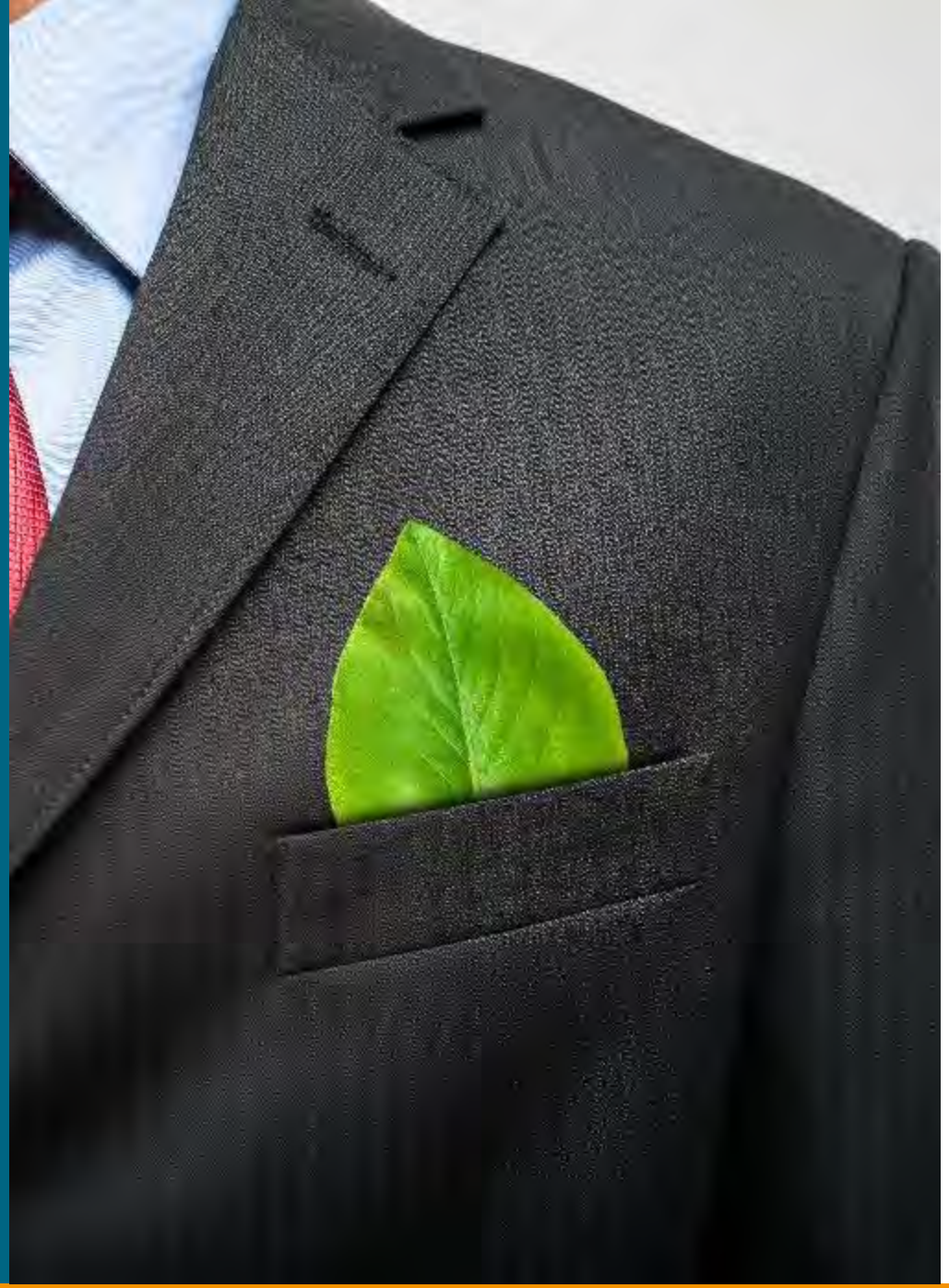


Texprocess Frankfurt May 14-17, 2019

Press Conference, Mumbai

March, 2019



Texprocess – Industry Trends Impact 4.0

- Industrie 4.0: the next steps
  - Artificial Intelligence
  - Machine Learning
  - Big Data
  - Customization
  - Automation
  - Digitization of the entire value chain
- Microfactories
- Digital Printing
- Sustainable production of sustainable products

⇒ Relocation of Production



Texprocess
Impact 4.0 - Next Steps

New requirements:

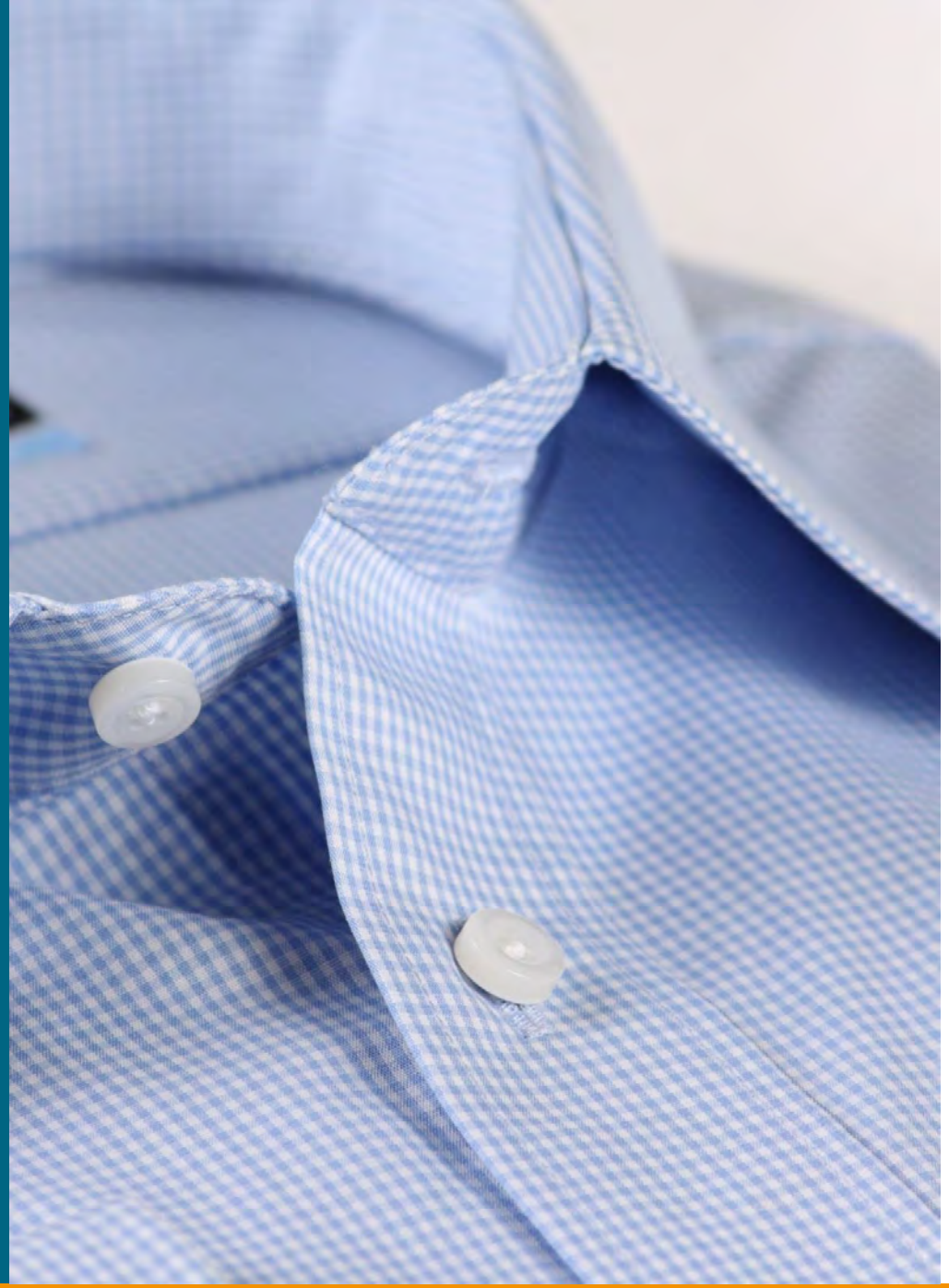
- **Consumer Driven**
  - Individual products
  - Shorter fashion cycles
  - Sustainability:
    - Traceable supply chain
    - Sustainable production of sustainable products
- **Industry driven**
  - Shorter production cycles
  - Closer to the consumer
  - Shortage of manpower
  - Higher delivery costs
  - Rising labor costs



Texprocess
Impact 4.0 - Next Steps

Solutions

- **Digitization**
  - 3D product development
  - Networks of cutting, handling and software
  - Predictive Maintenance
  - Augmented Reality
  - New Business Models
- **Automation/Robotisation**



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Impact 4.0 - Examples

Design

- 3D Body Scanning from Human Solutions
- 3D simulation software Vidya from Assyst for collection development

Cutting

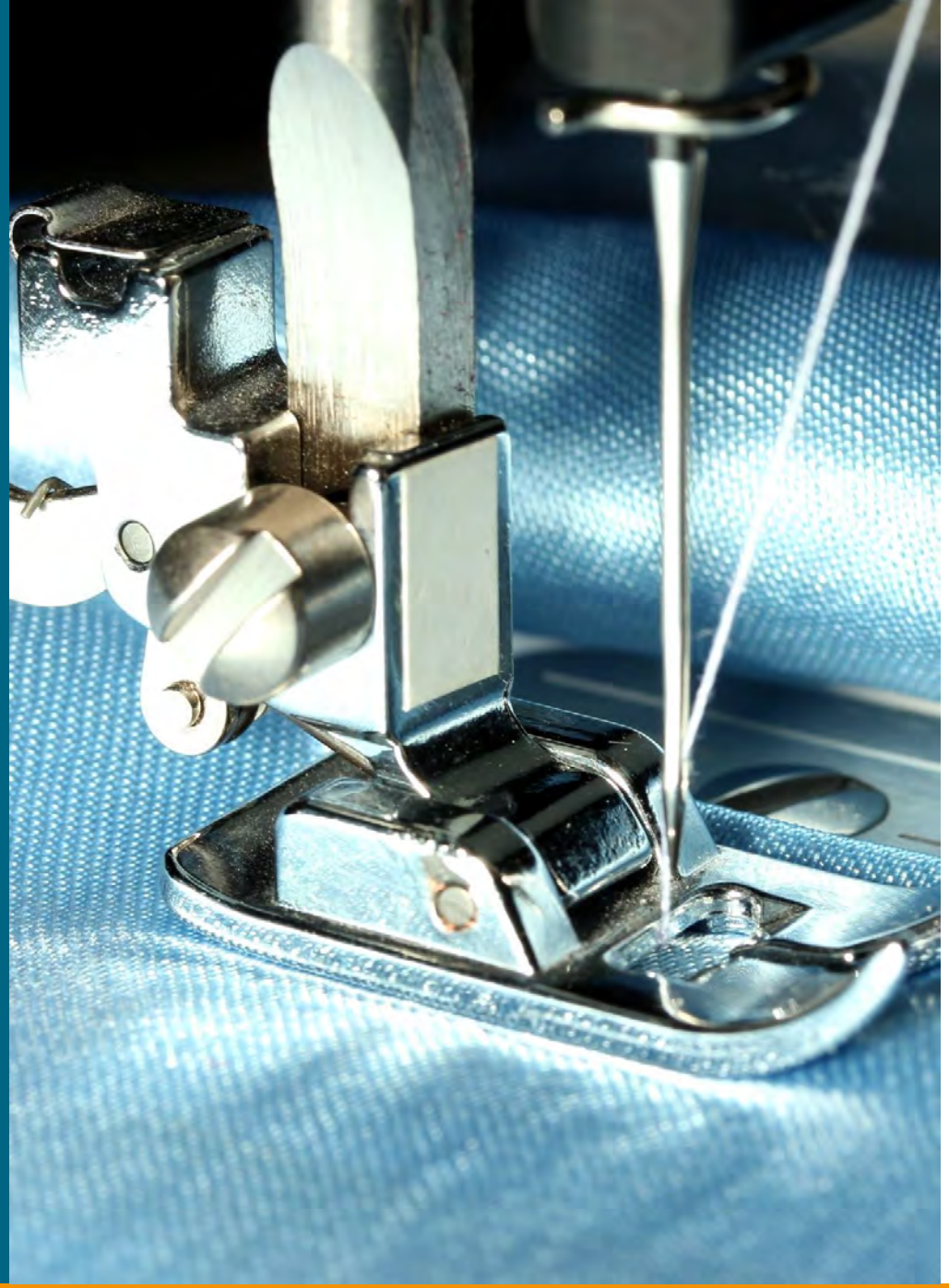
- Clearance system with robot and gripper system from bullmer for clearing materials from cutter tables
- Gemini leather scan machine with automation of the leather inspection process based on augmented reality



Texprocess
Impact 4.0 - Examples

Cutting

- Remote maintenance at Morgan Tecnica
  - Create Diagnoses
  - Status check
  - Firmware update
  - Real-time display of all plant data in terms of productivity and efficiency



Texprocess
Impact 4.0 - Examples

Sewing

- Qondac by Dürkopp Adler:
  - ✓ Networking of complete factories across national borders
  - ✓ Real-time analysis of the acquired machine data
  - ✓ Connection of all other machines via sensor technology and open interfaces
  - ✓ Remote maintenance possible
- v_sion by Vetron:
  - connects each workstation in a network (from fully equipped sewing workstation to manual workstations)
  - monitors and analyses line and workstation efficiency, parts per time, scrap, repair time or machine downtime
  - Recognition of optimization potentials for the process



Texprocess
Impact 4.0 - Examples

Big Data

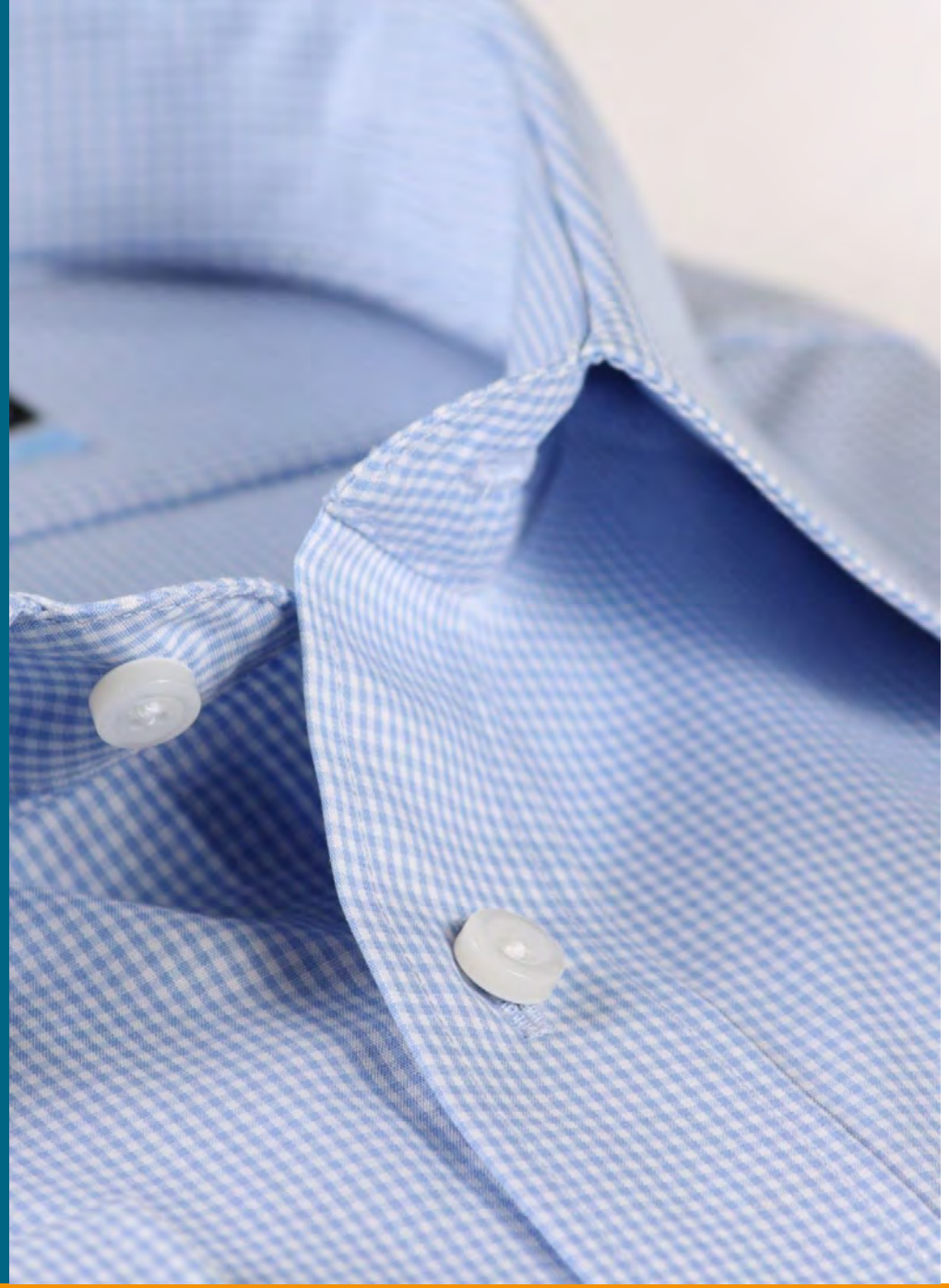
- EFKA BigData
  - Monitoring of complete production machines
  - Registration via RFID tag/card or via the control panel
  - Monitoring of the current machine status
  - Information about machine details
  - Statistical overview of all machines, selected machines or operators



Texprocess
Impact 4.0 - Examples

Order-controlled Shoe Production by Desma

- Customers design their shoes with online configurators (according to individual preferences and biometric characteristics)
- Production process begins on digital platform
- The order is forwarded to the producer who has available capacities and meets the qualification requirements and price expectations of the shoe brand.
- The shoe brand transmits the production-relevant information (CAM data) directly to the production facilities.
- Shoes are identifiable and traceable throughout the production process digital twin of shoes contains all relevant data and information
- After production, the shoes are delivered directly to the customer



Texprocess
Impact 4.0 - Examples

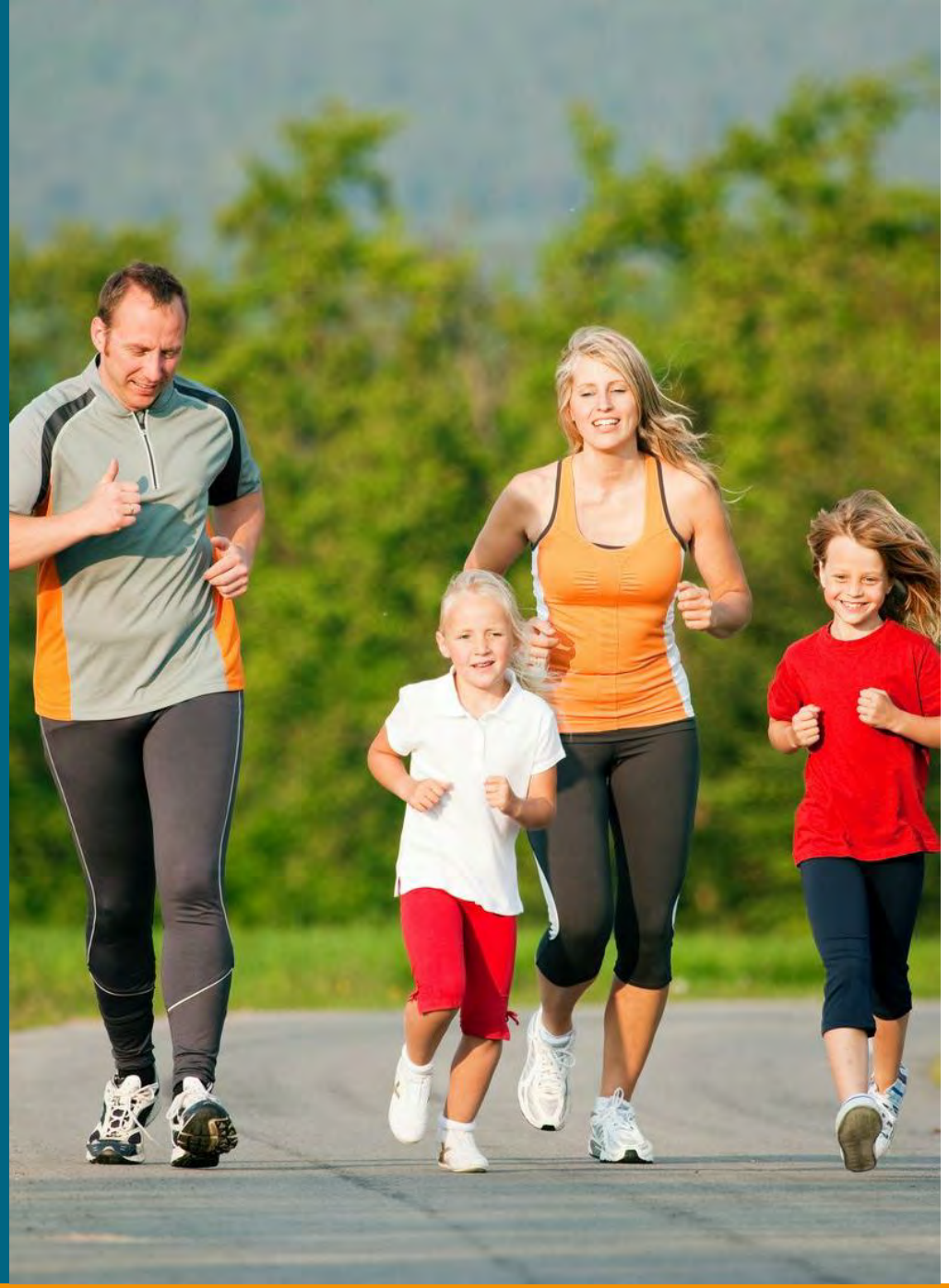
Embroidery

- Individual embroidery in batch size 1 through automation
- The customer can order their individualized textiles via the software and online platform, which are then embroidered with the aid of integrated ZSK embroidery machines



Texprocess – Industry Trend Digital Printing

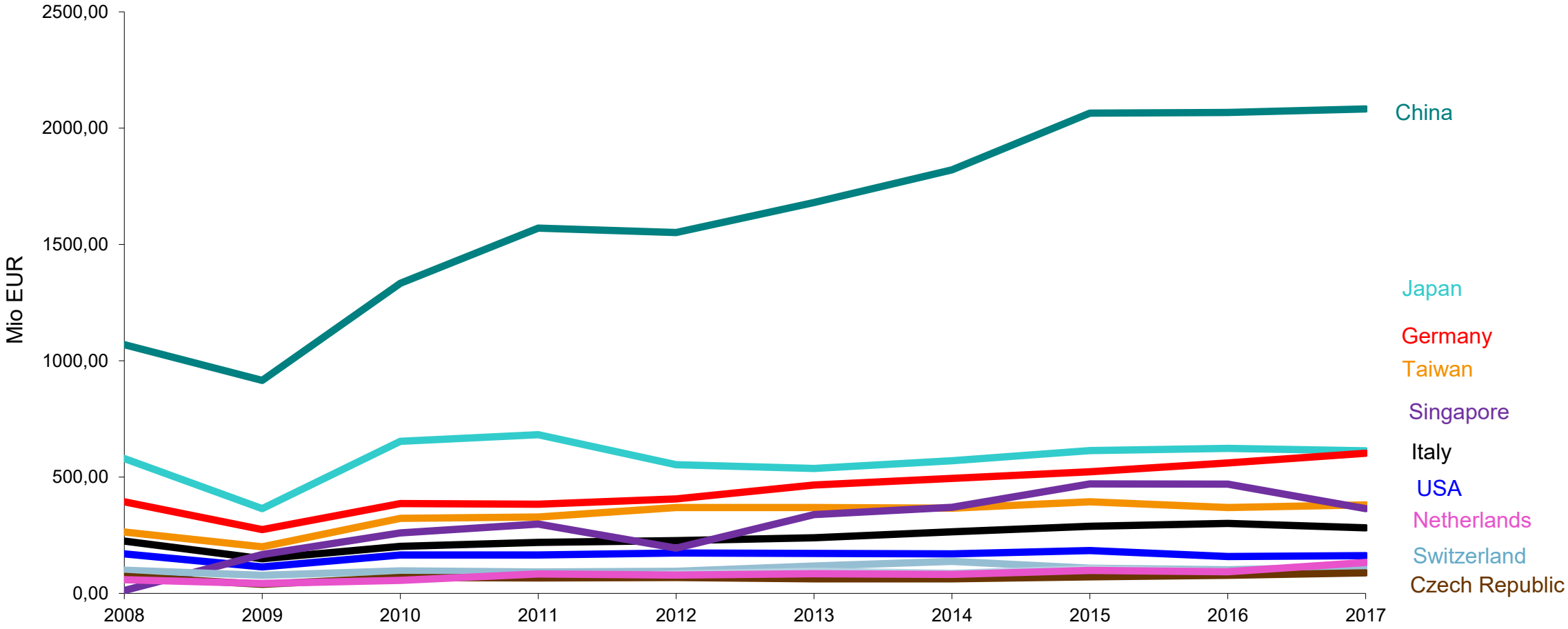
- Increasing demand for individual products, for example with individual patterns
- Direct printing of clothing, shoes and technical textiles
- Unlimited color and design possibilities
- Cost efficiency
- Significant reduction in water and electricity consumption
- "Shaped Textile Printing“ by Gemini: fully automated workflow from design to cutting, resulting in higher quality, faster response times and lower costs
- "Direct to Garment Printing" by Brother: full-color, detailed design directly from the computer to a digital printer with inlaid clothing



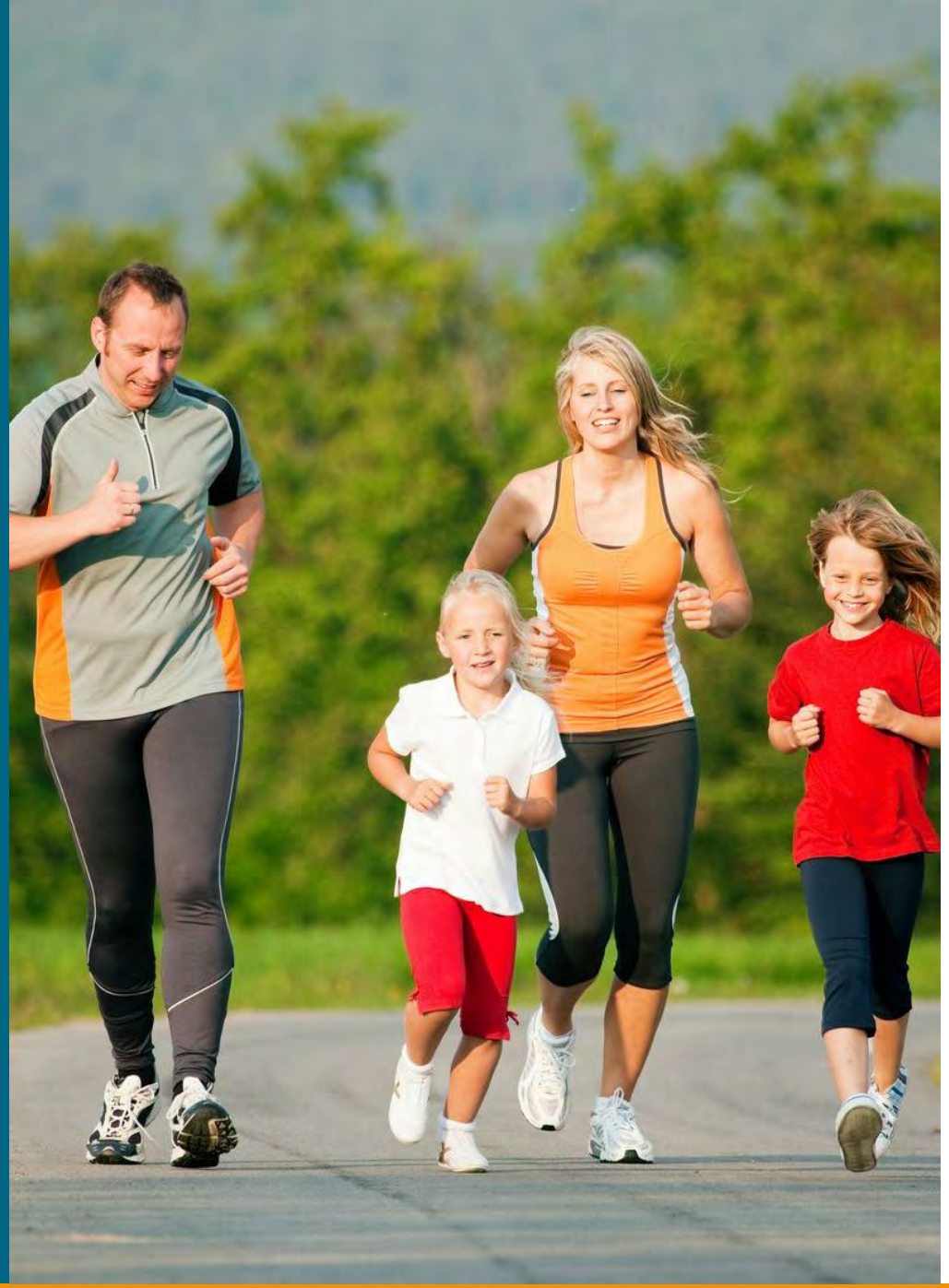
German sewing and garment technology

- Number three global supplier in 2017:
  - China: € 2,082 billion
  - Japan: € 613 million
  - Germany: € 603 million
- 7% increase in German exports in 2017, highest export value since 2003
- Most important export markets in 2017: Poland, China and USA

Ranking of supplier countries for sewing and garment machines



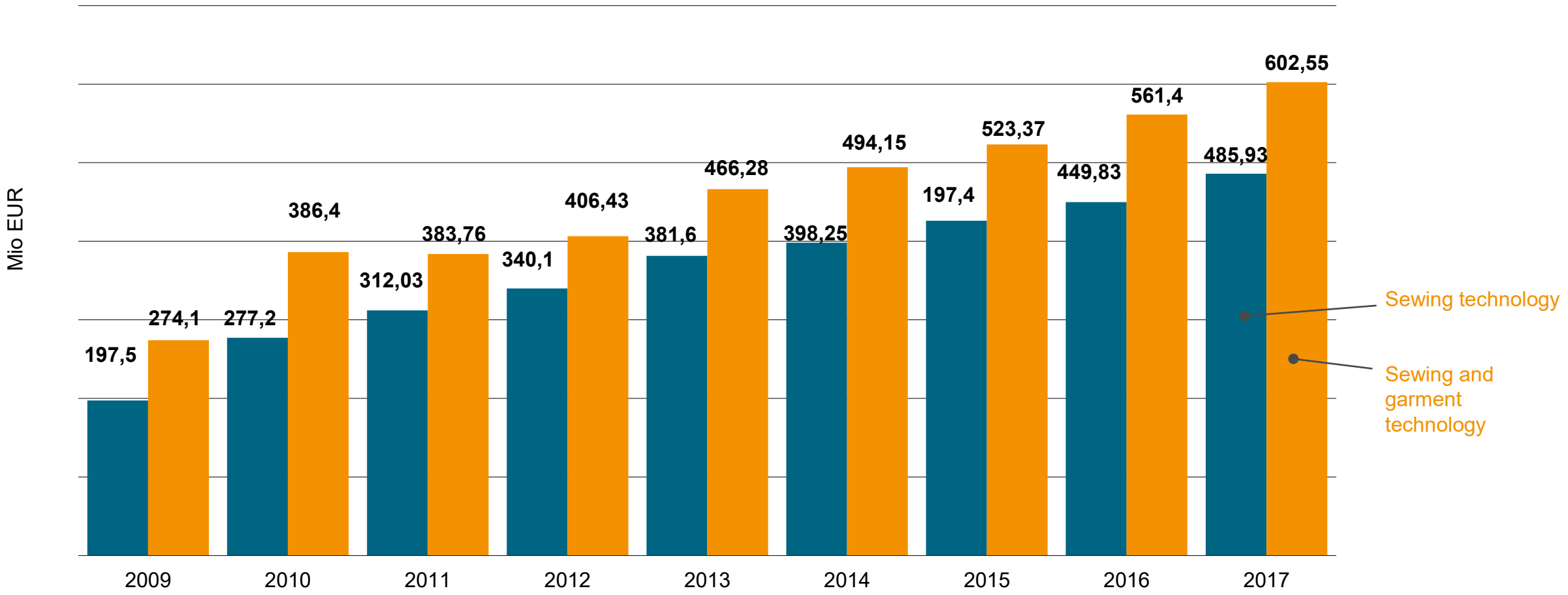
Source: Federal Statistical Office, VDMA



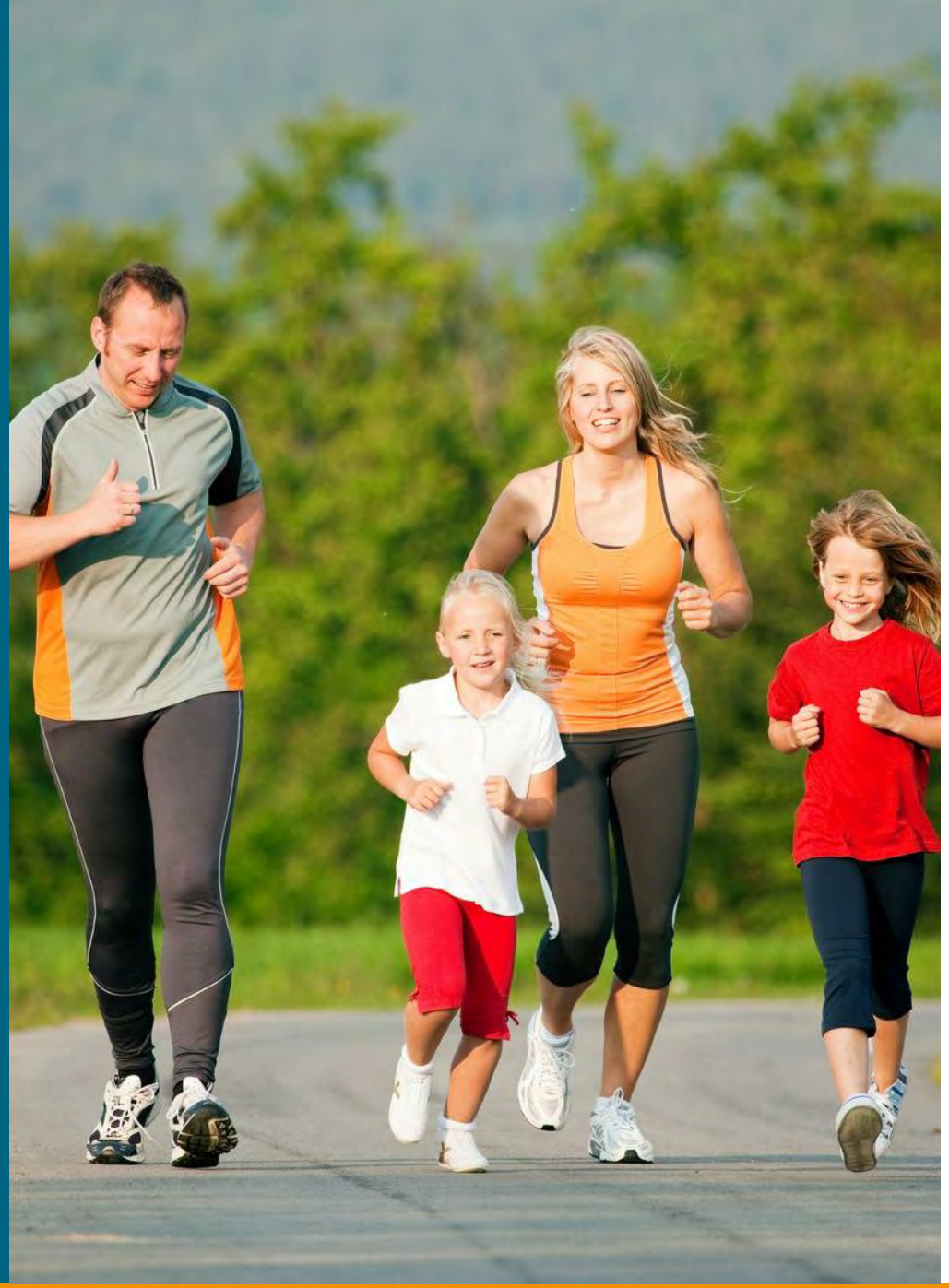
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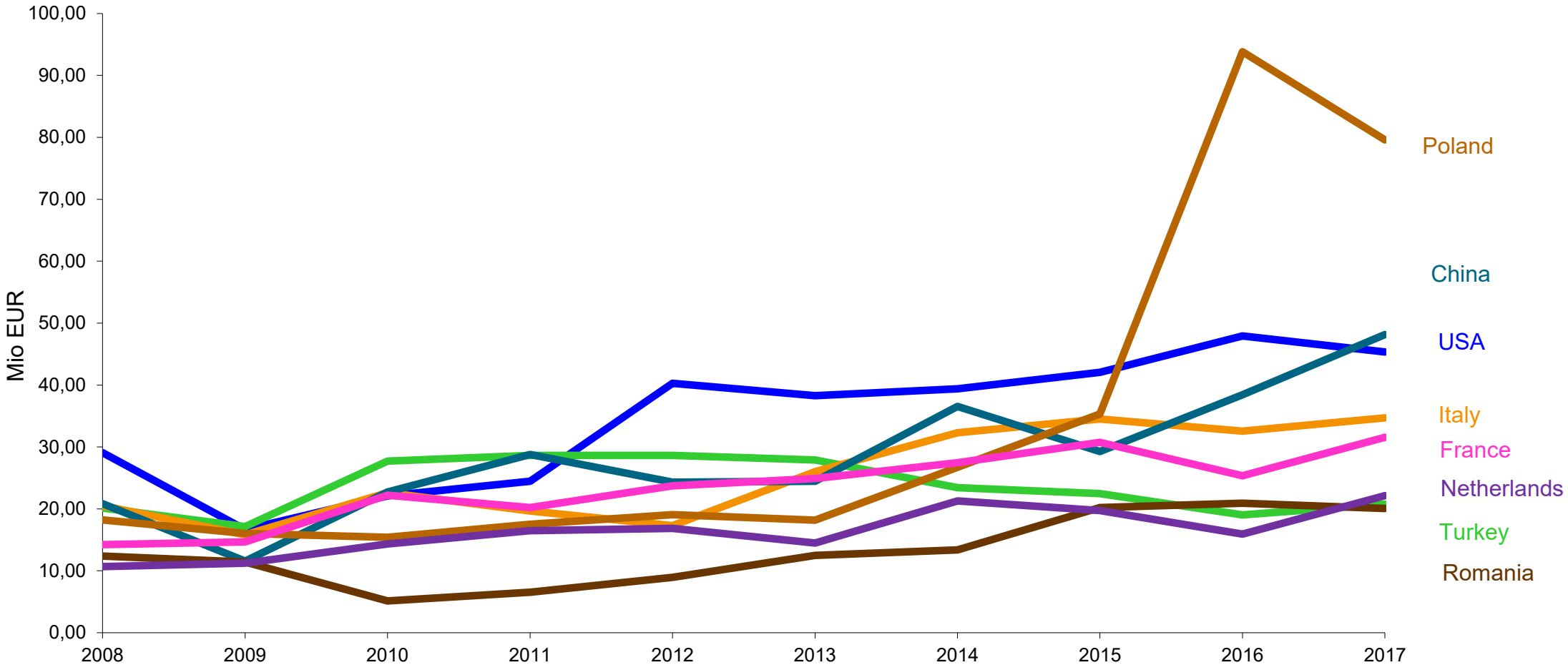
* According to VDMA definition



German sewing and garment technology

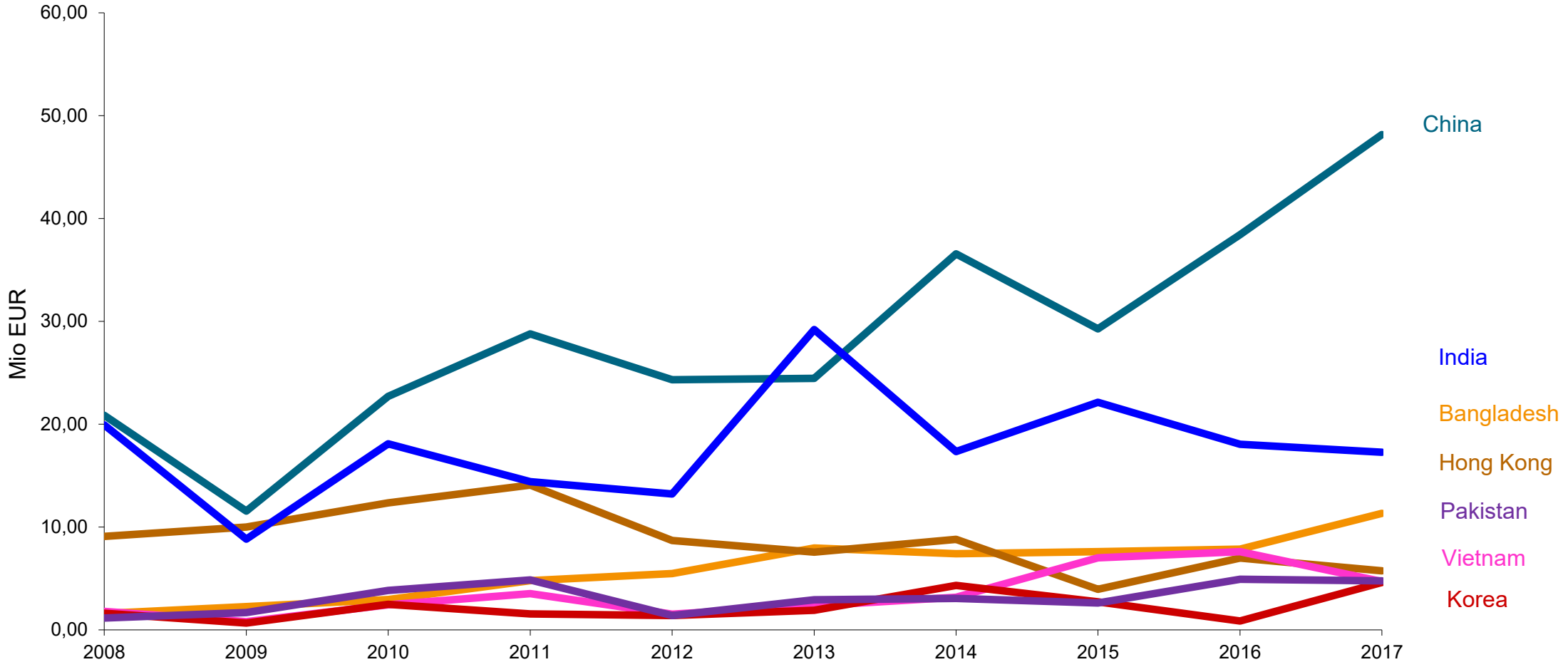
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Exports of German sewing and garment technology worldwide



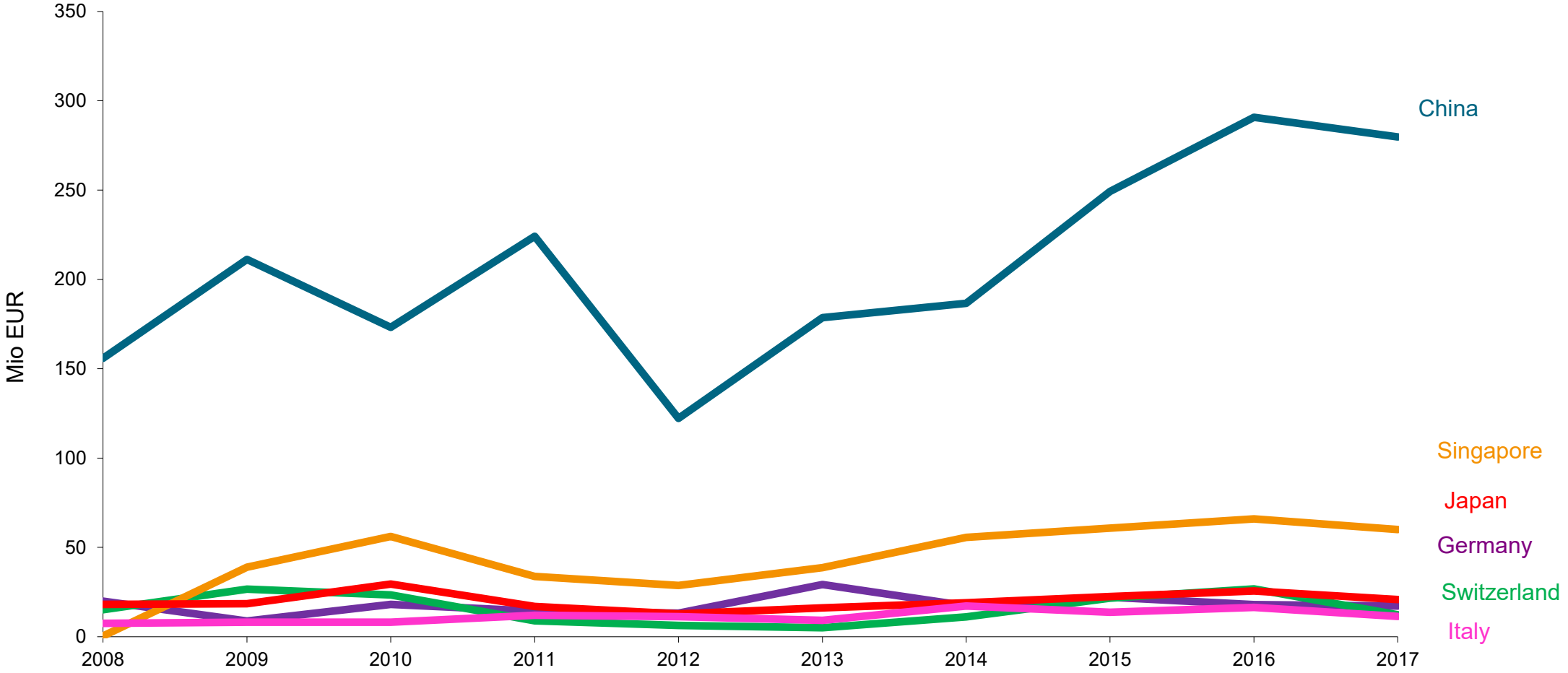
Source: Federal Statistical Office, VDMA

Exports of German sewing and garment technology to Asia



Source: Federal Statistical Office, VDMA

India‘s most important supplier countries of sewing and garment technology



Source: German Federal Statistics Office, VDMA



Thank you very much

Thank you very much

for your attention!