Experiences and potential of STI to foster structural transformation in manufacturing

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**Premise**

- Manufacturing matters for structural economic transformation – because of greater opportunities for technological development

- 4th industrial revolution: industrial development will likely continue to deliver on productivity, trade, innovation- without the same number of jobs

- Technological capabilities are crucial for structural economic transformation and for industrial upgrading
Policy perspectives - promoting technology and innovation

- Importance of sector-specific interventions that seek to alter production patterns directly

- Process of innovation is different at different stages of development and policy measures should reflect this

- Policy instruments depend on the type of technology and innovation being targeted
**Policy perspectives - a coordinated set of interventions**

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<th>Policy domain</th>
<th>Market-based</th>
<th>Public goods/direct provision</th>
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<tr>
<td>Technology market</td>
<td>R&amp;D subsidies, grants</td>
<td>Technology transfer support, technology extension programme, public-private research consortia, public research institutes</td>
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<td>Product market</td>
<td>Tax exemptions for innovation investments, attraction of foreign direct investment, R&amp;D tax incentives, import tariffs, duty drawbacks, tax credits, investment/foreign direct investment incentives</td>
<td>Use of public procurement for innovation, protection of intellectual property rights, procurement policy, export market information/ trade fairs, linkage programmes, foreign direct investment country marketing, one-stop shops, investment promotion agencies</td>
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<td>Labour market</td>
<td>Wage tax credits/ subsidies, training grants</td>
<td>Training institutes, skills council</td>
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<td>Capital market</td>
<td>Subsidized credit for innovative firms, directed credit, interest rate subsidies</td>
<td>Loan guarantees, skills council</td>
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<td>Land market</td>
<td>Subsidized rental</td>
<td>Promotion of technology and production clusters, creation of technology parks, establishment of special economic zones, export processing zones, factory shells, infrastructure, legislative change, incubator programmes</td>
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*Source: Adapted from Wales (2015) and Warwick (2013).*
Practical experiences- IUMP Armenia

- 24 Armenian garment & shoe manufacturers received technical support
- More than 100 local experts trained on garment design, production management and creating of fashion collections
- A joint national Fashion Brand “5900 BC” created
- “5900 BC” 9 fashion collections created and exhibited at 7 international and 3 national exhibitions
- Exhibitions and B2B Forums leading to advancing the mobilization of mass orders for supply of garment & shoes to the region (signature of numerous export contracts) and attracting direct investment
- A Burgo-Atex Fashion School established jointly with leading fashion school of Italy to prepare industrial scale fashion constructors for the industry
- Establishment of Light Industry Development Cluster Centre in a PPP Mode jointly with the Government and Private Sector
Practical experiences- IUMP Armenia

Armenian garment manufacturers in 2.5 years:

✓ enhanced their **production and marketing capacities & skills**

✓ improved product **design, quality and diversification**

✓ established **contractual arrangements for supply** with the largest garment manufacturers and retailers in the region

✓ attracted more **than USD 71 mln worth investment** projects with an individual case of EUR 25 mln investment attracted thanks to upgraded enterprise capacities and better performance shown

- **Exports growth**: 3-times
- **Yearly turnover**: Doubled
- **Employment at beneficiary enterprises**: Doubled
Practical experiences—fostering ISID in the New Silk Road Economic Belt

• Leveraging the potential of Industrial Parks in Azerbaijan, Tajikistan, Turkmenistan and Uzbekistan (and Kazakhstan and Kyrgyzstan)

• Aligning industrial park strategy with a cluster strategy

• Capacity building of park management

• Identifying and addressing the BDS needs of targeted strategic industries (firms/clusters)

• Sound governance in place: mechanisms of cooperation between park dedicated bodies, regional and national governments
Practical experiences: Programmes for Country Partnership

a multi-stakeholder partnership model that supports countries in achieving inclusive and sustainable industrial development

• Key features:
  • Government ownership
  • Selected priority sectors or areas
  • Multi-stakeholder partnership from programme design to implementation
  • Mobilization of public and private investment for large-scale industrial projects including infrastructure

• UNIDO’s role
  • Facilitates overall coordination.
  • A multidisciplinary team provides technical assistance.
  • Advisory function to the government on all industry-related issues
Practical experiences - PCP Ethiopia

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<th>Leather and leather products</th>
<th>Textile and apparel</th>
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### Sector X
- Integrated agro-industrial park
- Agro-food value chains (coffee, F&V, M&D, animal feed, edible oil)
- Input supply (SHF linkages)

### Agro-food
- Leather City in the town of Modjo
- Footwear/leather products clusters
- Fashion studio
- LIDI to become Centre of Excellence

### Leather and leather products
- Improving raw material and product supply chains
- TIDI to become Centre of Excellence
- Fashion studio

### Strategic and functional interventions
- Strengthening of analytical capacity of MoI in the generation of industrial intelligence and policy
- Establishment of an industrial observatory and M&E system
- Improvements in coordination of South-South and tripartite industrial cooperation

### Environment and energy
- Environmentally sound management of slaughterhouse waste, and sustainable and productive use of animal by-products
- Greening of value chains: leather and textile

### Investment and industrial zones
- Comprehensive technical assistance programme for investment promotion
- Linkages between foreign and local trade/industrial associations
- Entrepreneurship and domestic investment
- Monitoring foreign and domestic investment
- Strengthening coordination and M&E mechanism (tools, methodology)

### Trade facilitation
- Strengthening institutional capacity to facilitate trade along quality value chains
- Capacity building for good governance of industrial zones
- Trade facilitation services for new industries
- Trade facilitation and market access through improvements in quality assurance services
Thank you