

Chemetall

...the  **Lithium** company



Dr. Monika Engel-Bader
President Chemetall GmbH

Seminar Sociedad Nacional de Minería
“Lithium and national economy”
Santiago de Chile, August 5th 2010

...the  **Lithium** company

This presentation may contain certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 concerning the business, operations and financial condition of Rockwood Holdings, Inc. and its subsidiaries ("Rockwood"). Although Rockwood believes the expectations reflected in such forward-looking statements are based upon reasonable assumptions, there can be no assurance that its expectations will be realized. "Forward-looking statements" consist of all non-historical information, including the statements referring to the prospects and future performance of Rockwood. Actual results could differ materially from those projected in Rockwood's forward-looking statements due to numerous known and unknown risks and uncertainties, including, among other things, the "Risk Factors" described in Rockwood's 2008 Form 10-K with the Securities and Exchange Commission. Rockwood does not undertake any obligation to publicly update any forward-looking statement to reflect events or circumstances after the date on which any such statement is made or to reflect the occurrence of unanticipated events.

All data used are based on Roskill Report 2009/2010.



Net Sales: \$ 2,963
Employees: 9,500

**Specialty
Chemicals
(Chemetall)**

Net Sales: \$ 997



**Pigments &
Additives**

Net Sales: \$ 1,338



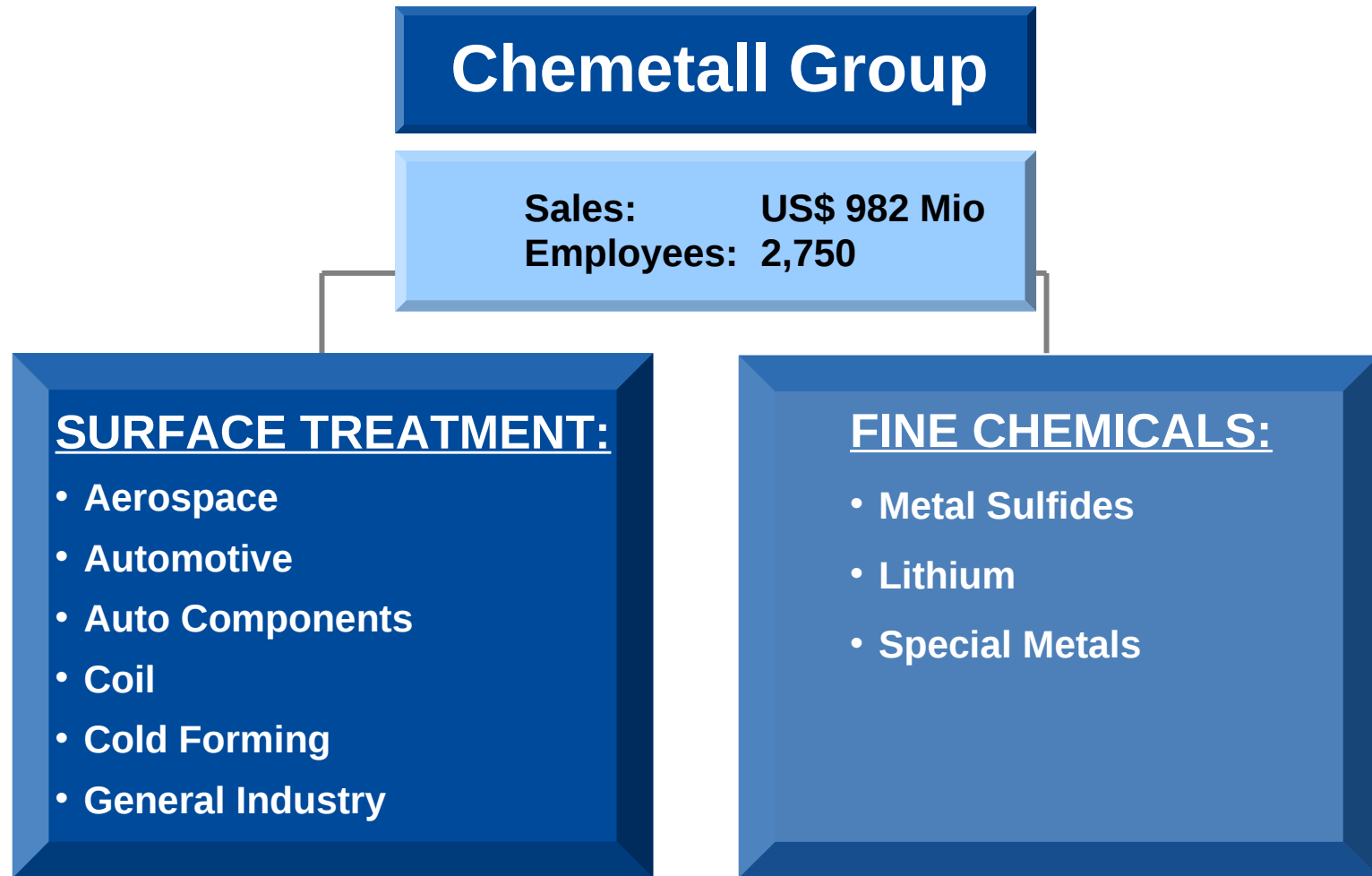
**Advanced
Materials**

Net Sales: \$ 628



(\$ millions)

Rockwood - A leading specialty chemicals and advanced materials company

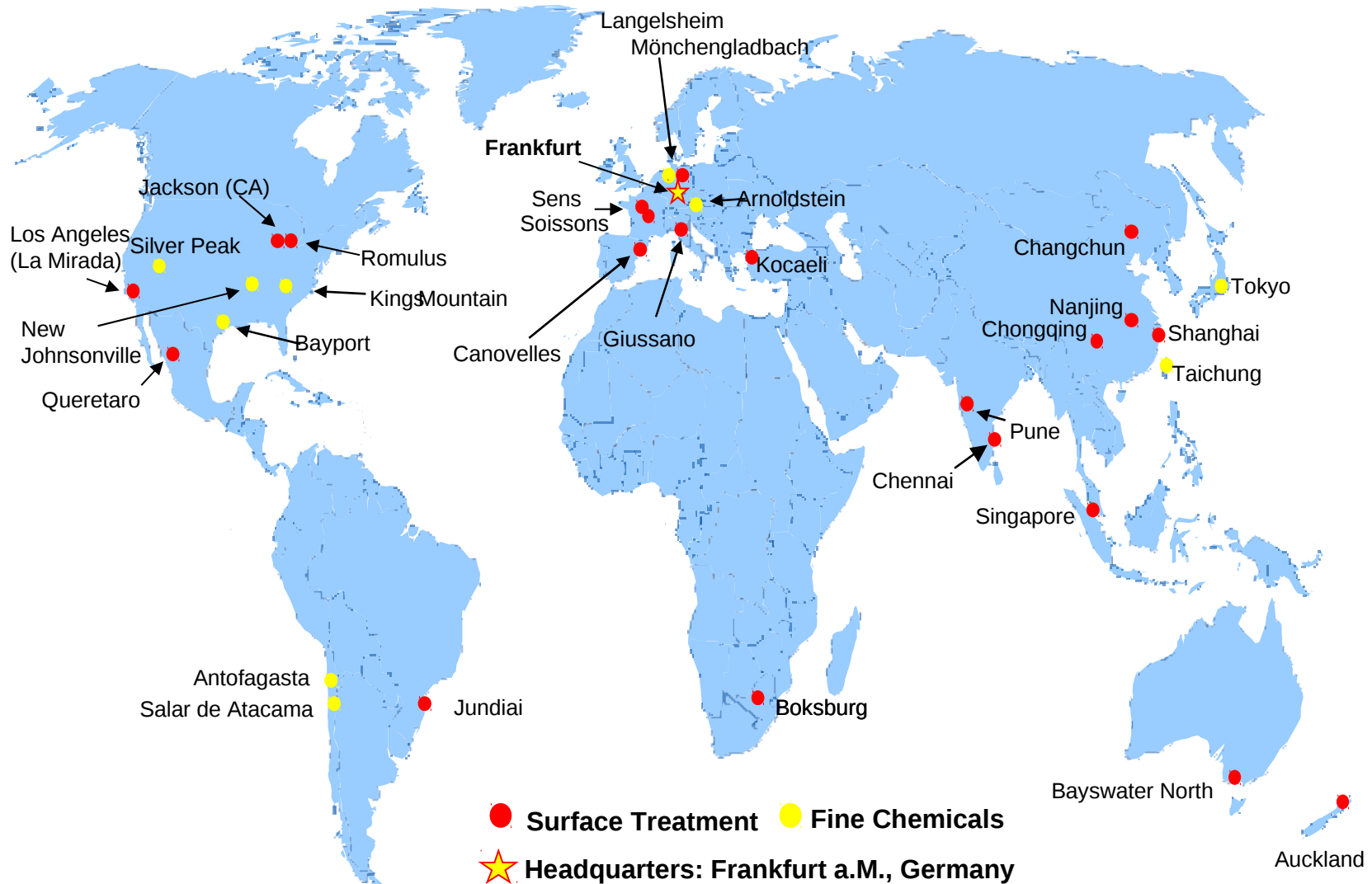


- Chemetall is a global company with headquarter in Frankfurt, Germany
- Chemetall is market leader No. 1 or 2 in all business segments
- Chemetall is respected as technology leader with Research & Development Centers around the world and many cooperations with institutes and universities
- Chemetall has a global sales force of about 2750 people with strong connections to the car and battery industry
- Chemetall has very high standards in regard of Ethics, Culture, Safty, Health and Environmental Protection

Chemetall ... much more than chemistry.

Strong Global Presence – Manufacturing Plants

Chemetall



Chemetall enables customers' growth in all regions of the world

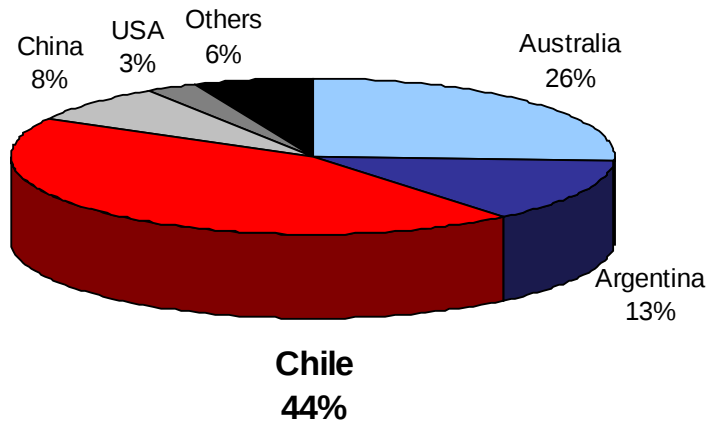
...the  **Lithium** company

History

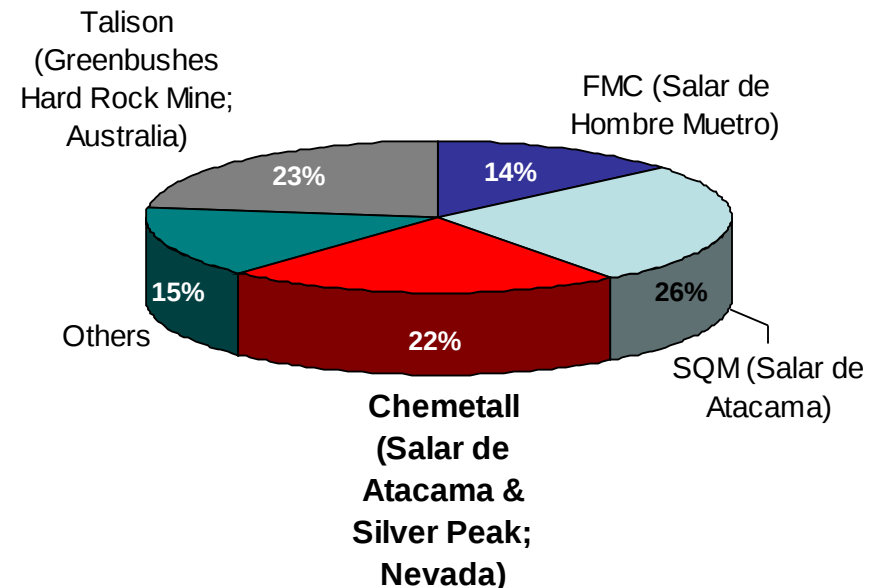
- SCL was established in August 13, 1980
- First brine production in 1984
- Lithium Carbonate plant (Li_2CO_3 TG) since 1984
- Potassium Chloride plant (KCl) since 1988, at El Salar
- Lithium Chloride plant (LiCl) since 1997.
- High Purity Lithium Carbonate (Li_2CO_3 HP) since 2004
- Other products
 - Magnesium chloride ($\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$)
 - Sodium Chloride (NaCl)
 - Potash (KCl)

Chile is the **Lithium Champion** and base for the two leading Lithium component producers (based on Lithium demand of 126.000 tons LCE in 2008).

Lithium supply by region



Lithium supply by company



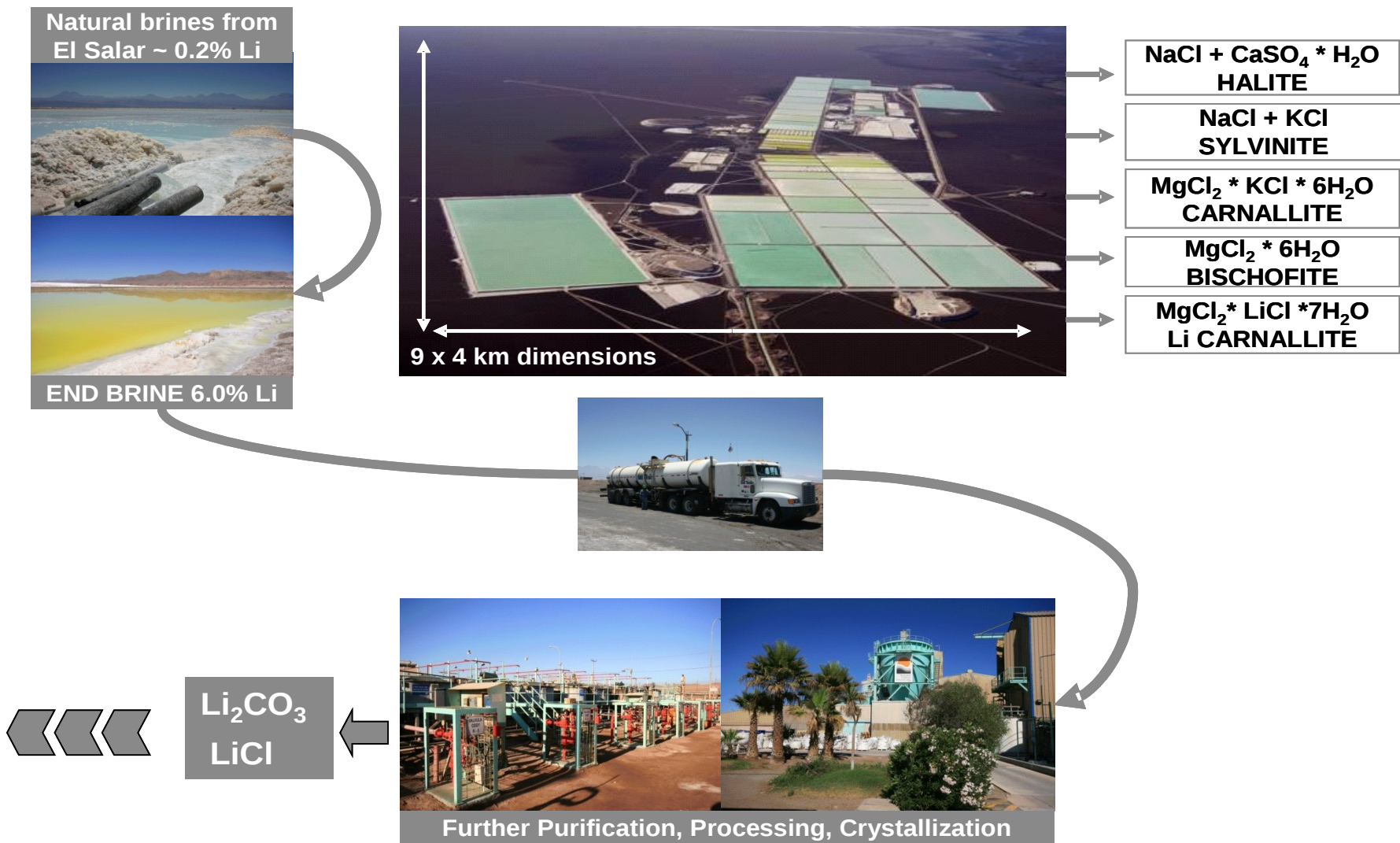
Chile is the leading Lithium producer, because

- Chile is a political stable and modern country
- Salar de Atacama is the “best” known source for Lithium brine in regard of
 - Quality of the brine (2000 ppm Lithium, good Mg/Li ratio)
 - Evaporation rate
 - Infrastructure (roads, train, harbors)
- Chile has a very loyal and excellent educated workforce
- Two global companies as market leaders

Chemetall's Strategic Position in Lithium

- World's largest producer of lithium salts and Lithium based organic specialties
- Long history and experience in Lithium production since 1925
- Long-term technology leader
- Leading-edge producer of lithium compounds used in Li-ion batteries
- Production and R&D facilities in North and South America, Europe and Asia-Pacific

Chemetall's Chile Operations Overview



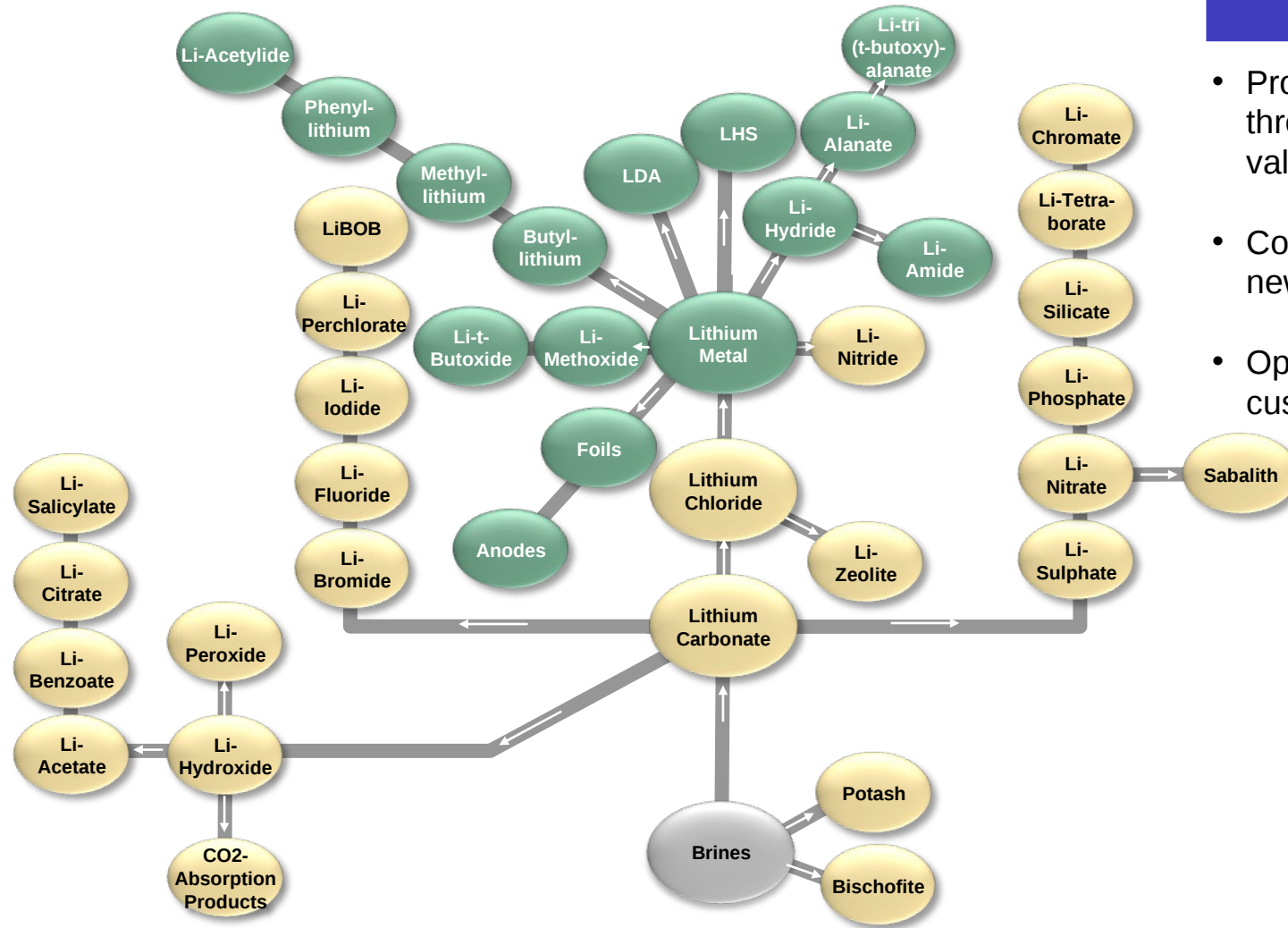
Chemetall has steadily increased production in the past and expects to continue to do so in the future to meet market needs.



17.000 mt



32.000 mt



Comments

- Providing lithium compounds throughout all stages of the value chain
- Constant expansion due to new applications
- Optimization according to customer needs

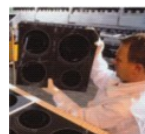
Key Products

Key Applications

Lithium carbonate



Li-Ion-Batteries



Glass ceramics



Cement



Aluminum

Lithium hydroxide



Li-Ion-Batteries



Grease

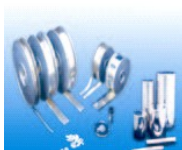


CO₂ Absorption



Mining

Lithium metal



Lithium Batteries



Pharmaceuticals

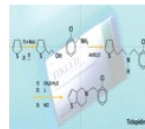


Al - alloys

Butyl-lithium



Elastomers

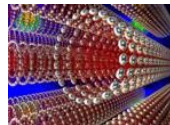


Pharmaceuticals



Agrochemicals

Lithium specialties



Electronic Materials



Pharmaceuticals

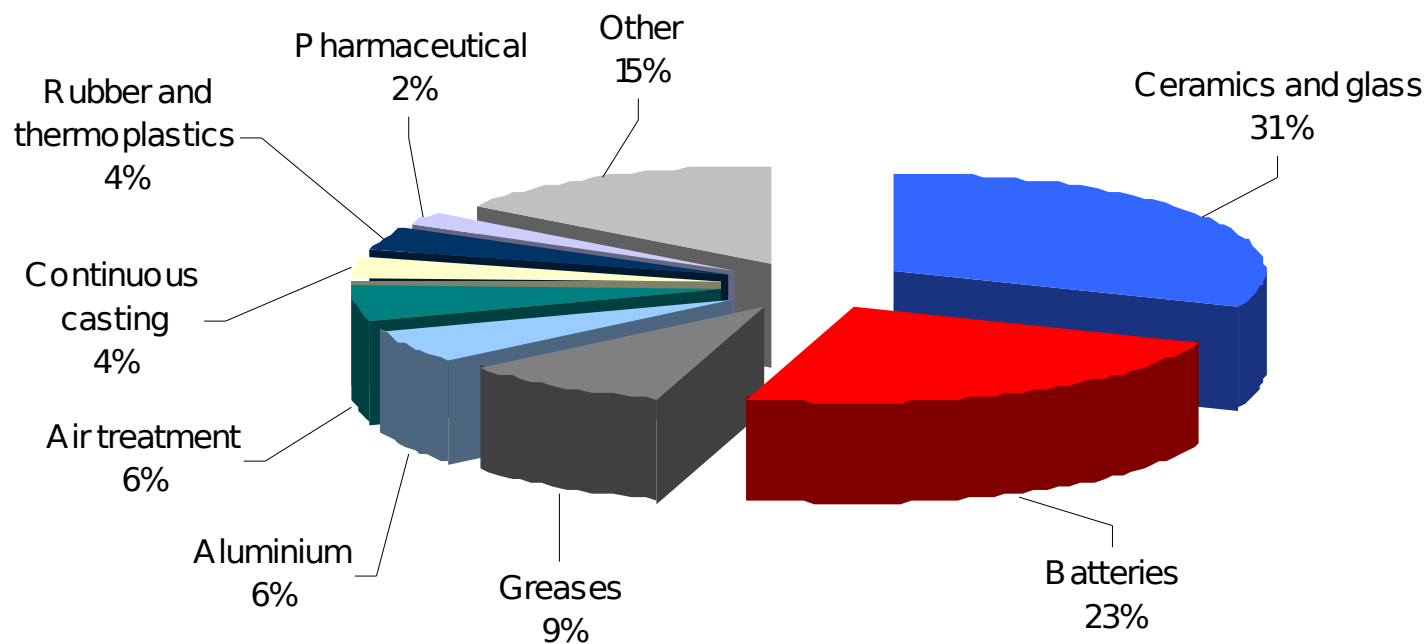


Agrochemicals

Consumption of lithium by end-use, 2009

Chemetall

(100.000 mt LCE)



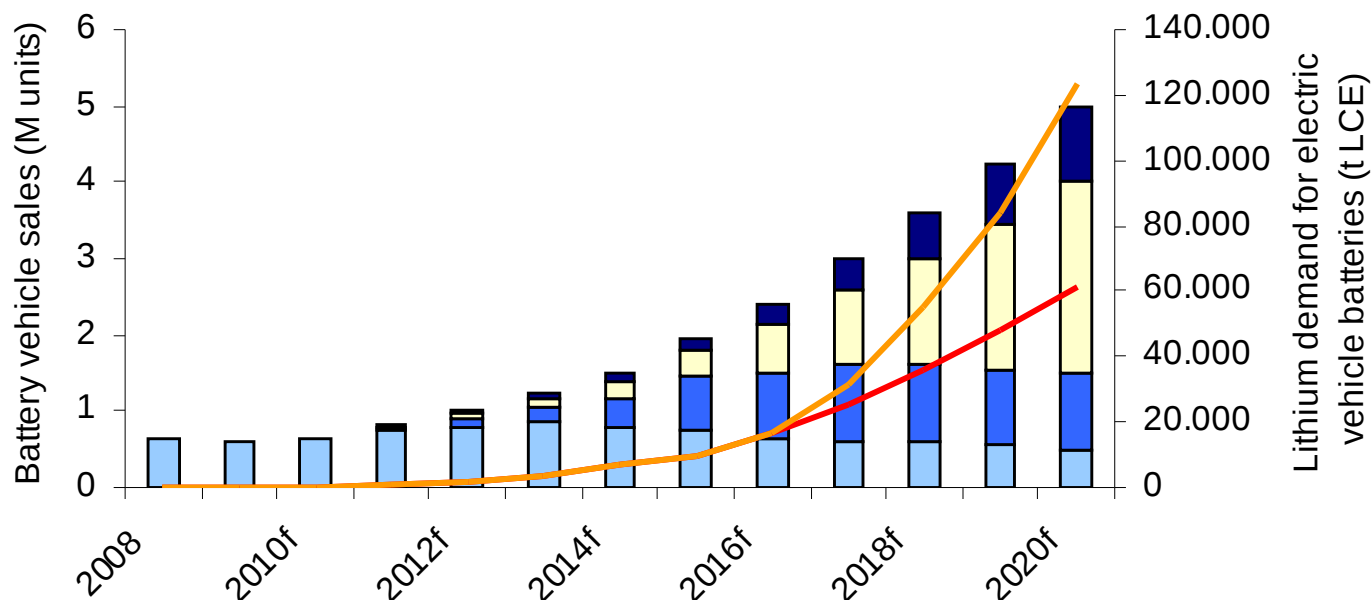
<u>Car Type</u>	All Electric Vehicle (EV)	Plug-in Hybrid (PHEV)	Mild Hybrid (HEV)
Approx. Battery Capacity	25 kWh	16 kWh	1 kWh
Lithium Demand (LCE) (Approximate)	22 kg	15 kg	2 kg
Revenue 5 US\$/kg	110 US\$	75 US\$	10 US\$

➡ Addition of 1 Million all electric cars will add 22.000 tons more LCE demand and create about 110 Mio US\$ in revenue

➡ 10% electrification (7 Million cars) would require about 120.000 - 150.000 mt more Lithium equivalents, which would total in about 750 Mio US\$ in revenue

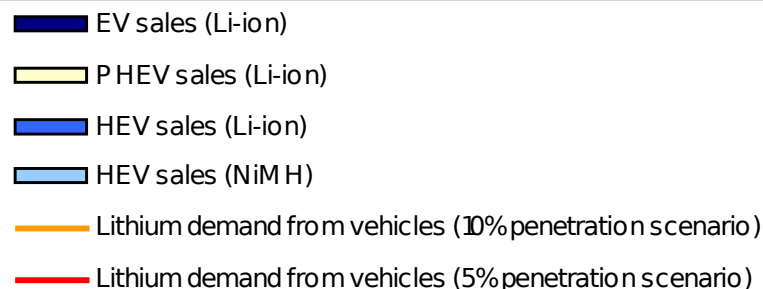
Electric vehicle production and Lithium demand for electric vehicle batteries / 2008-2020

Significant potential for increased lithium demand from mid-2010s as EV roll-out gains momentum

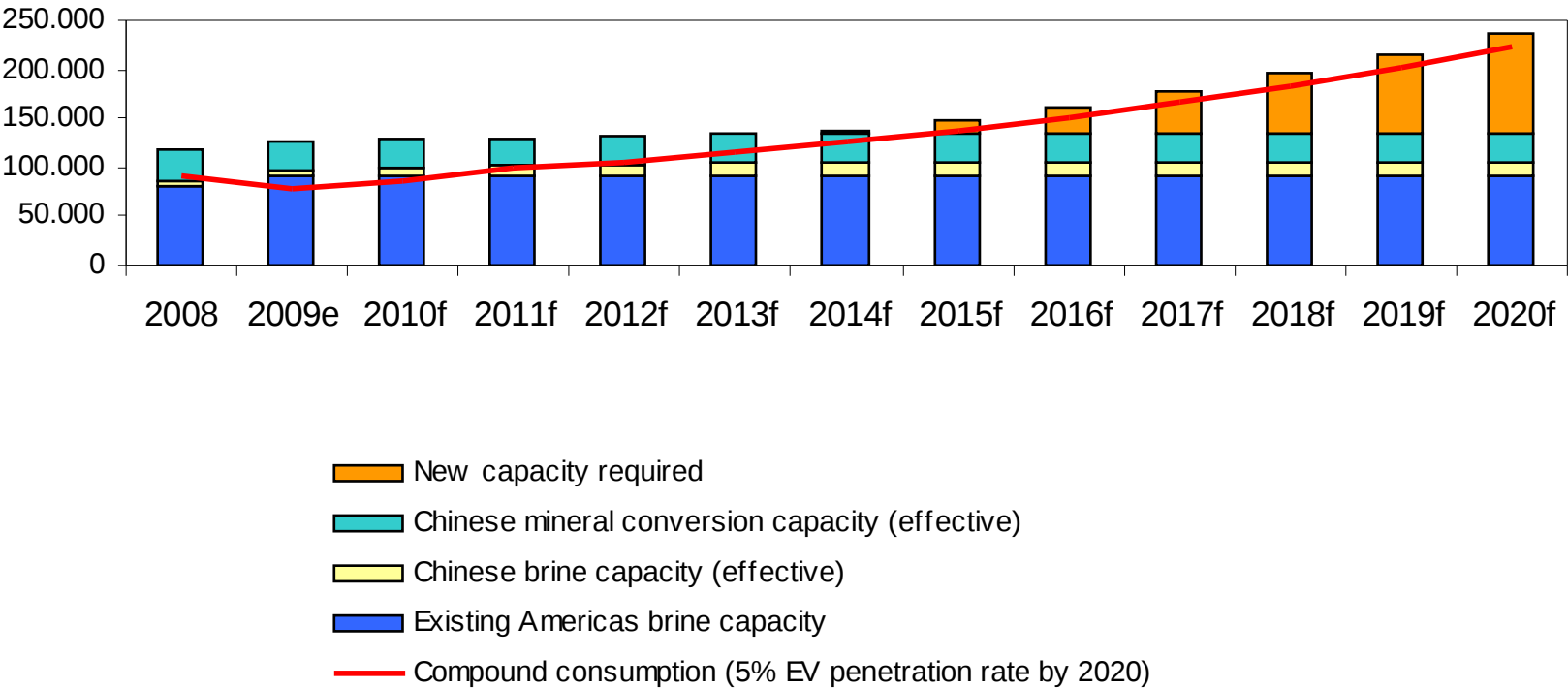


Source: Roskill data

Note: Vehicle sales data assumes 5% electric vehicle penetration by 2020 (i.e. 5% of total vehicles will have some form of battery power assist) 2kg LCE in HEV, 15kg LCE in PHEV and 22kg LCE in EV



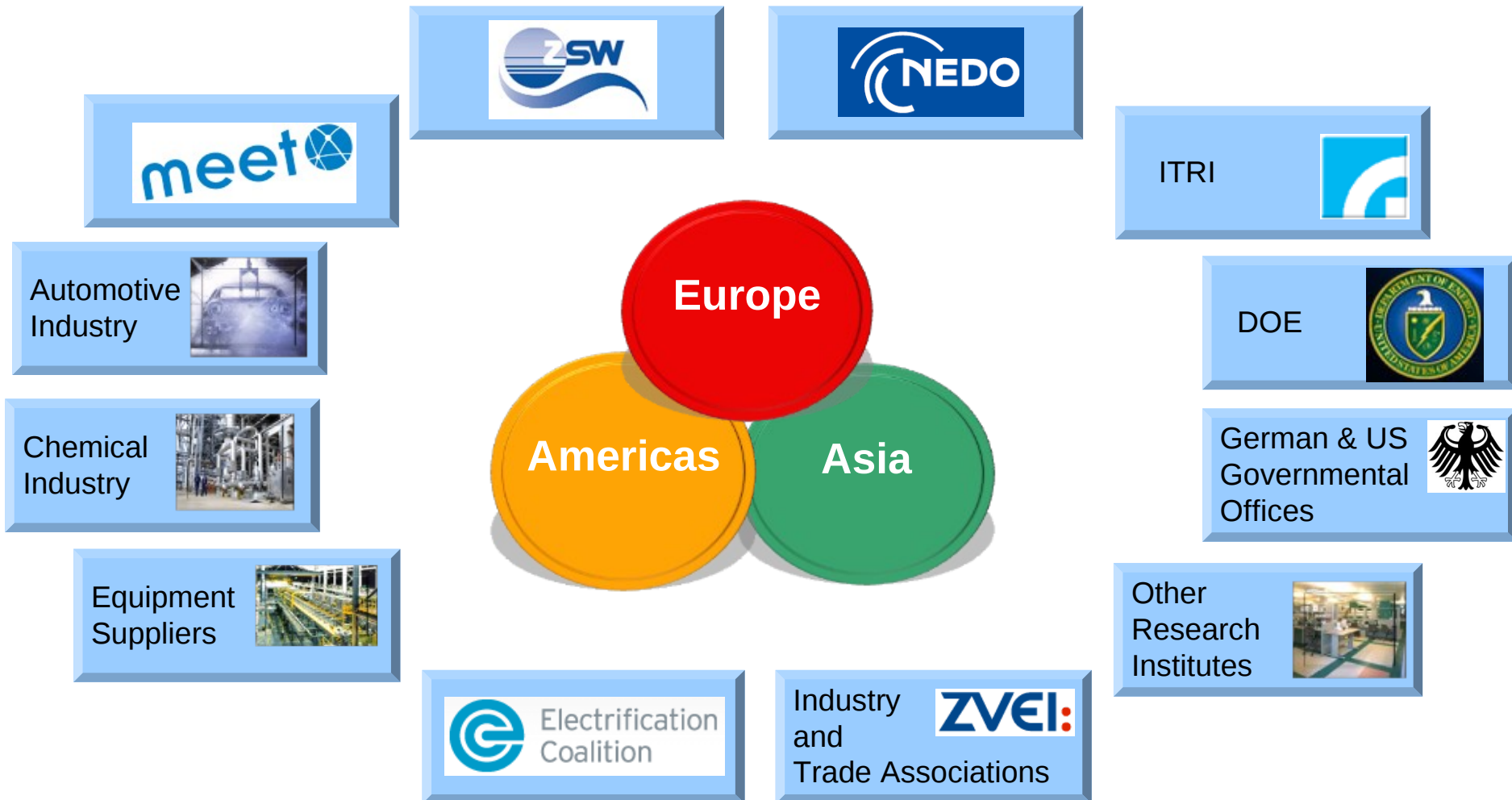
By a 5% EV penetration rate, existing world capacity sufficient to meet demand until mid-2010s, new capacity required to meet EV battery demand from 2014, the electrification takes off faster, new capacity is needed earlier.



- Avoid to create uncertainty or questions about a stable Lithium supply
 - ➡ The Lithium market today is confident about the supply situation at the time being
 - ➡ Questions about supply short term or long term could delay the introduction of Eco cars or cause a change in technology
 - ➡ Customers are discussing about long term supply agreements
- Have confidence in the two established Chilean market leaders
 - ➡ We have the process know how and are cost and technology leaders
 - ➡ We have a global sales and Research & Development network

What can Chile do to stay in the leading position?

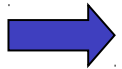
- Establish Chile as the leading Lithium supply nation
 - ➔ Give secure long term access to mining and water rights
 - ➔ Support when new permits are required
 - ➔ Use the global network of the Lithium producers to promote the role of Chile in the world



Strong R&D network to meet future market needs for LIB

What can we do jointly to develop further?

- Create a professorship position at the university to educate people in battery technology and utilize our international university network
- Add to the “green” Lithium battery image a “green” production image with help of sun and wind energy
- Development of water regeneration process out of the Lithium brine process
- More to come.....



Together we will have a great “green” future !