

PAUL WURTH

SMS group

Corporate Presentation

July 2014





Full-line technology provider



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

Organic growth	1870	Eugène Muller builds a boilermaking facility in Luxembourg Hollerich, known as "Kesselfabrek".
	1890	Business is taken over by Paul Wurth. The firm specialises in metal erection works, especially the construction of metal bridges and blast furnace shells.
	1951	Paul Wurth acquires from a British firm the licenses needed to supply complete blast furnaces with all the accessories.
	1954	Construction of a first blast furnace at Seraing in Belgium.
	1969	Invention of the Bell Less Top® charging system, which revolutionizes iron & steel industry the world over.
	1977	First subsidiary (Brazil) – development of sales & engineering network.
External growth (2000– 2012)	2003	Creation of TMT Tapping – Measuring – Technology.
	2004	Fabrication activities transferred to Arcelor Dommeldange. Paul Wurth becomes a pure engineering company.
	2004	Integration of Didier - M&P Energietechnik specialised in hot blast stove technology and refractory & lining concepts (Paul Wurth Refractory & Engineering GmbH)
	2005	Take-over of the blast furnace, coke making and direct reduction activities as well as the staff from SMS Demag S.p.A. and creation of Paul Wurth Italia S.p.A.
	2009	50.4% shareholding in CTI Systems, specialised in automated intralogistics systems. In 2011, stake increased to 75.2%. In 2013, stake brought to 100%.
	2012	Creation of Paul Wurth IHI Corp., Ltd in Japan.
	2012	Paul Wurth becomes part of the SMS group.





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

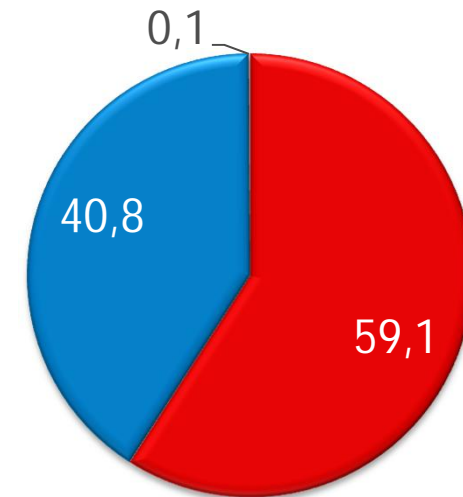




Paul Wurth Ownership Structure

Shareholders of Paul Wurth S.A.

SMS group	59.1%
Luxembourg State	40.8%
Direct participation	11.0%
SNCI (Investment and development bank)	18.8%
BCEE (Savings bank)	11.0%
Others	0.1%



Subscribed capital EUR 13 773 600.-

Consolidated equity* EUR 103.1 million

* as at 31.12.2013 in accordance with IFRS



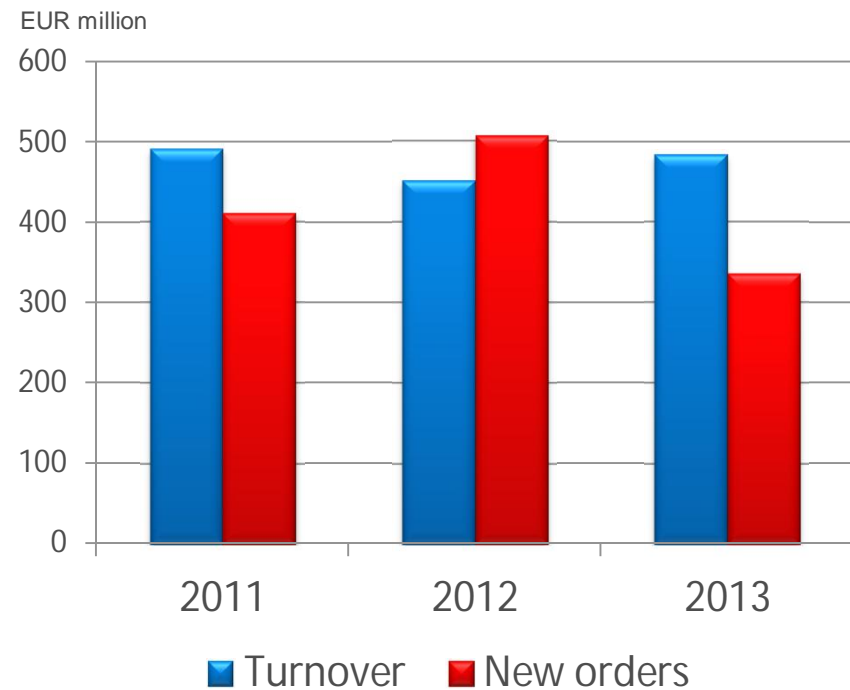
Key indicators of Paul Wurth Group

Financial data

(in MEUR)	2011	2012	2013
Turnover *	491.1	451.5	483.8
Result before tax *	25.6	10.9	22.5
New orders	411.2	507.6	336.3
Order book *	900.1	796.9	820.3

* since 2012 according to IFRS (before LUXGAAP)

Business Development



Staff evolution

Headcount (as at 1 st Jan)	2011	2012	2013	2014
Companies of the Group	1 555	1 613	1 532	1 653



Technology Portfolio

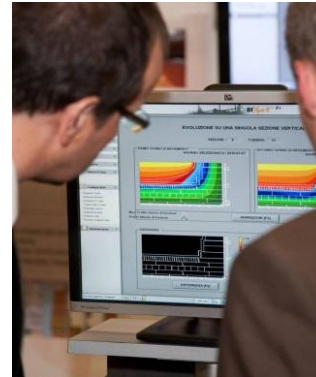
221 patented inventions protected by
1648 active patents

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)





Paul Wurth Products & Services



Blast
Furnace
Plants &
Technology



Coke
Making
Plants &
Technology



Sintering
Plants &
Technology



Direct
Reduction
Plants



Environ-
mental
Protection &
Recycling
Technologies



Systems &
Equipment
for the Non-
Ferrous
Industry



Integrated
Automated
Handling &
Storage
Solutions



Civil &
Environ-
mental
Engineering

Our services

Feasibility
studies

Conceptual,
basic & detail
engineering

Project
management

Plant &
components
supply

Fabrication of
key compon-
ents in
dedicated
workshops

Turnkey
projects

Assistance
in plant
assembly &
commission-
ing

Technology &
operation
consultancy

After-sales
services

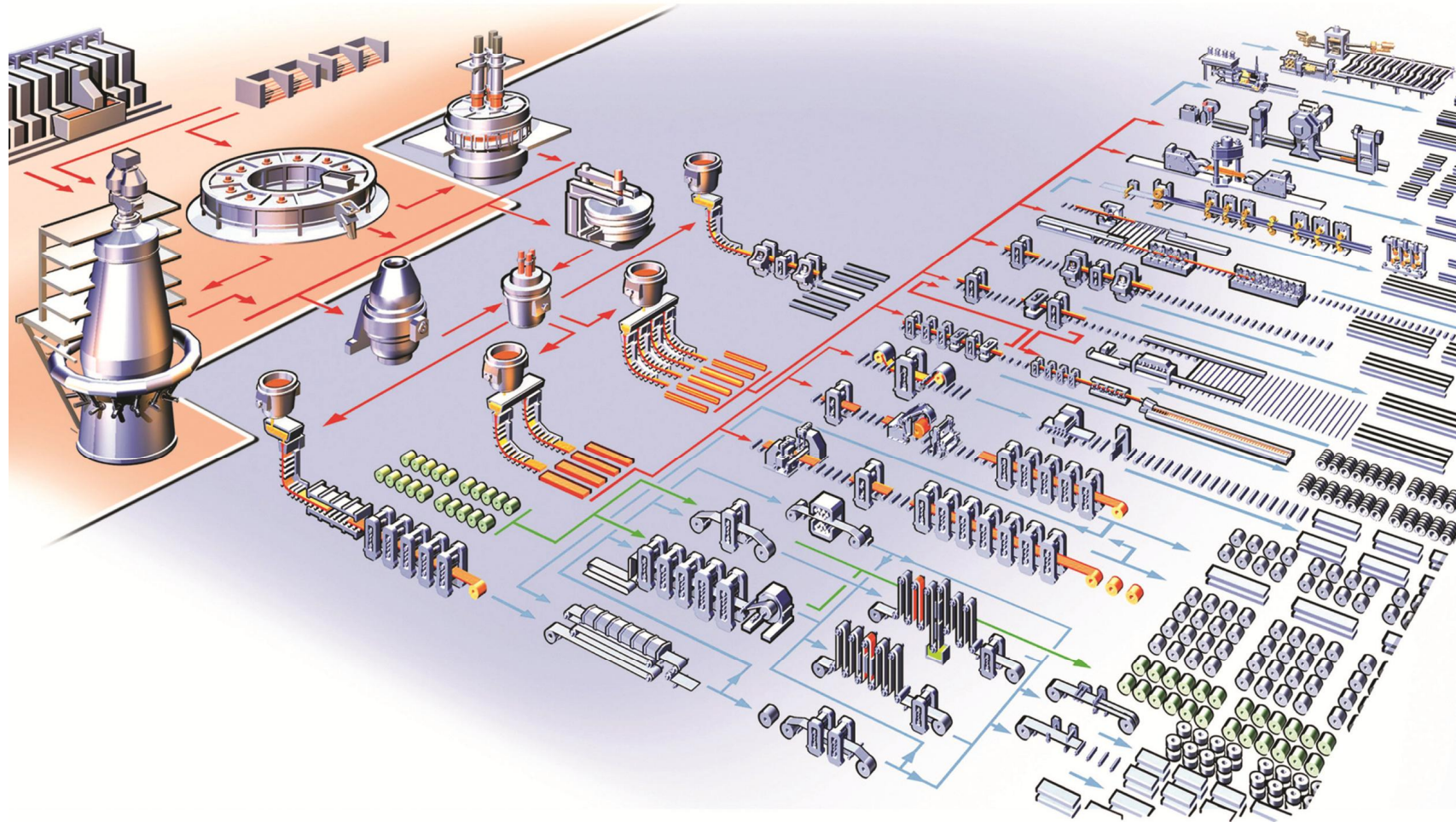


Competence for the entire metallurgical chain

 **PAUL WURTH**
SMS group

**SMS
SIEMAG**
SMS group

**SMS
MEER**
SMS group





Blast Furnace Plants & Technology



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

* TMT - Tapping Measuring Technology -
a joint company of Dierckx & Dierenthal GmbH and Paul Wurth S.A.





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





Coke Making Plants & Technology



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





Sintering Plants & Technology



Engineering and construction of complete sintering plants



EFA™ technology for sintering off-gas cleaning





MIDREX® Direct Reduction Plants



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

MXCoI®
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





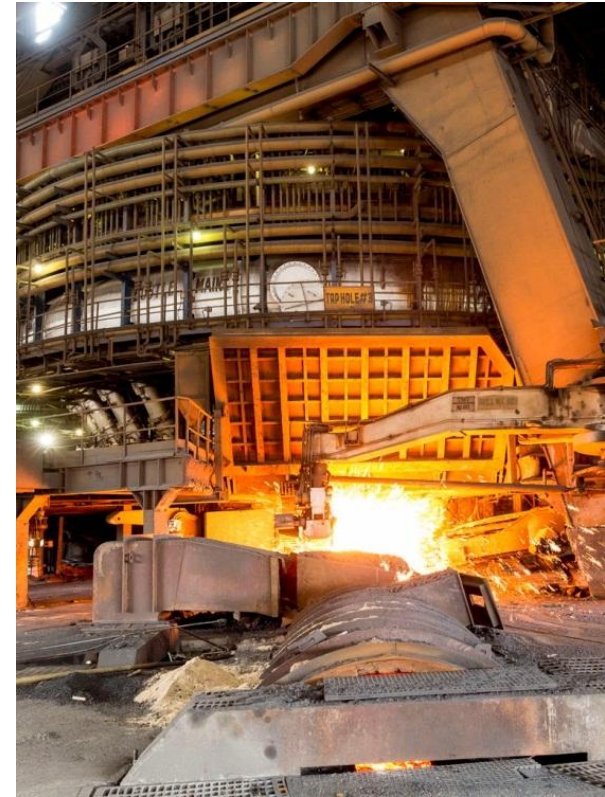
Key References



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



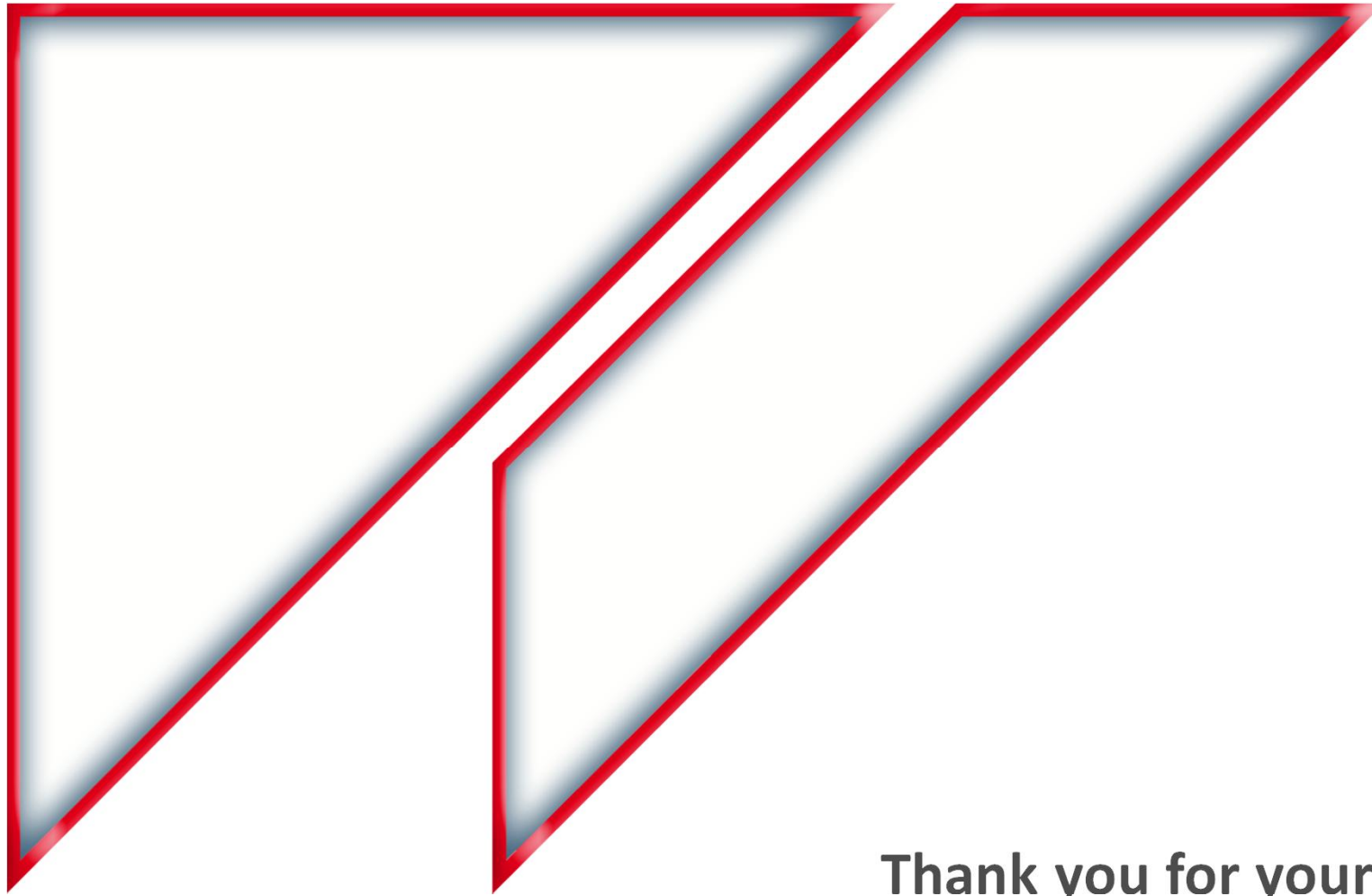


Major ongoing projects



- 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

