

Gulf Organization for
Industrial Consulting



منظمة الخليج
للاستشارات الصناعية



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غرفة التجارة والصناعة العربية الألمانية
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Commerce and Industry e.V.

**Direct Investment & Know – How Transfer
Supporting Industrialization plans in GCC**

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Key drivers of manufacturing knowledge transfer

Industrial Knowledge transfer in a country is the ability to identify, attract, structure, capture, and disseminate knowledge to maximize impact on innovation, productivity and economic growth. A number of country have excelled at supporting knowledge transfer including Germany, Ireland and Singapore.

Drivers for knowledge transfer include education system, linking universities to innovation, digitalization of knowledge, business environment that fosters entrepreneurship, specialized industrial zones, institutional support for knowledge transfer, scale, country branding, and monitoring & evaluation

The case of Germany: Connecting education, research and manufacturing

- **Germany has focused on knowledge creation based on**
 - a) triple Helix partnerships between government, business and universities as well targeted government credits for R&D in knowledge intensive fields
 - b) A focus practical knowledge transfer linking Vocational Training with global companies
 - c) Researcher talent attraction (d) green industrial funds attracting global technologies
 - d) an industry association with international links.

Delta Approach That applied in Germany it has three dimensions: Research , Education and Finance

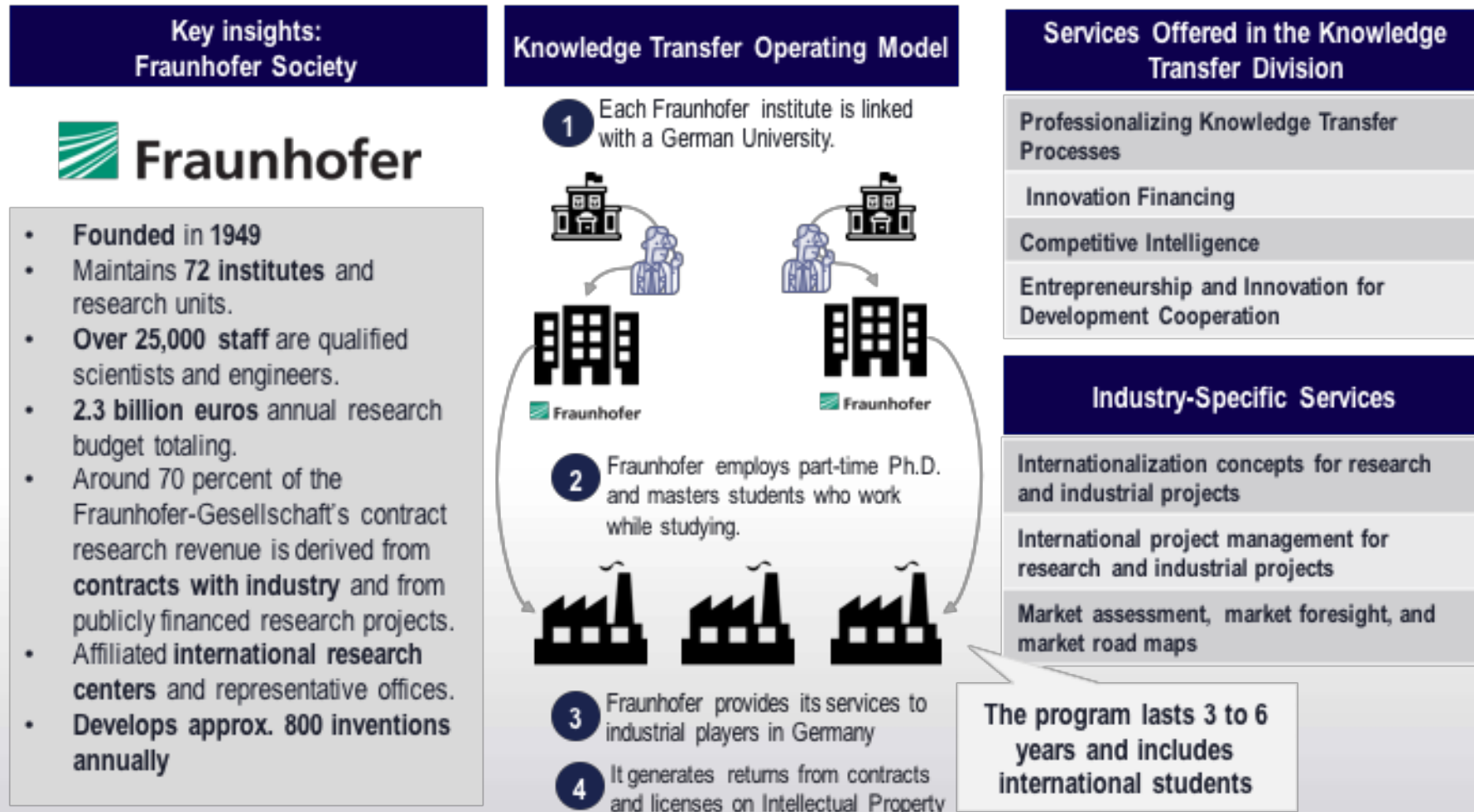


The industrial sector in Germany is largely driven by the applied research produced by the Fraunhofer Society which produces around 800 inventions every year

Best Practices

The model of Franhofer society is good example for Knowledge Transfer and one of the main driving forces for the industrial sector in Germany

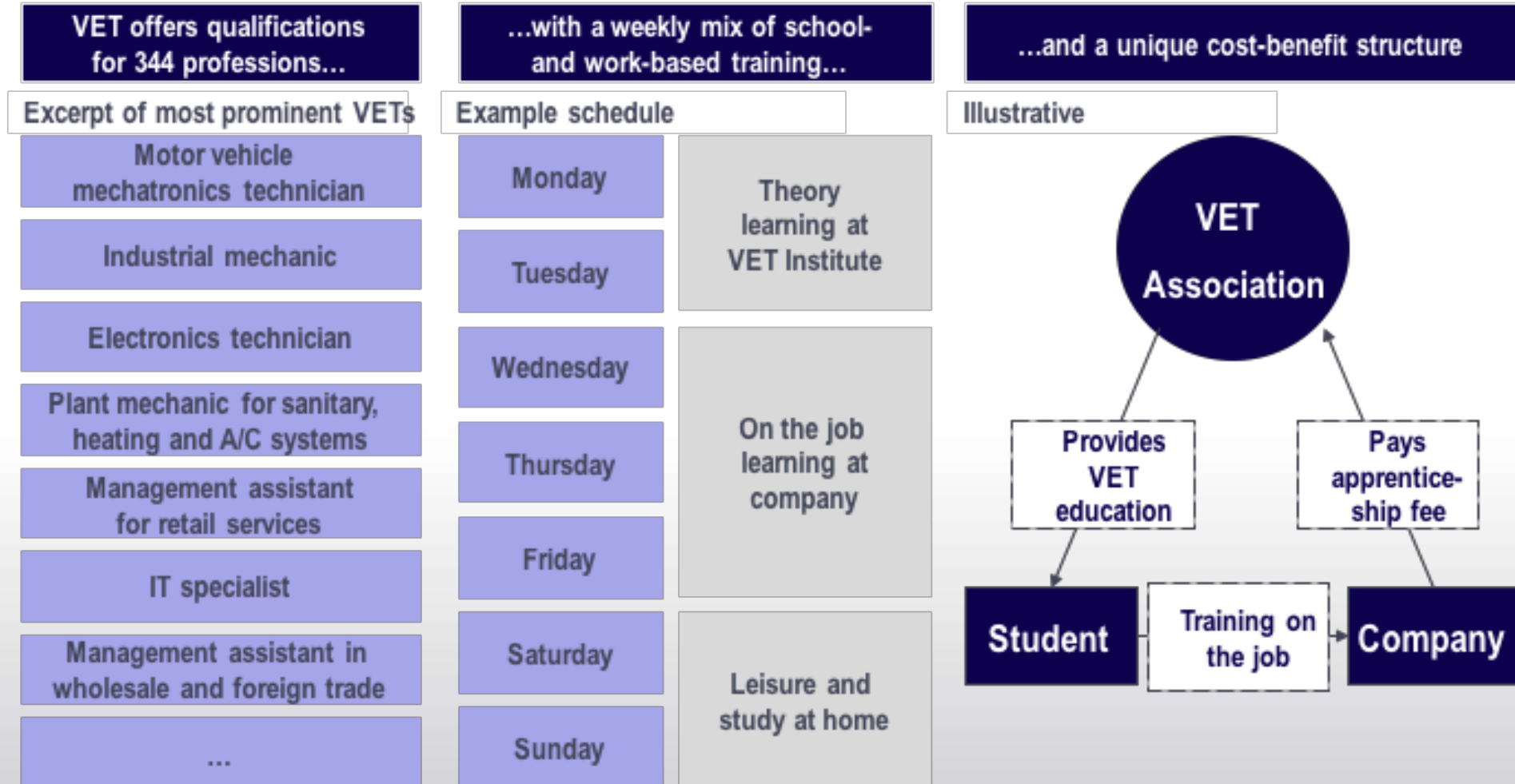
Best-Practice Knowledge Transfer: Fraunhofer Society Overview



The Germany's VET System

The Education and Training system in Germany provides weekly MIX of training based and action oriented training that includes a wide range of jobs and professions

Best practice example: Germany's VET System : General VET description



The lessons learned and GCC Needs

In general , transfers of knowledge occur only when all major catalysts are combined and strengthened through an established education system and strong infrastructure. Germany remains a world best practice to follow.

- **GCC need to benefit from the experience of Germany on**
 - ❖ Knowledge creation which focused on establishing strong linkages between education scientific research and industrialization according to Delta Approach that include finance, education, research and Development.
 - ❖ Mechanisms of Triple partnerships between government, business and universities as well targeted government credits for R&D in knowledge intensive fields.
 - ❖ The Germany's VET System that provides weekly MIX of training based and action oriented training that includes a wide range of jobs and professions offer qualification for 344 professions and unique cost-beifit
 - ❖ The Germany's Green Development Bank -KFW

❖ **GCC Needs of German Technology in Industry**

▪ **Digital Transformation for Industry 4.0**

Providing solutions to transfer conventional manufacturing lines in the GCC into Industry 4.0 practices including cloud computing, smart sensors, robotics, integrated logistics and additive manufacturing

▪ **Automotive Components**

Aluminum and high performance plastics applications for automotive components specially products manufacturing using additive process.

▪ **Controls System in Rail Network**

Smart controls applications for the new rail and metro networks in the GCC specially on passenger stations and cargo ports

- **Renewable Energy – Solar system solutions**

Advanced solar system solutions specially for systems that can work on harsh environment of high temperature, dust and humidity.

- **Waste Management – Plastic recycling**

New technologies in plastic recycling specially plastic used in food and beverage industries for complete circular usage.

- **Specialty Chemicals**

Specialty chemicals specially chemical used in oil and gas applications such as clay stabilizers, corrosion inhibition and H₂S control and CO₂ removal

- **Biomedical and Medical devices**

Services Provided by the GOIC to Industrial-Sector Investors

1. Preparation of manufacturing investment opportunity specifying economically feasible investment opportunities in various industrial sectors, such as:
 - Smelting of basic metals such as aluminium, magnesium and copper, requiring huge investments and partnership between the public and private sectors for implementation. This would open the door to investment in many complementary knowledge-based industries.
 - Production of catalysts, building chemical materials and engineering plastics in the chemical sector
 - Extraction of edible oils, meat processing and production in the processed food industry. The investment opportunities in this sector are often medium investments and the private sector can implement them.

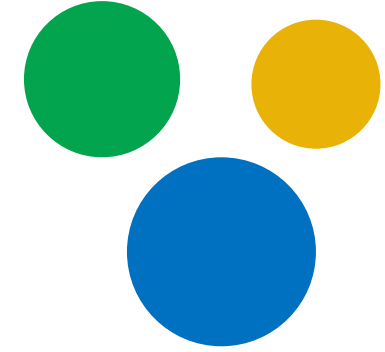
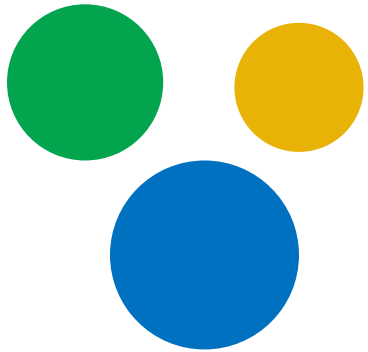
2. Provision of sub-contracting and partnerships through the interactive Gulf Sub-contracting and Industrial Partnership Exchange (GSPX) network, which aims to reinforce the production capabilities and marketing abilities of industries in GCC countries.
3. Provision of industrial technical assistance to overall technical measuring and evaluation of small and medium institutions in order to increase their competitive capabilities in member states, through evaluation of production costs, quality control and environmental issues.
4. Provision of industrial and socio-economic information through an industrial market intelligence portal, the entryway to the industrial, economic and social data of member states and the overall tool to deliver the information to the participants via the Internet.

GOIC's Achievements in Industrial Development in the GCC

At the end of 2017, GOIC had produced numerous industrial reports and studies:

- Prepared an industrial map for the GCC, identifying missing industries and industrial opportunities
- Provided more than 470 investment opportunities for GCC countries through its industrial investment opportunities program
- Conducted more than 485 industrial reports and multi-client studies in the petrochemical, metal, engineering industries and building materials sectors, among others
- Conducted more than 58 sector reports for GCC countries in the petrochemical, chemical, metals, food industry and appliances, and equipment industry sectors, among others
- Regulated more than 350 specialized industrial and economic meetings on different areas of cooperation, coordination and training
- Produces knowledge-based industry studies for GCC
- Delivered industrial strategies and policies
- Organized 15 industrial conferences during Gulf Industrialists' biennial conference, hosted by alternating GCC member states

Thank You



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