



ASK
FOR
MORE

PEM⁺
ELECTROPLATING



ASK FOR...

WHO WE ARE



WE CONSIDER **STRONG
VALUES** A KEY DRIVER
OF **PERFORMANCE**



GROWING TOGETHER OUR BUSINESS GOAL

We are a business on a human scale, whose history has been written by the men and women who have inspired us to continually strive towards excellence and progress. Thanks to their efforts, we have become a **key player** on all our markets.

We believe that PEM is destined to grow, and to help our customers and employees to grow, in an atmosphere of **listening, trust** and **goodwill**. Our core business area is plating, which we deliver with enthusiasm and **passion** in complete harmony with our environment.

We consider you not just as customers, but also as **colleagues** and **trusted partners** who share our taste for challenges. Count on us to call on the skills and know-how that will help us meet the challenges together! We will build projects together in order to ensure **control over the overall production cost** for your product. Our added value lies in our critical thinking skills and our processes.

Our production standards are built on these key principles, while our cost savings approach, particularly in terms of raw materials, meets our commitment to **environmental protection**.

With enthusiastic input from our teams, and working alongside you each step of the way, we are ready to meet new challenges together, guided by the key values, goals and aspirations that characterise PEM.

“**BY INVESTING IN BRAIN POWER WE SAVE ON RAW MATERIALS.**”

Patrice Thivat
President

3

PRODUCTION SITES

16

PLATING LINES

180

EMPLOYEES

22 M€

TURNOVER IN 2016





ASK FOR...

SOLUTIONS

A grayscale photograph of a person in a white lab coat and gloves, using a magnifying glass to inspect a metal component. The person is wearing glasses and has their hair tied back. The background is a blurred industrial or laboratory setting.

OUR **EXPERTISE**
IS THE IDEAL **PARTNER**
FOR YOUR **PROJECTS**

WORKING TOGETHER TO FIND THE **BEST SOLUTIONS**

Our business approach never varies: we always consider you a vital associate with whom we will build the **solution best suited** to your needs.

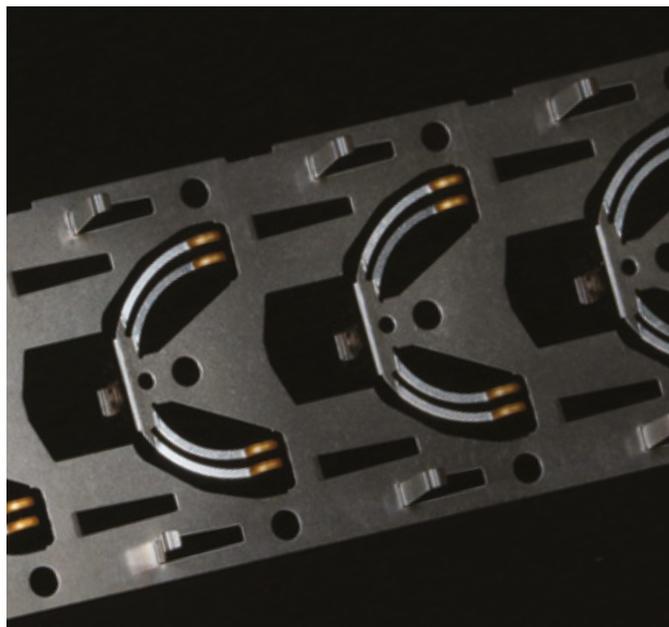
We propose using the final part to reflect together on which process will provide the **best performance while also reducing and managing costs**.

While our **expertise is in plating**, we also provide recommendations concerning the whole business chain that your parts will go through. This is why we prefer to be part of the process from the very beginning.

Our work philosophy is built around a cooperative approach, and we like to **accompany you throughout the entire process**. We consider that our strengths are mutually beneficial and are pleased to see our working partnerships flourish over the years.



THE BEST SOLUTION IS THE ONE THAT INCLUDES THE SPECIFIC FEATURES OF EACH STEP INVOLVED IN THE PRODUCTION OF YOUR PARTS.”



OUR SERVICES



PLATING OPTIONS

- › Anodizing
- › Silver plating
- › Copper plating
- › Gold plating
- › Tin plating
- › Brass plating
- › Nickel plating
- › Coloured oxidation of titanium
- › Palladium plating
- › Black and coloured platings



PLATING TECHNOLOGIES

- › Total
- › Strip plating
- › Spot plating



SUBSTRATE OPTIONS

- › Copper and alloys
- › Steel and alloys
- › Aluminium
- › Zinc
- › And more...



ASK FOR...

INNOVATION

**YOUR PROJECTS:
MENTAL STIMULATION
AT ITS BEST**

IMAGINATION & KNOW-HOW WORKING WITH YOU

Our Research & Development department uses **imagination to drive performance**, thus developing adapted processes.

Our laboratories are equipped to produce **prototypes** and to do **surface analysis**. Modelling software is used to simulate and check the plating options specific to each part and each process.

BUILDING ON KNOW-HOW

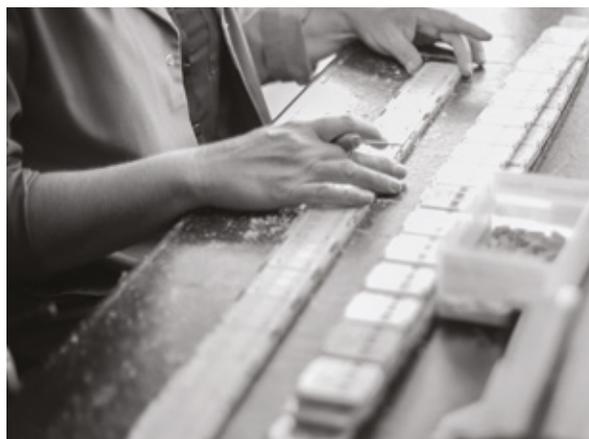
Each project is a challenge that we meet with enthusiasm.

Our service includes the designing of plating lines and **formulations**. We have all the necessary technologies in-house, which guarantee our end-to-end self-sufficiency and control over costs and lead times.

Our expertise has broadened with each project entrusted to us, and now enables us to provide solutions to the most specific and demanding issues.



**WE HAVE CONSCIOUSLY CHOSEN
TO PRODUCE OUR OWN
FORMULATIONS.”**



15 SPECIALISTS

IN R&D, FROM DOCTORATE TO TECHNICIAN



5 mm > 40 mm

BAR THICKNESSES
THAT CAN BE PLATED

A FEW mm > 340 mm

SUBSTRATE WIDTHS
THAT CAN BE PLATED

25 μm > 4 mm

SUBSTRATE THICKNESSES
THAT CAN BE PLATED



ASK FOR...

COMPETITIVENESS

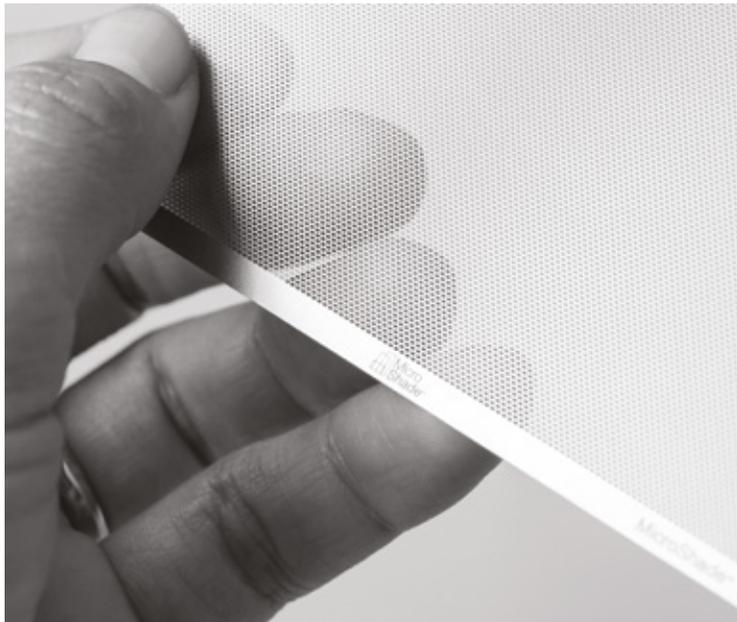
QUALITY RHYMES
WITH **COMPETITIVENESS**

STRIVING FOR **CONTINUOUS IMPROVEMENT**

Competitiveness and product quality are core features of our approach, and are the focus of constant research. They are vital elements of our determination to build durable partnerships.

We work to **continuously improve** our production standards. We focus all our intelligence and know-how on **optimising our use of resources**, in order to build sustainable supply chains while reducing costs.

“**COMPETITIVENESS IS CENTRAL TO OUR APPROACH.**”



A FEW EXAMPLES

THREE-FOLD REDUCTION IN ANNUAL COSTS

By working with one of our clients on our plating technologies, **we have achieved a three-fold reduction in our annual part production costs for the same volume**, from 300 000 € to 100 000 €.



-40%

Our selective plating technologies reduce the amount of precious metals used - **saving up to 40% on overall costs.**



x2

We have more than doubled productivity in terms of linear metre of electrolyte for tin and nickel baths.



ASK FOR...

RELIABILITY

**YOUR TRUST
MUST BE EARNED**



WE HAVE THE MEANS TO ACHIEVE **EXCELLENCE**

A large part of our annual turnover is dedicated to **investment**, as part of our **determination to constantly improve** our products and services.

Our goal is to achieve **full process automation**. This is why we are investing in new plating lines and constantly upgrading existing lines.

Our efforts focus on:

- automating and standardising production specifications,
- automatic process management based on continuous measurements,
- real-time logging and analysis of production data.

Safety is another top priority. **Our industrial sites are protected against risks of fire and intrusion**, the former being the subject of onboard technologies on machines and surveillance by a dedicated control centre.

We have a **very strong health and safety policy** that includes long-term medical checkups for our employees and the setting up of strict procedures designed to limit the risk of accidents.



60%

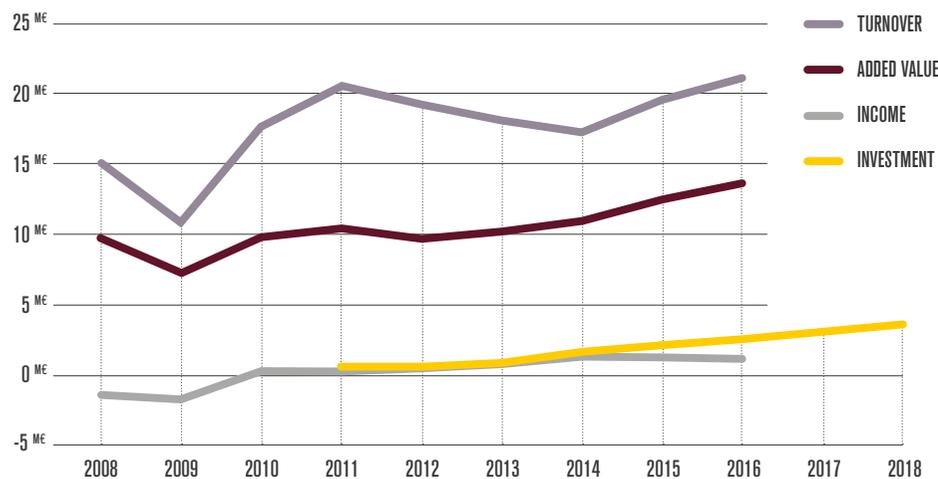
OF OUR CUSTOMERS HAVE BEEN WORKING WITH US FOR OVER 15 YEARS

27%

OF OUR TURNOVER COMES FROM EXPORTS, A FIGURE THAT HAS TRIPLED IN 5 YEARS

10%

OF OUR TURNOVER IS RESERVED FOR INVESTMENT IN 2017





ASK FOR...

BUSINESS ETHICS

**FUTURE STARTS
TODAY**





PROTECTING THE ENVIRONMENT AND **WORKING TOWARDS CREATING A BETTER FUTURE**

As a company located in the heart of Auvergne in unspoiled natural surroundings, we made environmental issues a key concern very early on.

At every step in our processes we strive to maintain the ecological balance and reduce our environmental footprint. To do this, we are continuously working to **reduce and recycle our waste** and have **our own water treatment stations**.

We were the first plating company in France to be approved to **self-check the quality of the treated water**.

We are **10 times below the authorised nickel and copper content norms**, and have also set up a system for optimizing waste treatment, with the goal of achieving zero non recycled waste in the near future.

We also follow an **ethical and responsible raw materials purchasing policy**.



WE INTEGRATE ENVIRONMENTAL PROTECTION AT EACH STEP."

2

WATER TREATMENT PLANTS

that can treat up to
50 M³ / HOUR
for an overall invested amount greater than **4M€**

+

200 000 m³

WATER TREATED ANNUALLY

+

2 to 10 TIME LESS

Our chemical waste is **2 to 10 times below** Environmental requirements

+

-73%

By improving our processes, we have **significantly reduced tin losses**, from 15 tons in 2015 to 4 tons in 2017



ASK FOR...

AN EXCEPTIONAL LOCATION

**REACHING
BEYOND MOUNTAINS
IS IN OUR NATURE**

OUR WORKING ENVIRONMENT : AN OPPORTUNITY

Our company is located within a **protected area**, where the topography and vegetation provide a wealth of different landscapes.

We enjoy space, excellent quality of water and energy. We also know we can count on strong support from our elected officials, local businesses with whom we work, and, more generally, from the people living in our beautiful area.

These exceptional conditions offer our teams an outstanding **comfort** and **quality of life** that plays a vital role in their **well-being**.

We have made our location, **in the heart of France and Europe**, a strategic advantage that contributes to our excellent response times and the creation of local relationships with our partners.

We have also set up a **shuttle** and offer to collect your orders, treat them and send them back to you thereby optimizing our logistic procedure.



**WE HAVE MADE OUR LOCATION
A STRATEGIC ADVANTAGE. ”**



2

PRODUCTION SITES

- › Siaugues St-Romain
- › Saugues

1

MANUFACTURING SITE FOR OUR OWN
PLATING LINES

- › Vissac



ASK FOR...

SHARING

**TOGETHER, WE BELIEVE
IN THE POTENTIAL OF EACH
INDIVIDUAL**

OUR WEALTH? OUR HUMAN RESOURCES

Our company has a team of **180 professionals** engaged in **over 40 business areas** (line drivers, chemists, electricians, metalworkers, mechanics, designers, computer technicians, administrative staff, etc...), all working in close synergy.

We are proud of our teams and optimize their know-how by offering them **the opportunity to improve** their skills at every qualification level.

Aware of their abilities, our team is **proud** to be involved in ensuring the **success** of our customers' projects, and of the role of their products in the world around us.

“
**OUR GREATEST ADVANTAGE
LIES IN THE MEN AND WOMEN
WHO WORK AT PEM.**”



+40

PROFESSIONAL AREAS

+

82%

EMPLOYEES TRAINED IN 2016

FOR A BUDGET OF

145 000 €

+

66%

OF OUR EMPLOYEES HAVE BEEN WITH PEM
FOR OVER 15 YEARS

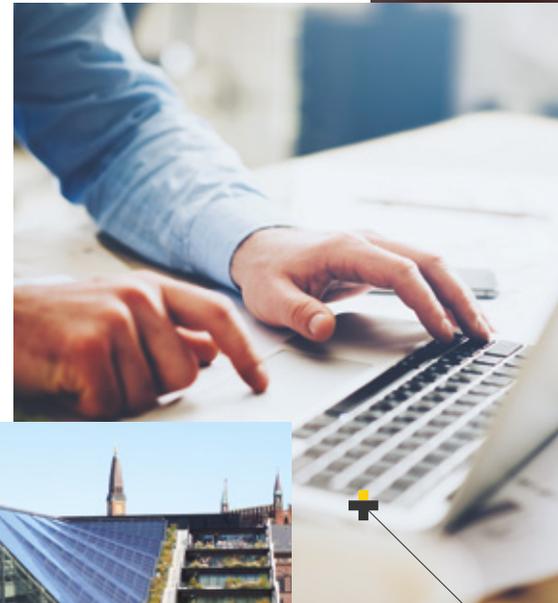
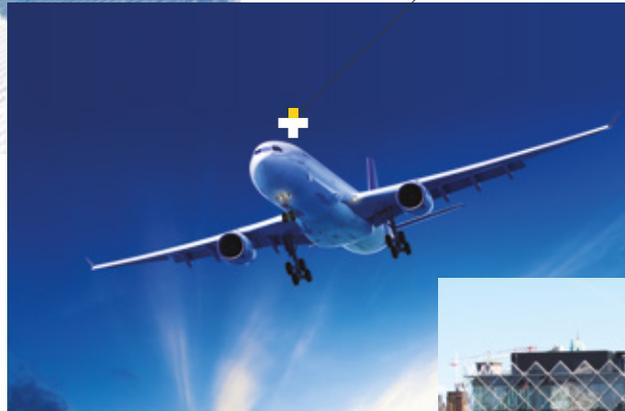
40%

FOR OVER 20 YEARS



ASK FOR...

WHERE WE ARE



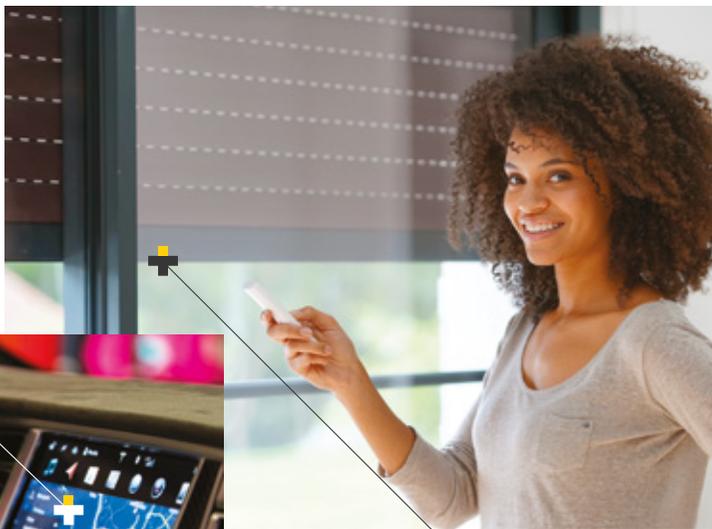
WE ARE HERE



WE ARE HERE



NOUS SOMMES LÀ



WE ARE HERE

WE ARE HERE

WE ARE HERE



MAJOR BRANDS USE OUR KNOW-HOW AND EXPERTISE:

AUTOMOTIVE

AUDI
BOSCH
PORSCHE
GROUPE PSA
RENAULT
MICHELIN
CONTINENTAL
VALEO
MAGNETI MARELLI
FORD
FIAT
FERRARI
NISSAN,
TOYOTA
DACIA
...

SMART HOME

SOMFY
LEGRAND
SCHNEIDER ELECTRIC
...

SKI

LACROIX
ROSSIGNOL
SALOMON
FISHER
EXTREM
DYNASTAR
...

PEM⁺

ASK FOR MORE

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