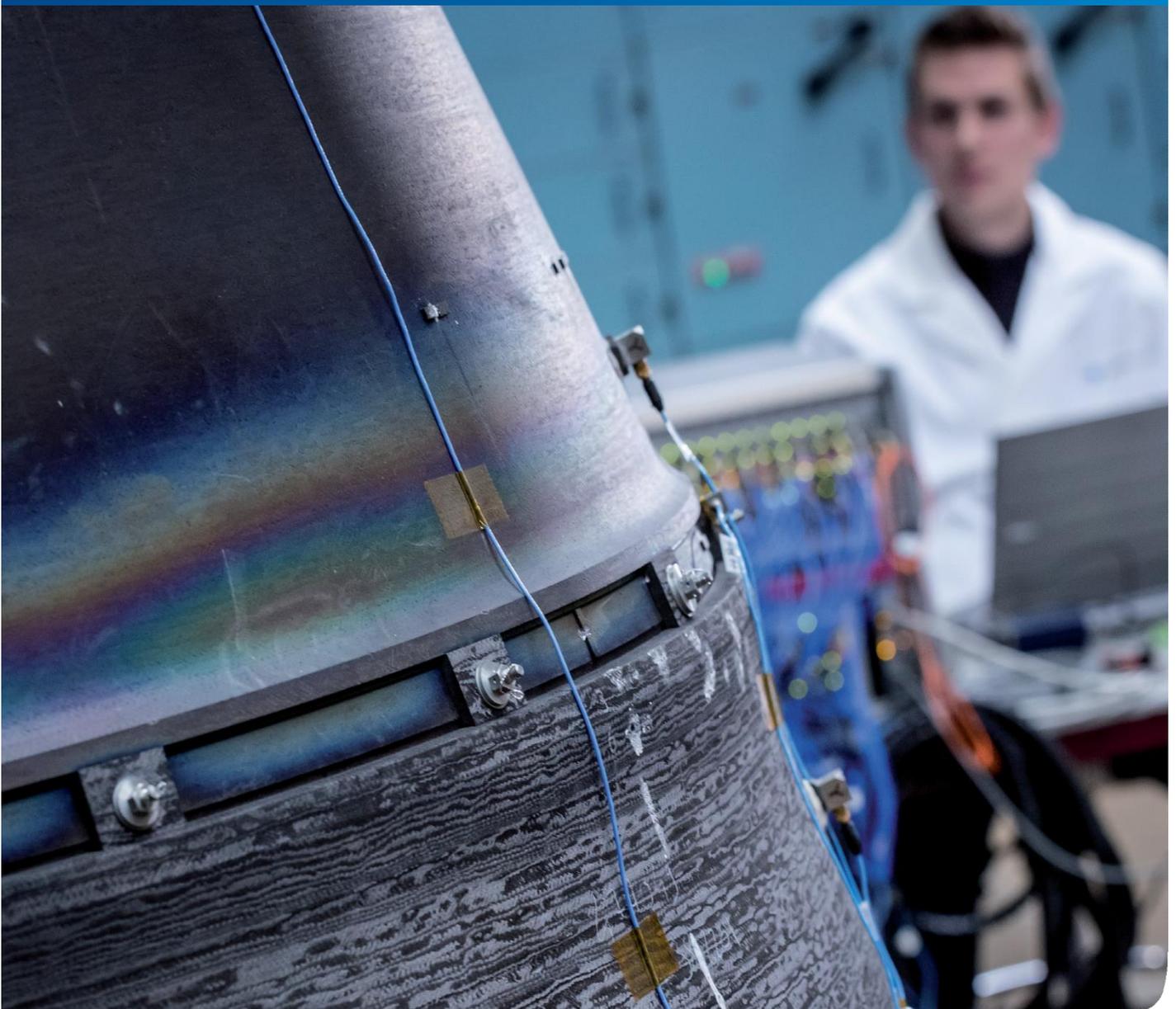


# TEST SERVICES

## TESTS & NDT

From material analysis to complete system testing

PRODUCTS, EQUIPMENTS & SERVICES



## TEST SERVICES



## A GLOBAL SOLUTION

With our experience in environmental testing and non-destructive test, ArianeGroup meets the requirements of standards and regulations in all business sectors.

Test Services department offers to take charge of **your entire test campaign**, from characterization to the validation of complete system, from components to large-scale specimens. Test Services offers a wide range of test engineering and tailored support.

## FROM SPACE TO INDUSTRY

ArianeGroup develops and provides innovative solutions in the field of civil and military space launchers.

As the main contractor for the European Ariane 6 launcher and missiles deployed by the French naval deterrent force, it manages the most advanced technologies in launch and propulsion systems.

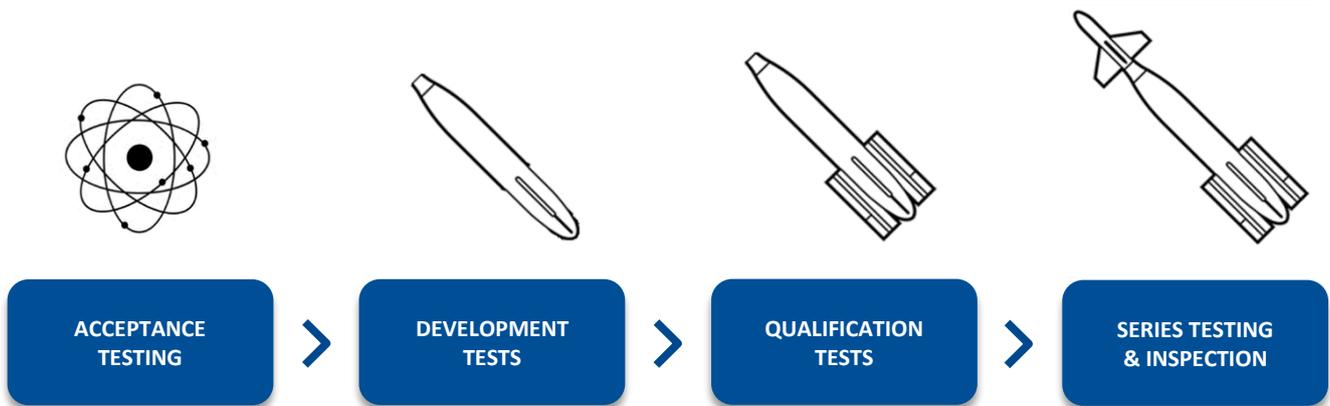
Utilizing its technologies and the expertise of its teams, ArianeGroup provides products, equipment and services to the aeronautics, space and defense industries, as well as many other sectors : automotive, transportation, energy...



Developed for space-defense requirements, ArianeGroup's testing means and skills meet the requirements of your business sectors. The purpose of Test & Services is to provide you with tailor-made solutions and resources unique in Europe, based on 6 ArianeGroup test centers in France.



## FROM MATERIAL CONTROL TO COMPLETE SYSTEM TESTING



## OUR STRENGTHS

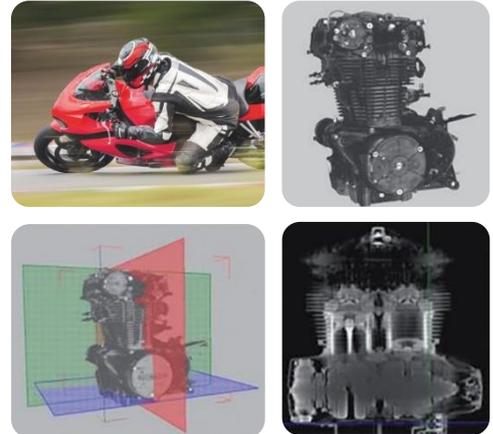
<b>LARGE SIZE SPECIMEN</b>	<b>SENSITIVE SPECIMEN</b>	<b>CONFIDENTIALITY CONTROL</b>	<b>RISK CONTROL</b>	<b>FONCTIONAL COMBINED TESTS</b>	<b>RESPONSE TO STANDARDS</b>

# TEST SERVICES

## NON-DESTRUCTIVE TEST

Leader in the field of non-destructive test, ArianeGroup provides a wide range of expertise and innovative resources, tailored for large and complex products :

- Tomography
- Radiography
- Leakage tests and stamping
- Ultrasonic testing by water or air
- Thermography
- Shearography
- Eddy current
- Penetrant inspection



## PRESSURE TEST

For the development and qualification of products subject to extreme operating conditions :

- Altitude test
- High vacuum tests
- Overpressure and rapid decompression tests





## CHEMICAL ANALYSIS & CHARACTERIZATION OF MATERIALS

---

From mechanical characterization to the physico-chemical analysis of your materials, ArianeGroup provides a wide range of defect investigation :

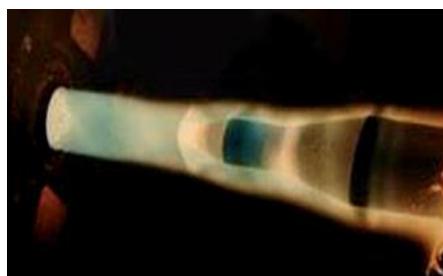
- Spectroscopic techniques
- Granulometric techniques
- Titration techniques
- Pyrotechnic combustion characterization
- Characterization of materials
- Chromatographic techniques
- Thermal analysis techniques
- Laboratory machining of pyrotechnic materials

## THERMAL & CLIMATIC TEST

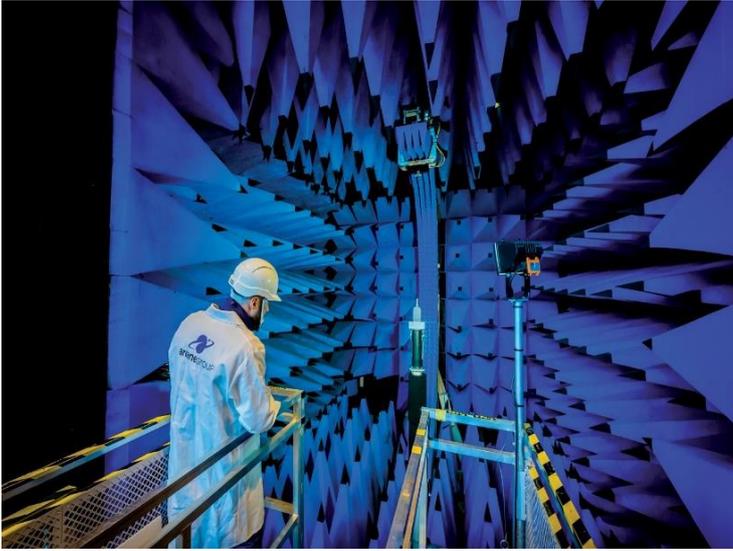
---

For the development and qualification of equipment subject to specific environments :

- Climatic chamber
- Rain and salt spray tests
- Aerothermal tests
- Infrared radiation



## TEST SERVICES



### EMC / EMI TEST

For the electromagnetic environment emission and immunity characterization of products in their environment :

- Radiation / control
- Lightning tests
- EMC and RF measurement



### HAZARDOUS TEST

An area dedicated to energy and pollutant risk testing, equipped with an innovative gas identification and treatment system - ArianeGroup provides a solution for special and hazardous tests :

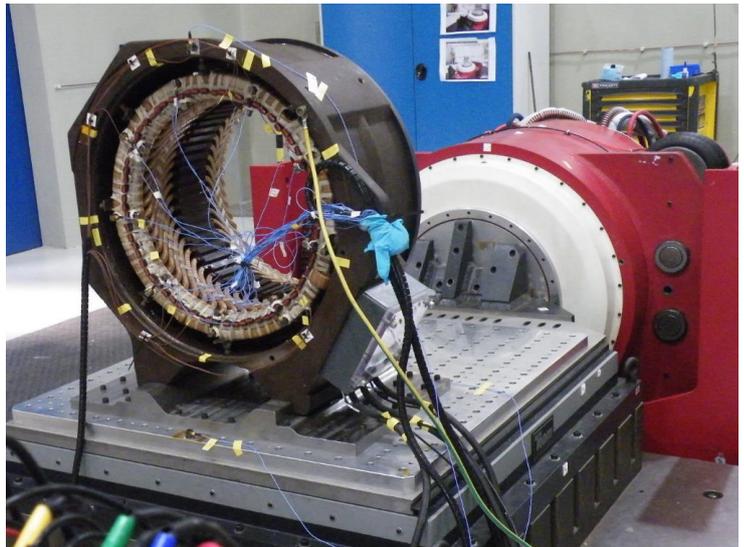
- Pyrotechnic risk tests
- Analysis of gases and toxic products
- Fire tests
- Explosions
- Ballistic tests
- Crash tests



# MECHANICAL TEST

For the development and qualification of products subject to extreme mechanical conditions :

- Vibration tests
- Modal analysis
- Constant or angular acceleration
- Mechanical or pyrotechnic shock
- Acoustic tests
- Static and thermal tests

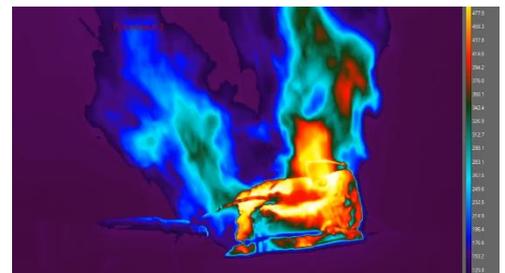


# BATTERY TESTING

ArianeGroup performs environmental and abusive tests in order to simulate the accidental phenomenon that a battery can have during its life cycle. Equipped of gas analysers and an innovative gas treatment system, these tests are performed in environmental respect :

A fire tunnel is connected to a gas treatment station that allows both to characterize the volumes and flows of gas, analyze the species released and treat the pollutants in an environmentally friendly manner.

- Compression
- Short-circuit
- Overheating
- Overload
- Fire fuel
- Punching
- Fall



## TEST SERVICES

Standards : GAM EG13 - DO160 - MIL STD - ECSS

**ASK FOR OUR SERVICES CATALOG**

#spaceenablers

[www.ariane.group](http://www.ariane.group)



**CONTACT**

ARNAUD TRIMOUILLE  
PROGRAM, SALES & CONTRACTS MANAGER  
TEST SERVICES  
+33 (0)5 56 57 34 29  
+33 (0)7 86 87 63 29  
ARNAUD.TRIMOUILLE@ARIANE.GROUP

**ARIANEGROUP**

HEAD OFFICE :  
51-61 ROUTE DE VERNEUIL  
78130 LES MUREAUX



**ArianeGroup**

COPYRIGHT PHOTOS : ARIANEGROUP - SHUTTERSTOCK