

Luxembourg Defence Capabilities: Industry and Research

Luxinnovation, Luxembourg's national innovation agency, encourages companies to innovate and helps them get access to funding, expertise, infrastructure and networks. Luxinnovation also contributes to the development of the Luxembourg economy by identifying innovation opportunities and fostering collaborative innovation projects that stimulate the development of a sustainable, competitive, and digital economy.

In cooperation with Luxembourg's Directorate of Defence at the Ministry of Foreign and European Affairs, Luxinnovation helps companies and research organisations that offer solutions in the area of security and defence to get access to relevant national, European and international opportunities. This includes the promotion of Luxembourg technology capabilities of interest to the European Defence Fund (EDF), the European Defence Agency (EDA) and the North Atlantic Treaty Organisation (NATO).

The Luxembourg defence industry includes innovative SME, large companies, and RTOs with a proven track-record in strategic key domains such as space, cyber, information superiority, materials and compounds, energy and environment technologies, as well as medical response solutions.

In order to strengthen the contribution of Luxembourg's industry to the EU Defence Technological and Industrial Base, this directory is designed to showcase the capabilities of Luxembourg-based industry as well as to encourage potential partners from around the world to explore the opportunities for international research and business development in the Grand Duchy. The objective is to foster collaboration with international actors active in security and defence.



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère des Affaires étrangères
et européennes

Direction de la Défense



LUXINNOVATION

#MakingInnovationHappen





Development and implementation of circular economy strategies / research work in circular data management to improve the residual value of products.

Contribution to the IF CEED project for the MoD, IOTA Project for EDA

- ✓ Ministry of Defense
- ✓ Different other national ministries
- ✓ Agora
- ✓ Fonds du Logement

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www.positiveimpakt.eu/en

Digital transformation - Energy & Environment - Disruptive Technologies

Additive manufacturing / 3D Scanning / CAD Design and Engineering

Deployable AM Solution

- ✓ Luxembourgish Army

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Materials & Components - Disruptive Technologies



ACTinBlack is a developer and manufacturer of advanced Optronics Solutions in Luxembourg.

Sales of Optronics System to leading global nations.

- ✓ Governments: Special Operations Forces
- ✓ Law Enforcement intervention units

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Sensors - Ground Combat - Underwater Warfare



adwäisEO SA is a Luxembourg company specialised in IT services for geospatial data with particular focus on satellite ones. The company operates in the space ground segment offering services of archiving, preserving, (re-) processing and disseminating satellite data to space agencies, research Institutes, and private companies. Among its key projects the Luxembourg Space Agency (LSA) Data Center, the reprocessing of Sentinel 2, the systematic production of Sentinel 3A and the Global Sentinel Mosaic.

Dual-Use R&D in geospatial intelligence: global and systematic daily exploitation of public EO HR data for surveillance, i.e., detection of anomalies in LU/LC) then referral to VHR satellites for final classification/recognition and identification project and demonstration for a NATO country. Internal Dual-Use R&D on the organisation of data sets for ISR data fusion.

- ✓ European Space Agency (ESA) and Luxembourg Space Agency (LSA)
- ✓ Copernicus Marine Service (CMEMS)
- ✓ Joint Research Center (JRC) of the European Union
- ✓ Companies of the IT sector

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Space - Digital transformation

LARGE

AIRTECH EUROPE



Manufacturing and distribution of vacuum bagging and tooling materials for composites, 3D printing and resins.

Sales of Optronics System to leading global nations.

- Airbus Defence
- Space

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Materials & Components - Simulation Training

SME

AM 4 AM



AM 4 AM is designing the metals of tomorrow to support the expansion of 3D printing. The company has developed an innovative process to make metallic materials more suitable to the 3D printing process.

AM 4 AM customers are manufacturers who want to produce high quality 3D printed parts with never seen materials properties.

- Automotive
- Aeronautic
- Space

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Materials & Components - Space

SME

AMPHINICY TECHNOLOGIES



Satellite Ground Segment virtualisation, SecureCom, Independent V&V.

EDF-2021-OPEN-D-SME // P2P-FSO

- SES Defence & Space
- European Space Agency
- iDirect
- Ministries of Defence

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www.amphinicy.com

Cyber - Space - Digital transformation

ANG (ATELIERS NIC. GEORGES)



Precision machining, plasma nitriding (surface hardening) and heat treatment of complex components from metallic and non metallic materials / engineering.

Dual-use: Components for truck and offroad tire production machines, Components for high tech films production machines, Plasma nitriding for improving material properties i.e. wear resistance.

- ✔ Goodyear tires
- ✔ Husky injection molding machines
- ✔ Guardian glass
- ✔ Cargolux airlines
- ✔ Arcelor Mittal steel
- ✔ Circuit Foil thin films

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Materials & Components

APATEQ - PWT



Development, production and supply of compact water and wastewater treatment equipment.

All our equipment is designed with dual use ultrafiltration and reverse osmosis membrane filters.

- ✔ Civil customers in the shipping business who employ our products to treat water for environmental discharge

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Energy & Environment

ARTEC 3D



Artec 3D is a global leader in handheld and portable 3D scanners and has been at the forefront of developing innovative 3D technology since 2007. We pride ourselves on manufacturing high-quality, yet easy-to-use portable 3D scanners, smart, user-friendly 3D software and an SDK that provides the best integration possibilities, whatever the application. With a worldwide presence and a large number of global clients, we supply state-of-the-art 3D technology to these respective areas.

Artec 3D scanners are widely used by police agencies, forensic specialists, military, accident reconstructionists, and others.

With Artec's 3D scanning solution, you'll easily create virtual copies of crime scenes, accident scenes, as well as the physical evidence within, exactly as it was at the moment of scanning, with no risk of contamination or damage. The 3D data you obtain will give you the power to determine both how and when an event occurred. In just minutes, you can capture evidence indoors or outdoors, including bloodstain patterns, bullet holes, tool marks, shoe prints, and much more.

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Medical Response & CBRN - Digital transformation - Materials & Components

SME **BIOROCK**



Manufacturer of onsite wastewater treatment plants, from 1 up to more than 200 population equivalent (from 0.15 to more than 30 cubic meter per day). Possibility for all of our solutions to work without electricity. R&D activities mainly concern improvement of treatment performances, improvement of the sizing, researches of new filtering material etc.

- 🔍 CIVIL : independant dwelling unit (habitation)
- 🔍 Small residential unit
- 🔍 Campsite
- 🔍 Hotel
- 🔍 Small village

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www.biorock.com

Energy & Environment

LARGE **BLUE HORIZON**



Bio-engineering derived products / remote sensing / closed loop systems.

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- 🔍 European Space Agency (ESA),
- 🔍 Luxembourg Space Agency (LSA)
- 🔍 Luxembourg Development Cooperation Agency (LUXDEV)

Information Superiority - Space - Energy & Environment

SME **BRADFORD SPACE**



Development of the "Square Rocket" - a low-cost, versatile and maneuverable orbital platform for situational awareness, proxops, in-orbit servicing, and debris management missions.

ALLIED - an investigation into a real-world, multi-target debris removal demonstration mission (in conjunction with Redwire Europe).

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Space

SME **CAE-AVIATION**



Airborne surveillance and military parachute training.

Airborne surveillance for border-control

- 🔍 European armed forces and law enforcement department

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Sensors

LARGE

CERATIZIT



Development and manufacturing of hard materials as components and tools used for high-performance defence equipment.

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Materials & Components

LARGE

CIMALUX



CIMALUX produces various grades of cement, all complying with current European standards and NF and BENOR certification marks. We offer quality products and provide advice and support services. Our production takes into account the current state-of-the-art in building materials technology. Our aim is the rational and sustainable use of resources. We offer you a partnership based, above all, on human relations. Our commitment to reducing our energy consumption, environmental impact and CO2 emissions is documented through our voluntary agreement with the Luxembourg government and our ISO 14.001 - Environment, ISO 50.001 - Energy and CSC - Concrete Sustainability Council certifications.

Cement-based concrete is a versatile construction material widely used in both civil and military engineering.

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Materials & Components

The main users of our products are ready-mixed concrete producers, public works companies in the geotechnical field, industrial manufacturers of precast concrete products, manufacturers of concrete products such as pavers, blocks, pipes or kerbs, construction chemical manufacturers and craftsmen using screeds, mortars, concrete and plasters produced on site.

SME

CLEARSPACE TODAY



The business of ClearSpace consists of developing and commercialising in-orbit servicing. By in-orbit servicing we mean all the activities related to removing derelict objects from space (active debris removal), in-space transportation (including facilitating station keeping and attitude control operations) and refueling services. In future it will be complemented by in-orbit repair and replacement operations.

Satellite operators (commercial or governmental)

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Space

SME

COMPELLIO



Compellio is a deeptech company incorporated in Luxembourg. Compellio and its partners were among the first companies in Europe who have deployed blockchain and IoT solutions in production to deliver product/asset anti-counterfeiting services, traceability of trusted information for audit/compliance purposes, and dynamic analytics for asset/product state monitoring. Compellio's registry software, a middleware application, connects traditional IT systems to multiple public or private blockchains, in order to ensure immutability and traceability of data, strict privacy controls, trusted data interoperability, and secure data exchange. Our objective is to enable public sector and defence-related agencies to implement rigorous, modern cybersecurity protections for their digital systems, infrastructures, and data. In addition, we want to support agencies in using software that complies with secure software development standards, create trusted self-attestation forms for software producers and agencies, and allow governments to build auditable software supply chains.

- Defence/Cybersecurity: software supply chain in order to enhance the security of critical infrastructures
- USPTO patent (US11477279) for technologies covering decentralised transaction processing involving digital asset transfer among heterogeneous systems including blockchains and traditional digital asset-providing services
- MIT Connection Science
- Research on industrialised processes involving IoT and blockchain technologies (Guala Closures)

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Digital transformation - Disruptive Technologies

SME

CONNECTCOM



ConnectCom's aim is to shape and operate best-in-class radio communication technologies enabling customers to keep their operations and assets safe.

ConnectCom business focus centres around "connecting and protecting", in order, to provide innovative communication and surveillance solutions for public safety, industry and defence. Products and solutions include wireless networks for public safety organisation (police, fire brigades etc), ad-hoc or deployable secure solutions for mobile units (defence, special forces), network or visual identification and protection solutions.

We are considering to develop a technical capability, that will enable the communications networks / technologies used by different nations to interconnect and by this enable a seamless co-operation and communication.

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Digital transformation - Energy & Environment - Protection & Mobility

CTI SYSTEMS



CTI Systems offers individual and flexible concepts and systems that ensure that aircrafts are serviced safely, economically and in the most time-efficient way possible. To this we count:

- MRO service access solutions: (engine work stands, aircraft dockings, teleplatforms and aerial jib platforms for MRO and painting).
- Material handling (customised handling and storage devices, specialised overhead cranes and heavy duty monorails, dedicated conveyor technology, all for automated processing).
- Storage of aircraft parts (automated warehouse solutions incl. process automation software).

We are participating in tenders for aircraft service access and material handling equipment within Hangar infrastructure projects.

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Materials & Components

DYNACCURATE



Dynaccurate SARL utilises artificial intelligence to harmonise data from different sources so that information can have common meaning preserved across different machine systems ('Semantic Interoperability'). Our technology is relevant to any knowledge graphs, distributed systems, federated data, etc. We are particularly well versed for medical use cases.

- ✔ NATO and local/national health sectors.

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Digital transformation - Disruptive Technologies

EARTHLAB LUXEMBOURG



Ministry of Foreign and European Affairs -
 Direction de la coopération / Telespazio
 Group

EarthLab Luxembourg was founded in 2015 to offer innovative services for professionals managing multiple hazards. It uses Earth observation data with varied sources of information, such as aerial imagery, crowdsourced pictures, social media, trade and markets datasets, internal exposure databases, or ground sensors. EarthLab Luxembourg creates tailored applications directly oriented to the end-user needs applying adequate technologies and extraction of information. We can propose and run advanced services related to risk exposure, strategic assessment, and asset management concerns in the public and private sector with our modular approach. Thanks to our science skills and Earth observation insights, we offer a new vision on multiple risks that span beyond any geographical border and for which the interlinked consequences are underestimated. The Platform as a Service concept relies on our dedicated hybrid cluster allowing our customers to use our solutions to create new products, optimise their losses in case of extreme events, and adapt their strategies using predictive analytics.

Combine human and artificial intelligence. Our platform is acting as a smart enabler for centralising data, analytics and R&D under one single roof. EarthLab Luxembourg proposes you a state-of-the-art catalogue of technologies and tools. We take care of you by making your experience simple and efficient. We have designed our platform to host large amounts of data and apply real-time or batch algorithms. We have considered regulations, cyber security best practices and ICT policies to make possible the integration into your existing infrastructure of our solutions allowing the use of your local data with on-premises resources. Tomorrow our customers will use our platform as a smart enabler of their digital and AI strategy. We come up with a never ending constellation of data from satellite, economics, sensors, weather, climate and social networks data. We compile, stream, clean and harmonise data, we deliver a smooth assimilation to generate knowledge. Thanks to dedicated interfaces, our customers can choose data by criteria like location, time range, outputs objectives for a perfect interaction between needs and sources. We make possible an immediate delivery of state-of-the-art analytics and business insights for strategic and day-to-day decisions. We supply an easy way for our customers to imagine their data-driven applications on our platform by uploading their own data to conduct analysis themselves.

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LARGE

EBRC



Data centre, cloud and ICT outsourcing partner for defence in cyber and space projects.

We have built our expertise for the security, defence and space sectors on:

- international certifications such as ISO 27001 and ISO 22301 and Tier IV certification for our data centres
- obtaining confidential/secret accreditation and clearance for our critical people as well as infrastructures,
- our expertise gained from critical industries (financial, health and space sectors as well as operators of essential services – Directive NIS).

- Our certified services (Tier IV Data Centres, ISO27001, ISO22301...) offers a strategic and compliant solution for your defence project.

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Cyber

SME

ELLIPSYS



We are data lineage specialists. Our {openAudit} software tracks the deployment of strategic and sensitive data across an entire information system. And {openAudit} detects in time any unusual request for this type of data, to stop data leaks during its production cycle, before its distribution in office tools, messaging, drives, etc. Alerters can be set up, so, data loss prevention is simple, and avoids intervening when the data is already scattered.

- BNP
- European Investment Bank
- Raiffeisen Bank
- Royal Bank of Canada
- ADEO Leroy Merlin Group
- Cora Group

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www.ellipsys-lab.com

Cyber - Digital transformation

SME

EMTRONIX



EmTroniX is designing and producing advanced electronics and embedded software for the new space and military industry. Using state-of-the-art components, EmTroniX engineers are able to offer the most objective and cost-effective solutions to all customers' technological needs. The company offers the significant advantage of having in-house all the skills and experience required to handle different technical aspects of engineering development projects. With a strong orientation in radio-frequency and telecommunication domains, EmTroniX is developing products based on FPGA and is implementing complex digital signal processing systems, such as software defined radio, spread spectrum techniques for radio frequency transceivers and radar sensors.

- European Space Agency (ESA)
- Airbus Defence and Space
- NATO Support and Procurement Agency (NSPA).

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Space

SME

EOLIS MEDIA COMPANY / GRIDCOP® PASSIVE SENSORS



Design and construction of passive [entirely powerless], stealth, opto-mechanical sensors to monitor the integrity of critical infrastructures and infrastructure components at distance [0->100+ km] and without recourse to wireless networks for signal transmission. 3-layer permanent integrity monitoring: i) critical infrastructure/infrastructure element, ii) sensor, iii) NOC <-> sensor transmission route. Dual-channel sensor layout for increased security level available. Permanent installation or fly-away system. States monitored: intrusion, flooding, tilting/leaning, t°/fire, traction/movement... - a polyvalent technology at the antipodes of IoT, 2/3/4/5G, WAN technologies, etc., with 360° use-cases

Existing/target customers include owners/operators of critical infrastructures [utilities – power, water, sewage, telecoms, etc.; DCs; transport networks; mining; oil and gas transport/storage; etc.] road, port and airport authorities; defence and homeland security, etc.

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Sensors - Disruptive Technologies

LARGE

EURO-COMPOSITES



 Northrop Grumman

Euro-Composites is a manufacturer of lightweight composites for different sectors. For the defence industry we provide lightweight sandwich honeycomb cores and panels as supporting systems for passive protection systems or structural components for fightjets (Lockheed Martin F-35 or Eurofighter). Furthermore together with our defence partners we develop ready-to-use assemblies like a second flooring for armoured vehicles to reduce the blast impact. New materials like quartz-glass or ceramics enable further application possibilities.

Impact I (EDA), INSHO (Joint Defence Call 2022), IF-CEED

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Materials & Components

EUROPEAN DYNAMICS LUXEMBOURG



EUROPEAN DYNAMICS is a leading information technologies service provider and software developer, operating internationally as a group of companies, with offices and antennas in Athens, Berlin, Basel, Brussels, Copenhagen, London, Luxembourg, Nicosia, Stockholm, etc. The group designs, develops, supports and operates complex IT systems and commercialises a wide range of software products in the field of e-government, intellectual property, meteorology, defence, security, cyber security, energy, transport, health, smart manufacturing, etc., using state-of-the-art technologies.

Information and Communication Technology services for European institutions, international organisations and government bodies (more information can be found here: <https://www.eurodyn.com/clients/>).

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Information Superiority - Cyber - Digital transformation - Energy & Environment - Disruptive Technologies

EVIDEN



Eviden designs and supplies digital systems to the defence industry for force coordination, decision support and operational readiness. Eviden's systems cover combat information (SICS, CAMO), data exploitation (ARTEMIS), tactical LTE communications (AUXILIUM), logistics, electronic warfare, space (SSA) cryptography, and cyber security. Since 2019, Eviden has been participating in the EDIDP and EDF programmes using its R&D centres in 7 European countries. Atos contributes to these programmes in the fields of collaborative combat, digital soldier, tactical communications, defence electronics, cyber defence, intelligence, digital platforms and emerging technologies (Quantum, AI, security).

EDF: European C2 (ESC2), Multi-domain Cloud (EDOCC), Post quantum Cybersecurity (SMiEQ), Space SSA (Sauron) - Other activities include: NATOHQ, NATO NCIA, ESA, EUSPA

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Information Superiority - Sensors - Cyber - Space - Digital transformation - Ground Combat - Disruptive Technologies

SME

EXCELLIUM SERVICES



Cryptographic equipments, system integration for weapon systems, tactical radios, aero communications suite, C4ISR systems.

C4ISR, crypto equipment's up to SECRET level, tactical vehicles for Lux Army
Horizon Project: Cloud Edge Continuum

- European Investment Bank and Belgian MoD
- Belgian National Security Authority
- Lux Army
- NSPA
- NAPMA
- Boeing
- Lockheed Martin

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Materials & Components

LARGE

FAYMONVILLE DISTRIBUTION



Design and production of medium (MET) and heavy (HET) equipment trailers.

Design and delivery of MET trailer for the Belgian defence ministry.

- Civil transport companies

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www.faymonville.com

Protection & Mobility

SME

FIRIS



From 3D Scan to 3D reconstruction, either outdoor, confined, or subterranean spaces, we provide precise as built models from real sites and assets.

3D-4land project: 3D terrain and city models for situational awareness, decision making and effector coordination.

- Orange Telecom

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Sensors - Digital transformation - Energy & Environment

SME

FLAWLESS PHOTONICS



Fluoride glass-based MidIR optical fibre manufacturing enabled by in-space manufacturing.

MidIR application at international level.

- Secure connectivity infrastructure providers
- MidIR sensing system providers

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Sensors - Space - Materials & Components - Disruptive Technologies

SME

FLEN HEALTH



Flen Health develops and markets products for large surface wounds such as burns and for non-healing wounds such as leg ulcers and diabetic foot wounds. Our products are used across burn centres in the Benelux.

We have done a research project with US authorities on complex wounding following a 'dirty bomb'.

- Burn centres of the universities of Ghent and Antwerp, in Belgium
- Military hospital Reine Astrid burn centre in Brussels.

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Medical Response & CBRN

LARGE

GLANZSTOFF INDUSTRIES



Industrial technical fibres and tire reinforcements.

Uniform layering system for European army application.

- Flame Retardant garments for civil/defence uses

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Materials & Components

SME

GOMSPACE



- ESA, DLR
- UnseenLabs
- Norwegian Defence
- Colombian Airforce

GomSpace is a company specialised in the design, development, and production of nanosatellites and related subsystems. The company was founded in 2007 and has since grown to become a leading provider of small satellite solutions. GomSpace offers a range of products and services to its customers, including: nanosatellites: The company designs and manufactures small satellites that can be used for a variety of applications, including Earth observation, communication, and scientific research; Subsystems: GomSpace also develops and produces a range of subsystems that can be integrated into small satellites, including power systems, and communication systems; Services: GomSpace also provides a range of services to its customers, including mission planning, launch services, and satellite operation and maintenance. GomSpace's customers include government agencies, commercial companies, and research organisations around the world.

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Space

SME

GRADEL



- Airbus
- Thales

Gradel developed GRAM filament winding technology, a cutting-edge manufacturing process that has been gaining popularity in recent years due to its ability to improve the strength, durability, and overall performance of products. The technology involves winding continuous fibres around sleeves to create a composite structure that is stronger and more stable than traditional materials. We will explore the benefits of GRAM filament winding technology and how it is transforming various industries and companies.

Captech space, national defence call.

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Space - Materials & Components - Disruptive Technologies

SME

GRADEL LW SARL



- ESA
- Thales Alenia Space
- OHb
- Airbus

Design and production of lightweight products with robotic additive manufacturing.

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Space - Materials & Components - Disruptive Technologies



System integrators, commercial and governmental satellite and teleport operators, civil protection agencies.

On the one hand, HITEC offers a range of single- and multi-band fixed ground antenna systems for GEO, MEO and LEO satellites and serving applications such as HTS gateway/anchor station, Data Downlink, TT&C or IOT/IOV. On the other hand, HITEC's NoSaCo suite allows broadband connectivity in any remote area. The ruggedised and transportable satellite terminals support IoT and edge computing for rapid responses and situational awareness.

Anchor stations for Gov/Mil SatCom, EO satellite DDL&TTC stations for NATO countries.

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Information Superiority - Space



US Air Force: - Air Force Research Lab on how to anticipate and prevent brownout conditions for helicopters; National Air and Space Intelligence Center on the use of thermal imagery in military operations; Luxembourg Directorate of Defence: application of thermal imagery to predict and assess the impact of natural disasters.

Hydrosat is a data analytics company that provides geospatial intelligence for food security, public safety, and the environment. Our unique technology is thermal imagery - Hydrosat's space sensors will create high-precision temperature maps of the planet, and from these we will develop many critical applications for commercial and national security customers. In national security, our thermal solutions will be especially critical for assessing ground conditions in theatres of operation. This enables planning safe movement of tanks and heavy equipment, as well as ensuring that helicopters avoid brownout conditions that could lead to loss of aircraft. From a defensive standpoint, it will alert military strategists to likely paths of incursion from adversaries. Thermal imagery is also unsurpassed at analysing vegetation, forecasting droughts or conditions that could lead to local unrest and other insurgencies that have a national security impact.

Hydrosat has an extensive product pipeline. In commercial markets, our initial focus is on agriculture, where our smart farming algorithms vastly enhance field productivity for almost all crops, and where our yield forecasts allow food packers and processors to improve the efficiency of supply chains and boost food security. Future products will address wildfire risk assessment and tracking, energy applications, and fisheries, among other applications. Our national security solutions are focused on two customer groups: operators who need real-time intelligence about ground conditions and the effect on troop movements; and military strategists who seek advanced warning of potential future hot spots for unrest.

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Space - Energy & Environment - Disruptive Technologies

SME

ICEYE



ICEYE is a global leader in the field of synthetic-aperture radar (SAR) technology and earth observation. The company designs, manufactures, and operates a growing constellation of small, agile satellites equipped with advanced SAR capabilities. These satellites are capable of providing high-resolution images of the Earth's surface in all weather conditions and at any time of day, which is especially valuable for defence applications such as Maritime Domain Awareness, Border Security and Disaster Response.

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Space

SME

INCERT



Travel Documents - Trusted Infrastructures - Identity Management - Public Key Infrastructure - Key Management System - Cryptography - Darknet Intelligence - Cybersecurity.

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 Luxembourgish Ministries.

Cyber - Digital transformation


SME

INTEGRASYS



Software company with strong expertise in R&D for Satcom, cyber and the space industry.

RFshield, an interference cancellation in real time project, which improves the qualities of our cleanRF product, to annul different type of interference in the satellite communications. Currently it is the only interference cancellator in real time.

 Ministries of Defence from the EU and USA; satellite operators and service providers for satellite telecommunications.

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Cyber - Space

SME

K.S.L AUTOMATION



Production of Plasma Nitriding, PVD and DLC machine. Providing of Plasma Nitriding, PVD and DLC solutions and treatments.

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 Arcelor Mittal, Siemens etc.

Materials & Components

SME

KLEOS SPACE



- Customers, including analytics and intelligence entities license data on a subscription basis (Data-as-a-Service - DaaS) or by buying dedicated satellite capacity (Mission-as-a-Service - MaaS). The provided data is applicable to government and commercial use cases, aiding better and faster decision making.

Kleos is a space-powered RF Earth observation company. Kleos uses space technology to locate radio transmissions in key areas of interest around the globe, efficiently uncovering and exposing activity on land and at sea. Using clusters of satellites, radio frequency data is collected, transmitted to the ground, processed using proprietary technology and delivered to customers worldwide.

Refinement of geolocation processes is ongoing dual use activity.

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Space

SME

LIFTEUROP



- Our company remains an international reference in the production and distribution of lifting accessories for aeronautics, the automotive and automotive components industry, the naval industry, the steel industry, heavy industry, administrations and the army and its subcontractors.

LIFTEUROP (ALIPA Group) designs, manufactures and distributes standard and customised lifting equipment and accessories. The company benefits from over 65 years' experience thanks to the leading French industrial brand STAS operating under LIFTEUROP in Europe and all over the world since 2010. LIFTEUROP has a team and a research department at the service of its customers and distributors.

Thanks to its research department, LIFTEUROP can respond to all specific lifting requirements, whether by designing a made-to-measure part, manufacturing customised lifting equipment or adapting a standard product.

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www.lifteurop.com

Materials & Components

LARGE

LIST - ITIS (IT FOR INNOVATIVE SERVICES)



- Space
- Cyber
- CBRN actors

AI & Visual Analytics (Simulation - Dashboard), Knowledge Representation, Networks and Cybersecurity, Distributed Ledger, AR/VR (CBRN - Training - Situational Awareness)

Common operational picture in disaster and crisis management for multidomain operations / 3D terrain and city models for situational awareness, decision making and effector coordination / intelligent management and display of data for platform crew's increased situational awareness.

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www.list.lu/en/informatics

Space - Energy & Environment

LARGE

LIST - ERIN (ENVIRONMENTAL RESEARCH AND INNOVATION)



Earth observation (through satellites, airborne platforms, drones) for disaster management, maritime surveillance, precision agriculture and natural resources monitoring – Telecommunication (wireless sensor networks, IoT) – Sustainable energy systems (flexible, reliable, resilient decarbonised grids), active power grids (power electronics, energy storage, distributed control), and intelligent energy (AI/ML, energy Internet) - Climate change and environmental impact (environmental protection including biodiversity and health, Life cycle assessment, water management, environmental management systems, environmental security, decarbonisation, environmental pollution (air, soil, water), circular economy.

Joint Defence call, EDA, NATO.

lucien.hoffmann@list.lu
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Medical Response & CBRN - Information Superiority - Cyber - Space - Digital transformation - Energy & Environment - Simulation Training

SME

LIST - MRT (MATERIALS RESEARCH AND TECHNOLOGY)



Coatings, sensors, lightweight materials, composites, composite manufacturing, modeling and simulation, nanotechnology, nanomaterials.

Joint Defence call 2022, EDA

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Sensors - Materials & Components - Protection & Mobility - Disruptive Technologies

SME

LMO



LMO is a Luxembourg space company which develops solutions which can provide autonomous and reliable insights of the space environment directly from orbit. By integrating its software capabilities with sensors in orbit, LMO can detect, identify, track and characterise other space objects to provide detailed analytics to protect and defend government assets from threats in space.

Commercial and defence institutions in Europe, UK and US.

EDF SPRING Project - LMO is developing a space based space Domain Awareness (SDA) architecture to help protect and defend critical defence infrastructure in space. 2022 JDC AUREA Project which is developing the capabilities of bodyguard satellites for defending space infrastructure from threats.

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Sensors - Space - Protection & Mobility - Disruptive Technologies

LUXGOVSAT



- 🚀 Governments
- 🚀 NATO
- 🚀 Institutions
- 🚀 EU Member States
- 🚀 EU agencies

GovSat is a public-private joint venture between the Luxembourg government and SES, the world-leading satellite operator. Our mission is to provide secure, reliable and accessible satellite communication services for governments – addressing the demand for connectivity resulting from defence and civilian security applications. Dedicated entirely to governmental and institutional users, the GovSat-1 satellite features high-powered fully-steerable spot beams and an X-band global beam. It is equipped with anti-jamming features, encrypted telemetry and control, and uses assured frequencies. This enables an array of applications such as connectivity for theatres of operation, interconnection of institutional or defence sites, border control, ISR, as well as various types of communications for air, land and maritime missions.

EDF Project: EDF-2021-SPACE-D-EPW. EUSPA Entrusted Consortium Project. NATO NIAG Study Group.

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www.govsat.lu

Space

LUXSPACE



- 🚀 ESA
- 🚀 EMSA
- 🚀 DLR
- 🚀 UniBW

Small satellite integrator, development of RF-Payload, development of satellite simulators, provision of maritime applications and services.

Satellite provision and payload integration of an experimental technology demonstration satellite for the Uni-Bundeswehr in Munich. Project: SERANIS.

poppe@luxspace.lu; eiden@luxspace.lu
www.luxspace.lu

Space - Simulation Training

LUXTRUST



- 🚀 Luxembourgish State which integrates the strong authentication, electronic signature and other trust services of LuxTrust for the entire population of Luxembourg.

Focus on cyber security, especially on data integrity and authenticity, authentication and interoperability.

Involved in SESIOP (Single European Sky and InterOPerability) in the frame of EDF2022.

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www.luxtrust.com

Cyber - Digital transformation - Disruptive Technologies

SME

MAANA ELECTRIC



Civil: private companies operating in remote locations where energy supply is not easy. With Maana Electric's ISRU technologies, anyone can produce solar panels using only the resources available locally. Potential defence customers: armed forces deployed in peacekeeping or humanitarian missions in remote locations with the need to quickly establish camps and support the on-field units.

Maana Electric is specialised in developing ISRU technologies. These technologies introduce a new industrial approach where local resources can be used to produce goods and products without need for continuous supply from other locations. The ISRU techs are processing local resources (such as desert sand) to extract all the raw materials (iron, aluminum, titanium, silicon and others) to produce fully functioning finite goods, such as solar panels or structural components.

At the moment Maana Electric does not have any defence/dual-use project officially funded.

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www.maanaelectric.com

Space - Energy & Environment - Disruptive Technologies

SME

MOLECULAR PLASMA GROUP



In partnership with leaders in specialty chemistry like Socomore or major research institutes like the Luxembourg Institute of Science and Technology, MPG is developing solutions for major aerospace vendors. In addition, MPG coatings are being used to enhance protective garments, improve packaging of electronics and reinforce composites.

MOLECULAR PLASMA GROUP is a technology company based in Luxembourg and Belgium. It develops customised surface functionalization solutions based on its proprietary Molecular Plasma Technology platform and scales them to robust commercial solutions for customers around the world. In 2022, it received the "Solar Impulse Efficient Solution" label, rewarding profitable solutions to protect the environment, for its MolecularGRIPTM technology.

MPG is currently participating in consortiums for strengthening of composites, development of multifunctional textiles, camouflage and other EDA or EDF calls.

marcelo.milani@molecularpasmagroup.com
www.molecularpasmagroup.com

Materials & Components



EU institutions, public sector and private actors in various industrial domains.

Netcompany-Intrasoft is a leading European IT solutions and services group with strong international presence and expertise, offering innovative and added-value solutions of the highest quality to a wide range of international and national public and private organisations. The Company's head offices are located in Luxembourg (2b rue Nicolas Bové, L-1253 Luxembourg). Netcompany-Intrasoft (previously known as INTRASOFT International) was founded in 1996 by Intracom Holdings and remained a member of it until October 2021. As of November 2021, Netcompany-Intrasoft became a member of the Netcompany Group, a Denmark located IT company founded in 2000. Netcompany is the fastest growing and most successful IT services company in the Nordics, owning vast technology experience and deep industry-specific knowledge, creating innovative solutions tailored to meet business goals. Netcompany-Intrasoft's Research and Innovation Development (RID) department is at the forefront of innovative IT development and contributes to the advancement of EU state-of-the-art in disruptive technologies such as cyber security, internet of things, big data analytics, blockchain etc.

SDMMS (EDF-2021-PROTMOB-D-DMM-2, 101103172) aims to implement in a federated architecture over multiple instances where each nation can host its own instance allowing for customised configurations, security and data management requirements. Interoperability is a key aspect of the system and will be designed in a manner that allows extensibility and interfacing with other systems at EU, NATO or national level. In the foreseen implementation the SDMMS systems addresses all functional requirements of the call and all initial common requirements (ICR) developed by the contributing ministries of Defence. SDMMS contributes to the reduction of fragmentation between military systems of the Member States, introducing significant savings as the system can be used as-is without the need of further software development at national level.

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flavien.massi@netcompany-intrasoft.com
www.netcompany-intrasoft.com

SME

NO-NAIL BOXES



- NO-NAIL BOXES seeks to supply collapsible plywood boxes that are adapted to the specific needs of their clients, in order to guarantee the greatest integrity of the packaged products as well as user safety.

With more than 60 years of experience, NO-NAIL BOXES is the Luxembourg manufacturer of collapsible plywood and steel boxes for industrial use. Established in Wiltz (Luxembourg), the company employs around seventy people to produce annually close to 450.000 boxes, of which almost 95% are made to measure, according to the specific needs of their clients.

Client satisfaction is the top priority of NO-NAIL BOXES. Shipped flat, NO-NAIL BOXES packaging ensures saved space during storage and a reduction of transportation costs. All NO-NAIL BOXES crates are designed according to an ISO 9001 certified process and are conform to the ISPM 15 standard. They are also light, user-friendly, manageable for the operator and can be personalised thanks to our different imprint techniques.

info@nnb.lu
www.no-nailboxes.com

Materials & Components

SME

NORTHSTAR EARTH & SPACE EUROPE



- NorthStar is partnering with SES to enhance Space Situational Awareness and ensure sustainable use of space for the future. They will be working together to develop, launch and evolve NorthStar's SSA products, tailored to benefit SES' satellite operations and fleet management and to promote best practices in all near-Earth orbits for SES and its partners. The collaboration is targeted towards more responsible and sustainable operations in space from all stakeholders, with space sustainability as a central pillar in SES' ESG strategy.

Northstar is developing a set of next-generation space information and Intelligence (Si2) and Earth Information and Intelligence (Ei2) services which will empower humanity to protect and preserve our vitally important space environment. With a unique level of coverage from space and enhanced data fusion capabilities, NorthStar's high-speed, high fidelity, and contextualised information services are designed to provide decision-makers with the intelligence which they need to protect valuable assets, optimise operations and ultimately ensure environmental sustainability in space. NorthStar's space information and intelligence (Si2) platform is focused on the provision of transformational space situational awareness (SSA) services, encompassing also space domain awareness (SDA) and space traffic management (STM). These unique SSA services combine data from multiple sources with vital input from dedicated space-based sensors, ensuring continuous monitoring and field of view across orbital domains, thus avoiding the gaps in coverage with ground-based surveillance. Services within the portfolio include resident space object identification, tracking and cataloguing, orbit determination, collision avoidance, navigation assistance and proximity alerts.

NorthStar is working with other leading commercial organisations, selected by the NOAA's Office of Space Commerce (OSC) in partnership with the US Department of Defense, to pilot space traffic data platforms for satellite tracking, space flight safety analysis and notification, anomaly detection and alerting in medium and geostationary Earth orbits.

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www.northstar-data.com

Space

OQ TECHNOLOGY



OQ TECHNOLOGY is the world's first global satellite 5G IoT operator providing uninterrupted cellular coverage for your assets and machines anywhere on the planet.

prasanna.nagarajan@oqtec.com
www.oqtec.com

- 📌 Customers from the oil and gas Industry
- 📌 Logistics
- 📌 Mining

Cyber - Space - Energy & Environment - Disruptive Technologies

ORBITARE

Orbitare is a small company with sites in Switzerland and Luxembourg. We are developing Spaceloop, a highly robust personal satellite communications network meeting the needs for connectivity for social, professional, and personal safety reasons. The defence applications are tactical radio, situational intelligence, and aerial vehicles telemetry.

- 📌 Civil application of Spaceloop: adventure travelers, mariners, NGO workers, the Earth Polar communities, and the civil protection applications.
- 📌 Defence market: Swiss Armed Forces (in discussion).
- 📌 Other prospective customers are EDA countries, EDF, and Canadian MoD.

We have an R&D project for studies on the application of Spaceloop with Armassuisse Science and Technology in Switzerland.

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www.orbitare.space

Information Superiority - Space - Disruptive Technologies

PASSBOLT

Passbolt is a security-first, on-prem password manager for teams. It helps privacy conscious organisations organise, centralise and share credentials quickly and securely. Passbolt is used by 15000 teams worldwide including governments, intelligence services and F500 companies.

- 📌 EU cybersecurity agencies
- 📌 Defence forces
- 📌 Nuclear agencies
- 📌 Governments

kevin@passbolt.com
www.passbolt.com

Cyber - Digital transformation - Protection & Mobility

LARGE

POST LUXEMBOURG



- ✔ Public sector
- ✔ Financial sector
- ✔ International and supra national organization
- ✔ B2C
- ✔ Innovation incubator

POST Luxembourg is the largest provider of postal and telecom services in Luxembourg and offers its services to private and business customers and is owned by the Luxembourg State since 1992. Through its specialised department, Cyberforce, they offer extensive expertise in cyber security services, catering to various sectors, including the health sector and public entities. Cyberforce's Security Operation Center (SOC) diligently monitors and safeguards critical infrastructure, ensuring the utmost security for their clients. In addition, Post Luxembourg's professional services support companies in strengthening their security postures by implementing the latest market-recommended security solutions. The expertise of Cyberforce covers both IT and Telecom environments in terms of preventive and reactive services. Cutting edge developed machine learning technics are used to cope with evolving telecom security and fraud threats respecting privacy preservation.

5G networks have several aspects that can be relevant to dual-use applications, including communication infrastructure, critical infrastructure protection, security and surveillance capabilities, command and control capabilities, and the development of dual-use technologies. These aspects can have both civilian and military applications, such as enabling advanced technologies, protecting critical infrastructure, facilitating security and surveillance, supporting command and control systems, and developing technologies that can be used in both civilian and military contexts. However, the relevance of a 5G project to dual-use applications would depend on the specific goals, objectives, and context of the project, as well as applicable laws, regulations, and ethical considerations.

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www.post.lu/business

Cyber - Digital transformation

SME

RAFINEX



- ✔ Rafinex has OEM customers in European automotive and aerospace.

Rafinex provides advanced design optimisation algorithms for the lightweighting of safety critical components. Its next-gen stochastic topology optimisation enables the creation of formally robust optimal designs that continue to perform reliably under uncertainty and variability conditions.

andre.wilmes@rafinex.com
www.rafinex.com

Space - Digital transformation - Materials & Components

REDWIRE SPACE LUXEMBOURG



The core business of Redwire Space Luxembourg is the development and sale of robotic arms for space applications. Additionally, Redwire Space Europe also participates in collaborative R&D projects related to robotic arm applications in space and extreme terrestrial environments. By lowering barriers to sophisticated in-space robotics, Redwire Space Europe is helping introduce the next generation of space industrialisation.

- 🚀 European Space Agency
- 🚀 Luxembourg Space Agency
- 🚀 US Air Force Research Laboratory
- 🚀 US Space Force

Robotic systems for free-flying objects acquisition.

jaroslaw.jaworski@redwirespaceeurope.com
www.redwirespace.com/locations/luxembourg

Sensors - Space - Materials & Components

RHEA GROUP



- 🚀 European Space Agency (ESA)
- 🚀 European Commission (DG DEFIS)
- 🚀 EU Agency for the Space Programme (EUSPA)
- 🚀 National space and defence agencies (including Luxembourg)
- 🚀 National institutes
- 🚀 Commercial clients

RHEA Group is a privately-owned European company providing end-to-end services and engineering solutions in space and cybersecurity. Headquartered in Belgium, RHEA employs over 800 people and has several offices in Europe, including in Luxembourg where the company created RHEA System Luxembourg S.A. in 2020 to meet the country's space and cybersecurity strategies. Space-based capabilities provide a wide range of critical services for Europe's civil, institutional and defence organisations. RHEA is the trusted partner of ESA, as we implement the European Security and Education Centre of the European Space Agency (ESA) in Redu, Belgium, the key cybersecurity assets of the agency, including a specialised cyber-range, a centre of excellence and monitoring capabilities. In partnership with GOMspace Luxembourg, one of the leading providers of small satellites in Europe, RHEA supports ESA's Threat Risk Assessment on in-orbit LEO Satellite Constellation to detect and mitigate existing cyber threats and enhance cybersecurity in future SmallSat and nanosatellite constellations. RHEA has been developing CITEF, a new generation cyber-range solution, to deliver an advanced, state-of-the-art cyber-range capability equipped to support the demanding needs of cybersecurity for space assets and other critical infrastructures. Based on our expertise in Earth observation data processing and in the development of AI-based services, RHEA System Luxembourg supports the Luxembourg EO System, procured by the Luxembourg Directorate of Defence, LUXEOSys, through LUXEOps – a Luxembourg partnership founded by RHEA, LUXSPACE and OHB. LUXEOps supports the LUXEOSys programme, deploying the LUXEOSys ground segment, through 24/7 satellite in-orbit operations up to management and exploitation of the high-resolution satellite images. RHEA provides end-to-end ground segment operations solutions for institutional and commercial space customers. RHEA System Luxembourg, in partnership with key Luxembourg players (POST, SnT, HITEC Luxembourg) and ESA, is developing a next-generation cyber security operational and international solution based on the distribution of quantum encryption keys, complementing current national space segment quantum communication infrastructure programmes

Concurrent Design for the NL MoD; LuxEOSys for the LU DoD; Cyber4Space for ESA and EDA; Quantum Key Distribution (INT-UGKD) for ESA; Surveillance Area Support Services for EUROCONTROL; Cyber Information and Incident Coordination System for NATO; Support Security Services for NATO; EDIDP LOTUS and iMUGS; EDF ACTING; EDF EPC (European Patrol Corvette), being OCCAR designated management authority; H2020 ECHO.

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SME

RSS-HYDRO



We use the latest Earth observation, remote sensing and computer modeling technologies to offer solutions that help our clients to innovate and respond with impact.

We develop and commercialise an ML/AI-guided disaster mapping application using space technologies.

🛡️ We serve governments, cities and the financial risk industry as well as the humanitarian response sector

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www.rss-hydro.lu

Space - Energy & Environment

SME

SATURNE TECHNOLOGY



Metal additive manufacturing products.

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www.saturne-technology.com

🛡️ Safran

Space - Materials & Components - Disruptive Technologies



- SES partners with governments in the United States, Europe and other nations worldwide, provides satellite solutions to supra-national and regional institutions (e.g. United Nations, NATO) to support their operations with digital technology, providing commercial satellite systems that stand up to the increasing data demands of military and government clients, thanks to guaranteed throughput, high availability, and low latency. SES' new constellation, O3b mPOWER, can be easily integrated into existing governments' satcom capabilities, permitting multi-orbit resiliency, and it is designed to interface with existing network infrastructure to minimise CapEx and maximise continuity for personnel.

SES combines a network of more than 70 communication satellites in multiple different orbits with a secure ground infrastructure and its industry-leading expertise to manage and deliver high-performance fibre-like connectivity solutions everywhere on the planet. SES gives government and defence customers the control and flexibility to optimise their network on their terms, rerouting traffic through a private connection and landing it at government-secure gateways, selecting their preferred waveform and hardware. Space is a strategic resource used to support and protect sovereignty, awareness, and safety. Resiliency is fundamentally dependent on distributed assets and a hybrid architecture. With more than 50 GEO satellites and 22 MEO, SES is actively designing, building, delivering and managing high-performance services that governments require to become the leading provider of sovereign space capabilities.

At NATO level, SES is a major partner of the alliance and plans to expand its support through MGS (MEO Global Services). It will authorise the acquisition and operation of SES MEO connectivity services as commercial SATCOM capabilities for Luxembourg, its partner nations and the alliance.

At EU level, SES is leading a group of more than 20 European companies to develop EAGLE-1, the first LEO-based European Quantum Key Distribution (QKD) satellite-based system.

SES cooperates with the MoDs of many different allied countries to provide them with satcom communication capabilities for their forces.

With Govsat-1, a GEO satellite owned by SES and the Luxembourg government, SES provides govsatcom defence capabilities to EU, NATO and allied partners.

<https://www.ses.com/contact-us>
www.ses.com/find-service/government

Space



- Security & surveillance customers

Long range wireless energy transmission for critical energy needs and strategic drone operations.

24/7 drone monitoring for surveillance and security operations.

administration@skygrids.eu
www.skygrids.eu

SME

SKYRADAR.COM



Training solutions for electronic warfare, small radars and jammers, digital signal processing.

Air Force Training Laboratory for major armed forces around the world.

Military and Civil Aviation Training Centres, Research departments

ulrich.scholten@skyradar.com
www.SkyRadar.com

Sensors - Simulation Training - Disruptive Technologies

SME

SNOWBALL TECHNOLOGY



We provide high-level cyber security consultancy services and solutions, for customers from the defence and public sectors. Our strong operational background, our partnerships with industry leaders and our focus on cyber security allow us to deliver-cutting edge, relevant and efficient services and solutions.

NATO procurement and support agency (NSPA)

We installed and configured a credential management system based on certificate solution for a NATO agency.

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www.snowballtechnology.com

Cyber

SME

SOLSI-LUX



SOLSI-LUX markets an innovative, multi-head, industrial manufacturing centre, allowing our customers to run approximately 20 manufacturing processes on a single platform.

CEA (Atomic Energy Commission)

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www.solsi-lux.lu

Space - Disruptive Technologies

SPARC INDUSTRIES



 Satellite operators

We protect investments in space using stealthing technologies.

Stealthing technologies (both h/w & s/w) for electric propulsion systems.

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Information Superiority - Space - Disruptive Technologies

SPIRE GLOBAL



-  NASA - 2022 Awards totaling \$6.2m
-  NOAA - 2022 Awards totaling \$23.6m
-  EUMETSAT - 3 year contract totaling €9m
-  Defence: TCOM subcontract for weather forecasts at aerostat sites - Department of Defence (DoD) Foreign Military Sales (FMS) award Defence and Security Accelerator (DASA), a UK government-backed programme Defence Advanced Research Projects Agency (DARPA) contract to design a satellite

Spire Global is a provider of space-based data, analytics and space services, offering access to unique datasets and powerful insights about Earth so that governments can make decisions with confidence, accuracy, and speed. Spire develops, builds, owns, and operates a fully deployed constellation of 100+ satellites that observe the Earth using radio frequency technology to source valuable data. Spire then provides this data as a subscription to organisations around the world so that they can make decisions with confidence in a rapidly changing world, reduce costs from climate and weather risks, and strengthen global security. With a tailored portfolio of global maritime, aviation, and weather solutions built for peak situational awareness and environmental monitoring, Spire gives government organisations the competitive advantage they seek to innovate and solve some of the world's toughest problems with insights from space. Spire offers: (1) Ship and aircraft tracking: Spire's satellite constellation collects 350 million daily AIS messages and 200 million daily ADS-B messages to monitor the movements of ships and aircraft across the globe. (2) Weather observations and forecasting: Spire offers space-based weather data, weather modeling, soil moisture levels, and data on the ionosphere. Spire is the largest producer of radio occultation and space weather data, and provides a global view with coverage in remote regions like oceans and poles. (3) GNSS jamming detection and geolocation: Spire operates over 40 satellites that help detect and geolocate signal interference, jamming, and spoofing. These satellites can identify the power, location, and directionality of such events. (4) Dark shipping detection: Spire offers a near real-time, global AIS message position validation service that tracks vessels operating in the dark by spoofing or manipulating their reported position in order to conceal nefarious activities. (5) Space as a Service: Built on 500+ years of space heritage, Spire offers Space as a Service solutions that empower its customers to leverage Spire's established infrastructure to put their applications in space.

Spire has developed deep expertise in monitoring radio frequency (RF) activity with a dedicated fleet of diversified and dual-use tunable RF payloads in space. Spire is a vertically integrated company, producing all elements of the space infrastructure except for launch. This lends deep in-house experience from the design of RF monitoring payloads to the dissemination of information captured on the spacecraft. Frequency bands and signals of expertise include GNSS, L-band satellite communication signals, automatic identification signals (AIS), automatic dependent surveillance-broadcast (ADS-B) signals, very high frequency (VHF) communication and radar signals, Ka/Ku band signals, and more. Past and existing public-facing clients include the European Space Agency (ESA), US Space Force, Australian Government Office of National Intelligence, the US National Reconnaissance Office (NRO), the Sierra Nevada Corporation (SNC), the UK Ministry of Defense (UK MOD), and more.

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Information Superiority - Sensors - Space - Digital transformation - Disruptive Technologies

LARGE

THALES ALENIA SPACE LUXEMBOURG



- Defense Sector: MoDs in France and Italy, other European countries, and world-wide
- Civil sector: digital projects with LSA, ESA, EC and other TAS Entities

Thales Alenia Space in Luxembourg is a digital competence centre located in Belval (Esch-sur-Alzette) dedicated to space activities. Leveraging on the legacy inspired by Thales Digital Factory, Thales Alenia Space in Luxembourg develops state-of-the-art digital space solutions, using big data, artificial intelligence and cybersecurity technologies to address complex end-to-end systems' challenges, while fostering UI/UX excellence. Its expertise covers innovative design and implementation approaches with customers, experimentation of technologies and concepts, minimum viable products development, design and development of key digital building-blocks dedicated to space systems, roll-out and operations of new solutions.

Thales Alenia Space Luxembourg is ramping up its activities with EDA and EDF, building upon the vast experience that Thales Alenia Space has in this domain. Examples of broader programs carried out by Thales Alenia Space : MILSATCOM : Syracuse, Sicral, SatComBw-2A & -2B, ComSat NG. Dual SATCOM : Athena-Fidus. PNT : Galileo and Egnos. MIL Observation : CSO, Helios, Cosmo-Skymed, FalconEye

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Sensors - Cyber - Space - Digital transformation Disruptive Technologies

SME

TURGIS & GAILLARD NATO SERVICES



- NATO's allies armies
- Multinational aerospace
- Defense technology companies

Since 2011, Turgis & Gaillard has been developing systems that help NATO's armies to win in multi-domain operations. Turgis & Gaillard's design office creates systems adapted to the mission. We do it quickly, we do it quietly, we do it on time. We can integrate your latest sensors on your aircraft. We can make your cargo aircraft perform close air support missions. We can turn your utility aircraft into key assets for network centric warfare and air surface integration.

Because C4ISR is critical to dominating the battlefield, Turgis & Gaillard provides turnkey solutions to deploy connectivity anywhere in the world.

With ODIN, we provide a simple and pragmatic way to make the different standards of multi-domain operations communicate with each other: L16, L22, LTE/4G, ROVER, SICS. In full transparency. And because you have better things to do than specify ever-changing capabilities, we operate the system for you. You focus on the mission. We take care of the networks.

Our primary project is an airborne surveillance system to provide persistent, low-cost ISR and maritime surveillance capabilities and associated C2 capabilities.

pg@tg-groupe.fr
www.turgisetgaillard.fr

SME

UBCOM BENELUX



- Operator of vital importance in charge of state communications. Health sector, protection of +/- 70 million patient files. French Ministry of State. Swiss administration. These missions are classified.

Protection of secrecy with disruptives technologies. On R&D crypto quantic, VPN with sovereignty architecture, QoS and secrecy, disruptive technologies to develop high sovereignty bastion.

fiv@ubcom.eu
www.ubcom.eu

Information Superiority - Sensors - Cyber - Space - Protection & Mobility - Disruptive Technologies

LARGE

UNI - FSTM (FACULTY OF SCIENCE, TECHNOLOGY AND MEDICINE)



Materials simulation and design and materials characterisation.

inma.peral@uni.lu
www.uni.lu

Sensors - Space - Digital transformation - Energy & Environment - Materials & Components - Simulation Training

LARGE

UNI - SNT (INTERDISCIPLINARY CENTRE FOR SECURITY, RELIABILITY AND TRUST)



- Companies active in security and defence interested in R&D collaborations

R&D in the areas of: (I) new optical sensors and sensor processing, (II) autonomous operations of drones, ground vehicles and robots, (III) models and analysis tools for situational awareness, (IV) GNC for space systems, (V) cyber attack-tolerant control of critical infrastructure.

Long term collaboration with the Luxembourg DoD, projects in the national Joint Defence Call and EDA/EDF projects, member of the EDA CapTech Optronics.

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www.unil.lu/snt/research/automation_robotics_research_group

Information Superiority - Sensors - Cyber - Disruptive Technologies - Space - Disruptive Technologies

SME

UPLIFT360



- MoD
- Security Services (police, fire service)
- Aramid manufacturers
- Aviation
- Maritime sectors

Uplift360 is a materials circular economic startup working at the cutting edge of advanced material technology. Uplift360 is a greentech startup working in advanced material circular economy (redesign, reuse, regenerate and recycle), uniquely focused on the defence and security sector. Armed Forces are the largest users of advanced materials, but most organisations in this sector have no end-of-life plan for their equipment, with the majority ending up in landfill or incinerated. We create sustainable and environmentally neutral chemical technology to regenerate these highly complex materials whilst also developing new materials, circular by design and non-fossil fuel derived.

UK MoD R&D projects (X2), Pending Luxembourg Defence Call and ongoing IF CEED EDA Proposals.

jamie@uplift360.tech
www.uplift360.tech

Energy & Environment - Materials & Components - Disruptive Technologies

SME

WASDI



- European Space Agency (ESA)
- World Bank
- Asian Development Bank (ADB)
- Joint Research Centre (JRC) of the European Commission

WASDI is a general-purpose cloud platform to process Earth observation data. The platform allows remote sensing experts to turn their algorithms into applications in the cloud, while it takes care of the IT-related complexities for them. WASDI offers access to a growing body of data, including satellite observations, derived products and other data, such as in-situ data and the results of simulations. On top of this horizontal enabling technology, dedicated vertical applications can be developed. Most of our experience is in disaster detection, assessment and forecast (floods, fires/burned areas, air and water pollution and water bodies to name a few).

Dual-use projects: the company won the ESA AI4EO challenge on air quality and health, which required improving the resolution of air pollution data and ranked 5th out of more than 700 international teams in the NASA Airathon challenge. The technology could be further developed to detect toxic fallouts, for instance. Moreover, the capability of active fire detection, and burned area mapping, can be exploited to gather intelligence. We also have extensive experience with flood mapping, as previously described. Finally, WASDI also won the ESA Phi-unet challenge on automatic segmentation of urban areas in Iraq in 2021. This challenge was organised to help UNOSAT contribute to the census of Iraqi cities. It consisted of the semantic segmentation of urban areas in SAR data and buildings in VHR optical imagery. On top of this experience, we are partners with LIST in the CityWatch project, where this capability for human settlement mapping is further improved.

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Information Superiority - Space - Digital transformation - Disruptive Technologies

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