

ICL-IP Bitterfeld GmbH

Denis Przybylski/ Site Manager May 23rd 2019

Israel / German Chamber of Commerce

Visit Germany – Bitterfeld 23rd of May



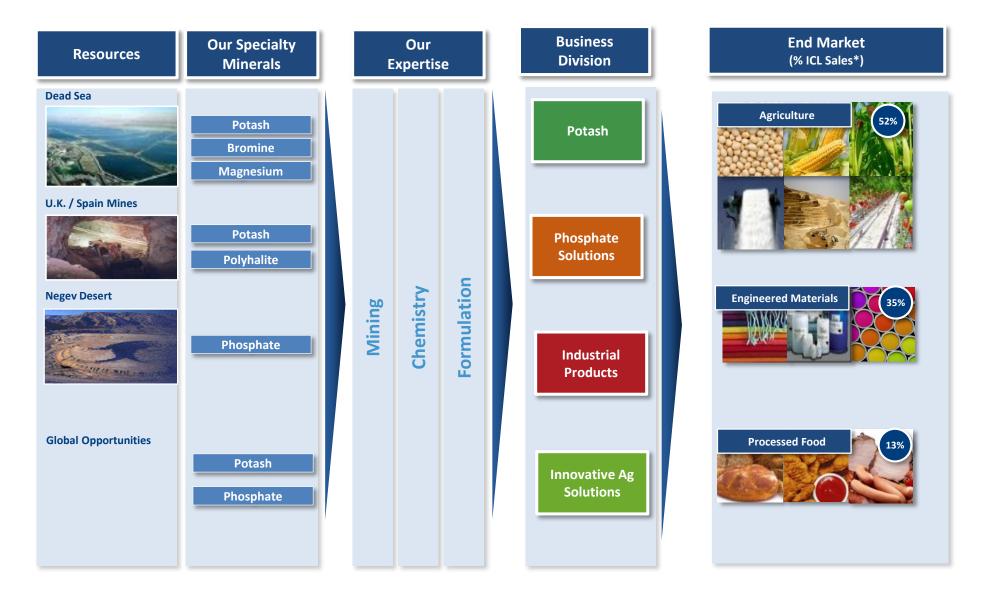
Agenda

- 1. ICL overview
- 2. ICL-IP Bitterfeld GmbH
- 3. Industry cluster and public relations
- 4. Risk management Seveso III-Directive





1 Israel Chemical Limited - overview





2 ICL-IP Bitterfeld Plant (2019)

- 69 employees and 6 apprentices
- Production and sales of:
 - Flame retardants (Fyrol)
 - Engineering resin FR (Fyrolflex)
 - Phosphorus Trichloride (PCl₃)
 - Phosphorus Oxychloride (POCl₃)
 - Phosphorous Acid (H₃PO₃)
 -
- Supply into markets in Europe, Asia, America





3 IPB units

P₄ storage

PCl₃ unit

Sol-DP unit

Emergency meeting point 2

Flame retardant unit



POCl₃ unit

Administration

Emergency meeting point 1

H₃PO₃ unit



ICL-IP Bitterfeld Plant

- ✓ Modern and efficient processes
- ✓ Proprietary Technology
- ✓ Low cost
- ✓ Manufacturing capabilities
- ✓ Continuous and batch production
- √ 3 product families
- ✓ Infrastructure part of the chemical complex
- ✓ Backward integrated to P4





3 Industry cluster and public relations

VCI – Association of Chemical Branch

Industry Cluster

- VCI represents the politico-economic interrests of German chemical/pharma companies vis-avis important target groups: politics, authorities, other industries ...
- Committees, expert groups, working parties develop positions of the industry in topical fields (plant safety, energy, climate protection, legal affairs, ...)
- ICL has representatives in the VCI working parties

Public Relations / communications

- Chemical companies often do regional activities protecting environment
- ICL working together with professional media partner Unicepta, espacially in case of crises communication (more companies in Bitterfeld doing the same)



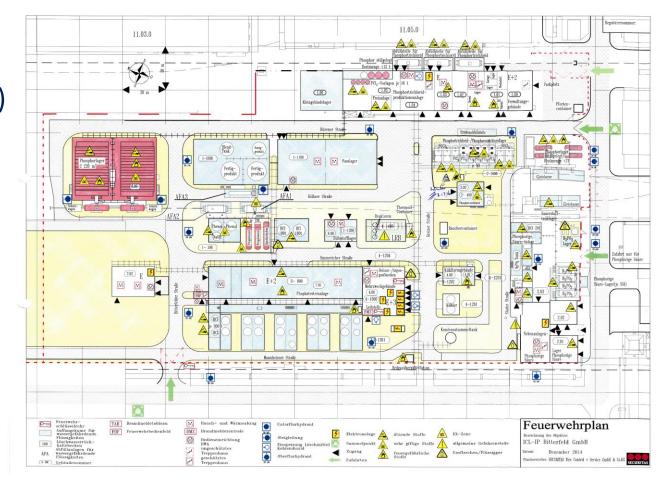
Seveso-III-Directive

- Operates under Ordninance of Hazardous Incidents "Störfall-Verordnung" which requires an emergancy organization plan
- System installed to check: regular supervision, control and maintenance of facilities and installations PLUS employee training
- Must have: Safety Report document "Sicherheitsbericht", Emergency Response Plan, a concept for preventing hazardous incidents "Sicherheitsbericht", safety management system and instructions for employees
- In case of emergancy: clear processes and informations flow are defined in Emergency Response Plan
- Alarm server in place, to distribute automatically necessarry informations to relevant targets



Local activities / support

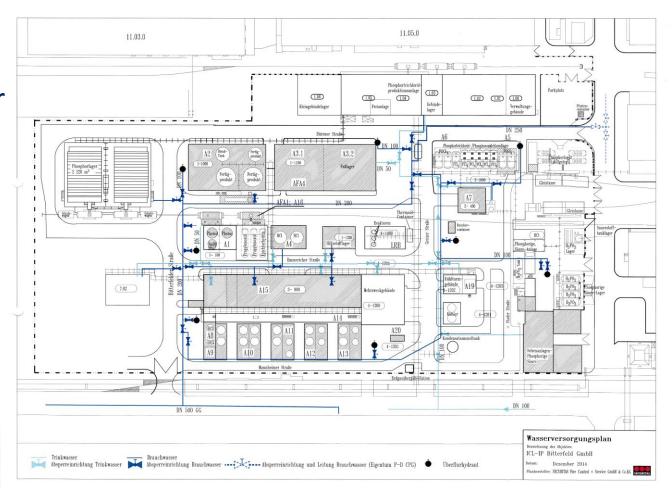
- Independent emergancy shutdown system (ESD) with independent control for functionality and critical functions as defined by sites safety integrity level (SIL)
- Installed backup with a power station with 300kW with an emergency diesel generator – only for safe and friendly shutwon capacity, not for keep production still running
- Fire fighting plan from the professional fire brigade of the Chemical Park (3 permanently stations in the whole Chemical Park) – time to IPB <3minutes
- Voluntary fire brigades are as well available if needed.
- Provides as well technical assistance (hydrants, fire extinguisher, ...)





Local activities / support

- Internal water supply where hazardous chemicals are provided with retention for extinguishing water
- Fire fighting water lines are independet with a diameter of 500 and 250mm
- Checkup of the pipelines from professional fire brigade Securitas



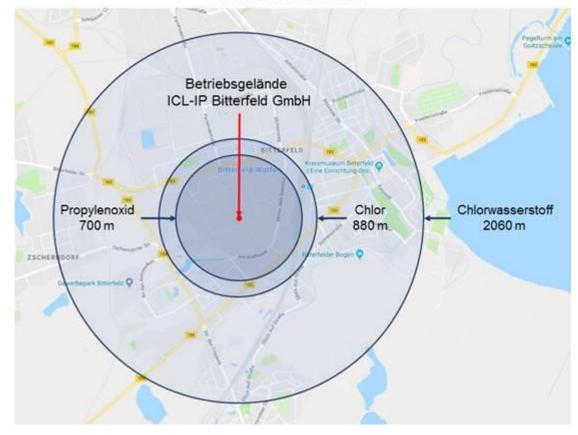


Local activities / support

- On the maps in are circles for the expansion areas of the main hazardous materials on the site for explosions
- 700m → Propylenoxyd
- 880m \rightarrow Chlorine
- 2060m → Hydrochlorine Acid
- These cases are managed and detailed discriped in the safety report

Hazardous areas







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