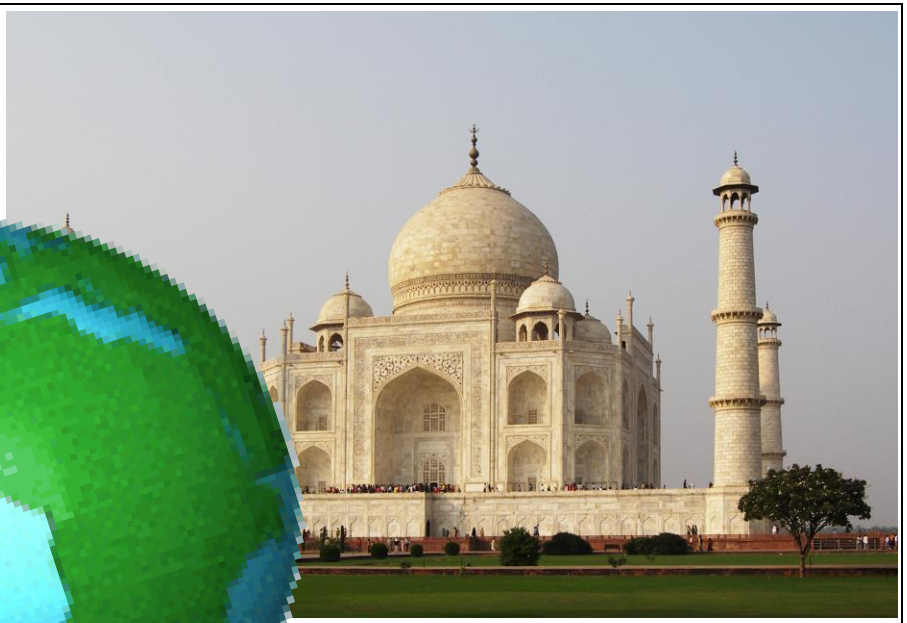
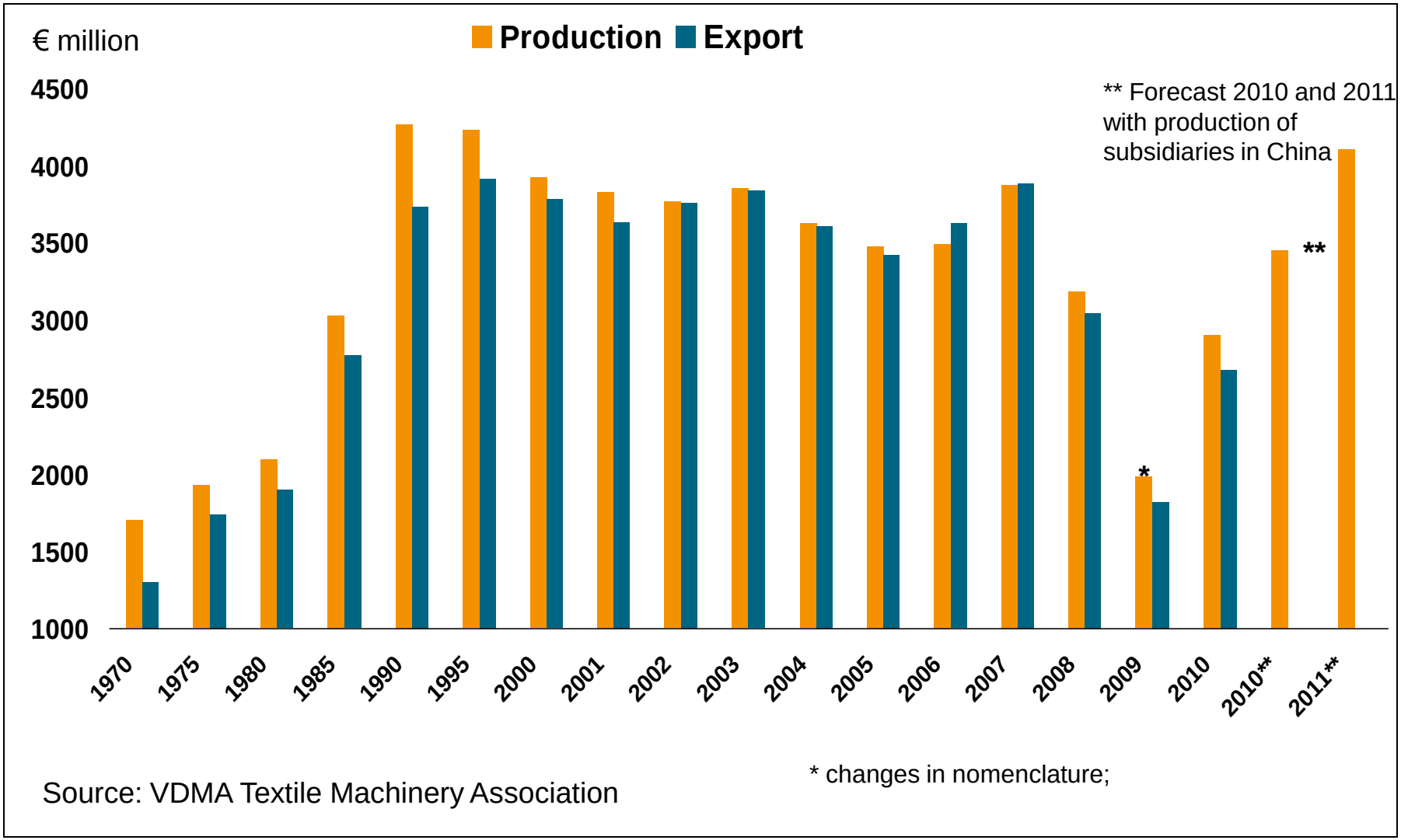
German Textile Machinery – Emerging trends, India and the World



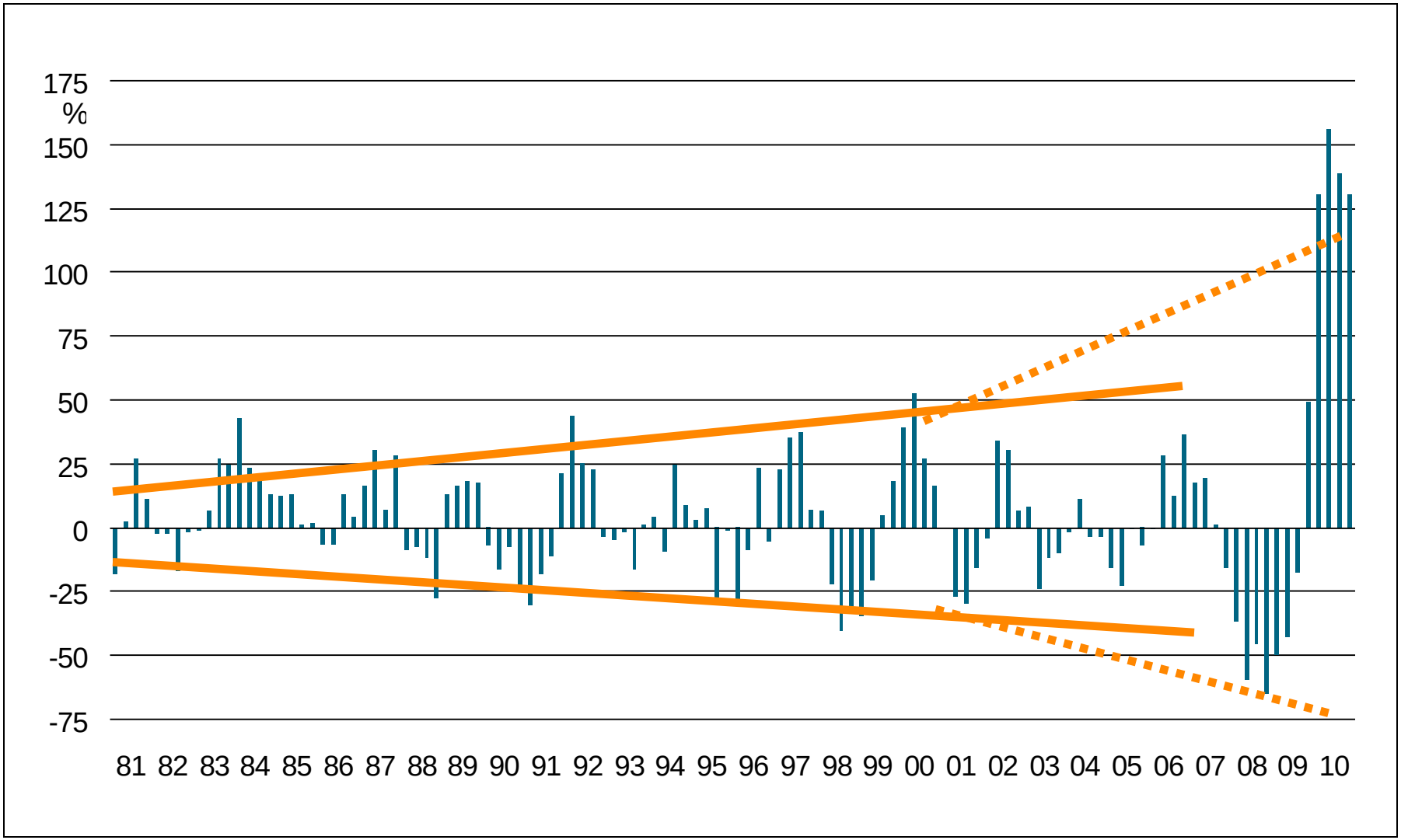
German Textile Machinery - Production



Source: VDMA Textile Machinery Association

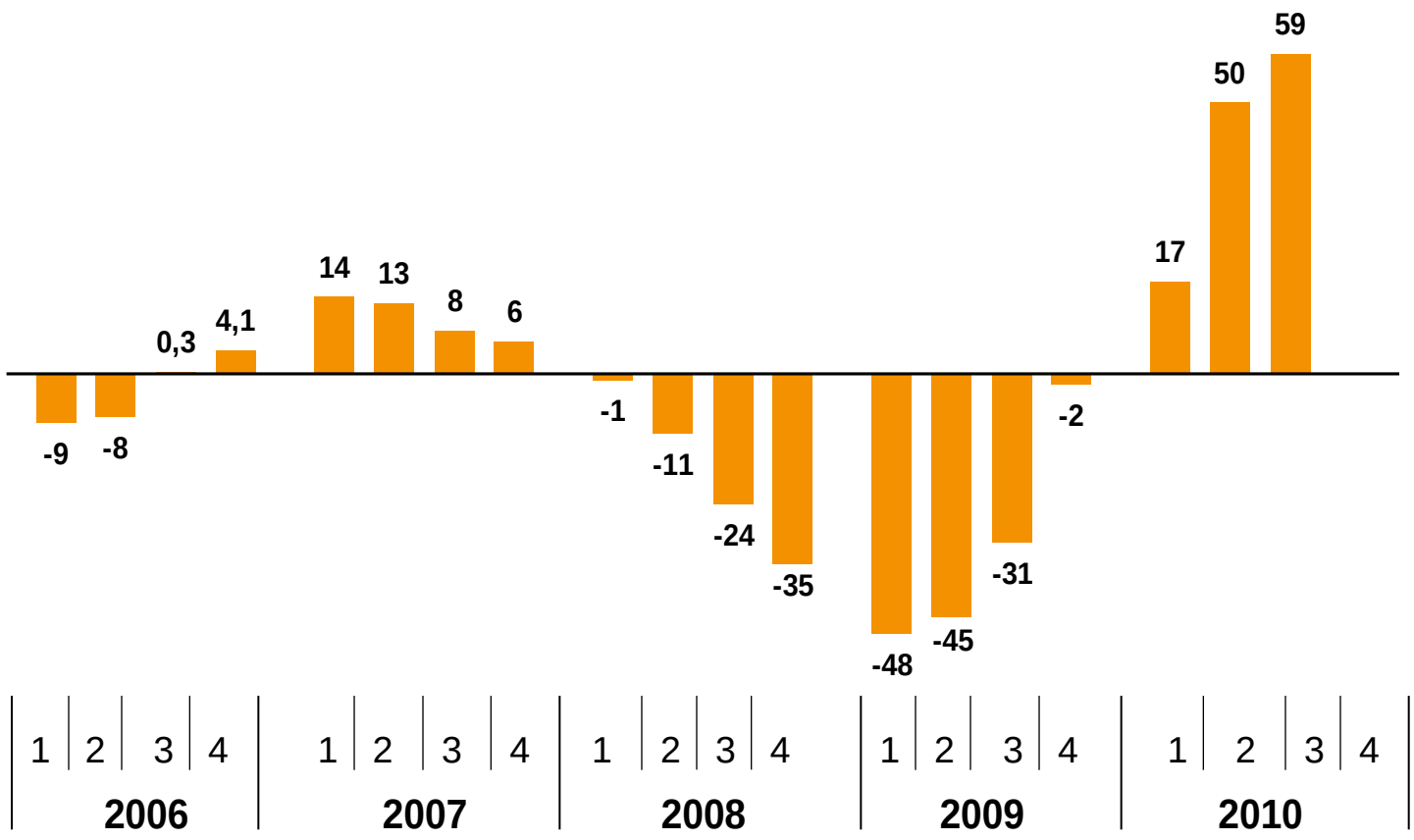
* changes in nomenclature;

New orders for Textile Machinery
% change to previous year (quarterly)



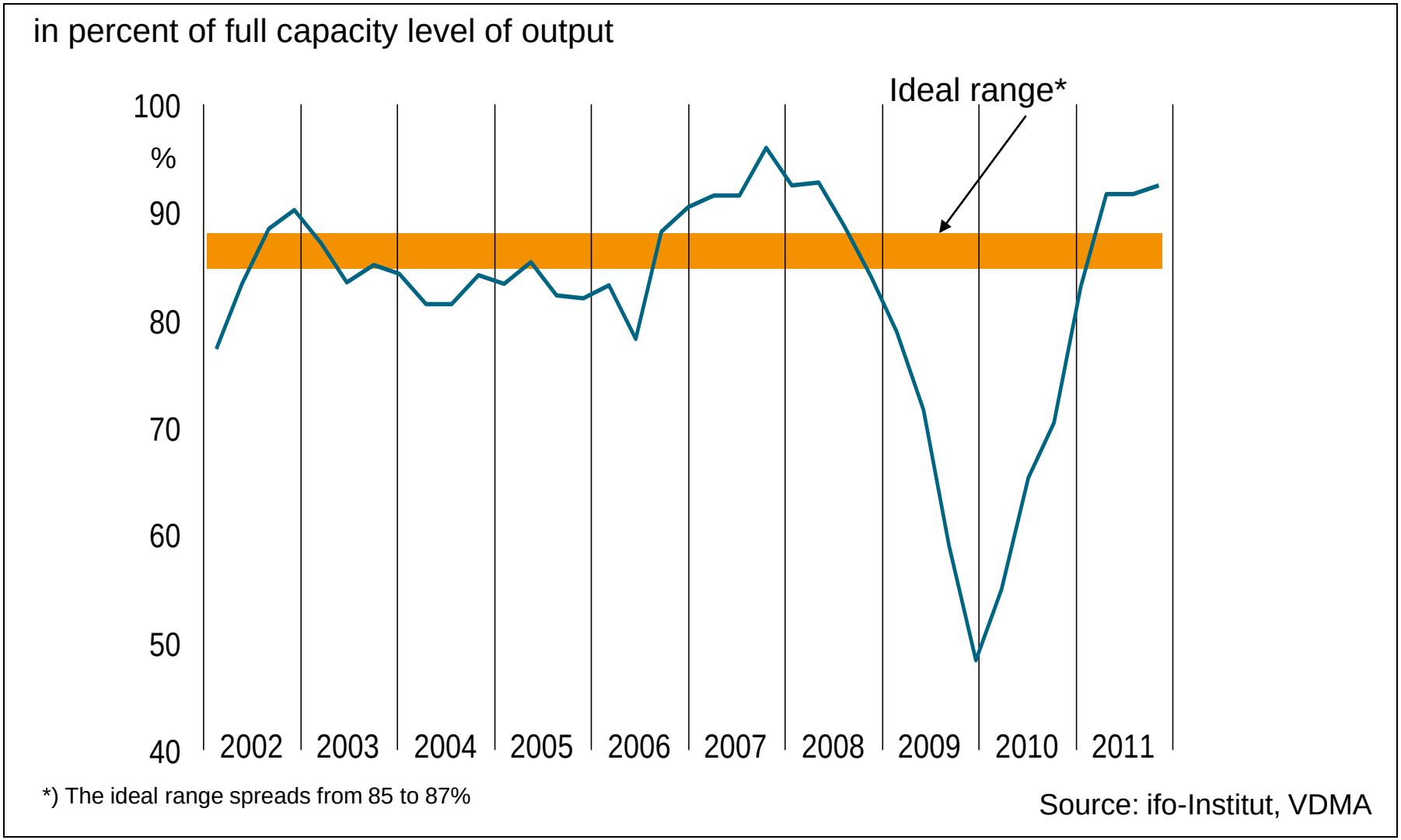
German Textile Machinery - Production Development since 2006

Percentage change in rate per quarter compared to the last year

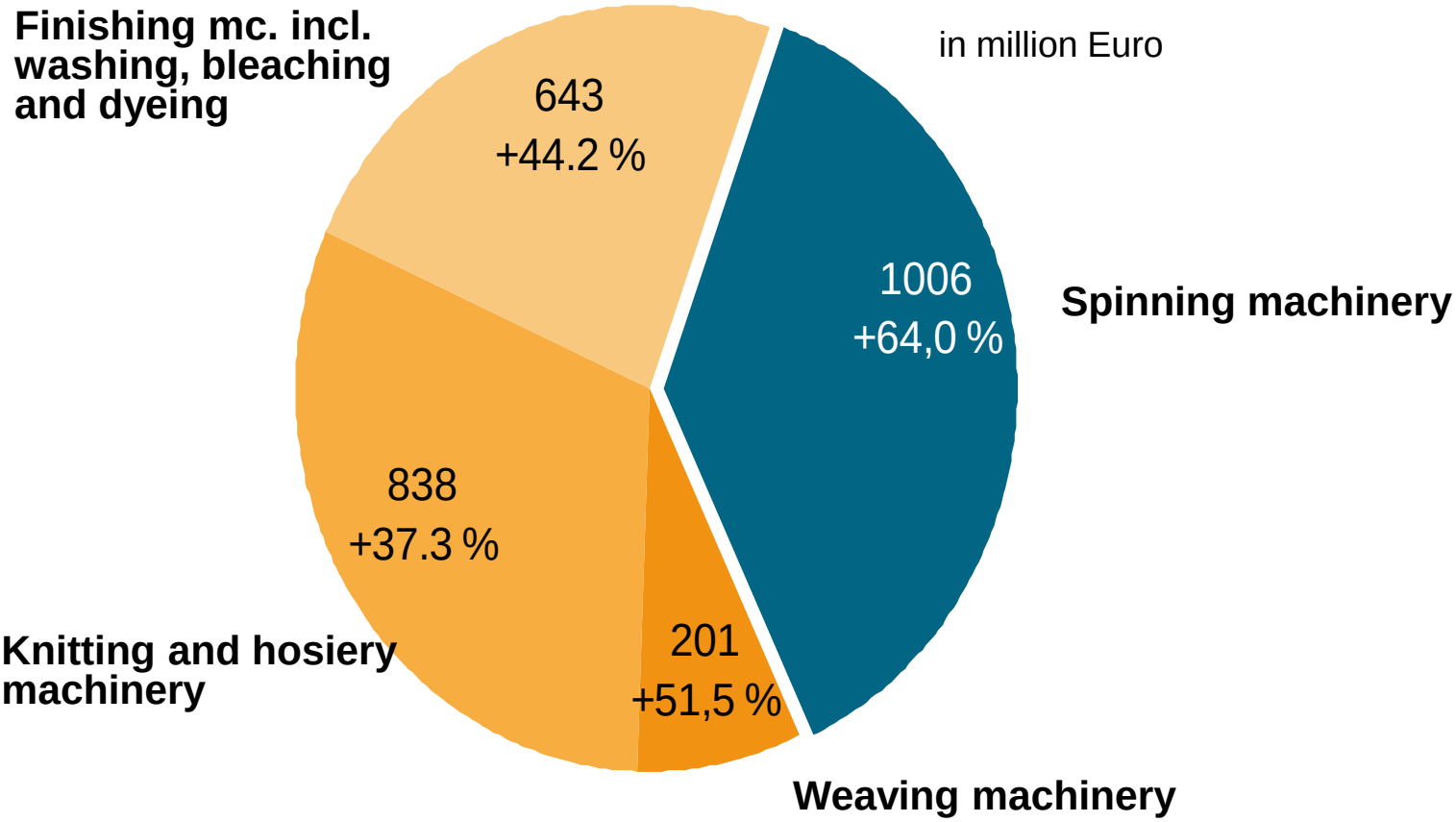


Source: VDMA Textile Machinery Association

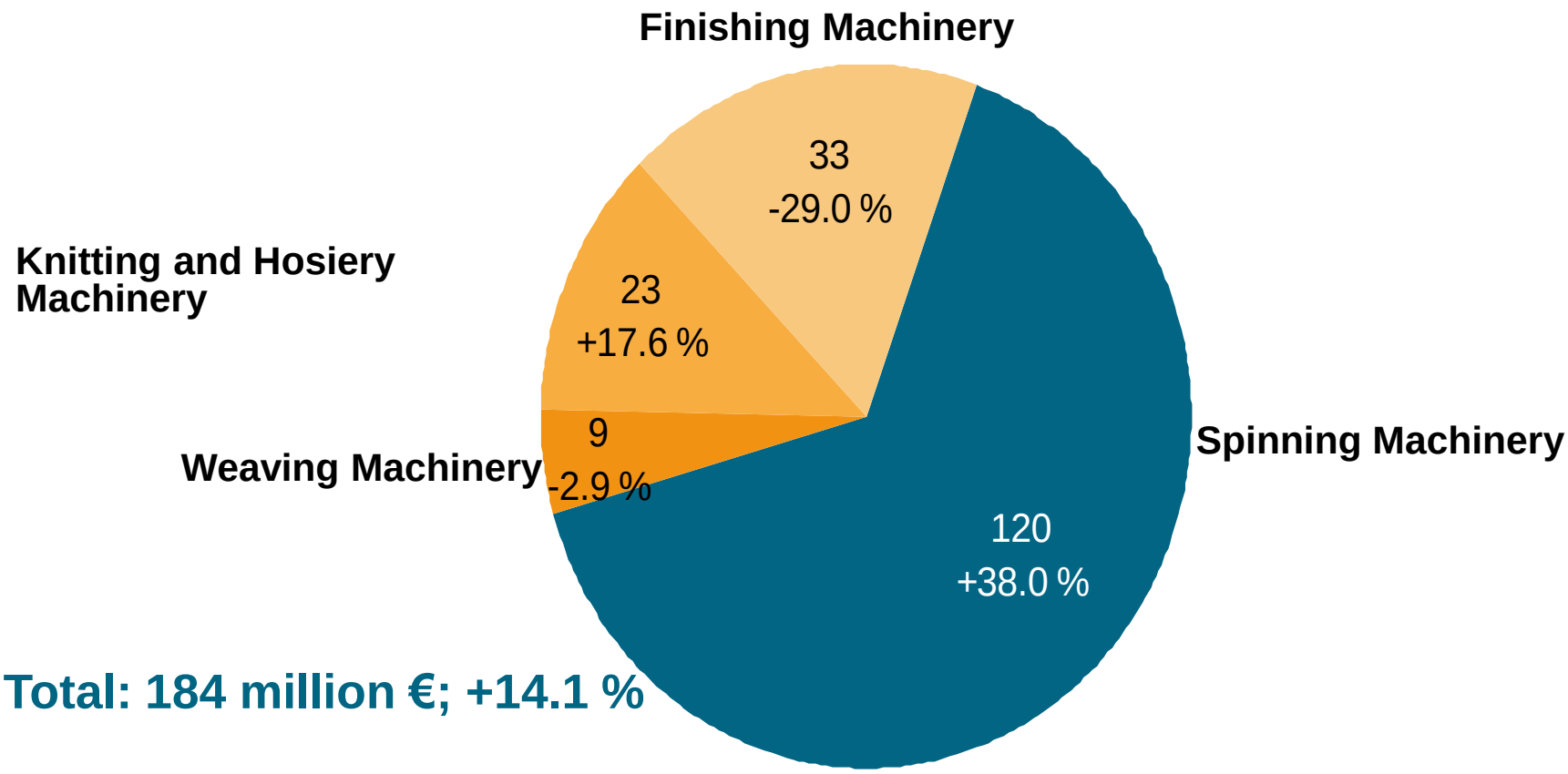
Capacity utilization in German Textile Machinery



German Textile Machinery Export 2010 in specific sectors



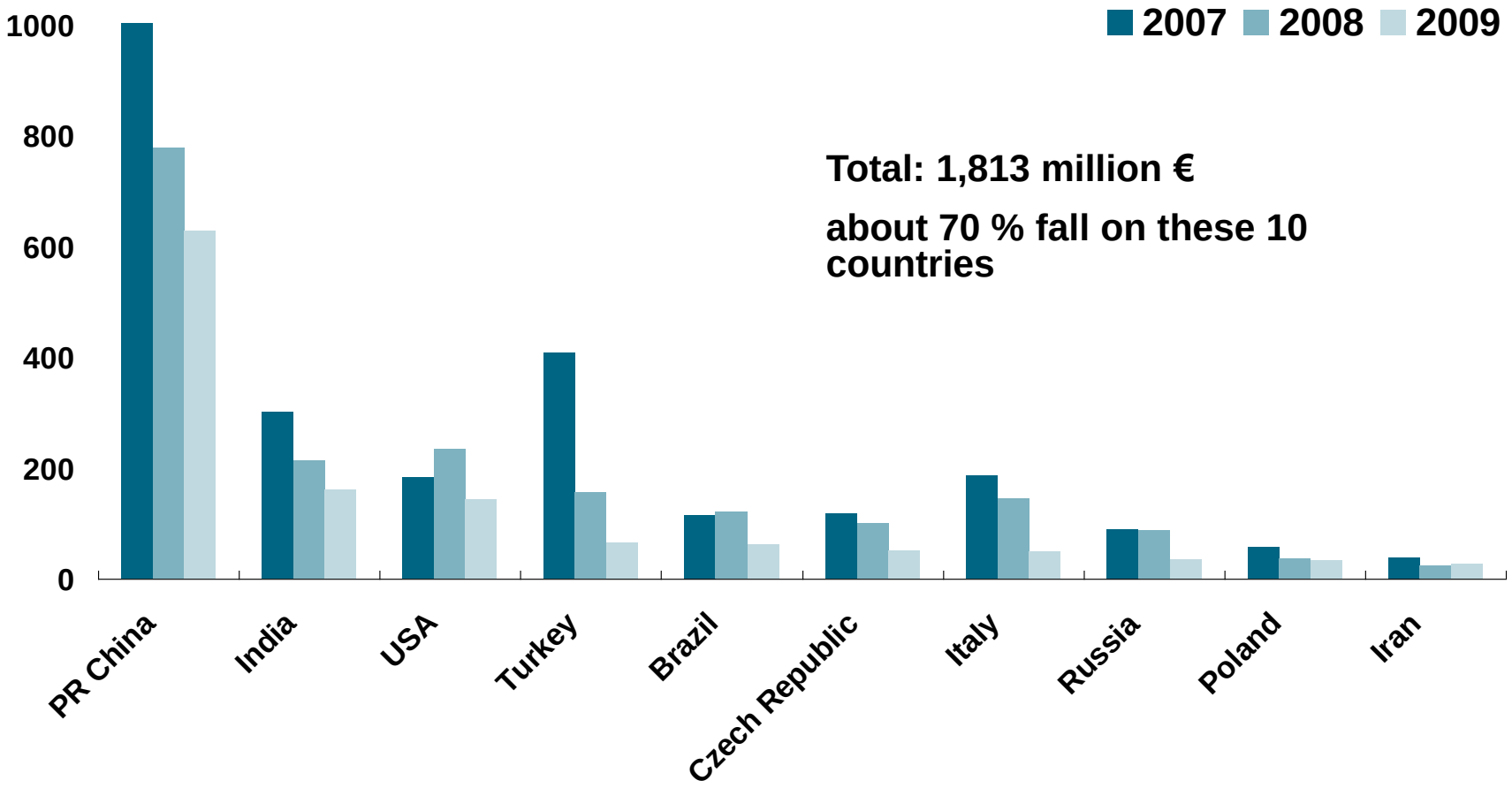
German Textile Machinery Industry 2010
Exports to India in Million Euro



Total: 184 million €; +14.1 %

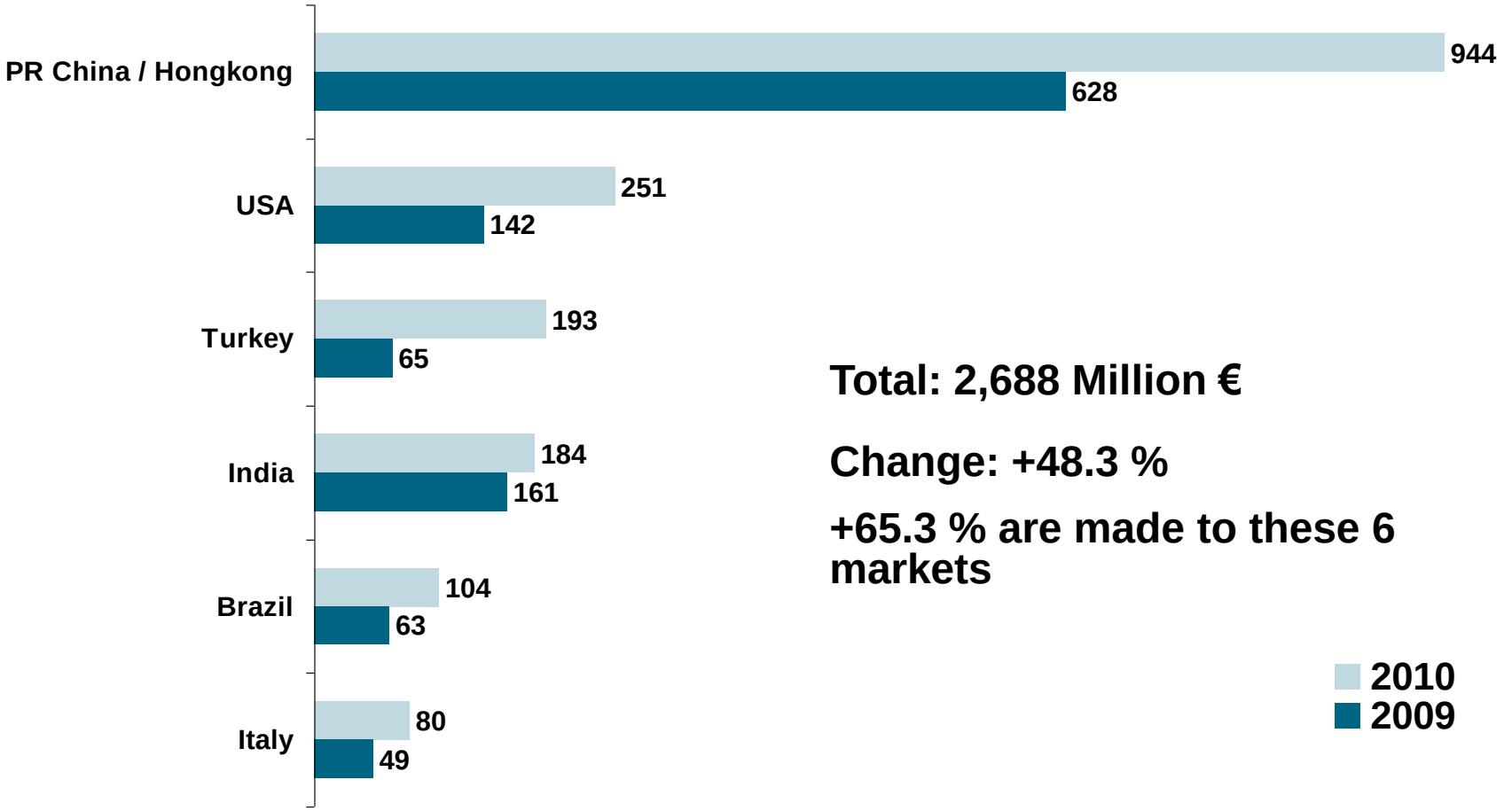
Source: Federal Statistical Office, VDMA

German Textile Machinery Exports
Top ten markets



Source: Federal Statistical Office, VDMA

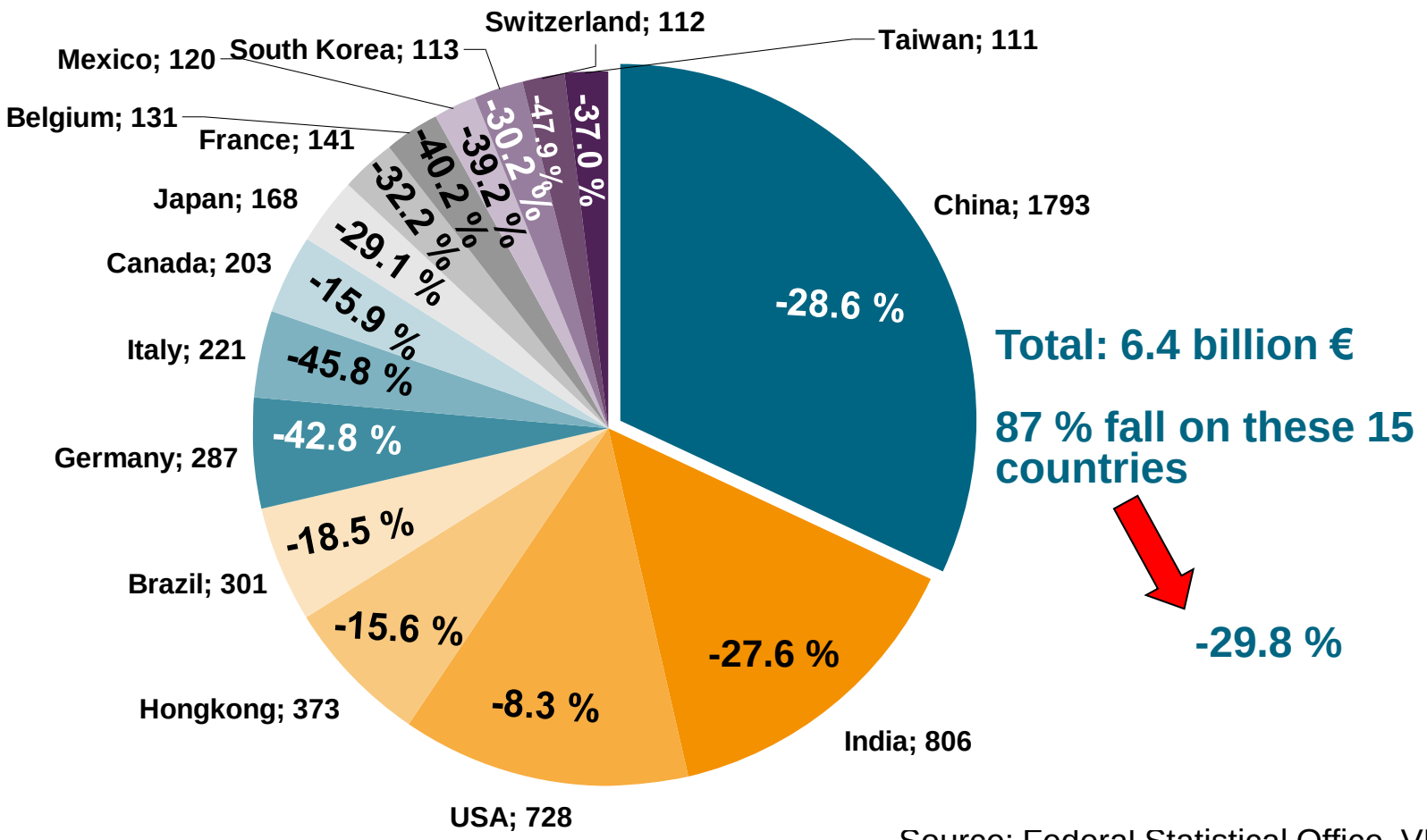
German Textile Machinery Export
Top 6 of Markets 2010



Source: Federal Statistical Office, VDMA

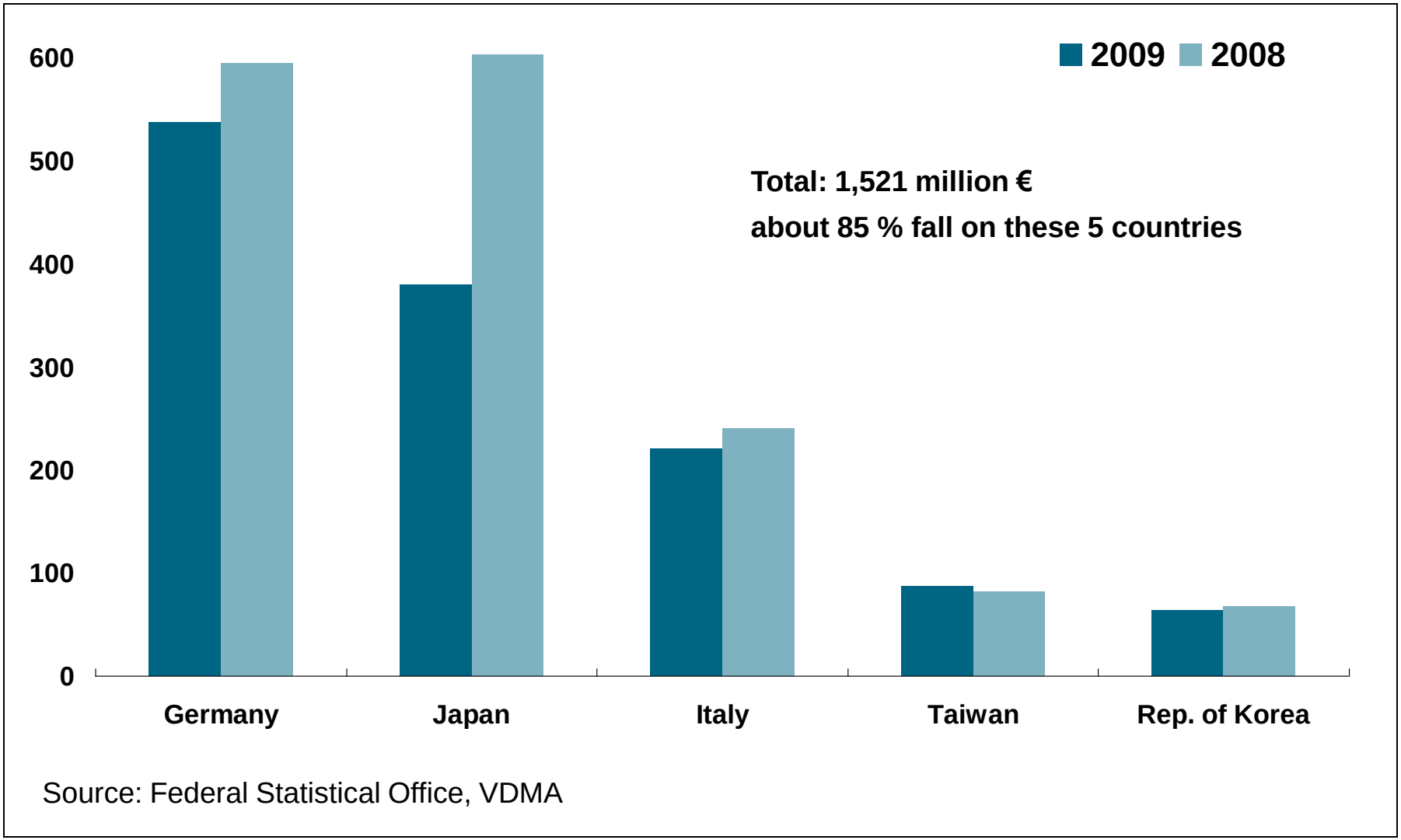
International Textile Machinery
Top 15 Textile Machinery Importers 2009

in million Euro



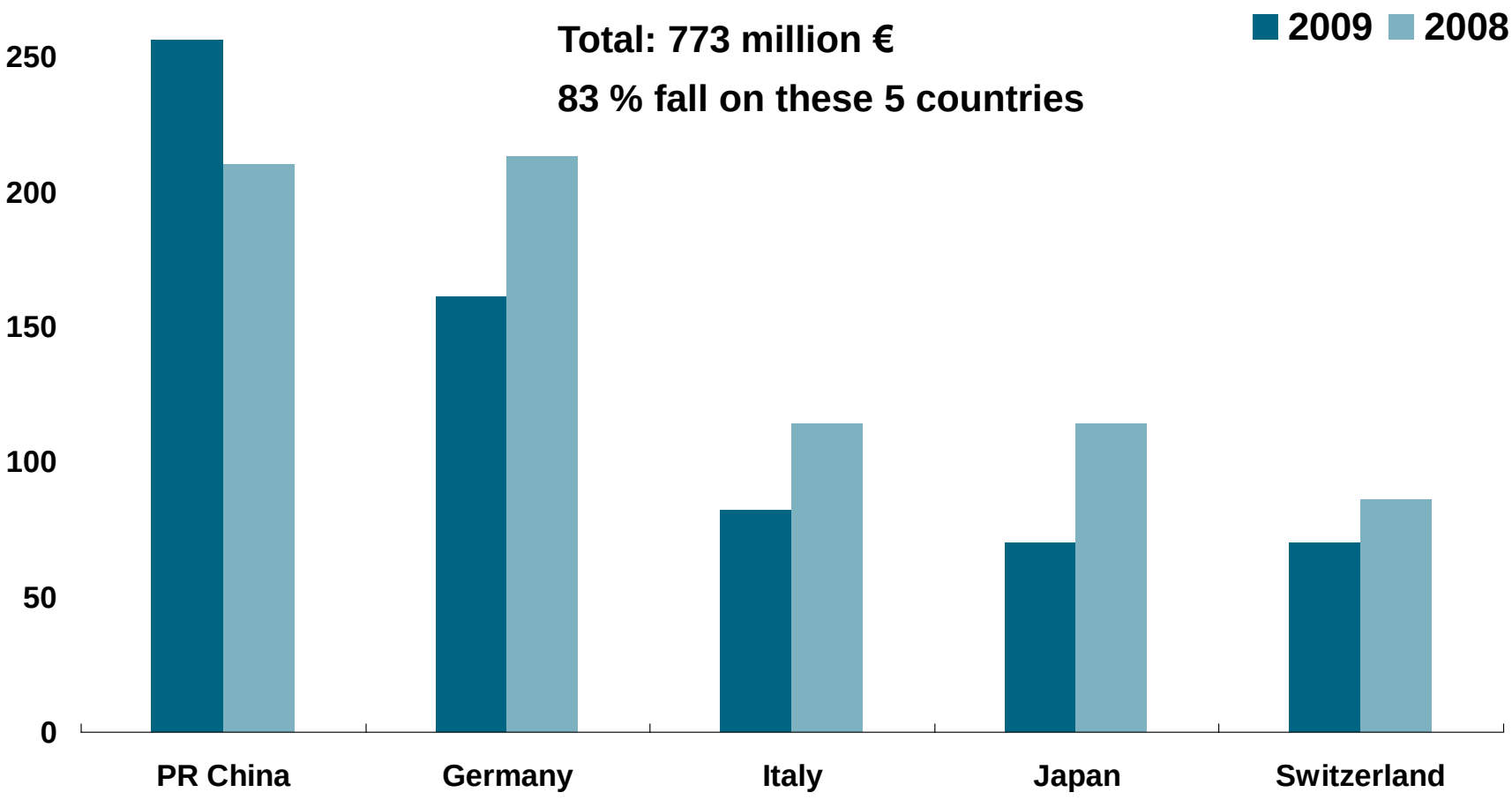
Source: Federal Statistical Office, VDMA

International Textile Machinery
Top 5 exporters to China



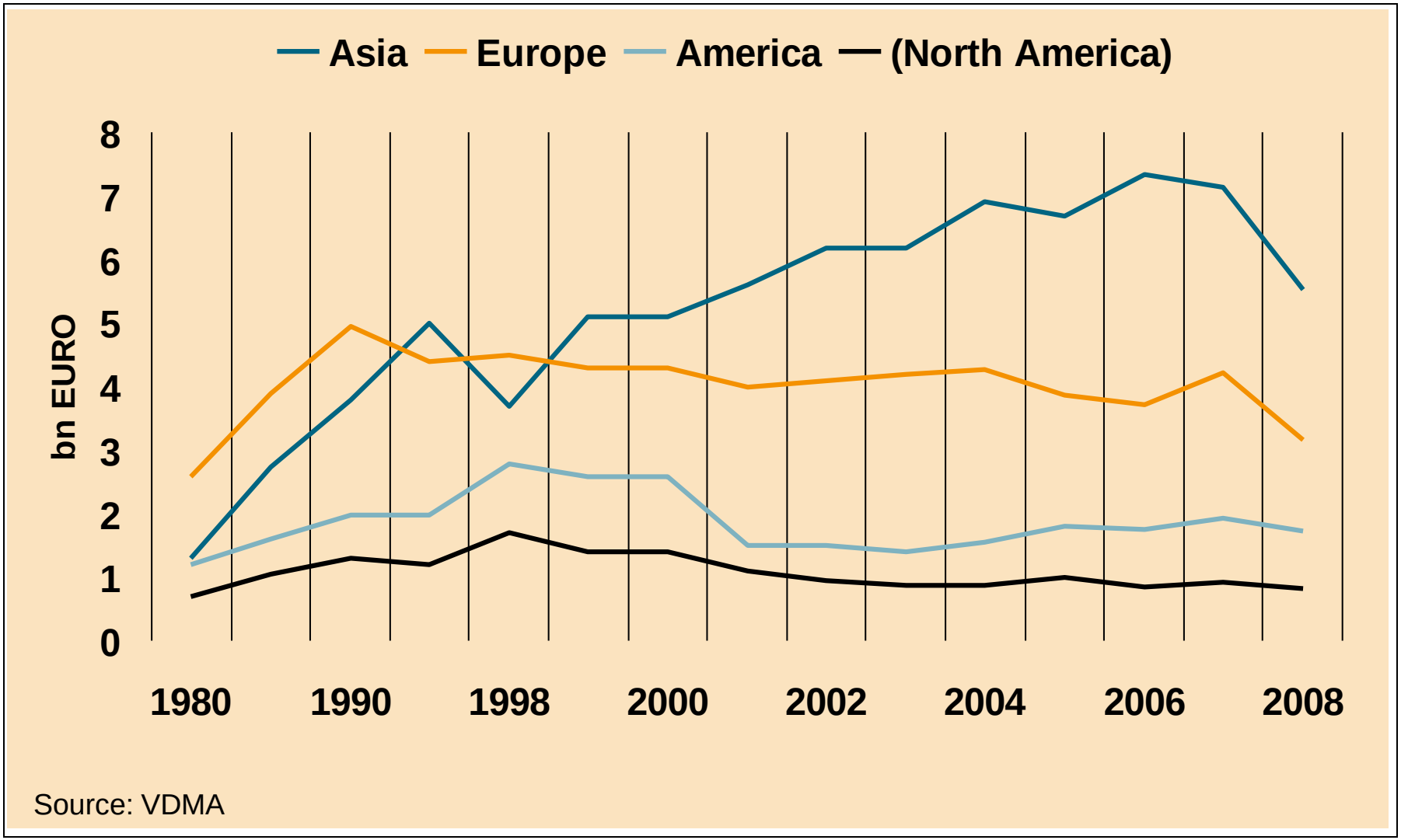
Source: Federal Statistical Office, VDMA

International Textile Machinery
Top 5 exporters to India



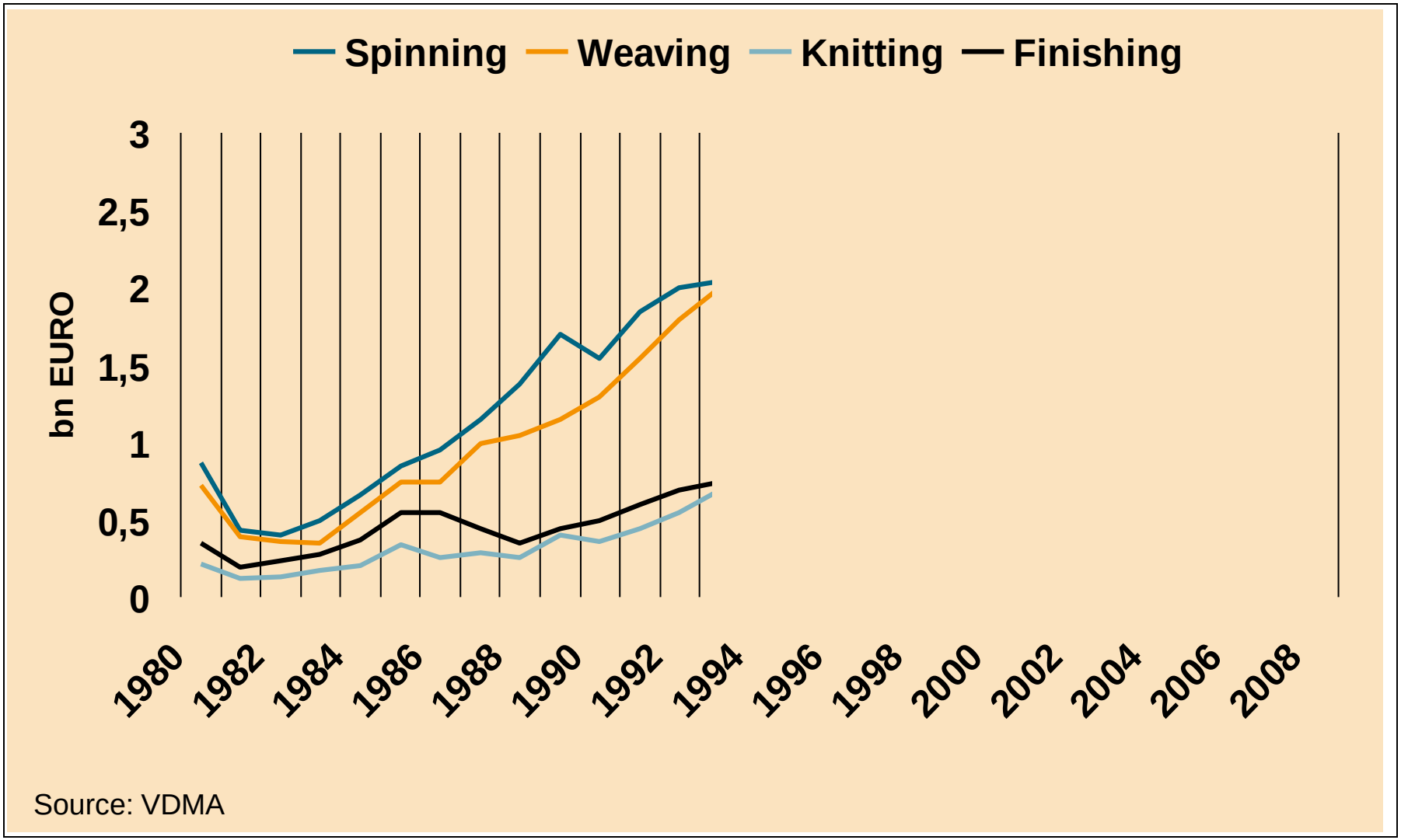
Source: Federal Statistical Office, VDMA

Exports of Textile Machinery producing countries to Asia, America and Europe



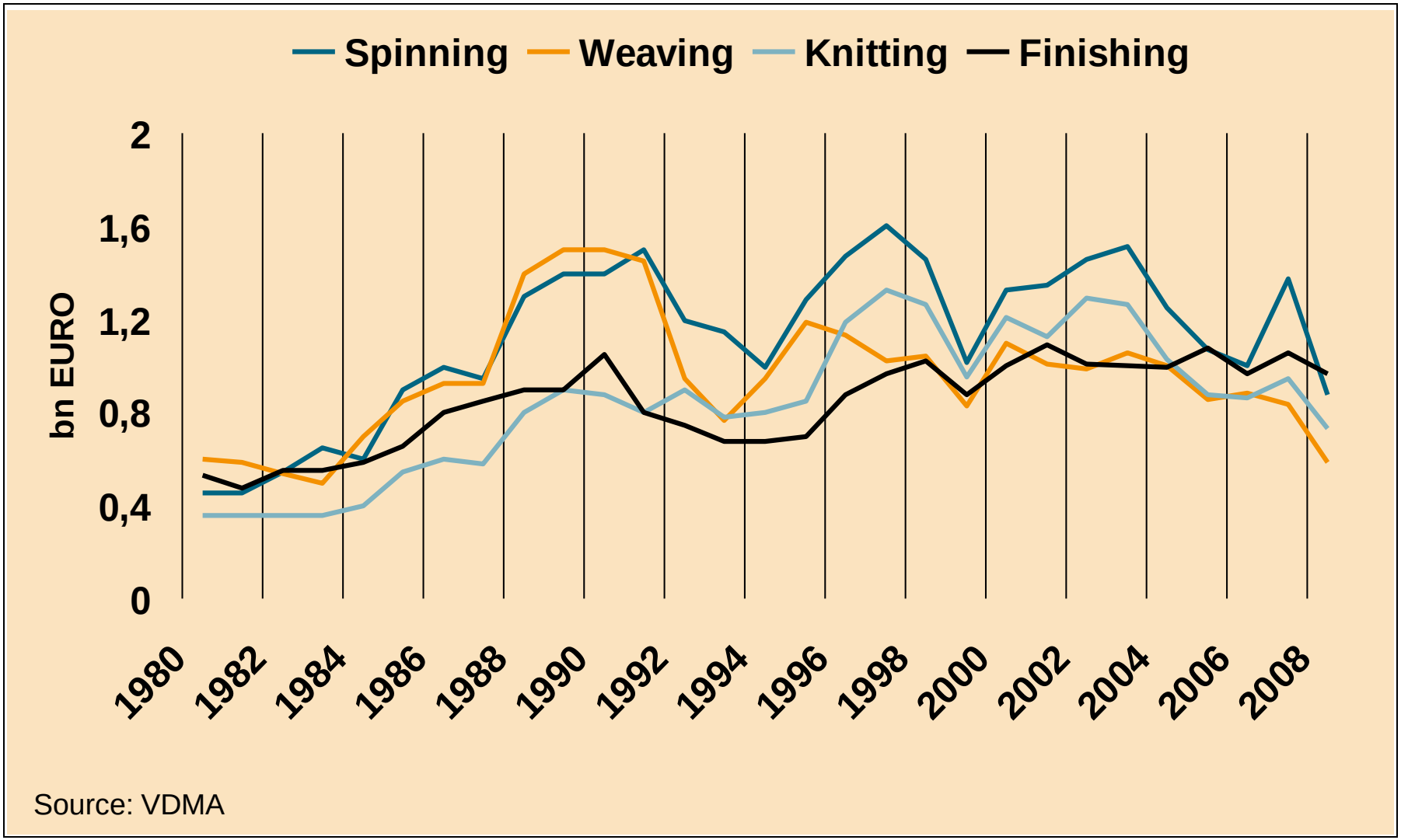
Source: VDMA

Exports of Textile Machinery producing countries to Asia



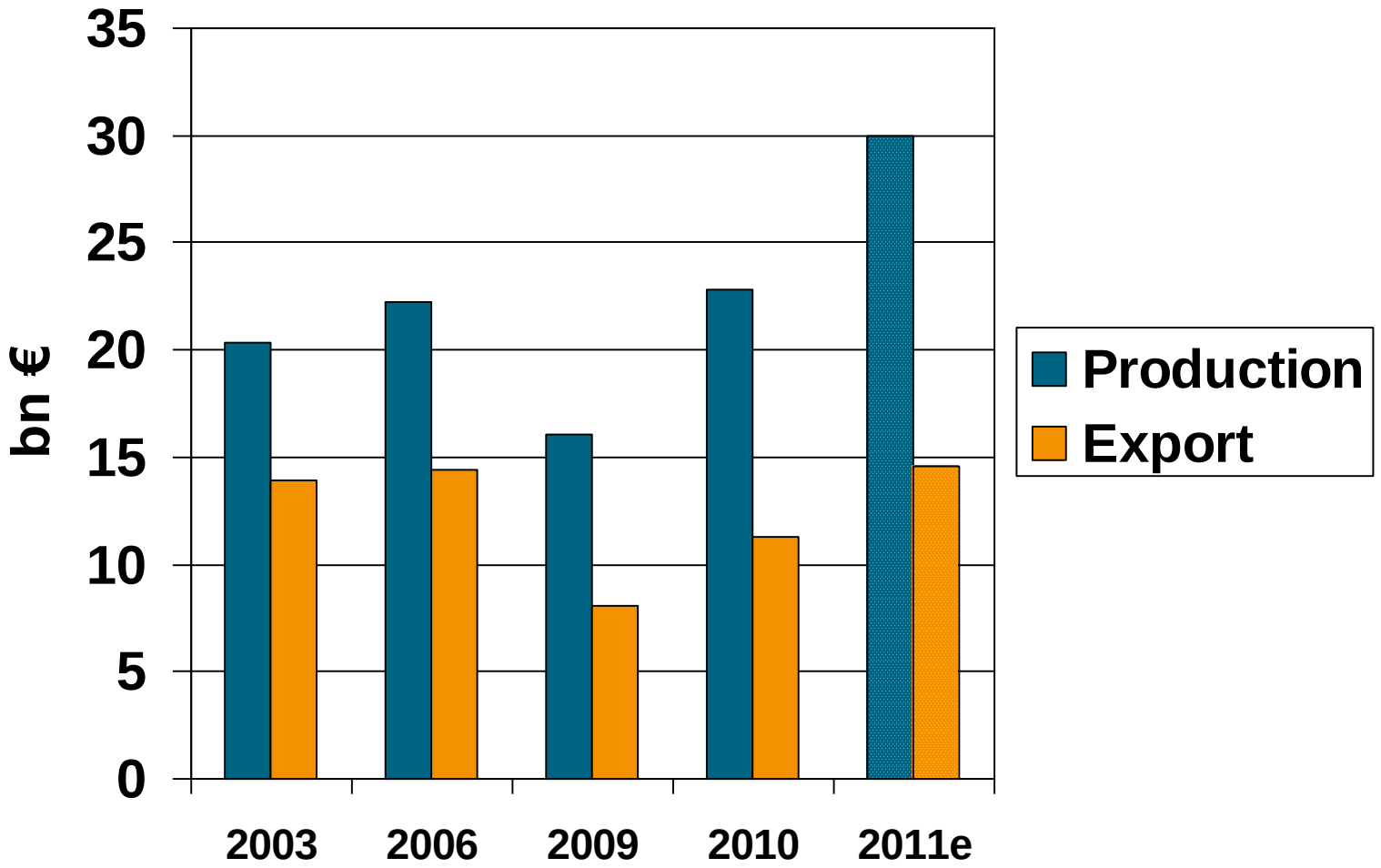
Source: VDMA

Exports of Textile Machinery producing countries to Europe



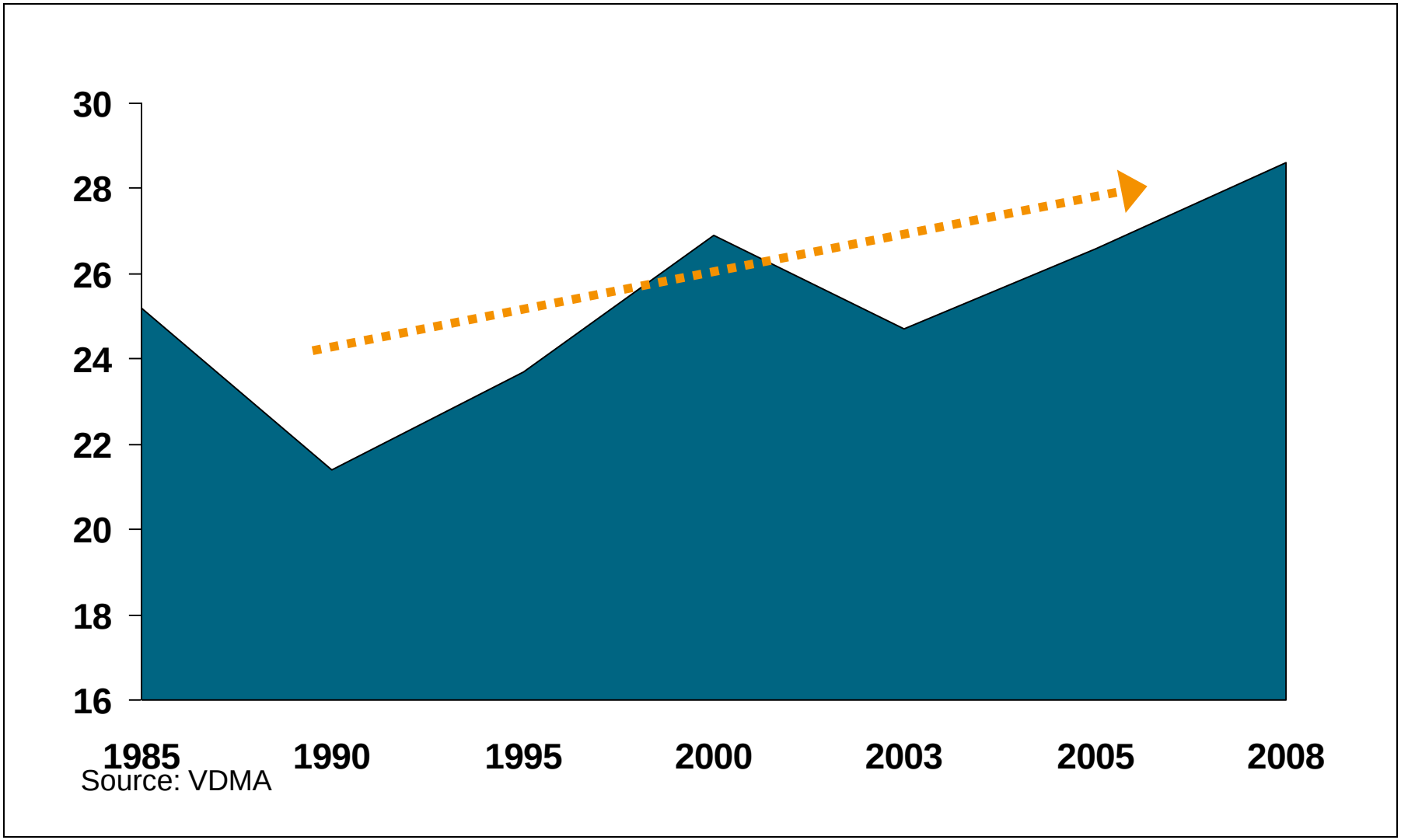
Source: VDMA

Global Textile Machinery Production and Exports



Source: VDMA

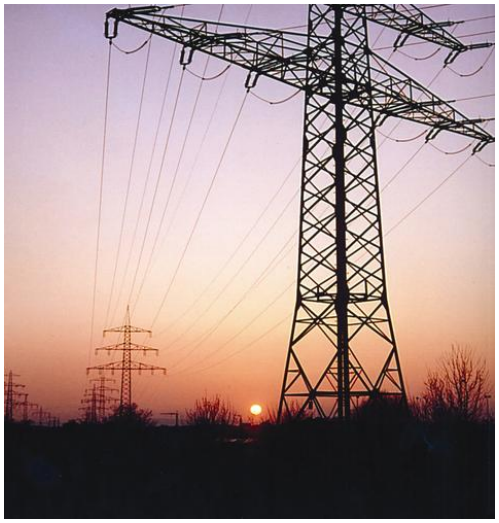
World Textile Machinery: Auxiliaries Business in percent of Machinery Sales



Source: VDMA

Prime issues and challenges

- **Rising prices for**
  - oil
  - gas
  - electricity
  - water
  - fibers



- Share of energy supply on 3rd place within the cost categories (after raw materials and capital costs)
- Energy efficiency - a challenge for all steps along the textile chain
- VDMA members offer appropriate solutions for reducing power, material and water consumption

Sustainability is driven by Governments … and Customers !

Levi's slashes water consumption with new jeans line

Global jeans brand Levi's has released a new line of jeans which are made using significantly less water, with some products in the range having a 96% reduction in water consumption.

Levi's said that an average pair of jeans used 42 litres of water in its production, but its new Water<Less collection cuts this by an average of 28%.

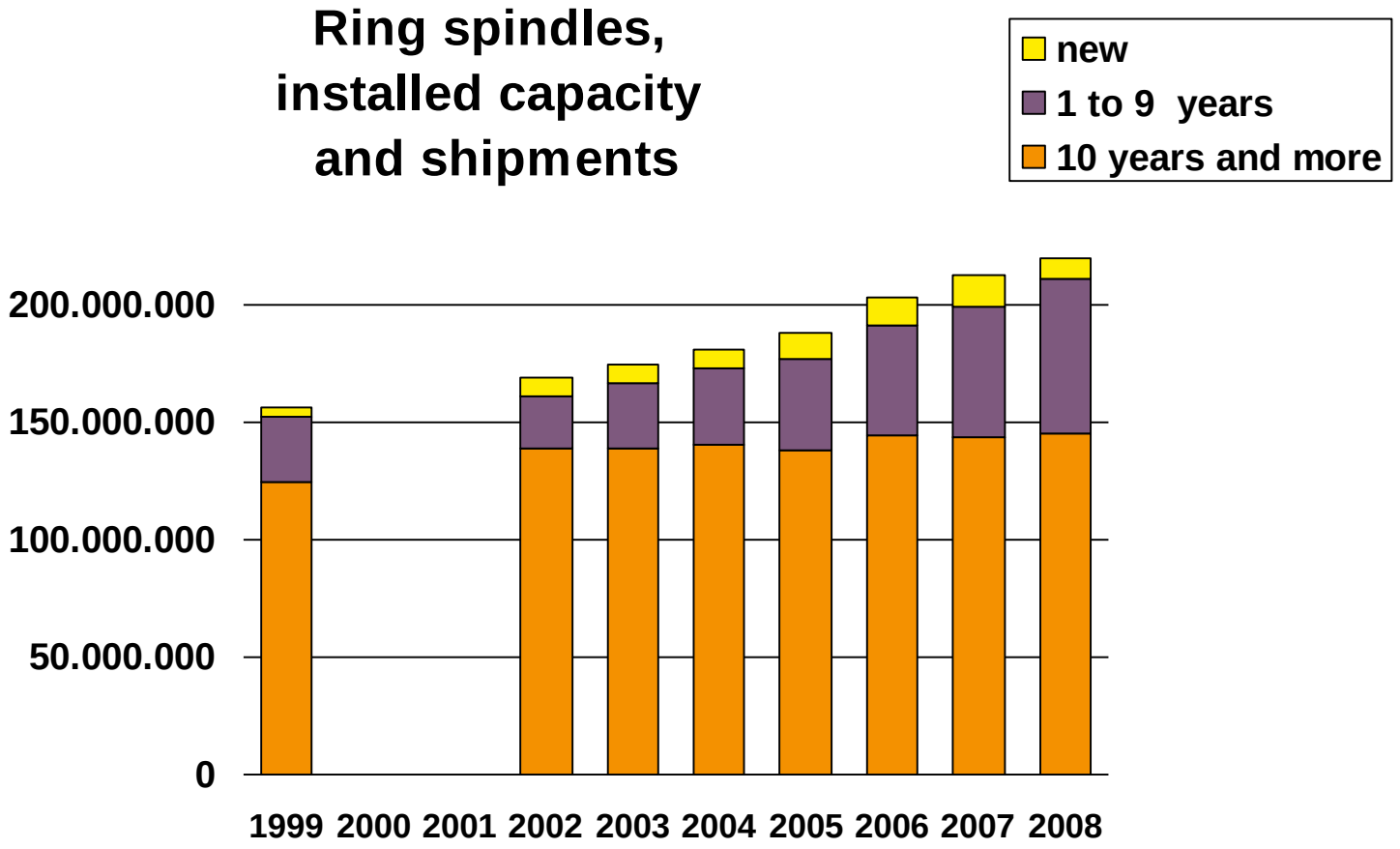
In a traditional production process, a typical pair of jeans are 'finished' in large washing machines and dryers, undergoing anything between three and ten washing cycles. The Water<Less range reduces the water used by combining multiple cycles into a single process, incorporating ozone processing into the garment washing and removing the water from the stone wash.

Levi's Water<Less will include a dozen classic Levi's jeans and will be available in January 2011, with the spring collection containing more than 1.5m pairs and saving an estimated 16m litre's of water.

"What's different about the Water<Less collection is that we're still using the same materials and techniques to create finishes for our jeans but we've substantially reduced water's role in the equation," said Carl Chiara, Levi's director of brand concepts and special projects.

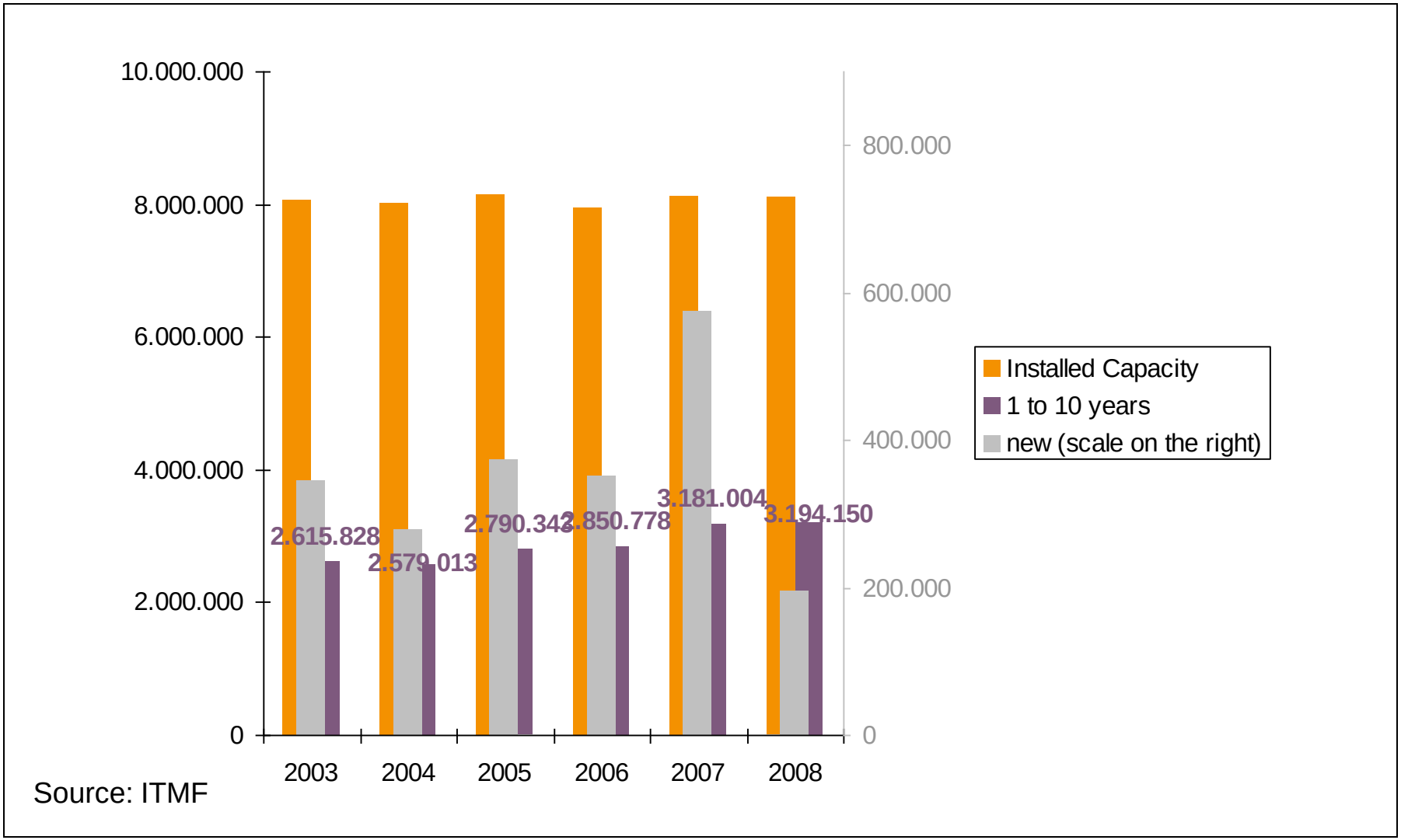
"Sometimes, the way to achieve a more sustainable design is to rethink a traditional process and find a way to do it better." ¶

Age Pattern in the Ring Spinning Business



Source: ITMF

Age Pattern in the Open-End Business



Source: ITMF

German solutions for efficiency in energy, materials and ressources

- But how does the management evaluate the cost saving potential for material and energy ?
- A good tool is the Life Cycle Cost approach

→ **Up to 90 % of all costs for an investment decision come within the scope of the operation phase**

→ **The initial investment for a technologically advanced textile machine pays off.**

But: Why does not everybody decide accordingly? Because the management needs a comprehensive knowledge about all costs! Many textile don‘t build up this know-how.

Lifecycle costs of machines and plants
VDMA 34160

VDMA-Specification June 2006

Forecasting Model for Lifecycle Costs of Machines and Plants

VDMA 34160

ICS 13.020.60

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Document comprises 14 pag

3 Forecasting Model

This VDMA-Specification describes a forecasting model for calculating lifecycle costs. The model does not include financing, capital costs or other price effects. The period under consideration is the machine lifecycle starting with the acquisition and ending after a respective specified utilization period. Anything related to the machine prior to its acquisition or after the period of consideration is only included in the analysis if it affects costs during the period under consideration. Modifications that are not performed in the course of maintenance are treated as further utilization and terminate the respective period under consideration. If lifecycle costs across several modifications are to be analyzed, the model has to be applied repeatedly for the respective sub-periods.

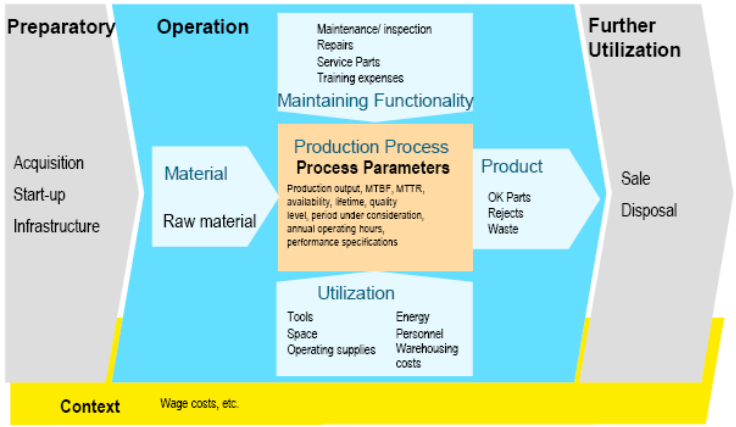
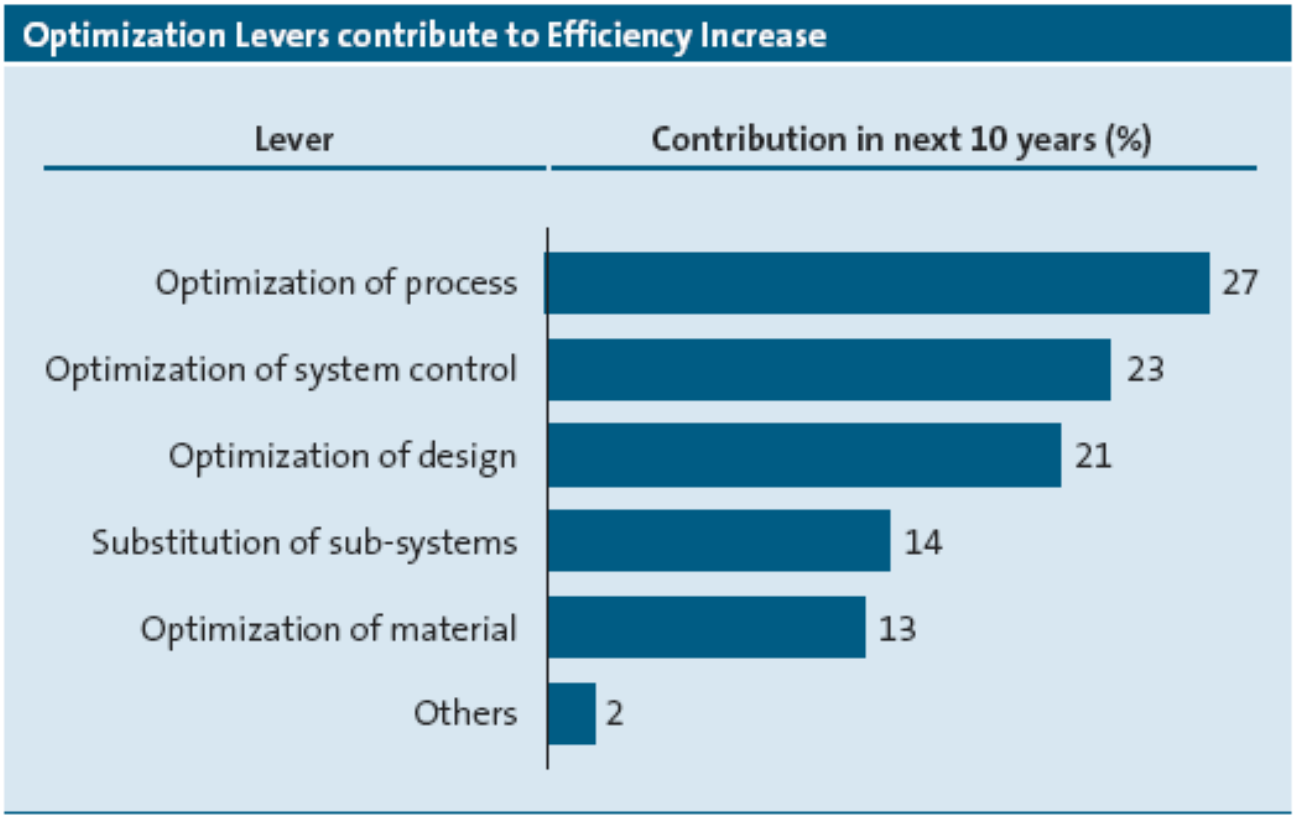


Figure 1 — Structure of forecasting model for calculating lifecycle costs during period of consideration

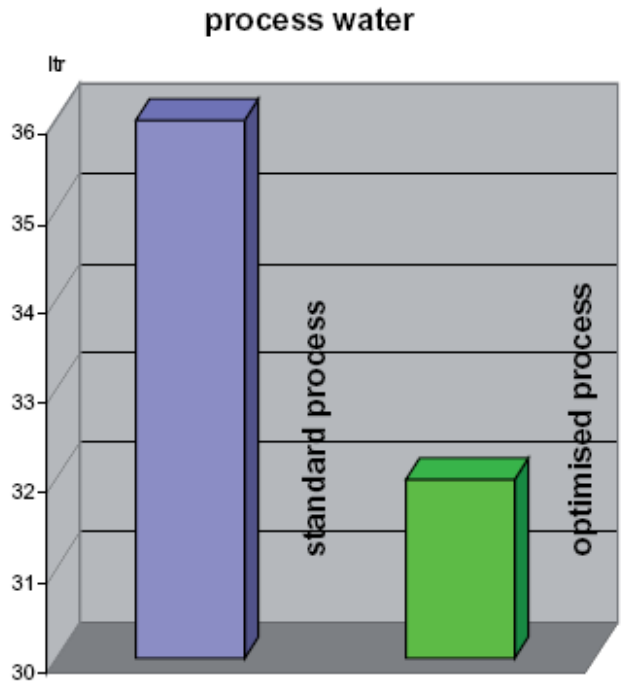
In the case of modifications, the residual value from the period prior to the modification represents the acquisition costs for the new period under consideration.
The model differentiates between three phases: preparatory, operation and further utilization. For each phase, the individual, relevant cost pools are identified. The lifecycle costs arise from the sum of the costs in the three phases.

German solutions for efficiency in energy, materials and ressources

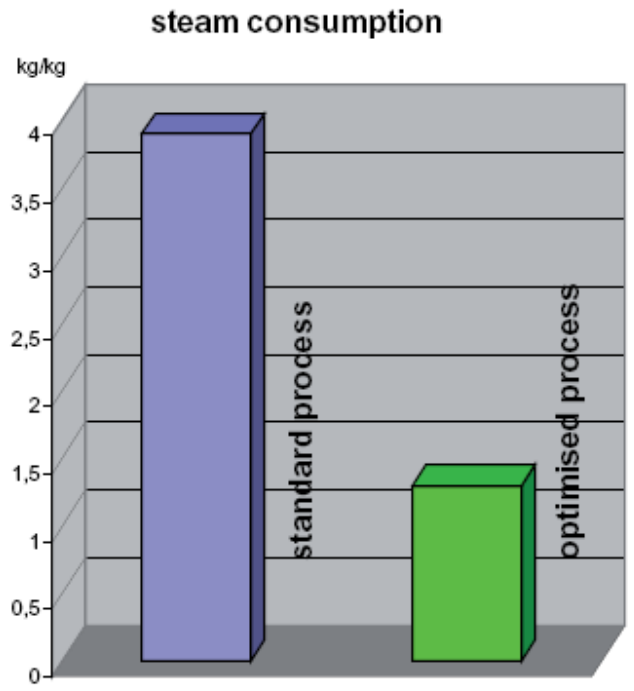


Roland Berger
Strategy Consultants

Example for new solutions



-11 %

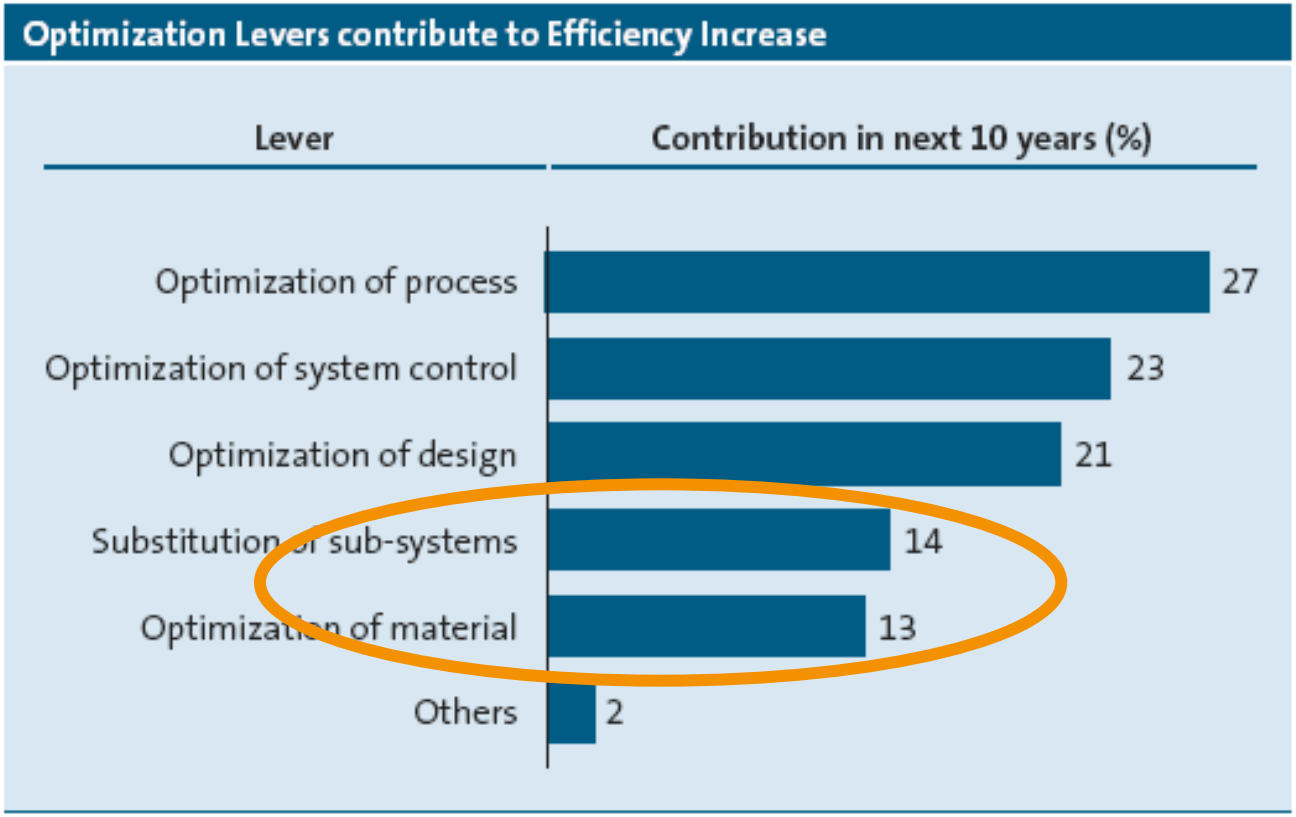


-60 %

reduces the process time and total energy consumption while at the same time enhancing the processed material

TEXTILMASCHINEN Thies

German solutions for efficiency in energy, materials and ressources



Roland Berger
Strategy Consultants

ITMA 2011 Barcelona: Big German Participation

new technolgies, solutions and tools expected

more than 200 German exhibitors already registered

“At the leading exhibition of ITMA, textile manufacturers are close to innovations alongside the overall textile chain for all market sectors: Apparel, home textiles and technical textiles,, -Fritz P. Mayer, President of VDMA Textile Machinery Association