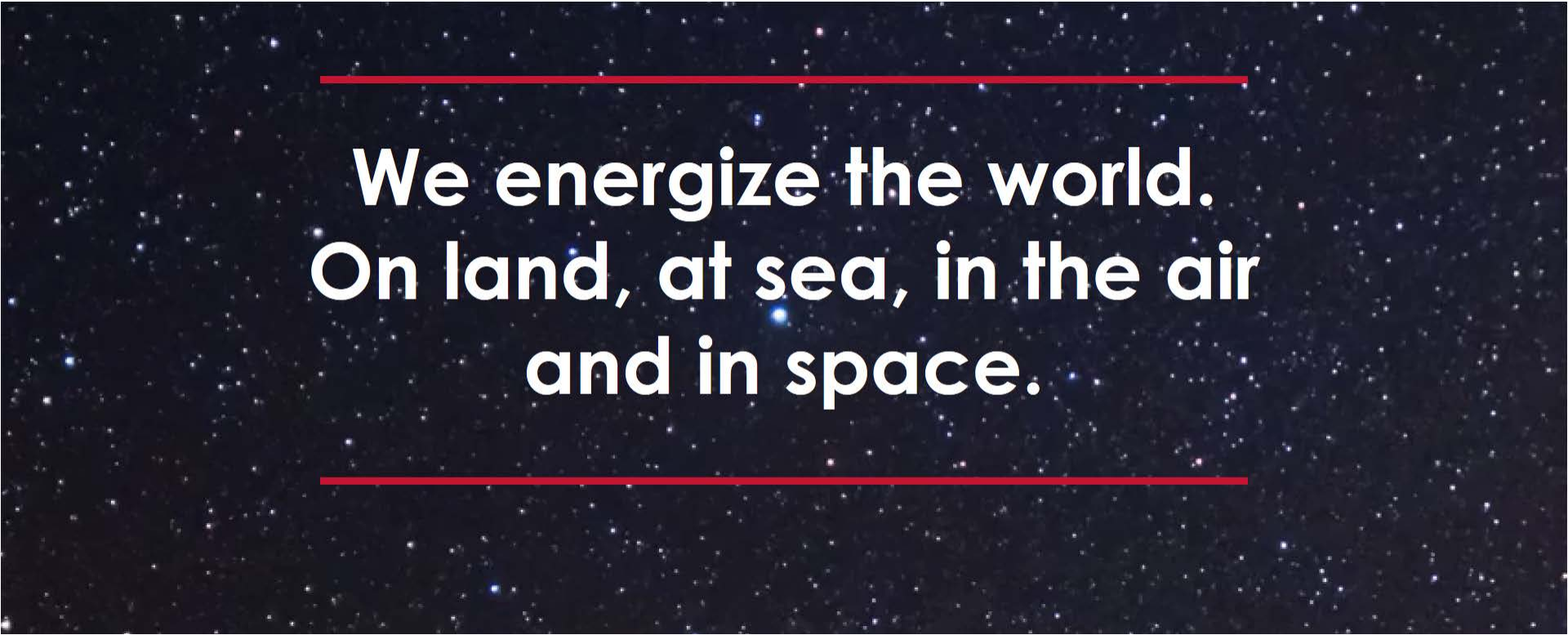


Saft Presentation 2018





**We energize the world.
On land, at sea, in the air
and in space.**

Who is Saft today?

GROUP PROFILE



100 years of history



Leadership position
on **75-80%** of revenue base

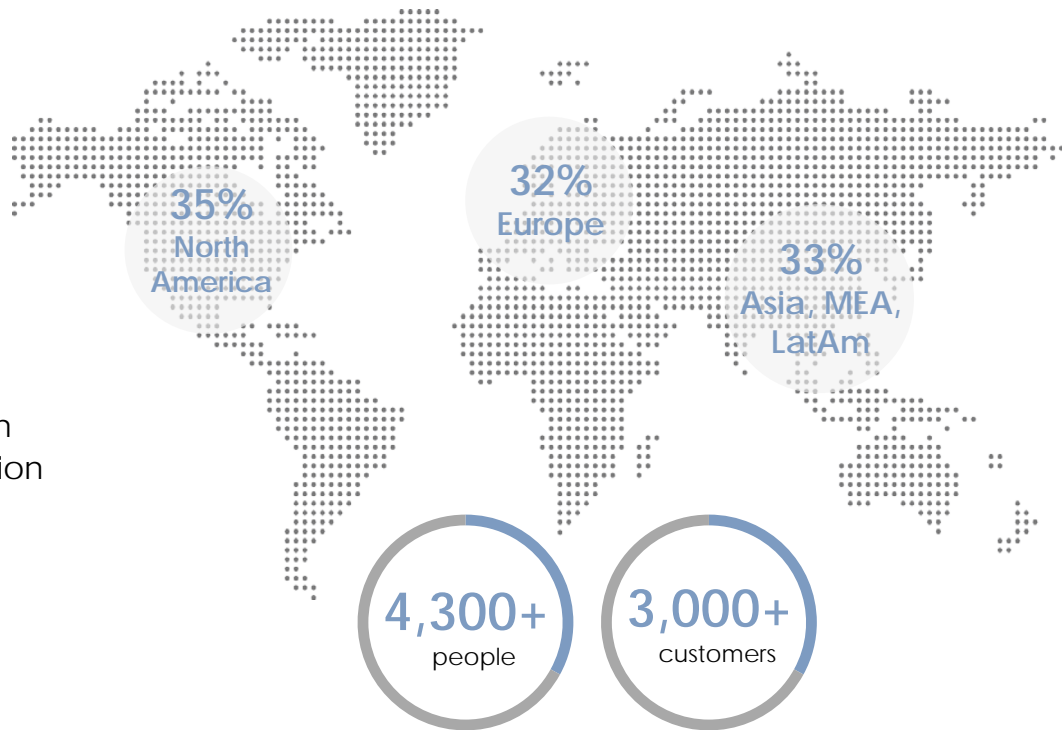


9.7% invested in **R&D** with **3** main technologies; primary lithium, lithium-ion & nickel-cadmium,



€744m revenue FY 2017

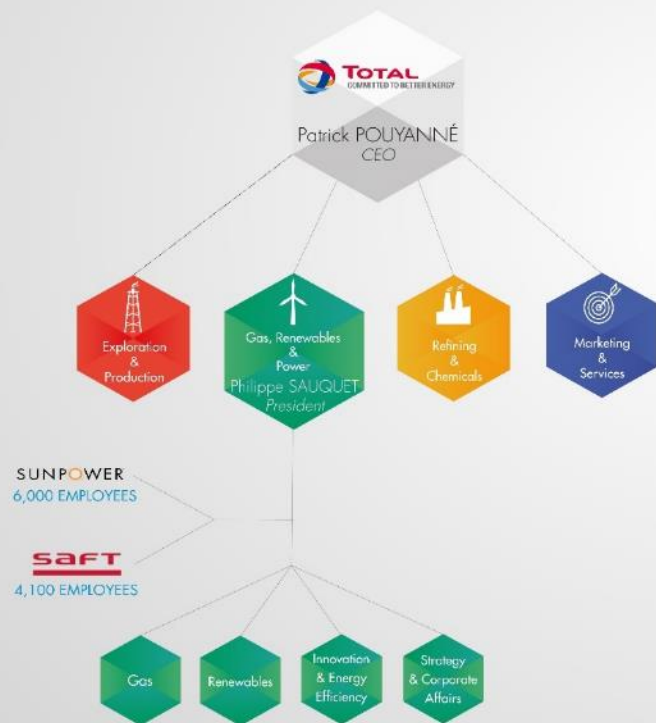
GLOBAL PRESENCE - SALES



Global presence



Where we fit in Total

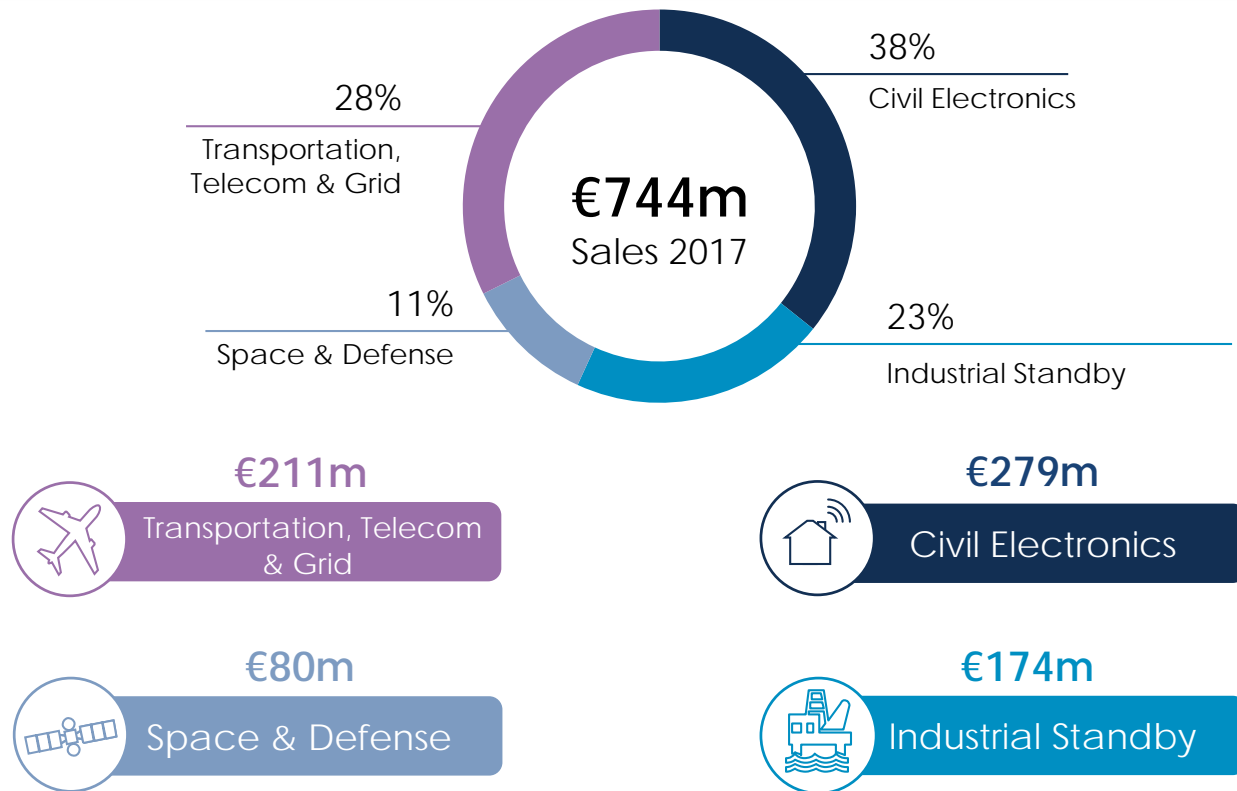


4TH LARGEST
OIL & GAS COMPANY

100,000
EMPLOYEES

130
COUNTRIES

2017 sales by division





We serve multiple customer segments for specific applications

Aviation



Defense



Grid



IoT



Marine



Medical



Metering



Mobility



Oil & Gas



Rail



Space



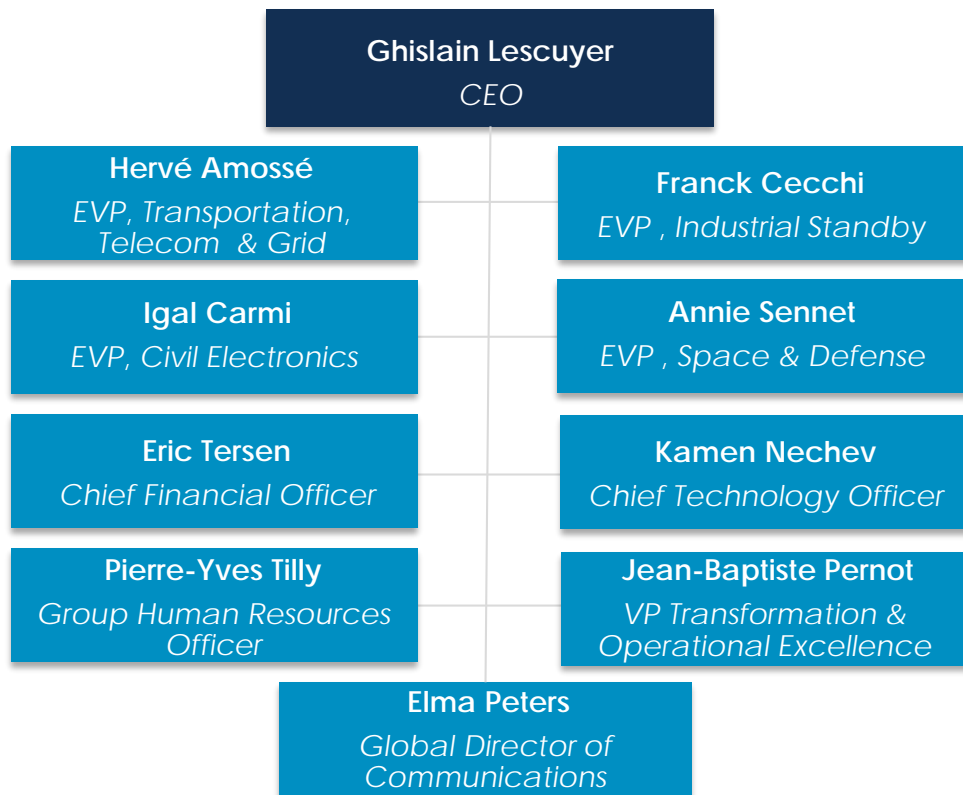
Telecom



Utilities



Saft Management Committee



Civil Electronics

Igal Carmi, Executive VP

Manufacturing sites:

- Büdingen, Germany
- Kiryat Ekron, Israel
- Poitiers, France
- Raškovice, Czech Republic
- South Shields, UK
- Valdese, USA
- Zhuhai, China

Market overview: Civil Electronics



Main applications

- Smart metering
- Electronic Toll Collection (ETC)
- E-call
- Asset tracking
- Internet of Things (IoT)
- Medical devices
- Portable military
- Oil drilling

Main technologies

- Primary lithium batteries
- Lithium-ion batteries



Our batteries
for Civil
Electronics

Powering smart meters in China



2017 highlight
for Civil
Electronics



eCall sales doubled in 2017

Industrial Standby

*Franck Cecchi, Executive
VP*

Manufacturing sites:

- Bangalore, India
- Bordeaux, France
- Oskarshamn, Sweden
- Raškovice, Czech Republic



Market overview: Industrial Standby

A photograph of an industrial facility, possibly a refinery or power plant, with tall distillation columns and piping. The image is partially obscured by a blue vertical overlay on the left side, which contains the text 'Industrial Standby'.

Industrial
Standby

Main applications

- Emergency back-up power, starting power and cycling applications in the oil and gas industry
- Power generation and distribution
- Railway signaling systems

Main technologies

- Nickel-based batteries
- Lithium-ion batteries



Our batteries
for Industrial
Standby

The background of the slide is a photograph of an offshore wind farm under construction. Several tall, white, cylindrical wind turbine towers are visible, some with red and white striped sections. A large red and white crane is positioned next to one of the towers. In the foreground, a red supply vessel named 'MPI ADVENTURE' is docked. The sky is a pale, hazy blue.

Delivering back-up power for E.ON's
remote North Sea offshore wind farm



2017 highlight
for Industrial
Standby

RTE selects Saft for Li-ion backup battery systems in Smart Grid substations

Space & Defense

Annie Sennet, Executive
VP

Manufacturing sites:

- Cockeysville, USA
- Poitiers, France



Market overview: Space & Defense

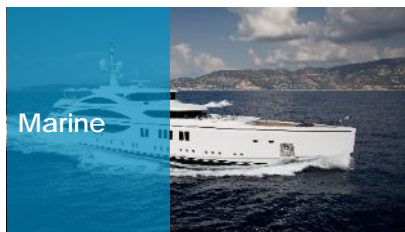


Main applications

- Communications, scientific and military satellites
- Satellite launchers
- Space vehicles



- Base camps
- Weapon systems & torpedoes
- Military aircraft
- Hybrid armored vehicles



- Work boats
- Ferries
- Cruise liners & luxury yachts
- Cargo & offshore vessels

Main technologies

- Lithium-ion batteries
- Silver-based batteries (for torpedoes and missiles)



Our batteries
for Space &
Defense

An aerial photograph of the Sir David Attenborough, a red and white polar icebreaker, navigating through a field of sea ice. The ship has a green helipad on its deck with a yellow 'H' marking. A helicopter is visible in the sky to the right of the ship. The scene is set in a high-latitude environment with snow-covered land in the foreground.

Li-ion batteries for Rolls Royce's Sir
David Attenborough polar vessel



2017 highlight
for Space &
Defense

200th satellite equipped with Saft
Li-ion batteries launched



Transportation, Telecom & Grid

Hervé Amossé, Executive VP

Manufacturing sites:

- Bordeaux, France
- Jacksonville, USA
- Nersac, France
- Valdosta, USA

Market overview: Transportation, Telecom & Grid



Main applications

- Storage solutions for installation & renewable generation plants, micro- & distribution grids, and commercial or industrial end user sites

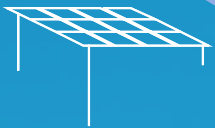
- Backup power and emergency systems
- Engine and turbine starting

- Backup power for lighting, air-conditioning & on-board communications, & critical safety applications (emergency braking & door opening systems)
- Electrification of industrial vehicles

- Backup power for the telecommunications industry

Main technologies

- Nickel-based batteries
- Lithium-ion batteries



Our batteries for
Transportation,
Telecom
& Grid

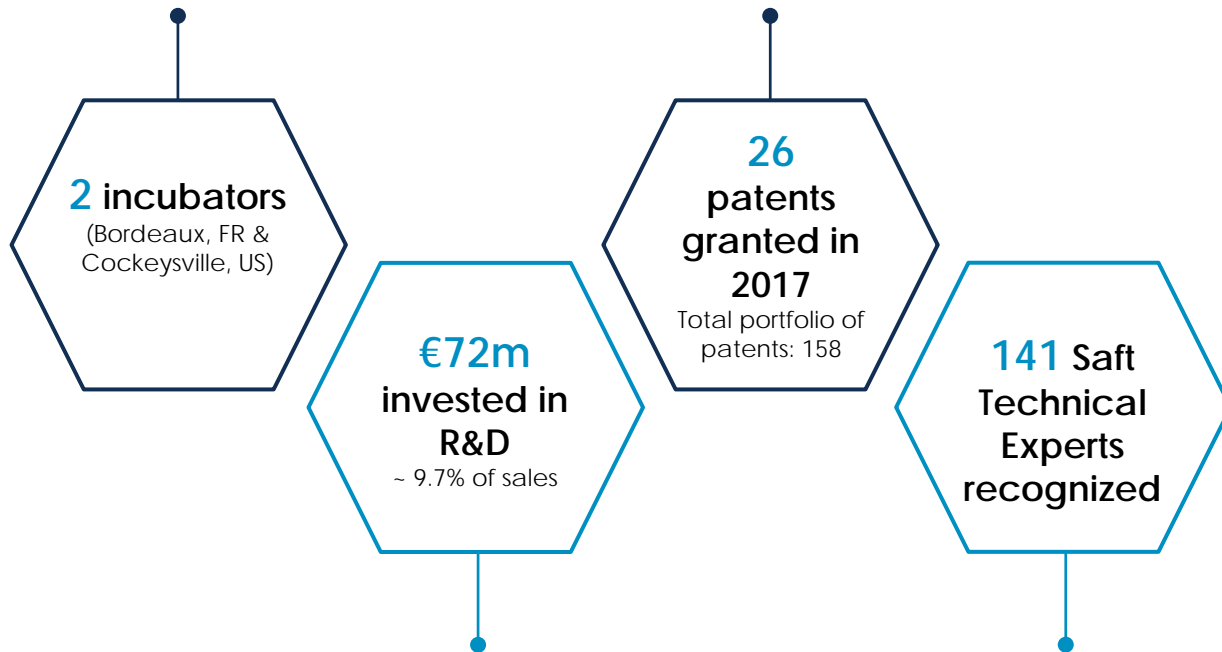
Lithium-ion battery energy storage system in Glendale, California



2017 highlight for
Transportation,
Telecom
& Grid

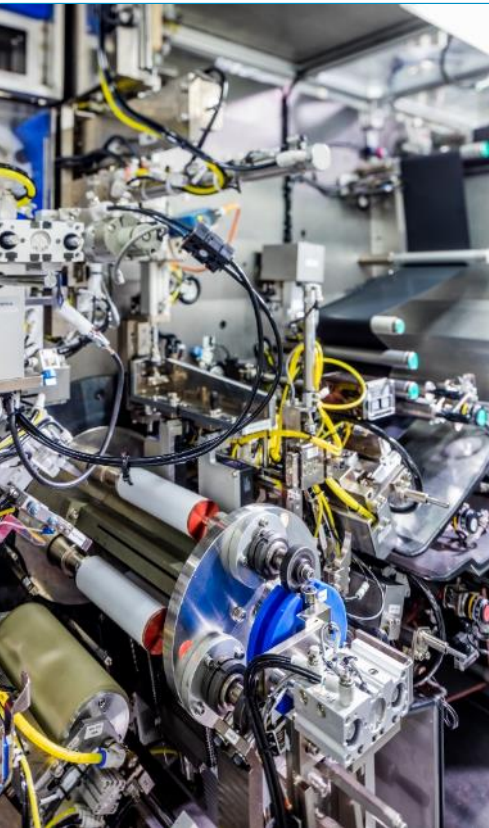
Saft wins order to supply batteries for 93 of MTR Hong Kong's new metro trains

Research and Development excellence



Continuous innovation for superior products and technology

Operational excellence: Four pillars to build performance



Safety culture



- Global plan and commitment toward **zero accidents**
- Safety culture is the basis for our strong **quality** and **efficiency**

Industry 4.0



- In 2016, launch of a very ambitious **Digital Transformation Program** covering all activities
- Enhanced automation, data management, collaborative portals, on-line diagnostics...

Lean



- Since 2004, '**Saft World Class Program**' has deployed the highest **lean standards** in all plants
- TPM, pull flows, autonomous teams, lean supply chain, lean engineering...

Collaboration



- **One Saft worldwide team** sharing information in real time + dedicated communities on specific areas of expertise
- To be **extended** toward external partners (clients, suppliers, R&D...)

Sustainable development



Clean energy



- Our batteries are **zero CO₂** energy storage devices
- **Li-ion** technology allows **innovative** and **sustainable energy** related services

Circular economy



- **Recycling** of used nickel based batteries through our **take back network**
- Over **75% of materials** are extracted to be reused by industry

Sustainable design



- Advanced batteries **tailored to customer needs** increase our customers' **energy efficiency**
- Our battery designs incorporate **recycling constraints** without compromising performance

Manufacturing



- Saft is committed to **minimizing all impacts** from manufacturing operations
- Saft policy is to exceed **compliance with national laws and regulations** governing environmental protection

Learn more about Saft



Stay tuned!



Saft International Magazine

Corporate Brochure

