## 20 23 Mapping of DefenceTech Start-ups in Europe JUNE 3<u>8</u>6€ 281.132 270.66 260.205 459.008 500.861 5.962 315 34.64E 113.7119 E81.P5 239.<u>579</u>.788 549.745 215.235 ai8.855

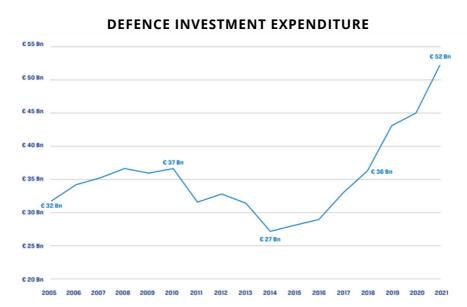


# INNOVATING THE DEFENCE SECTOR

Nowadays, the relationship between the technology industry and foreign affairs, particularly the defence sector, is increasingly intertwined. The technological superiority of consumer and corporate products also constantly feeds directly into the race for competitive advantage between nation-states in air, land, sea, space, and cyber power. Defence technology now is the intersection of commercial innovation and national security.

According to the <u>European Defence Agency</u> (EDA), **defence investments**, related to the procurement of defence equipment and research and development (R&D), **grew by 16%** in 2021 compared to 2020, totalling **€52 billion**. The continued increase in defence investments and innovations is required to provide governments with the high-end defence capabilities they need in the future to stay competitive, increase the European sovereignty, and confront new emerging threats. Recently, the <u>EU Defence Innovation Scheme</u> (EUDIS) will see a total investment of nearly €2 billion to support innovation and entrepreneurship on critical technologies in the European defence industry. In France, the Ministry of the Armed Forces and Bpifrance created <u>Definvest</u> fund in 2018 and <u>Defense Innovation fund</u> in 2020 to support the development of strategic defense startups and SMEs.

At the same time, long sales cycles and a lack of investor understanding of defence technology have made it difficult for European venture capital firms to back defence innovations. With the increasing political tension, many European governments are looking to improve their defence capabilities — of which tech is crucial. Some VCs see a business opportunity.



Note: <u>EDA Defence Data</u>. Constant 2021 prices.

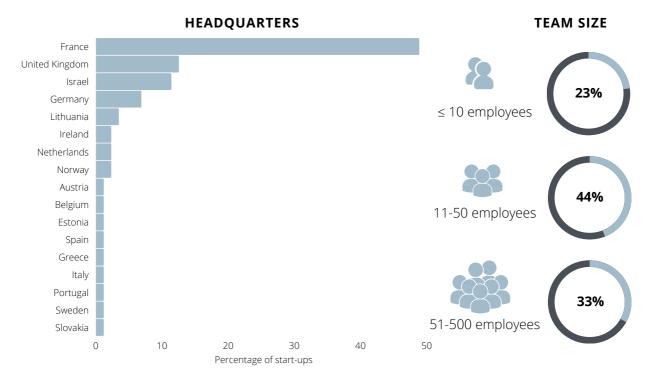
# GEOGRAPHY AND MATURITY OF DEFENCETECH START-UPS

The mapping of DefenceTech start-ups is based on the data on 88 start-ups listed on the Skopai platform in june 2023. These companies have their headquarters in Europe and Israel. They were created after year 2000, develop solutions for the defence sector, and employ less than 500 employees. This report presents an overview of the current landscape of DefenceTech start-ups in Europe with a particular focus on French start-ups.

The analyzed start-ups are spread across **17 countries**, with the majority operating in **France (48.9%)**, the **United Kingdom (12.5%)**, **Israel (11.4%)**, and **Germany (6.8%)**, among others.

All the information on the basis of this report, including **the profiles of 88 DefenceTech startups**, can be accessed via the link:

Access the list of start-ups



Most of the analyzed DefenceTech start-ups have **between 11 and 50 employees (44%)**, and one third of start-ups have between **51 and 500 employees (33%).** Most start-ups are on the **go-to-market stage (48%)** and **mature stage (46%).** Only 6% of start-ups are early-stage companies.



## **INNOVATION MAP OF DEFENCETECH START-UPS**

#### THEMATIC CLUSTERS

TECHNOLOGIES COMPANY **SERVICES INDUSTRY** COMPLEX MEASUREMENT **PROVIDES** PROTECTION ARTIFICIAL TE INNOVATIVE **ENVIRONMENTS** SPACE ROBOTICS **EQUIPMENT** RANGE SOFTWARE PROVIDE **CRITICAL DESIGN** SECURITY DESTINED MILITARY MORE APPLICATIONS CAPTURE TRAINING **AUTONOMOUS** 

#### **AEROSPACE**



Open Cosmos is a business focused on solving the world's biggest challenges through the delivery of satellite missions and the data of the world they can gather from space. This company's business includes designing, building, launching, and operating small satellites and providing data and services through an innovative platform.

#### **MARITIME**



#### **MATERIALS**

**Norimat** is an expert in enhanced fast/sps technology and designs innovative software for field-assisted sintering technology, spark plasma sintering (fast/sps). Norimat develops aerospace and defence goods and services designed for enhancing building processes and materials structure.





**ELWAVE** develops a range of electromagnetic detection, navigation, and characterisation systems destined to be implemented into vehicles and robots to provide visibility in complex underwater and industrial environments.

#### **ROBOTICS & AUTONOMOUS SYSTEMS**



**Roboteam** designs, develops, and manufactures cutting-edge, user-oriented, multi-purpose, unmanned platforms and controllers for Defence, Law Enforcement, and Public Safety missions. Roboteam created a line of lightweight, fast, deployable unmanned ground systems that deliver technological and functional breakthroughs for tactical purposes.

#### AI & ML



**Delfox** is an Al-first start-up that positions itself as an artificial intelligence specialist in reinforcement learning, a branch of machine learning. Delfox builds the first platform to train Al models to train autonomous decision-making systems.



#### **CYBERSECURITY**

**Serenicity** develops precision cybersecurity hardware and software solutions designed for editorialising public spaces and identifying and neutralising toxic flows carried over digital networks.



#### **WORKIFORCE TRAINING**

**Agincourt** solutions enable full battlespace-aware training without the logistical challenges associated with traditional training. Agincourt Provides XR/VR/MR tools to enable training teams to deliver better, more advanced, more immersive and more effective training to military and police services.

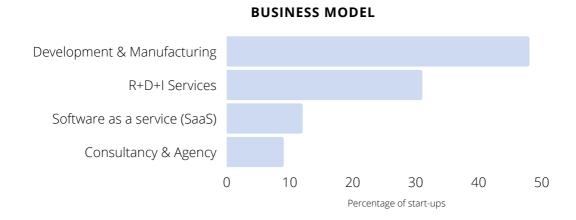


#### **ADVANCED EQUIPMENT**

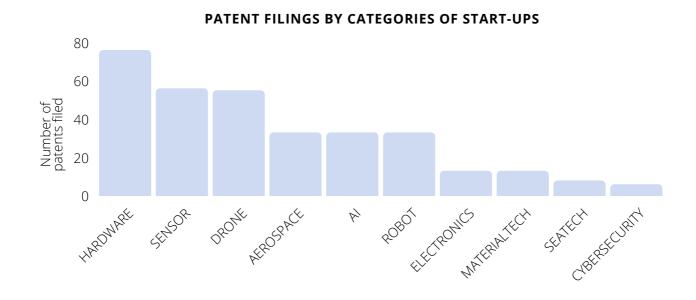
**Diamond Microwave Limited** develops a microwave GaN solid-state power amplifier (SSPA) designed for demanding high-performance applications such as radar, communications, medical, and routine laboratory use.

# BUSINESS MODEL AND TECHNOLOGY

The dominant forms of commercial transaction of DefenceTech start-ups is Business-to-Business (B2B) and Business-to-Government (B2G). The data on business models show that the majority of start-ups operate in the sectors of **development and manufacturing (48%)** and **R+D+I Services (31%,** Research, Development and Innovation/Industrialization). The share of start-ups developing software as a service (SaaS) and providing consulting and agency services equals to 12% and 9%, accordingly.



According to the data, **31% of DefenceTech start-ups have filed patents** (27 start-ups). A total of **95 patent filings** were registered by the start-ups **during the last five years** (2018-2023). Most of the patented start-ups provide solutions related to hardware, sensor, drones, aerospace, Al, and robotics, among other sectors.



### **INVESTMENTS IN 2023**

Traditionally, governments were behind the funding of defence projects. In recent years it can be seen that DefenceTech start-ups are attracting more and more attention of venture capitalists. In a time where defence investments are constantly increasing, defence companies are finding more investment opportunities. Yet, the field remains niche and is subject to strong governmental regulations. Some investors are focusing on start-ups with dual-use defence technology, which has a civilian use case in addition to its military purpose.

According to the data, **over the last three years (2020-2023)**, start-ups in the DefenceTech landscape **raised more than 480 million euros in funding**. Below are some examples of start-ups that raised **funds in 2023**, according to analysis from the Skopai platform.



In April 2023, **infiniDome**, an Israel-based start-up, raised <u>\$9M</u> in Series A funding. The round was led by Hanwha Aerospace alongside Honeywell Ventures, and Next Gear Ventures. The company develops GPS protection and resilient navigation solutions tailored to defend UAVs and vehicles from jamming attacks. The company aims to use the funds to support the deployment of its GPSdome2 to major defense forces.

A French start-up **Shark Robotics** raised €10M from Move Capital Fund I in January 2023. The company develops robots for the fire safety, nuclear, security, defence, and space markets. It has expertise in the entire robotics value chain: hardware, software, artificial intelligence, and batteries. Shark robots are used by public organisations involved in civil security and defence, as well as the industrial sector. The company intends to use funding for increasing R&D investments, accelerating the internationalisation and further developing its production facilities.





**Agenium Group**, a French-based SME operating in the defense, industry, and space markets, raised €2.2M in January 2023. Investors include Axio Capital as well as the Definvest fund of the Ministry of the Armed Forces managed by Bpifrance, Galia Gestion, and CEN Capital Développement. In defence, the company offers innovative solutions and a complete range of services for training and systems simulation. Beyond its historical activities, the Group has developed a Deep Learning at the Edge service to run neural networks in extremely constrained environments (e.g., nanosats) without altering their performance.

In February 2023, A French start-up **GreenWaves Technologies** raised €20M led by Innovacom alongside Thales, the Definvest fund of the Ministry of the Armed Forces managed by Bpifrance, and the French Tech Seed Fund, with the support of its historical shareholders Soitec and Zepp Health and other financing. The company develops highly efficient and easy to program ultra-low-power RISC-V processors, which interpret rich data sources such as images, sounds and radar signals using Al and signal processing. The funding will support the development of GreenWaves' next processor that will further enhance functionality, extend battery life, and enable new applications. The investment also contributes to the development of a promising French sector on which the defence can rely.



Note: The presented start-ups are non-exhaustive examples.

## **METHODOLOGY**

The study is based on the data on **88 DefenceTech start-ups** in Europe and Israel, presented on the <u>Skopai</u> platform and extracted in June 2023. The data on start-ups are collected from sources publicly available on the internet, using data science and Al algorithms.

#### **CRITERIA**







Solutions for the **defence industry** 



Created after 2000



Employ less than 500 employees

#### **List of DefenceTech start-ups**

**FREE**, for a limited time only: Access the **FULL LIST of DefenceTech start-ups:** 

➤ Access the list of start-ups



# BIG DATA AND AI TO CAPTURE THE NUMBER AND DYNAMICS OF START-UPS

**Skopai intelligence and innovation platform** offers a full set of comprehensive and qualified real-time information on start-ups worldwide. Using the validated methodology and machine learning algorithms, the Skopai platform helps discover, monitor and evaluate technology companies and innovation ecosystems across all sectors by providing accurate and reliable information in real-time.





