionality of the future will require functioning, safe and long-term sustainable operations in space for the benefit of humanity in all parts of the planet. It inspires us that we are a provider of advanced space services that helps to realize the positive opportunities and to find solutions to the major problems facing the world; this also propels our strategic work forward, as we look to the future with confidence.

STEFAN GARDEFJORD
President & CEO

SSC GLOBAL PRESENCE

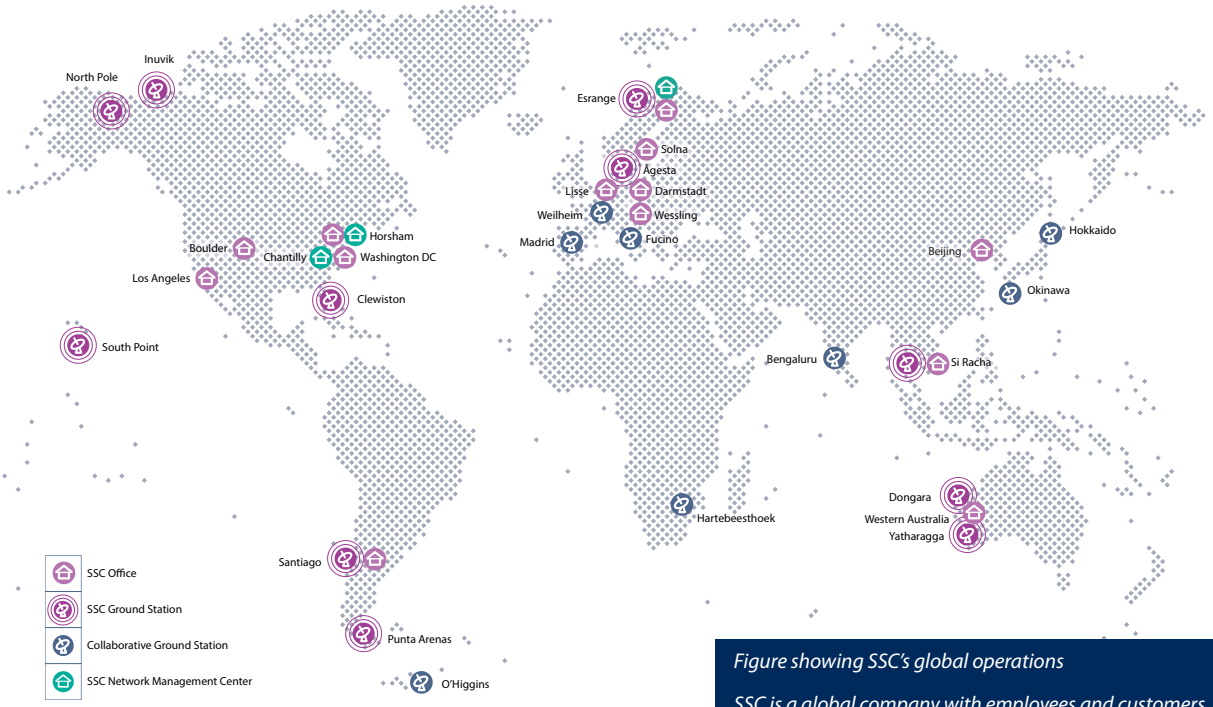


Figure showing SSC's global operations

SSC is a global company with employees and customers throughout the world. SSC is now represented in Sweden, Germany, the Netherlands, Spain, the USA, Canada, Chile, China and Australia.

SSC in brief

The Swedish Space Corporation (SSC) is a leading global provider of advanced space services with more than fifty years of experience. Since our start pioneering scientific rocket launches in northern Sweden, we have grown into a renowned, full-service supplier of state-of-the-art space engineering, satellite and launch services to commercial and institutional customers worldwide. Today, SSC focus on three core areas. Rocket and balloon launch services at Esrange Space Center, including development of experiment payloads. The ongoing upgrade of Esrange includes plans to launch small satellites. SSC operates one of the world's largest civilian networks of ground-based satellite stations, providing reliable access to satellites in virtually any orbit. A new set of satellite services is implemented to meet new demands of more flexible, highly automated and cost-effective solutions. Our engineering services bring consulting expertise to all phases of customer´s space programs, a valuable asset ensuring competence and development.

SSC is a Swedish limited company, entirely owned by the Swedish state. At the end of 2017 SSC had 485 employees.

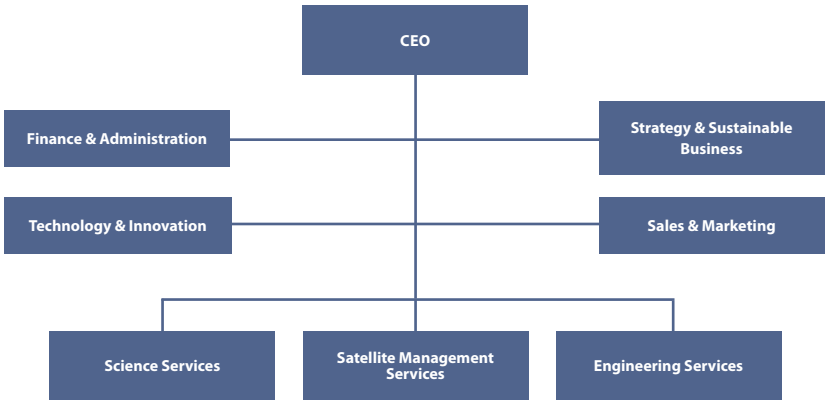
Financial facts 2017

(MSEK)	2017	2016	2015	2014	2013
Net Sales	**935**	**991**	**989**	**842**	**863**
Operating profit (EBIT)	**-14**	**14**	**5**	**31**	**29**
Profit before tax	**-38**	**8**	**17**	**41**	**22**
Investments	**37**	**82**	**149**	**116**	**64**
Equity	**458**	**490**	**495**	**503**	**446**

Employees 2017

(Average FTE)	2017	2016	2015	2014	2013
Number of employees	**465**	**536**	**498**	**533**	**577**
Women	*115*	*124*	*118*	*121*	*136*
Men	*350*	*412*	*380*	*412*	*441*

Organisation



Executive committee

STEFAN GARDEFJORD
President & CEO

ÅSE LAGERQVIST
Senior Vice President Finance & Administration

ANNA RATHSMAN
Senior Vice President Technology & Innovation

LEIF ÖSTERBO
President Satellite Management Services

NICK PRIBORSKY
President Engineering Services

LENNART POROMAA
President Science Services

STEFAN GUSTAFSSON
Senior Vice President Strategy & Sustainable Business

JOHN STEWART
Senior Vice President Sales & Marketing

SSC - Highlights 2017

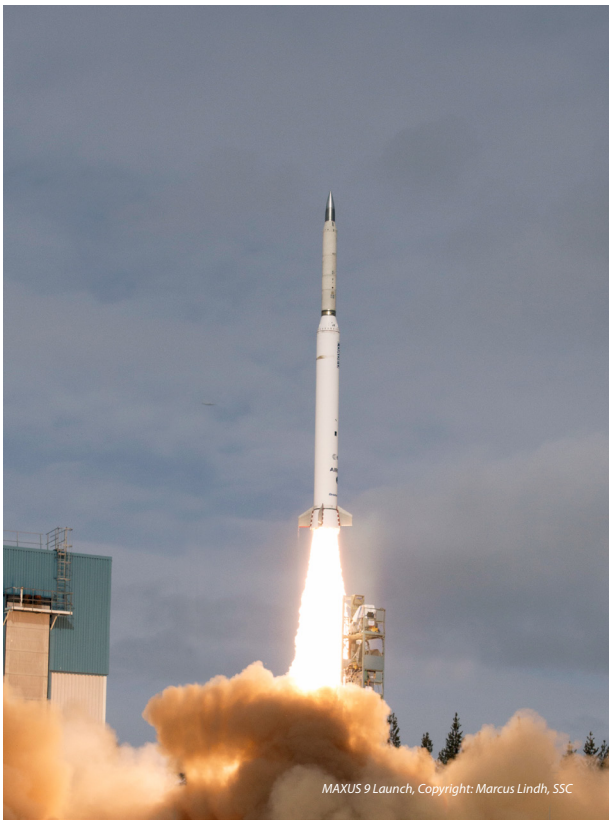
Europe's largest research rocket, MAXUS-9

MAXUS is a sounding rocket program for research in near-weightlessness (microgravitation). Since gravity affects everything on Earth, an important issue in many research areas is how different processes behave in the absence of gravity. Sounding rockets are especially effective in studying fast and sensitive dynamic processes, and in providing a high quality of weightlessness with little disturbance.

The MAXUS-9 rocket was launched from the SSC space base Esrange Space Center on April 7, 2017.

The rocket reached a peak height of 678 km and the nine experiments aboard spent 12 minutes in weightlessness. Some of the experiments involved metal alloys of various kinds. Basic research in materials technology is important for future earthly manufacturing of metal alloys, for example, to produce products of a certain quality. Another experiment studied the combustion of iron particles, where the results are of great interest, as iron particles, unlike hydrocarbon fuels, do not generate any greenhouse gas emissions.

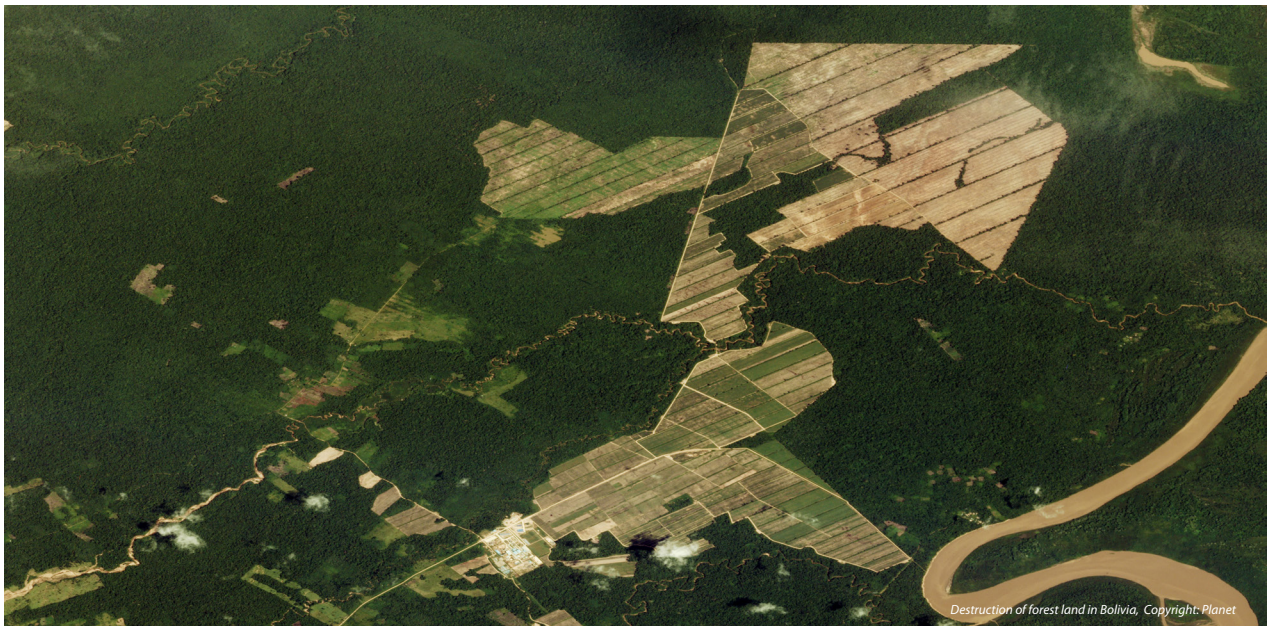
Weightlessness is today an important tool in basic research where researchers have made major research progress. Some research results have been used in, for example, the automotive, oil and pharmaceutical industries, as well as in agriculture and environmental sectors.



MAXUS 9 Launch, Copyright: Marcus Lindh, SSC

Photos of the Earth from space, every day

In 2017, SSC received a contract for satellite communications services with the American company Planet, which owns the world's largest constellation of Earth observation satellites. The large number of images generated by the satellites are used for a range of applications that contribute to sustainable global development on Earth. Some examples include marine surveillance, agriculture management, forest management, fisheries and other natural resources, urban planning and disaster response monitoring to quickly implement the appropriate relief efforts.

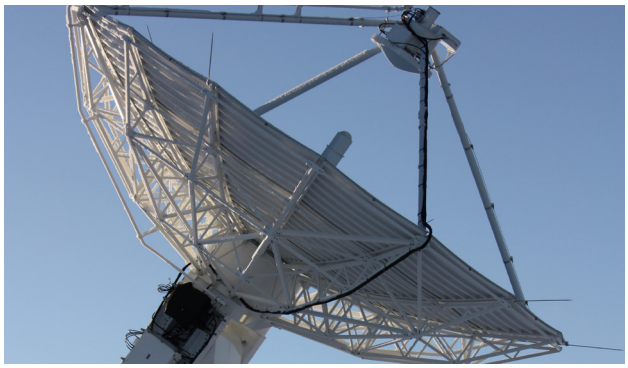


Destruction of forest land in Bolivia, Copyright: Planet

EarthCare for increased knowledge about weather and climate

EarthCare is a satellite project operated by the European Space Agency ESA together with its counterpart in Japan, JAXA.
The satellite, planned to launch in 2019, will deepen the understanding of the role of clouds, aerosols and radiation from the sun in the atmosphere and how it affects the climate system. Increased knowledge of these conditions is of paramount importance in climate research and for weather forecasting.

In 2017, SSC received a contract from ESA for the operation of the satellite during its first year of circulation around Earth.



Earth observation from satellite; an important tool for understanding what's happening on our planet

In early January 2017, a new antenna was operational at Esrange to receive data from Chinese Earth observation satellites. The data will provide information on the impact of climate change and contribute to the development of agriculture, community planning and rapid disaster relief.

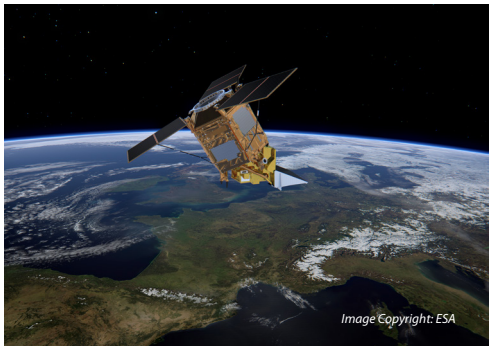
The customer is Chinese RADI (The Institute of Remote Sensing and Digital Earth).

Copernicus, a European observation system for global environmental monitoring

Copernicus is the most ambitious Earth observation program thus far and is run jointly by the EU and the European Space Agency, ESA.
ESA develops the satellites under the name Sentinels, and they will provide us with information about the environment, and an understanding for how to reduce climate change and ensure civil safety.
During 2017, SSC, through its global network of antennas, has conducted ground station services to two of the Sentinel satellites, Sentinel-2B and Sentinel-5P, as well as staffed ESA Control Centers.

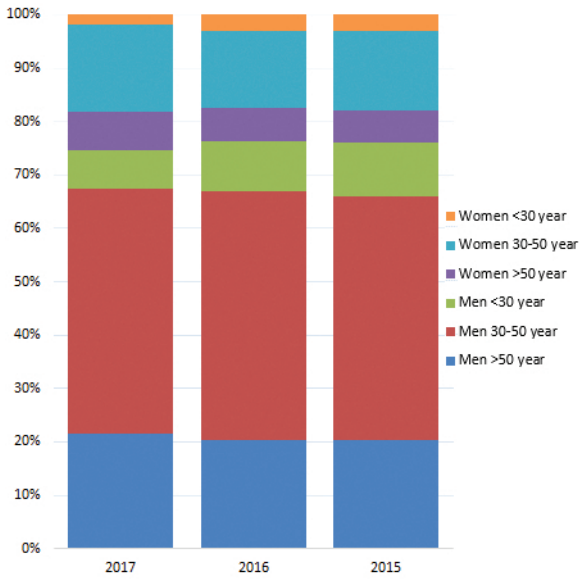
Sentinel-2B, together with its twin satellite, is primarily responsible for providing information for agricultural and forest applications, but can also be used to map changes in our planet's land mass and forests, provide us with information on pollution in lakes and seas, as well as floods, volcanic eruptions and landslides. The latter can be used to facilitate humanitarian aid.

Sentinel-5P is a satellite that will monitor the Earth's atmosphere to map a range of trace gases, such as nitrogen dioxide, ozone, aerosols and carbon monoxide, gases that affect the air we inhale and hence our health and our climate. The satellite will also provide information about volcanic ash clouds and UV radiation that can be used for aviation safety and warnings at high levels of UV radiation. Last but not least, researchers will use satellite data to increase knowledge about the important processes in the Earth's atmosphere that are related to climate and to ozone depletion.

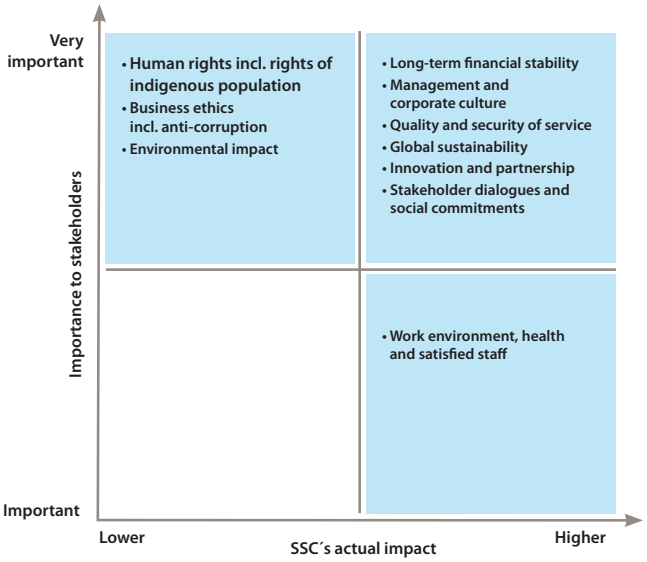


SSC - Short sustainability facts 2017

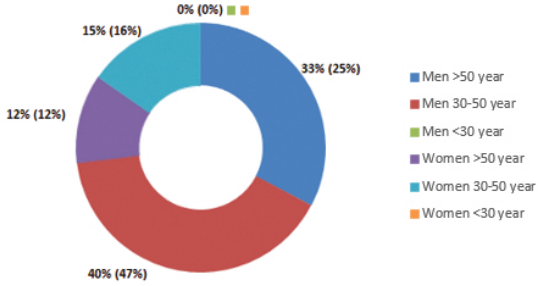
Employees by age and gender



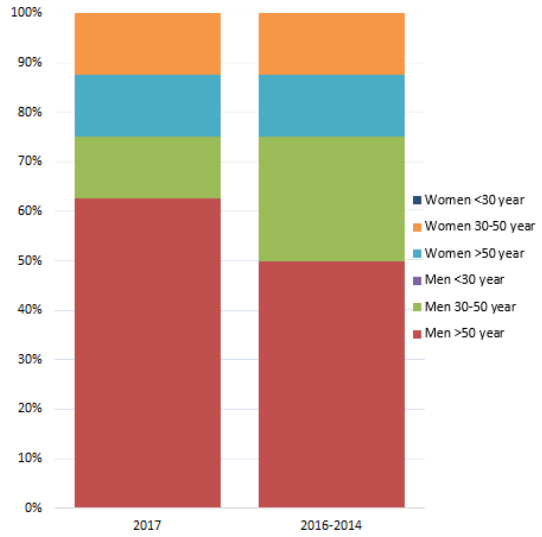
SSCs material sustainability areas in 2017



Managers by age and gender 2017



Executive management by age and gender



- **Human rights including the rights of indigenous people:** SSC respects human rights including the rights of indigenous people.
- **Business ethics, including anti-corruption:** SSC demonstrates a high level of business ethics, which include a clear position on combatting corruption.
- **Environmental impact:** SSC want to reduce negative impacts on the environment with reference to the future development of Esrange.
- **Long-term financial stability:** SSC wants to ensure long-term financial sustainability in order to be part of the global space industry in the future as well.
- **Management and corporate culture:** SSC wants to build a company, based on courageous management and an inclusive corporate culture, based on equality and diversity.
- **Quality and security of service:** SSC wants to achieve a high level of customer satisfaction, by providing high standards and strong security in our deliveries of services.
- **Global sustainability:** SSC wants to contribute to the positive development of global sustainability.
- **Innovation and partnership:** SSC wants to create innovative technology and innovative business models, through partnerships.
- **Stakeholder dialogues and social commitments:** through stakeholder dialogues and involvement in society, SSC wants to increase society's understanding of space, research and technology and how we can use this to create a more sustainable society.
- **Work environment, health and satisfied staff:** SSC wants to have a safe and healthy work environment with satisfied staff.

UN Global Compact

UN Global Compact

Global compact is a global sustainability initiative that encourages responsible business conduct among business enterprises, focusing on human rights, labour rights, environment and anti-corruption. UN Global Compact is based on ten principles. By committing to this initiative SSC undertakes to work out and intergrate the ten principles into SSC:s business. SSC declares in this table examples of initiatives that SSC has taken during 2017 to implement the principles into SSC:s business organization.

HUMAN RIGHTS: PRINCIPLE 1-2

Businesses should support and respect the protection of internationally proclaimed human rights; and	• Continious development of process for sustainable business analysis including analysis of risk concerning violation of human rights. Both for sales and procurements. • Increased focus and work with analyses and understanding of SSC:s risks regarding human rights. • Implementing of UN Guiding Principles on Business and Human Rights completed.
make sure that they are not complicit in human rights abuses.	

LABOUR: PRINCIPLE 3-6

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	• Policy on equality and diversity. • Collective bargaining agreement (benefits in employment contracts in countries where collective bargaining agreements do not exsist). • Education in SSC:s Code of Conduct has been performed in the entire organization. • A training program for employees regarding culture and diversity was launched during the year.
the elimination of alla forms of forces and compulsory labour;	
the effective abolition of child labour; and	
the elimination of discrimination in respect of employment and occupation.	

ENVIRONMENT: PRINCIPLE 7-9

Businesses should support a precautionary approach to environmental challenges;	• Environmental policy that includes precautionary principle. • Active environmental efforts in the operational business e.g handling of food waste at Esrange Space Center. • Sustainability goals valid for 2017 includes zero tolerance regarding deviation from internal requirements concerning environment and safety. The requirements were met during the year.
undertake initiatives to promote greater environmental responsibility; and	
encourage the development and diffusion of environmentally friendly technologies.	

ANTI-CORRUPTION: PRINCIPLE 10

Businesses should work against corruption in all its forms, including extortion and bribery.	• Education in SSC:s Code of Conduct including specific anti-corruption education has been performed in the entire organization during the year.

UN Global Compact, Ten principles: https://www.unglobalcompact.org/what-is-gc/mission/principles

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SSC provides advanced space services to commercial and institutional customers worldwide. Built on decades of experience, we offer proven expertise in space engineering, satellite management services and launch services for sounding rockets and balloons.

We help Earth benefit from space