



Production



Fredrik Bäckström

SVP PRODUCTION



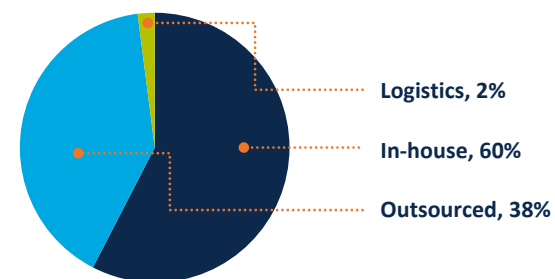
Bulten has a lean and well positioned logistics and manufacturing footprint and flexible supply chain

Lean and well positioned logistics and Manufacturing facilities



- Global footprint
- Production, strong focus in Europe
- Russia and Asia well established
- North America production footprint established

In-house vs. outsourced production Sales value



- Bulten produces most products in-house and has a significant trading operation to optimize efficiency
 - Trading -> flexibility

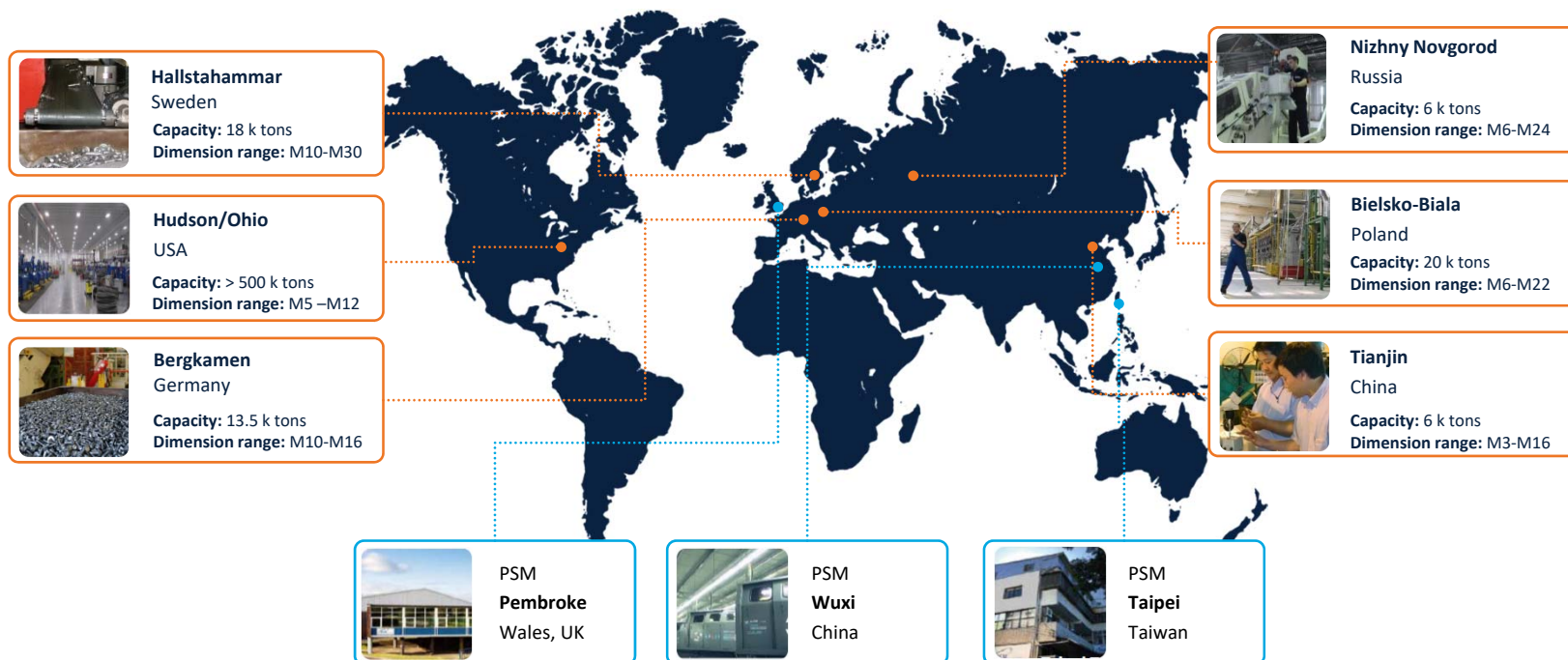


Manufacturing footprint





Manufacturing footprint





Manufacturing synergies

Bulten - PSM

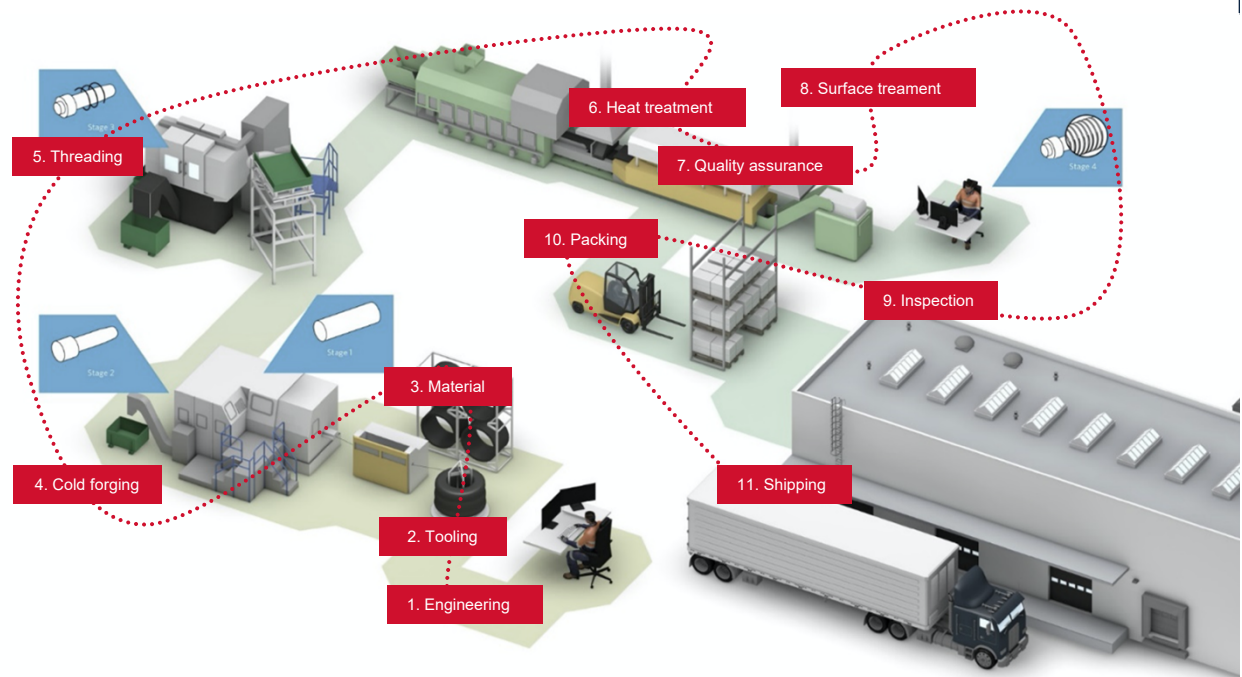
- Cold forming: Bulten - bolts and PSM – special nuts
- Machining
- Heat treatment: In-sourcing or economy of scale
- Surface treatment: In-sourcing or economy of scale
- Site footprint – shared facilities and shared resources
- Shared raw material suppliers





Production process

1. Engineering
2. Tooling
3. Material
4. Cold forging
5. Threading
6. Heat treatment
7. Quality assurance
8. Surface treatment
9. Inspection
10. Packing
11. Shipping





Bulten Production strategy

D I M E N S I O N

Type of fastener	Local Market	Local Market	Local Market	Micro Fasteners	Small Dimensions	M10 – M14	Larger Dimensions. Special threads
Special types							
Standard Hex							
Standard Torx							
Parts w Secondary Operations							
Stainless Steel							
Internal threads							



Bulten Production strategy

D I M E N S I O N

Type of fastener	Local Market	Local Market	Local Market	Micro Fasteners	Small Dimensions	M10 – M14	Larger Dimensions. Special threads
Special types							
Standard Hex							
Standard Torx							
Parts w Secondary Operations							
Stainless Steel							
Internal threads							

Flexible production by standardization



Germany

Poland

Russia

Sweden



Preparing for profitable growth

Highlights Bulten Tianjin

- Successful move without interruption for customers
- 9000 m2
- Approx. 100 Employees
- Equipment:
 - 18 Coldformers
 - 21 Threaders,
 - Heat-treatment lines
 - 3 Surface-treatment lines.
- Surface treatment in special environmental zone.



New plant in Poland

- Plot purchased in Radziechowy – Wieprz
- Plot size: 97 350 m²
- Planned facility phase one, size: 25 000 m²
 - Future foot-print for expansion
- In-sourcing of surface treatment
 - Improved cost structure
 - Reduced lead-time
 - Secure capacity
- Contingency in heat-treatment
- Move from the current Wilkowice logistics centre to the new building
- Green financing through BREEAM certificate





Margin expansion



Margin expansion

- Production consolidation
 - FSP "Time to Market" → Manufacturing / sourcing efficiency
- Insourcing of high margin operations
 - E.g. New Polish plant: Surface treatment
- Distribution Network Efficiency
- Localization of production
 - Plants in China and US lowers logistics and trade costs
- Becoming Leaner through roll-out of Bulten Production System
- Sustainability efforts leading to reduced costs

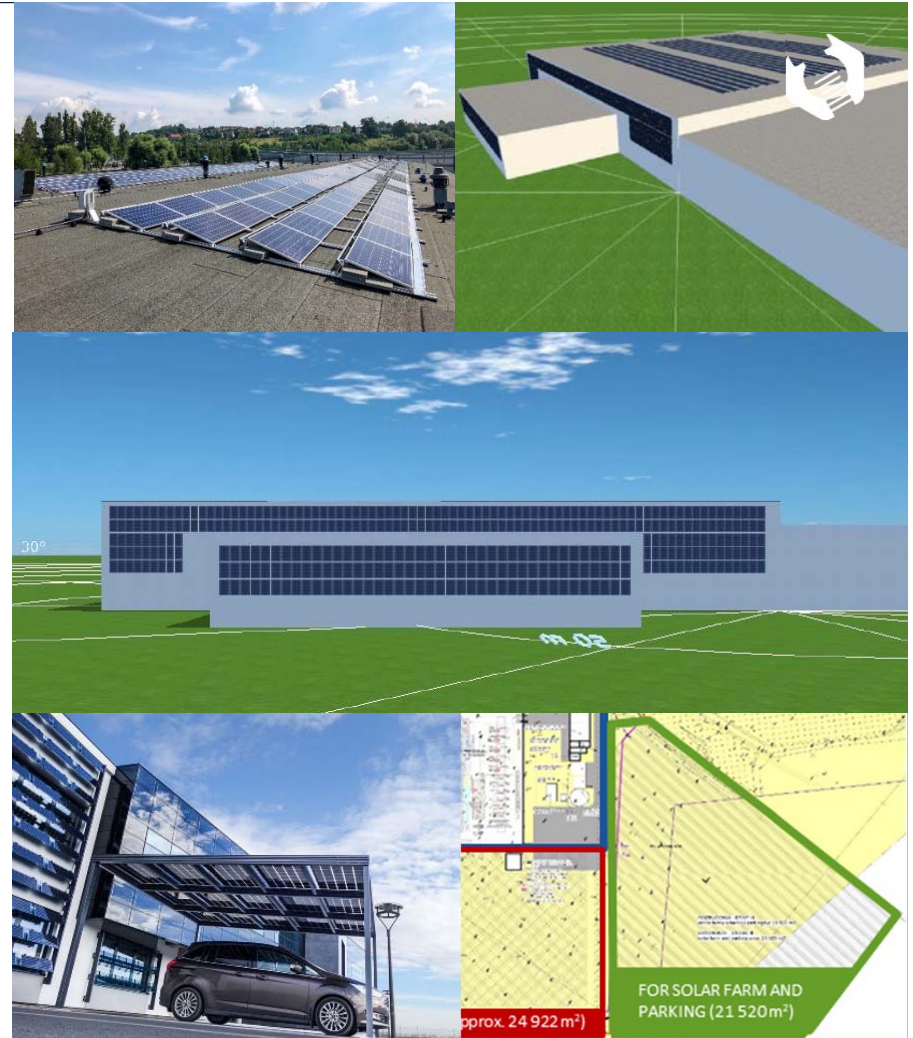




Sustainable Operations

Solar Panels Poland

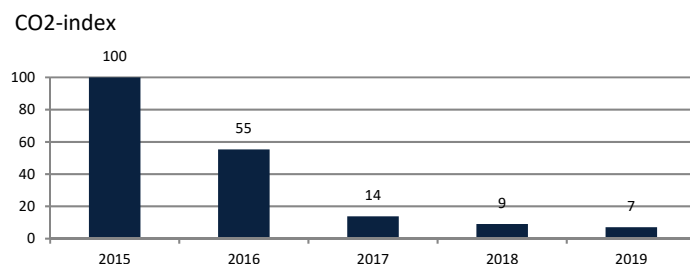
- 100 000 kWh yearly production
 - 80 ton annual reduction CO2 as a first step





Sustainability

Energy and CO2 reduction in Hallstahammar



2016

Green electricity.

2017

Self supported heating
(CO2 free).

2018

Recycled energy from
surface treatment.

2019

Replacement of outdated
heat-treatment lines with a
modern, energy efficient one.

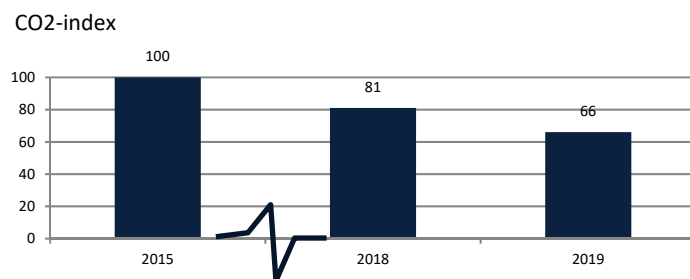
2020

Conversion from
combustion forklifts
to electrical.



Sustainability

Energy and CO2 reduction in Bergkamen



2016

New wash machines with heat recovery.

2017

Better power mix.

2018

Installation Coating Line.

2019

New air compressor.

2020

Replacement of old heat exchanger.
Ventilation system in heat treatment dep.