The Paul Wurth Group is one of the world leaders in the design and supply of the full-range of technological solutions for the primary stage of integrated steelmaking.

The Group also provides tailor-made equipment and systems for other industries.

At regional level, Paul Wurth is a reliable partner for demanding construction and infrastructure projects.
## Paul Wurth history

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td>Eugène Muller builds a <strong>boilermaking facility</strong> in Luxembourg Hollerich, known as &quot;Kesselfabrek&quot;.</td>
</tr>
<tr>
<td>1890</td>
<td>Business is taken over by Paul Wurth. The firm specialises in <strong>metal erection works</strong>, especially the construction of metal bridges and blast furnace shells.</td>
</tr>
<tr>
<td>1951</td>
<td>Paul Wurth acquires from a British firm the licenses needed to supply <strong>complete blast furnaces</strong> with all the accessories.</td>
</tr>
<tr>
<td>1954</td>
<td>Construction of a <strong>first blast furnace</strong> at Seraing in Belgium.</td>
</tr>
<tr>
<td>1969</td>
<td>Invention of the <strong>Bell Less Top</strong> charging system, which revolutionizes iron &amp; steel industry the world over.</td>
</tr>
<tr>
<td>1977</td>
<td><strong>First subsidiary</strong> (Brazil) – development of sales &amp; engineering network.</td>
</tr>
</tbody>
</table>

### Organic growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>Creation of <strong>TMT Tapping – Measuring – Technology</strong>.</td>
</tr>
<tr>
<td>2004</td>
<td>Fabrication activities transferred to Arcelor Dommeldange. Paul Wurth becomes a <strong>pure engineering company</strong>.</td>
</tr>
<tr>
<td>2004</td>
<td>Integration of <strong>Didier - M&amp;P Energietechnik</strong> specialised in hot blast stove technology and refractory &amp; lining concepts (<strong>Paul Wurth Refractory &amp; Engineering GmbH</strong>).</td>
</tr>
<tr>
<td>2005</td>
<td>Take-over of the blast furnace, coke making and direct reduction activities as well as the staff from <strong>SMS Demag S.p.A.</strong> and creation of <strong>Paul Wurth Italia S.p.A.</strong></td>
</tr>
<tr>
<td>2009</td>
<td>50.4% shareholding in <strong>CTI Systems</strong>, specialised in automated intralogistics systems. In 2011, stake increased to 75.2%. In 2013, stake brought to 100%.</td>
</tr>
<tr>
<td>2012</td>
<td>Creation of <strong>Paul Wurth IHI Corp., Ltd</strong> in Japan.</td>
</tr>
<tr>
<td>2012</td>
<td>Paul Wurth becomes part of the <strong>SMS group</strong>.</td>
</tr>
</tbody>
</table>
Global Player

- About **1,630** highly-qualified staff
- **26 Group members** in 17 countries, including 20 operational entities
- **Joint ventures**: TMT, Paul Wurth-IHI, P&A Industrial Engineering, Paul Wurth Kovrov
- Other countries covered by **Representations**
### Shareholders of Paul Wurth S.A.

<table>
<thead>
<tr>
<th>Shareholder</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMS group</td>
<td>59.1%</td>
</tr>
<tr>
<td>Luxembourg State</td>
<td>40.8%</td>
</tr>
<tr>
<td>Direct participation</td>
<td>11.0%</td>
</tr>
<tr>
<td>SNCl (Investment and development bank)</td>
<td>18.8%</td>
</tr>
<tr>
<td>BCEE (Savings bank)</td>
<td>11.0%</td>
</tr>
<tr>
<td>Others</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

**Subscribed capital** | EUR 13 773 600.-

**Consolidated equity**<sup>*</sup> | EUR 103.1 million

<sup>*</sup> as at 31.12.2013 in accordance with IFRS
Financial data

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover *</td>
<td>491.1</td>
<td>451.5</td>
<td>483.8</td>
</tr>
<tr>
<td>Result before tax *</td>
<td>25.6</td>
<td>10.9</td>
<td>22.5</td>
</tr>
<tr>
<td>New orders</td>
<td>411.2</td>
<td>507.6</td>
<td>336.3</td>
</tr>
<tr>
<td>Order book *</td>
<td>900.1</td>
<td>796.9</td>
<td>820.3</td>
</tr>
</tbody>
</table>

* since 2012 according to IFRS (before LUXGAAP)

Business Development

Staff evolution

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies of the Group</td>
<td>1555</td>
<td>1613</td>
<td>1532</td>
<td>1653</td>
</tr>
</tbody>
</table>
Technology Portfolio

221 patented inventions protected by 1648 active patents

Licencees: 40 of which 25 active

Certifications

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- VCA/SCC** Safety Management System
- EN 1090-1 Factory Production Control

(Certifications may vary from one entity to another)
Our services

<table>
<thead>
<tr>
<th>Feasibility studies</th>
<th>Conceptual, basic &amp; detail engineering</th>
<th>Project management</th>
<th>Plant &amp; components supply</th>
<th>Fabrication of key components in dedicated workshops</th>
<th>Turnkey projects</th>
<th>Assistance in plant assembly &amp; commissioning</th>
<th>Technology &amp; operation consultancy</th>
<th>After-sales services</th>
</tr>
</thead>
</table>

Blast Furnace Plants & Technology  
Coke Making Plants & Technology  
Sintering Plants & Technology  
Direct Reduction Plants  
Environmental Protection & Recycling Technologies  
Systems & Equipment for the Non-Ferrous Industry  
Integrated Automated Handling & Storage Solutions  
Civil & Environmental Engineering
Competence for the entire metallurgical chain
Engineering and construction of complete blast furnace plants

Blast furnace modernisations, rebuilds and relines
Blast Furnace Plants & Technology

Full range of blast furnace technology and equipment in-house

- Top charging technology
- Blast furnace proper
- Cooling and lining concepts, equipment & refractories
- Casthouse
  - Casthouse arrangements and runners
  - Tapping equipment (by TMT*)
- Pig Casting machines
- Unit equipment
- Automation and Process Control

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Blast Furnace Plants & Technology

Auxiliary plants

- Stockhouse
- Hot blast stoves & energy recovery
- Coal grinding & drying; Pulverised coal injection plants
- Gas cleaning plants
- Top gas energy recovery
- Slag granulation and dewatering
Complete coke making plants

- Coke oven batteries
- Coke oven by-products and auxiliary plants
  - Coke quenching systems on dry and wet basis
  - Tar decanter
  - Primary coke oven gas cooling
  - Ammonia and naphthalene scrubbing
  - Ammonia distillation and combustions facilities
- SUPRACOK™ Coke oven plant centralised supervision and process control
- SOPRECO™ Single oven pressure control system
- Coke handling machines
Engineering and construction of complete sintering plants

EFA™ technology for sintering off-gas cleaning
Engineering and construction of Direct Reduction plants based on MIDREX® license

Energy sources: Reducing gas:

- Natural Gas
- MIDREX®
- SynRG® Reformer
- Steam Reformer
- MIDREX® NG Plant
- Coal
- Pet Coal
- Refinery Bottoms
- Gasifier
- MXCol® Plant
- Coke Oven Gas (COG)
- Thermal Reactor System™

Product options:

- CDRI
- HDRI
- HBI
Steel & Non-Ferrous Waste Recycling Plants

PRIMUS® process
• for recycling iron- and steelmaking by-products
• for recycling non-ferrous by-products

RedIron™ and RedSmelt™ direct reduction process
• for the treatment of steel plant wastes and the production of DRI or hot metal

i-Meltor™ process
• for recycling non-ferrous metal containing by-products
• for recovering the iron fraction of metallurgical residues

PLD deoiling process
• for the treatment of oily sludge and scales from steel mills
• for the recovery of iron content
Pyrometallurgy
- Pneumatic conveying & injection
- Tapping equipment (by TMT*)
- Granulation & dewatering

* TMT = Tapping Measuring Technology - a joint company of Dango & Dienenthal GmbH and Paul Wurth S.A.

Electrometallurgy
Zinc Electrowinning
- Purification
- Secondary feed
- LarCath™ concept for cellhouse
  - Layout optimization
  - Automated electrode handling
  - Cathode Stripping & Brushing
  - Anode flattening

Residue treatment
- Recycling of valuable metal containing by-products
Environmental Protection Technologies for the Metals Industry

Pollution control installations and core components

- Blast Furnace top gas cleaning
- Dedusting and filtering systems
- Off-gas cleaning and treatment for primary metallurgical processes
- Coke oven gas treatment
- Energy recovery and optimisation
Civil & Environmental Engineering

Management and coordination of large civil and industrial construction and infrastructure projects

Our fields of activities
- Administrative buildings
- Infrastructure / Transport / Mobility
- School complexes
- Modular buildings
- Industrial facilities / logistics
- Project and site development

Our services
- Project Management
- Project Coordination
- Design & Build
- General Planning
- Engineering support
- Green building consulting & certification
Automated turnkey solutions for heavy load:

**Intralogistics**
- automated material handling and storage systems for heavy loads, MES and WMS software

**Surface Treatment**
- systems for surface treatment and assembly lines in commercial vehicle and agricultural equipment industry, process software

**Aviation**
- systems for aircraft painting and maintenance, engine handling, aircraft manufacturing, air cargo handling
Key References

New BF8 with sub-plants, ThyssenKrupp Steel, Hamborn, Germany
New BF'H', TATA Steel, India
New BF1, BF2 & BF3, Hyundai Steel, South Korea
Key References

New BF1 & BF2, ThyssenKrupp CSA, Brazil
BF6, AHMSA, Mexico
BF2 reline, SAIL Bokaro, India
Key References

New BF7, Novolipetsk Iron & Steel, Russia

BF3, Rashtriya Ispat Nigam, Visakhapatnam, India

BF “I”, TATA Steel, India
Key References

New coke oven batteries B3 and B1, Zentralkokerei Saar, Germany

New coke oven battery 1E, Sumitomo Metals, Japan

New coke oven batteries B1 and B2, including gas treatment plant, PT Posco Krakatau, Indonesia
Key References

PRIMUS® recycling plant, Dragon Steel Corp., Taiwan

Sinterplant off-gas cleaning system, Salzgitter, Germany

Dry Slag Granulation pilot plant, Dillinger Hütte, Germany
Major ongoing projects

- Modernisation of BF3, AM Temirtau, Kazakhstan
- New BF8, SAIL Bhilai, India
- Reline of BF1, Ilva, Italy
- Hot stoves repair VASL, Austria
- PCI plants for Evraz Group, Russia
- PCI plant for 4 BFs of IUD’s DMKD Works, Ukraine
- PCI plants for Salzgitter Flachstahl, Germany
- Dry Slag Granulation R&D Project, Dillinger Hütte, Germany
- New coke plant, Bhushan Power & Steel, India
- New coke plant, Bhushan Steel, India
- New coke oven battery, Posco – Vale JV, PECEM – Brazil
- New sinter plant, Bhushan Power & Steel, India
- Cathode stripping machines, CYMG, China
- Cu slag granulation facility, KGHM, Poland
Thank you for your attention