TechCenters
From product development to best local service
What are TechCenters?

To offer best local service and conduct extensive research and development (R&D), we have established a network of TechCenters in all key locations worldwide. Combining unique capabilities, sophisticated equipment and highly proficient teams of experts – TechCenters support our R&D efforts and exemplify our commitment to innovation while providing leading customer service.

From routine analyses to pilot production

From routine analyses to customized examinations of samples – Atotech TechCenters offer a host of unique services to our customers. Our technical specialists collaborate closely with customers and industry partners to undertake sampling, prototyping as well as pilot productions under production-scale conditions. All our analytical and materials science laboratories are fully equipped with cutting-edge equipment and tools.

Benefit from our expertise

The TechCenters support our vision to constantly innovate and build new expertise. This enables us to provide top-notch technical support as well as to develop next generation processes. We share our knowledge with our customers and industry partners through hands-on training in our TechCenters worldwide.

Leading the movement for sustainable technologies

The future of our industry depends on sustainability. Our long-term commitment combined with a clearly defined roadmap and intensive R&D, allows for constant progress towards our sustainability goals. TechCenters help us in developing and promoting new, more environmentally-friendly production solutions that reduce water, energy and chemical consumption while minimizing waste and the use of toxic substances – this reduces costs and protects the environment.
Helping customers remain one step ahead

Working closely with our customers and industry partners helps us anticipate the industry’s future requirements. With the support of our TechCenters we are able to introduce new and relevant technologies to the market faster – offering our customers a strong competitive edge.
Europe is the heart of our GMF R&D activities with our head office located in Berlin (Germany) and the Corrosion Protection Competence Center in Trebur (Germany). Our European TechCenters support R&D activities while delivering first-rate service to our European customers.

We established our first European TechCenter in Berlin and have expanded our presence in recent years. In Trebur near Frankfurt (Germany), we built a site dedicated to corrosion protection coatings. Here we develop the latest technologies for zinc electroplating and zinc flake coatings. In the affiliated TechCenter, we offer our customers the chance to run pilot productions.

To provide first-class service across Europe, we built two further TechCenters in Jablonec (Czech Republic) and Milan (Italy).
## Sample plating equipment

### Berlin, Germany

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Coatings/Protections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic production-sized plating line for</td>
<td>decorative coatings (plating on plastics, Cu/Ni/Cr)</td>
</tr>
<tr>
<td>Manual plating lines for</td>
<td>functional chrome coatings</td>
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<tr>
<td></td>
<td>electroless nickel coatings</td>
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<tr>
<td></td>
<td>functional electronic coatings (Cu, Ni, Sn, Sn/Pb, Ag, Au, Pd, Pd/Ni, Ru, Rh), adhesion promoter for leadframes, overflow high-speed plating (Sn)</td>
</tr>
</tbody>
</table>

### Trebur, Germany

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Coatings/Protections</th>
</tr>
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<tbody>
<tr>
<td>Automatic production-sized plating line for</td>
<td>corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips)</td>
</tr>
<tr>
<td>Automatic production-sized equipment for</td>
<td>zinc flake coatings (planetary dip spin coater)</td>
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<tr>
<td></td>
<td>zinc flake coatings (horizontal dip spin coater)</td>
</tr>
<tr>
<td>Manual equipment for</td>
<td>zinc flake coatings (spray booth, shot blasting, phosphating, dip spin)</td>
</tr>
</tbody>
</table>

### Jablonec, Czech Republic

<table>
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<th>Equipment Type</th>
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<tr>
<td>Manual plating line for</td>
<td>corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips)</td>
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### Milan, Italy

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<th>Equipment Type</th>
<th>Coatings/Protections</th>
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<tbody>
<tr>
<td>Automatic production-sized plating lines for</td>
<td>decorative coatings (plating on plastics, Cu/Ni/Cr)</td>
</tr>
<tr>
<td></td>
<td>corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips)</td>
</tr>
<tr>
<td></td>
<td>pretreatment</td>
</tr>
<tr>
<td>Manual equipment for</td>
<td>zinc flake coatings (shot blasting, phosphating, dip spin)</td>
</tr>
</tbody>
</table>

### Research & development

US $40 M allocated to the general metal finishing business unit in 2015

### Services

From routine or customized analyses to sampling, prototyping and pilot productions
## Sample plating equipment

### Yokohama, Japan
- **Manual plating lines for**
  - Decorative coatings (plating on plastics, Cu/Ni/Cr), corrosion resistant coatings (Zn/Zn alloys, passivates, sealers), functional chrome coatings, electroless nickel coatings, functional electronic coatings (Cu, Sn, Sn/Pb, Ag, Au)

### Guangzhou, China
- **Automatic production-sized plating lines for**
  - Decorative coatings (plating on plastics, Cu/Ni/Cr)
  - Corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips)
- **Automatic production-sized equipment for**
  - Zinc flake coatings (planetary dip spin coater)
- **Manual plating lines and equipment for**
  - Functional electronic coatings (Ni, Cu, Sn, Sn/Pb, Au), zinc flake coatings (spray booth, dip spin), immersion paint stripping, paint pretreatment (immersion and spray), wet paint overspray treatment and wet paint booths

### Shanghai, China
- **Automatic production-sized plating lines for**
  - Decorative coatings (plating on plastics, Cu/Ni/Cr)
  - Corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips)
  - Functional electronic coatings (electroless Cu, Ni, Au for 3D-MID applications)
- **Automatic production-sized equipment for**
  - Zinc flake coatings (planetary dip spin coater)
- **Manual equipment for**
  - Zinc flake coatings (spray booth)

### Kaohsiung, Taiwan
- **Automatic production-sized plating line for**
  - Corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips)
- **Automatic production-sized equipment for**
  - Zinc flake coatings (planetary dip spin coater)
- **Manual equipment for**
  - Zinc flake coatings (spray booth, shot blasting)

### Jangan, South Korea
- **Automatic production-sized plating line for**
  - Corrosion resistant coatings (Zn/Zn alloys, passivates, sealers)
- **Manual plating lines and equipment for**
  - Decorative coatings (plating on plastics, Cu/Ni/Cr), corrosion resistant coatings (Zn/Zn alloys, passivates, sealers), zinc flake coatings (spray booth)

### Singapore
- **Automatic production-sized plating lines for**
  - Rigid memory disk application (pretreatment, electroless nickel, post-dip)
  - Functional electronic coatings (adhesion promoter for leadframes)
- **Manual plating line for**
  - Functional electronic coatings (Cu, Ni, Sn), rack line for pretreatment and post-treatment, overflow high-speed plating (Sn, Ag)

### Bangalore, India
- **Automatic production-sized plating lines for**
  - Decorative coatings (plating on plastics, Cu/Ni/Cr)
  - Corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips)
  - Pretreatment and electroless nickel coatings
Asia – The gold standard in quality and service

With an eye firmly on the future, we have invested heavily in the world’s fastest-growing economic region. We are committed to providing high-quality products and the best local service in the industry to our partners across Asia. In 2000, we opened the first Asian TechCenter at our regional head office in Yokohama (Japan).

Numerous automatic production-sized plating lines allow our customers to run pilot productions while helping us to adapt our products to the requirements of the Asian market.

We have a network of seven TechCenters across Asia, located in Yokohama (Japan), Guangzhou and Shanghai (China), Kaohsiung (Taiwan), Jangan (South Korea), Singapore and Bangalore (India).
The Americas – Proven experience paired with prime resources

11,779 samples plated in automatic plating line in TechCenter Rock Hill (2015)

The Americas are home to some of the largest automotive manufacturers in the world. Our TechCenters in North and South America serve this huge industry.

The TechCenter in Rock Hill (USA) was expanded in 2011 and equipped with one of our largest automatic production-sized lines for decorative coatings within the Atotech TechCenter network. The line has a working window of 120 x 60 x 25 cm, which allows for plating the large parts typical to US automotive manufacturers.

To provide first-class service in the Americas, we set up another two TechCenters in Burlington (Canada) and São Paulo (Brazil).
### Sample plating equipment

<table>
<thead>
<tr>
<th>Location</th>
<th>Equipment Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rock Hill, USA</strong></td>
<td>Automated production-sized plating line for decorative coatings (plating on plastics, Cu/Ni/Cr)</td>
</tr>
<tr>
<td></td>
<td>Manual plating lines and equipment for functional chrome coatings, electroless nickel coatings, immersion and spray paint stripping, paint pretreatment (immersion and spray), wet paint overspray treatment, powder coating and wet paint booths, suitable TechCenter for applying, measuring and/or removing white goods, aluminum wheels, architectural and automotive organic coating systems</td>
</tr>
<tr>
<td><strong>Burlington, Canada</strong></td>
<td>Manual plating line for corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips)</td>
</tr>
<tr>
<td><strong>São Paulo, Brazil</strong></td>
<td>Manual plating lines for decorative coatings (plating on plastics, Cu/Ni/Cr), corrosion resistant coatings (Zn/Zn alloys, passivates, sealers, post-dips), functional chrome coatings</td>
</tr>
</tbody>
</table>

### Automotive
State-of-the-art equipment to plate large parts typical to US automotive manufacturers

### Services
From routine or customized analyses to sampling, prototyping and pilot productions
Indispensable supporting services

189,218 measurements run by materials science services in TechCenter Berlin (2015)

Our analytical and materials science laboratories support you with cutting-edge scientific tools and highly skilled staff. We run everything from routine analyses to sophisticated, customized examinations of customer samples. Our laboratories handle all kinds of product quality and reliability testing, including performance tests for e.g. soldering, bonding, corrosion resistance and torque tension measurements, all carried out in accordance with international standards and OEM specifications.

Our analytical and materials science laboratories play a crucial role in our R&D efforts. Using the latest equipment supports us in developing customer-oriented innovations and solutions.
Unrivaled expertise

**Analytical services**

- Process control with regular analysis of the bath
- Analyze samples, electrolytes and wastewater using state-of-the-art measurement equipment
- Determine elements with spectroscopic methods (F-AAS, ICP-OES) and ion chromatography
- Determine organic additives with chromatographic and electrochemical methods (HPLC, GPC, GC, CVS)
- Training in analytical methods according to the technical data sheets (TDS)
- Troubleshooting support with analytical investigations and process specific practical tests

**Materials science services**

- Inspecting solid samples with highly sophisticated microscopes such as AFM, SEM and FIB
- Determine layer thickness and crystal structures
- Analyze elemental composition with spectroscopic methods such as XRF and EDX
- Determine surface roughness by various optical and tactile methods
- Investigate mechanical properties like hardness, peel strength, ductility and CoF
- Perform corrosion testing according to a variety of standards (e.g. NSS, AASS, CASS)

76,123 measurements run by analytical services in TechCenter Berlin (2015)
All over the world and right around the corner

With our global TechCenter network, customer support is always close at hand. Our expert teams provide first-class support and consultation for every technical requirement.

We run 14 TechCenters in the general metal finishing business unit. These are located in Germany, the Czech Republic, Italy, Japan, China, Taiwan, South Korea, Singapore, India, Canada, the USA and Brazil.