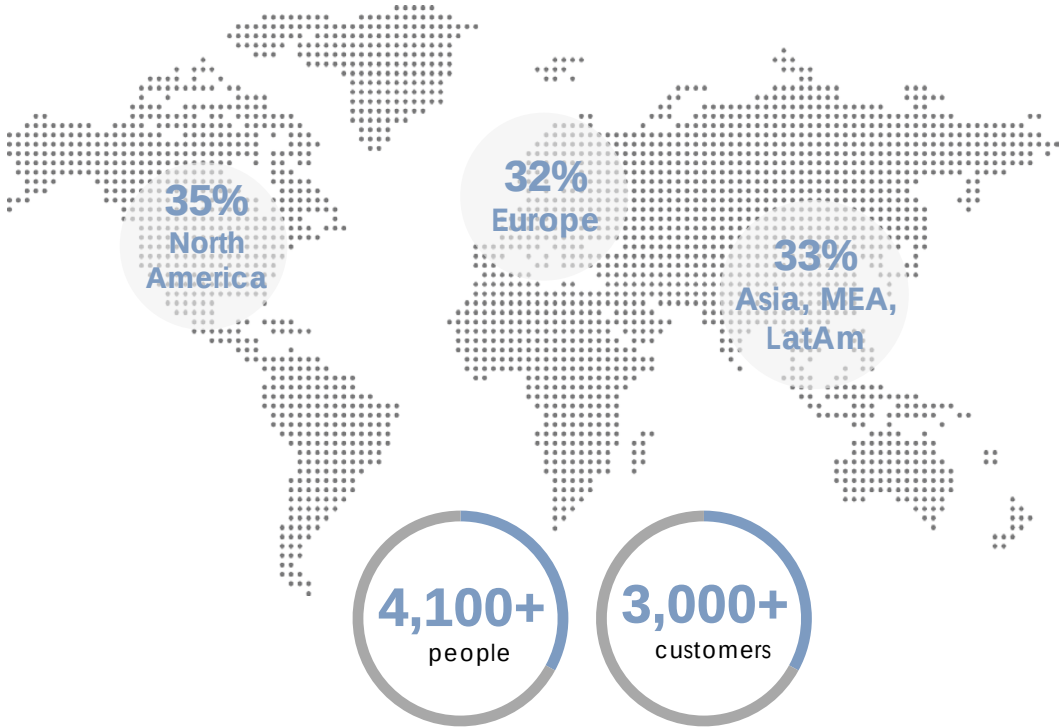
Saft Presentation 2017

Who is Saft today?

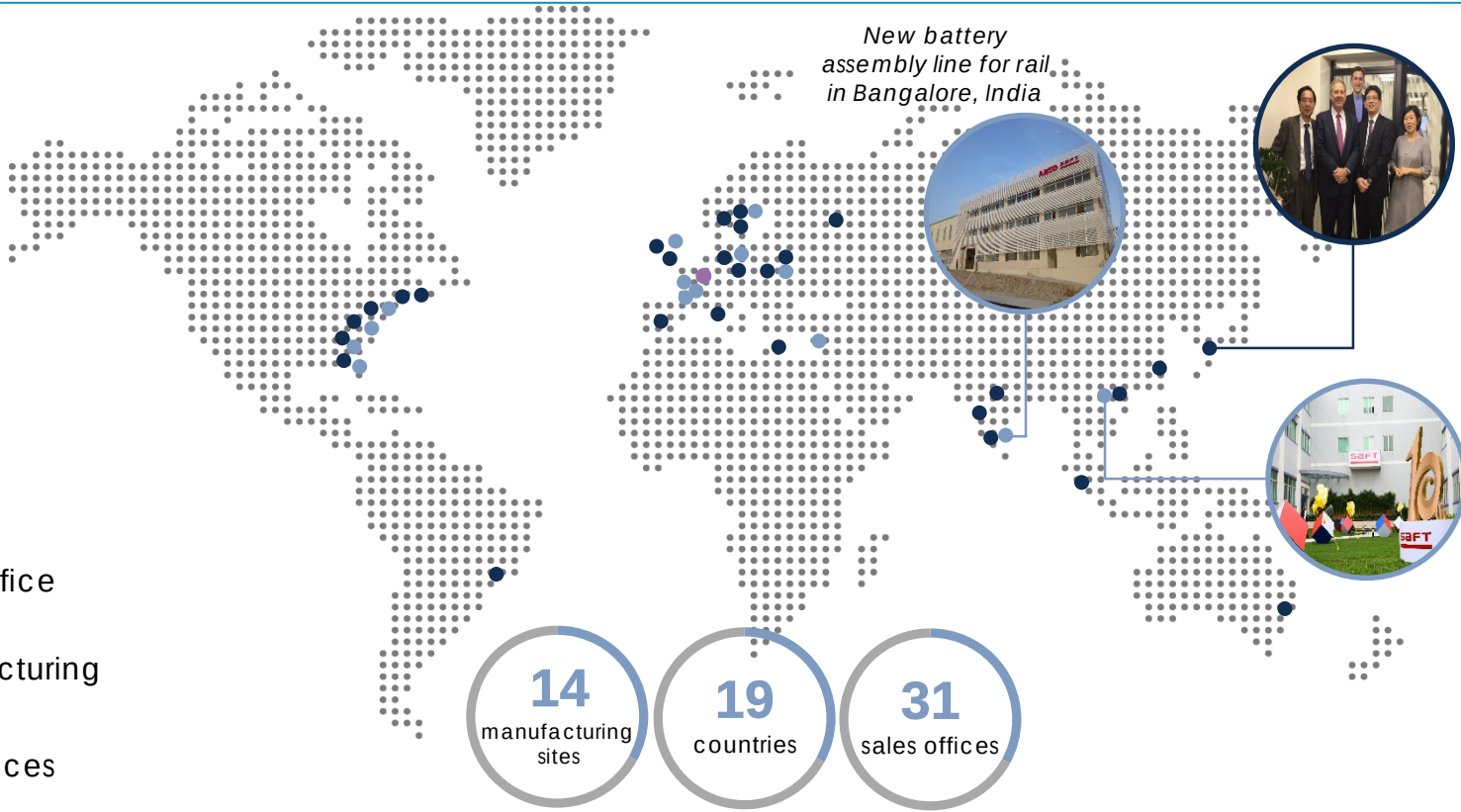
GROUP PROFILE

- **~100** years of history
- **Leadership position on 75-80%** of revenue base
- **9%** invested in **R&D** with **3** main technologies
- **€738m** revenue FY 2016

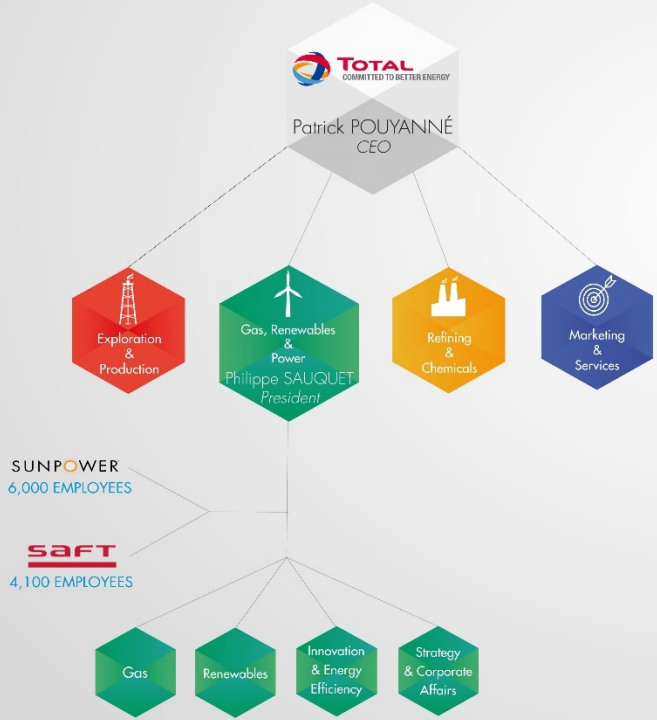
INTERNATIONAL PRESENCE



Global presence



Where we fit in Total

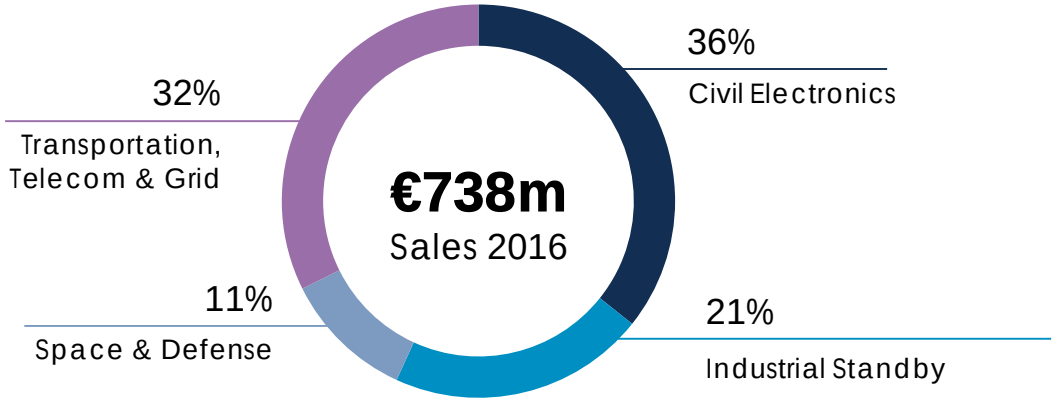


4TH LARGEST OIL & GAS COMPANY

100,000 EMPLOYEES

130 COUNTRIES

2016 sales by division



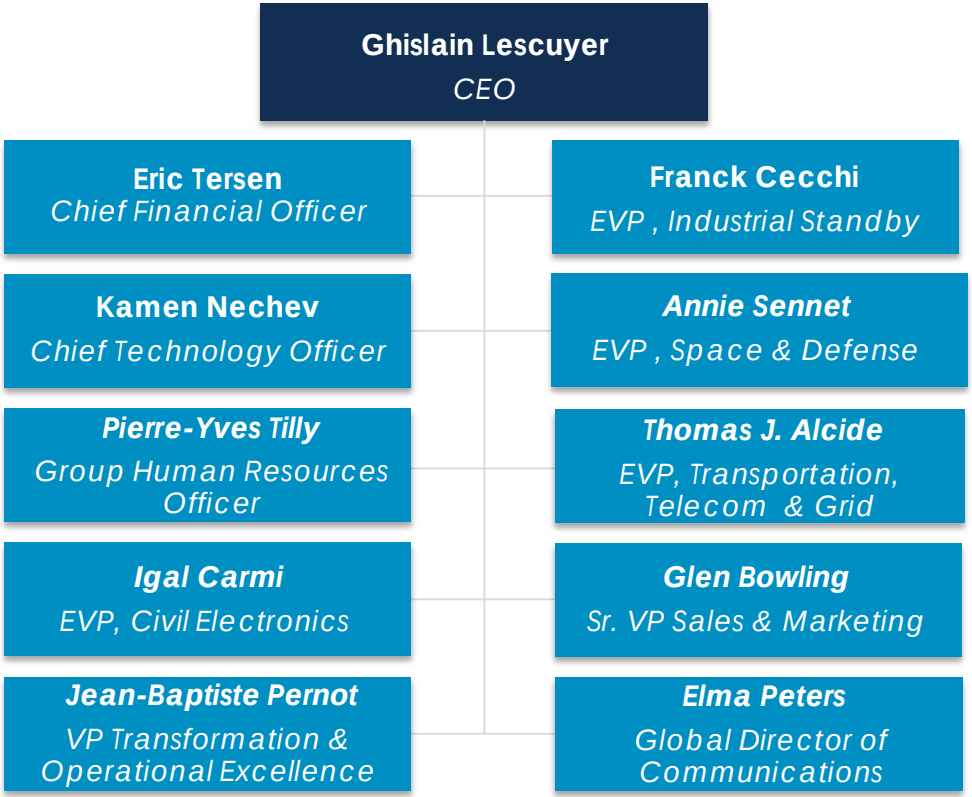
€238m
Transportation, Telecom & Grid

€264m
Civil Electronics

€80m
Space & Defense

€156m
Industrial Standby

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

2016 highlight for Civil Electronics

€100M Metering sales in 2016

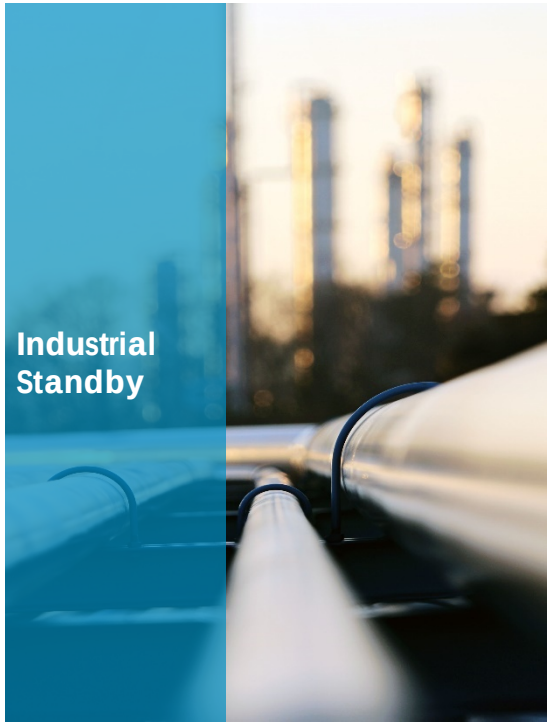
Industrial Standby

Franck Cecchi, Executive VP

Manufacturing sites:

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

Market overview: 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

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

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

Powering the ExoMars Rover that searches for life on the red planet

saft

2016 highlight for Space & Defense

2,767 X6T batteries for General Dynamics

Transportation, Telecom & Grid

Tom Alcide, Executive VP

Manufacturing sites:

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

Market overview: Transportation, Telecom & Grid

	Main applications	Main technologies
 Civil Aviation	▪ Backup power and emergency systems ▪ Engine and turbine starting	▪ Nickel-based batteries ▪ Lithium-ion batteries
 Ground Transport[1]	▪ Backup power for lighting, air-conditioning & on-board communications, and critical safety applications (emergency braking & door opening systems) ▪ Electrification of industrial vehicles	
 Telecom & Grid	▪ Backup power for the telecommunications industry ▪ Storage solutions for installation & renewable generation plants, micro- & distribution grids, and commercial or industrial end user sites	

1 Including Rail, Specialty vehicles (e.g., forklifts)

Research and Development excellence

2 incubators created
(Bordeaux & Cockeysville)

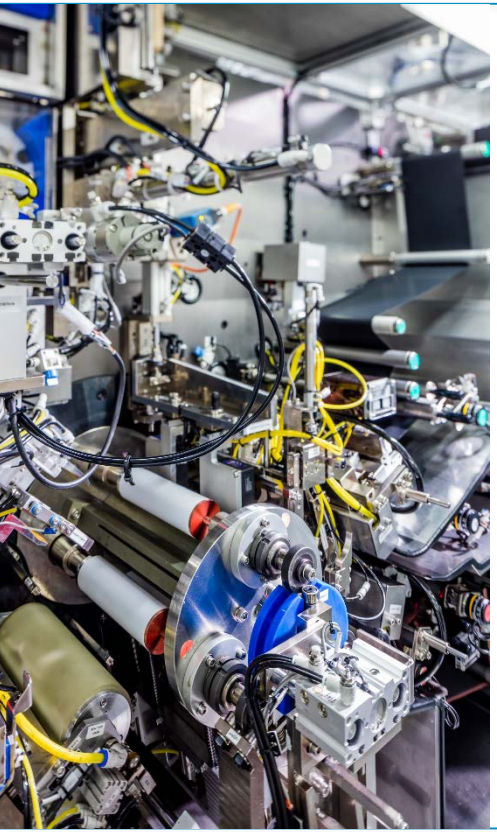
€65m invested in R&D
~ 9% of sales

22 patents granted in 2016
Total portfolio of patents: 160

4 Saft Fellows recognized

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**

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…

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…

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 CO_2** energy storage devices
- **Li-ion** technology allows **innovative** and **sustainable energy** related services

Sustainable design

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

Circular economy

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

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