

KEY FIGURES 2021

INVESTMENT 2021

COMMITMENTS

P144 Upstream R&D

€ 1.404 B



PAYMENTS

P144 Upstream R&D

€ 890 M

P146 Forces equipment

€ 23.5 B



P146 Forces equipment

€ 14.2 B

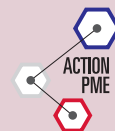
ORDERS

2 defense and intervention frigates • **30** light joint force helicopters • **4** Eurodrone systems • **45** MM40 Block 3c kits • **120** light armoured vehicles • **50** renovated Leclerc tanks • **14** firing posts for medium-range missiles • **1** ALSR light surveillance aircraft • **12,000** HK416F assault rifles

DELIVERIES

1 SYRACUSE IV satellite • **1** CERES satellite • **1** renovated frigate • **9** renovated Mirage 2000 • **1** FREMM • **1** A400M Atlas transport aircraft • **3** GM 200 radars • **3** A330-MRTT Phénix multi-role transport aircraft • **4** NH 90 helicopters (3 TTH and 1 NFH) • **6** retrofitted Tiger HAP-HAD helicopters • **85** firing posts for medium-range missile • **157** Griffon armoured vehicles • **11** Jaguar vehicles • **1,000** tactical light vehicles (VLTP) • **12,000** HK416F assault rifles

DEFENSE TECHNOLOGICAL AND INDUSTRIAL BASE (DTIB)



DGA coordinates the ministerial plan in support of small and medium sized businesses (SMBs)

5.03 B direct purchases from SMBs and mid-market companies 26,000 suppliers

1,139 companies audited by the DTIB task force set up in response to the Covid-19 health and economic crisis and corrective actions

Creation of **2** "diagnostic" compliance aids for suppliers: **Diag Cyber** and **Diag Europe**



200,000

jobs generated by the defence industry

9 major industrial groups operating at European level

4,000 SMBs and mid-market companies (including more than 450 of strategic importance)

INNOVATION 2021

The Ministry for armed forces spurs and supports the industrial and technical innovation using several budget programmes.

In 2021, payments amounting to

€ 6,6 B in R&D including **€ 1,601 B** for defense studies, Among wich:

- **€ 890 M** on programme P144: upstream studies (defense technology projects)
- **€ 144 M** on programme P144: subvention Onera and ISL
- **€ 150 M** on programme P191: dual research

RESEARCH AND TESTING 2021



6.9

million hours of engineering



€ 46 M

paid services

MAJOR TESTS



DGA Missile Testing:

Firing of an M51 and first preparatory launch for future hypervelocity tests



DGA Aeronautical Systems:

SMTOPS flight tests



DGA Aero-Engine Testing

Thermocolor tests as part of the Turenne programme in preparation for FCAS



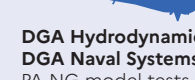
DGA Hydrodynamics:

PA-NG model tests on B600



DGA Flight Testing

Completion of two reviews of suitability for use on the Rafale F4



DGA Hydrodynamics / DGA Naval Systems:

PA-NG model tests on Lac du Castillon



DGA Information Superiority:

ANL tests on MEGALITHE test bench



DGA Naval Systems:

Sea testing of "Alsace" FREMM



DGA CBRN Defense:

Risk assessment and protection strategies against neurotoxic agents



DGA Land Systems:

First firing of MMP missile from the Jaguar

INTERNATIONAL COOPERATION

DGA resolutely anchored in Europe:

- Cooperation on major weapons programmes,
- Permanent Structured Cooperation (PESCO),
- European Defense Industrial Development Programme (EDIDP) and European Defense Fund (EDF).



€ 8.6 B

Average annual order level for 2011-2020

7,776 decision notices concerning export licenses in 2021

EXPORTS

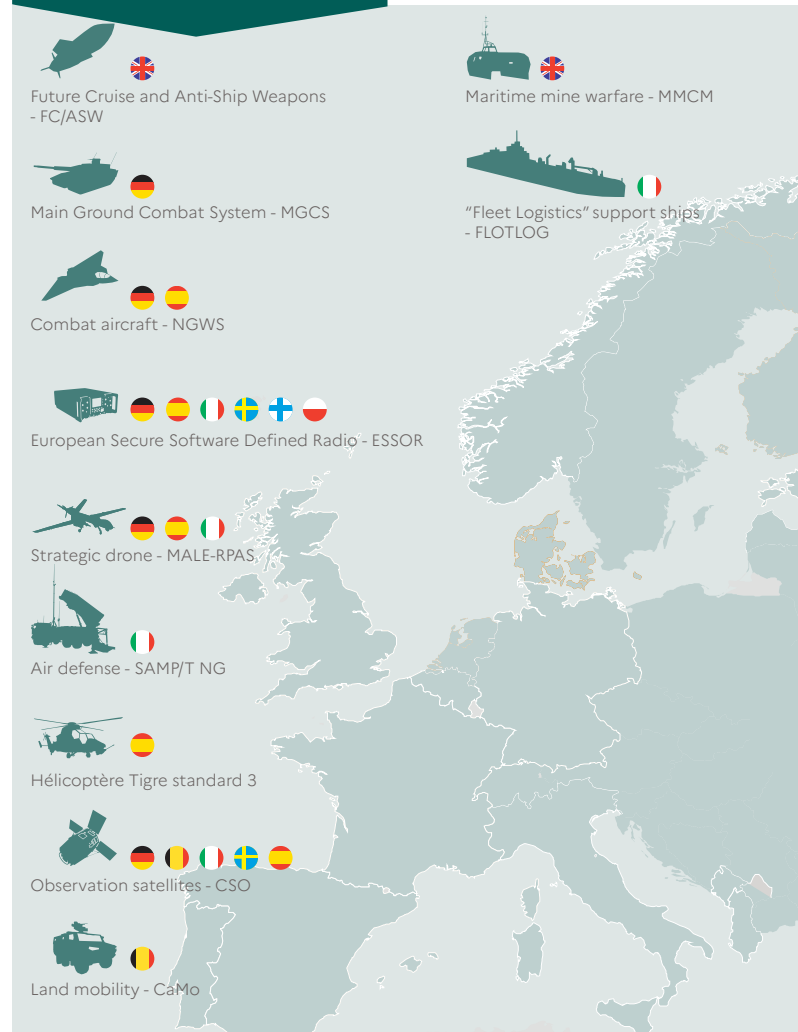
Strong, dynamic momentum for exports

Contribution to the development of a viable long-term European defense industrial base capable of equipping our armed forces.

ARTICLE 90: estimated **37** companies benefiting from Art. 90

including **25** SME/MMEs on 31/12/2021

A vision of the future shared with our strategic partners European Major edition



84 TRL milestones passed by the Defense Innovation Agency (AID) and DGA covering all capability domains for ultimate integration in the weapon systems delivered to the armed forces

413 projects submitted to the Agency as single point of contact, including 94 officially approved projects

Two initial investments by the Defense Innovation Fund (FID)

(Pasqal and Quandela, companies specialising in quantum technologies)

Two seasons of "Red Team Défense"

169 research projects launched: results in compliance with the research investment strategy

10 international agreements signed

B: billion
M: million

LET'S BUILD TOGETHER
THE FUTURE OF DEFENSE

MAP
OF OUR MAIN
SITES



PERSONNEL
10,118 people

management: **61 %**
women: **27 %**
military personnel: **18 %**
average age: **46 years**
average seniority: **18 years**
(Figures: december 2021)



www.defense.gouv.fr/dga
www.ixarm.com

DGA Communication_april 2022

REGIONAL TECHNICAL INNOVATION CENTRES



NAVAL SYSTEMS
DGA Naval Systems,
Navy Staff HQ (EMM),
Ensta Bretagne, École Navale,
Technopole Brest Iroise



LAND SYSTEMS
DGA Land Systems
Defense Industries
Resource Centre



DIGITAL SYSTEMS
DGA Information Superiority
Joint Forces Command (EMA), DGNUM,
COMCYBER, Le Pool



NAVAL SYSTEMS
DGA Naval Systems,
EMM, Système Factory



CBRN SYSTEMS
DGA Maîtrise NRBC, EMA,
SSA, STAT, CEA



AIR MOBILITY AND DISPO* TECHNOLOGIES
DGA Aeronautical Systems,
EMAT, EMAAE, EMM, ISAE-Supaéro,
Aerospace Valley



AEROSPACE TECHNOLOGIES
DGA Missile Testing,
Army Staff HQ (EMAT),
EMMAE, Aerospace Valley



AERONAUTICAL SYSTEMS
DGA Flight Testing, EMAAE,
EMM, EMAT, École de l'air et
de l'espace, SAFE

*DSPO: French acronym for availability, security and operational performance