

# Research & Development



voestalpine is Austria's most **research-intensive company**

## Research at the voestalpine Group

(BY 2013/14)



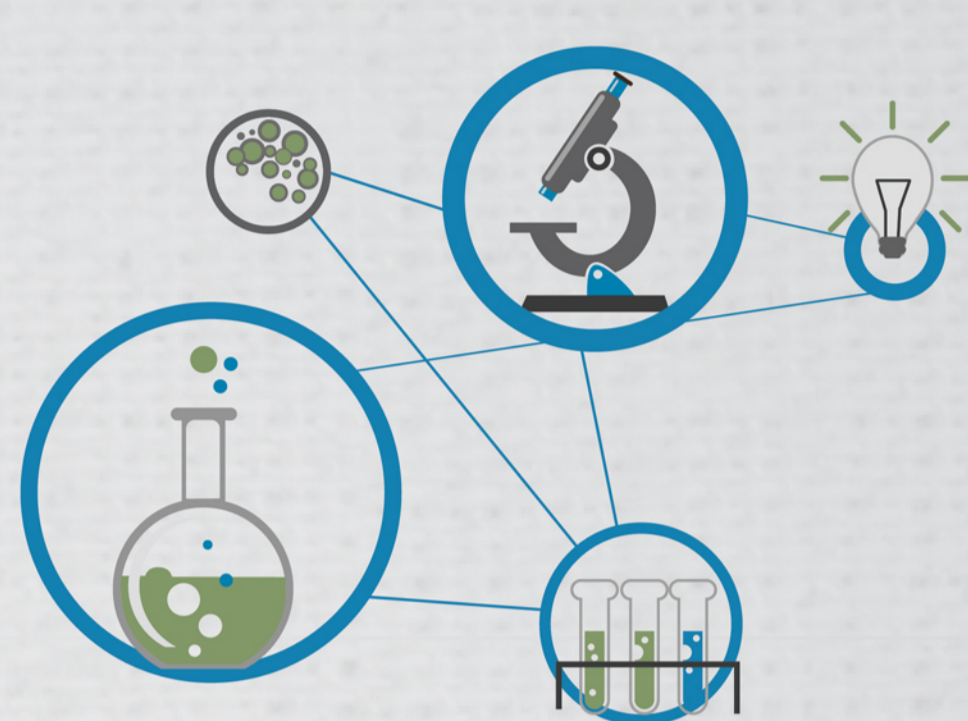
**760**  
employees



**3,500**  
patents

Hundreds of research projects in over

**20**  
countries



Cooperation with around

**80**

universities & research institutions worldwide

**10%**

of R&D expenditure will be invested in cooperative projects with scientific partners

## Key areas of innovation



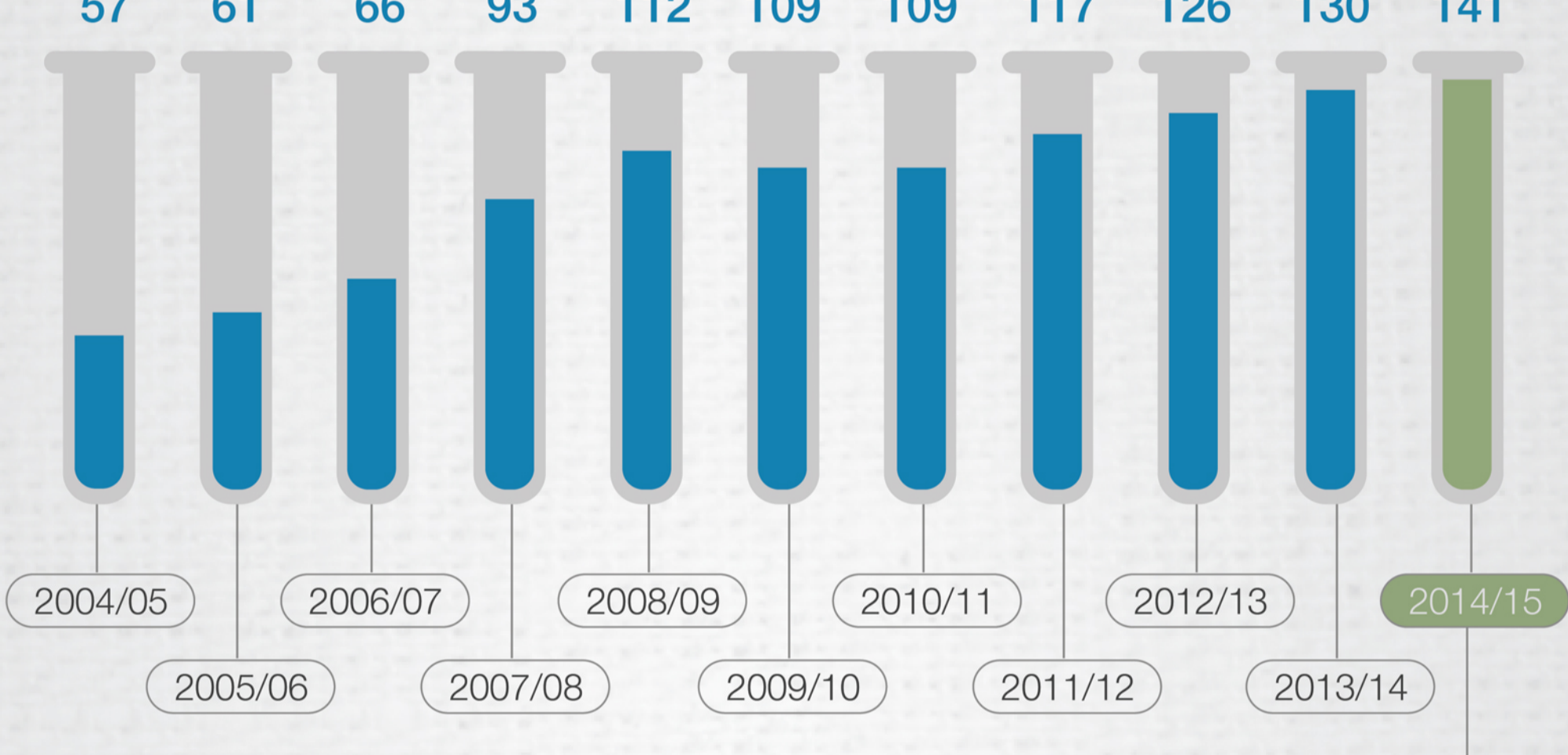
Innovations for the major growth markets of **mobility & energy**

### Key subject areas

- Sustainability
- Environmental safety
- Energy efficiency
- Resource efficiency
- CO<sub>2</sub> reduction
- Zero waste

## Research & development expenditure

(in EUR million)



**2½-fold increase** in the R&D budget over the past **10 years**

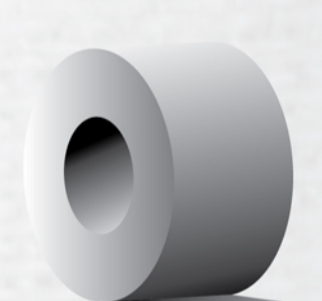
**2014/15** record research budget of **EUR 141 million**

## Innovation highlights

### phs-ultraform

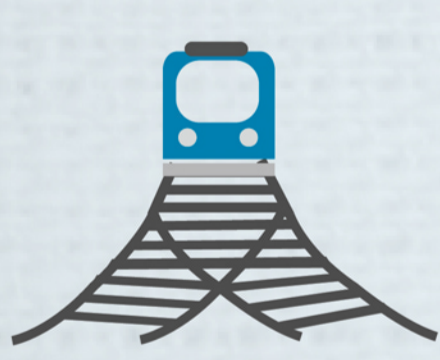


Combines lightweight construction, corrosion protection and greater automotive safety

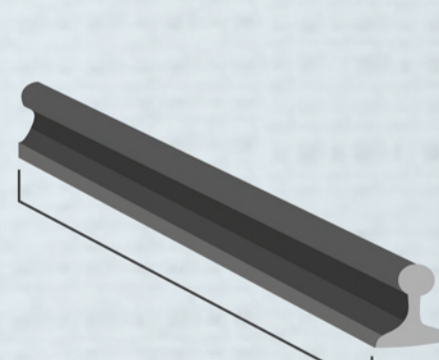


Hot-dip galvanized, ultra-high tensile hot-stamping steel of up to 2,000 MPa

### Maximum speed rails & turnouts

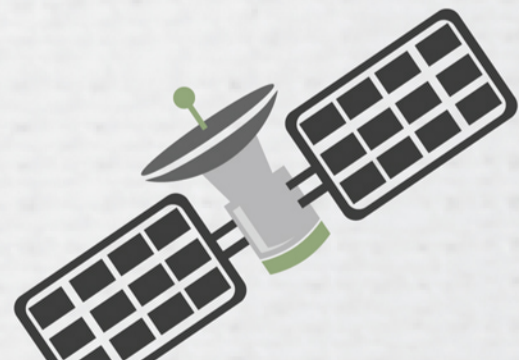


Rails & turnouts for up to **380 km/h**



Ultra-long (up to **120 m**), weld-free rails

### High-performance materials for the aerospace industry



High-strength special steels & special nickel-base alloys

### Heavy plate for pipelines

Linepipe plates for the most exacting requirements, lowest temperatures & most challenging conditions

Deep sea pipelines up to **2,800 m**



Offshore pipelines up to **-60 °C**



## Winner of the 2015 state prize for innovation

Greatest accolade for innovative companies in **Austria**



'phs-ultraform' won out against a total of **618 projects**