



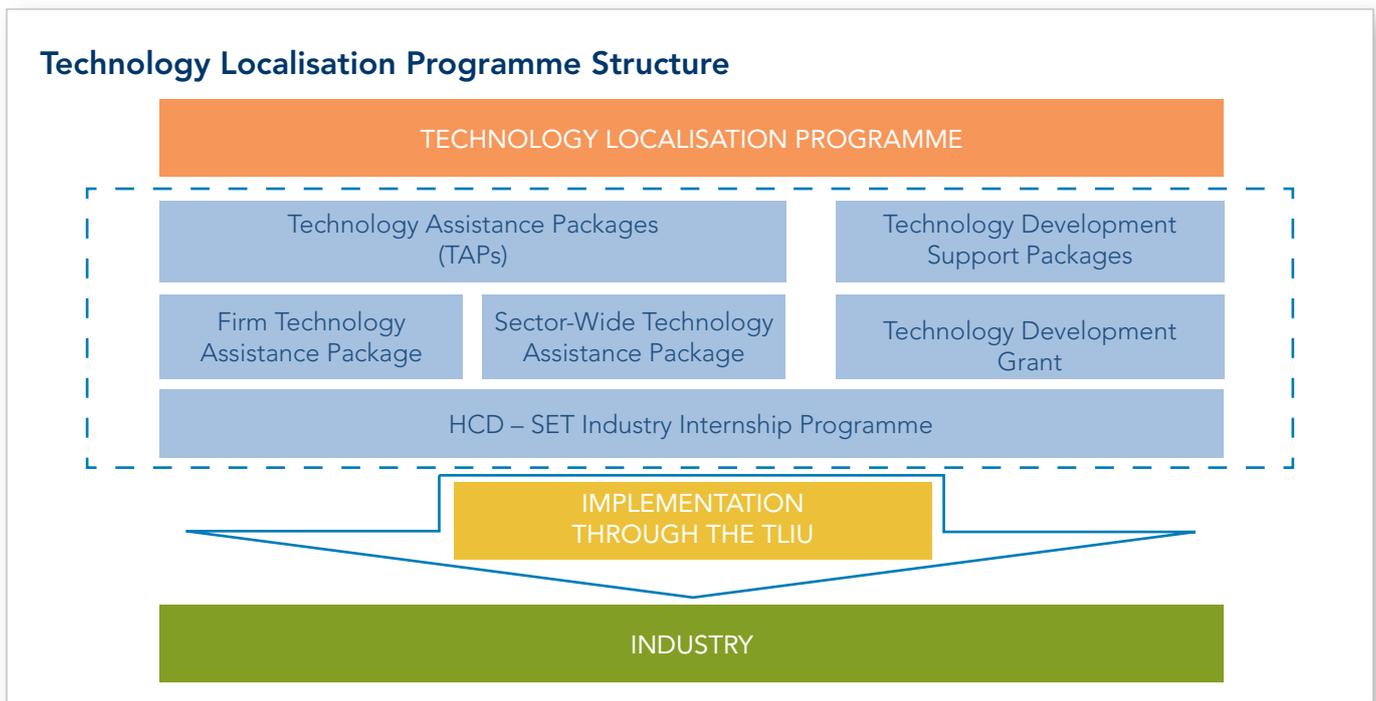
science & technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA





Technology localisation programme



Background

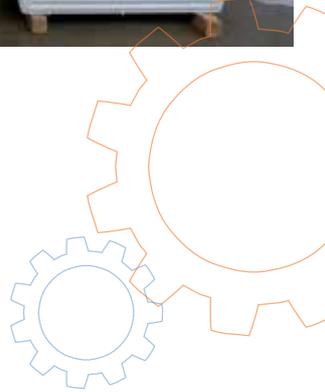
As part of the national effort to develop national infrastructure, State Owned Companies (SOCs) have embarked on large capital expansion programmes. These large programmes are most often procured from overseas Original Equipment Manufacturers (OEMs). Whilst these infrastructures are essential, it has become global practice to link such procurement programmes with some offset commitments to use local suppliers/equipment and ensure some level of technology transfer to the recipient.

SOCs have a choice of how to manage and structure the offset programmes – according either to the National Industrial Participation Programme or to the Competitive Supplier Development Programme (CSDP). Both Transnet and Eskom have elected to follow the CSDP approach. The CSDP is based on the premise that a SOC has to develop and implement a plan for the development of a local supplier base. In order to develop the local suppliers, support is provided to the suppliers.

The DST realised that technological upgrading or support is most often the key intervention required to improve the competitiveness of a firm, or to enable the firm to achieve the levels of quality, time and cost required by the OEM, or by the SOC. The DST therefore developed the Technology Localisation Plan (TLP) to support technology localisation and the support mechanism to deliver technological support is the Technology Assistance Packages (TAPs). The TLP presents an overarching and generic framework for DST’s engagement in technology localisation initiatives, including the CSDP.

Localisation aims at increasing the local industrial activity – manufacturing or services. Successful localisation is viewed as increased local content in capital programmes and operations.

Bold intervention is required to raise the capabilities of local manufacturing companies so that they can earn a share of the recapitalisation investments, and ultimately enter export markets as competitive suppliers into the OEM’s global supply chains.



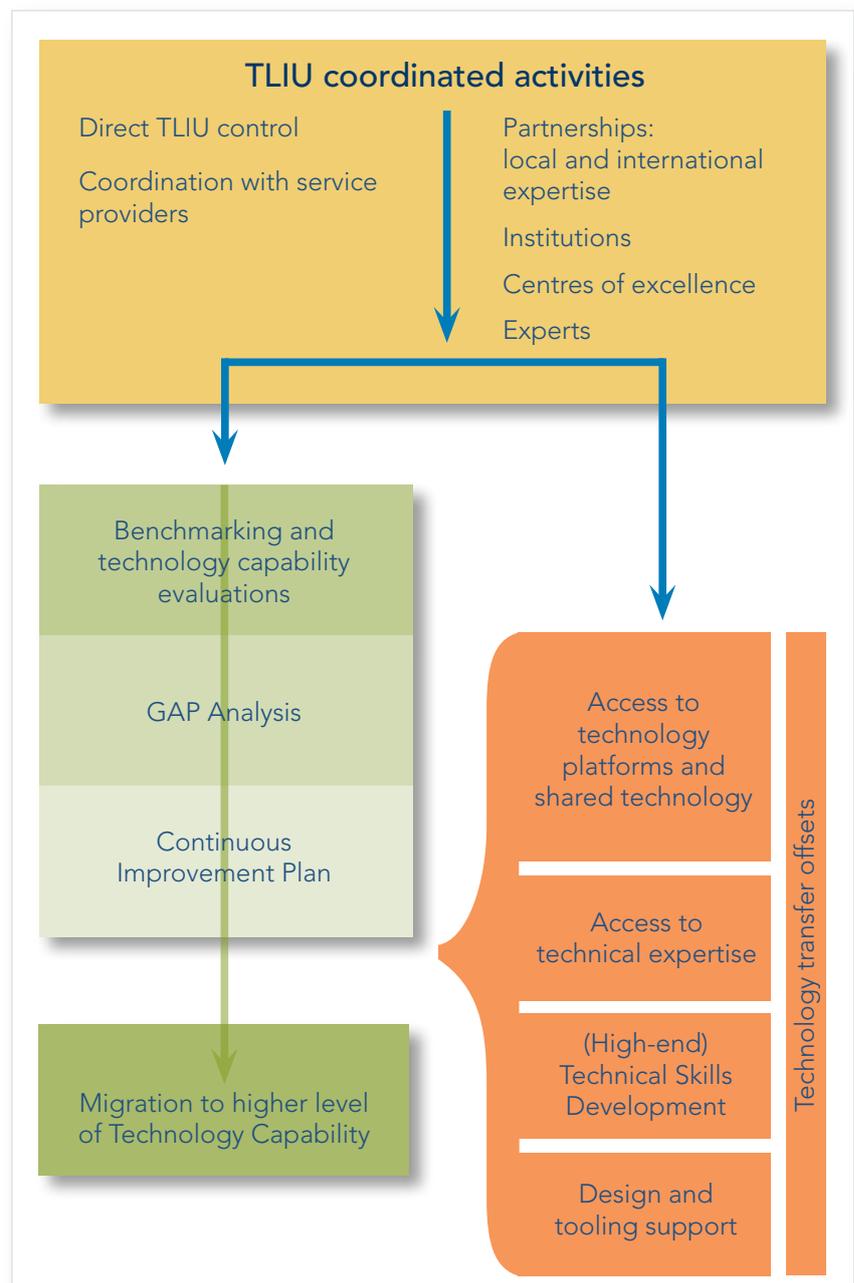
Introduction to TLIU

The Technology Localisation Implementation Unit (TLIU) is an initiative of the Department of Science and Technology (DST), which is hosted and incubated at the CSIR within the Strategic Initiatives Implementation Unit (SIU). The TLIU was formed by the DST to implement the deliverables of its Technology Localisation Plan (TLP).

Services provided by the TLIU

- Benchmarking and technology capability evaluation services
- Technology capability platforms, or shared technology facilities
- Access to technical expertise
- High-end technical skills development programmes
- Design and tooling support
- Technology transfer benefits/ Offset programmes

TLIU develops TAPs at a firm intervention level, which are used to provide interventions to migrate the supplier to higher level of capability and capacity. The process is illustrated to the right.



Supplier development

The concept of holistic supplier development is a critical area. The TLIU will create strategic partnerships to deliver supplier development interventions that would fall outside the borders of technology interventions.

The benchmarking function of the TLIU is a programme that will fulfil supplier development needs to all companies on the TAP programme.

The aim of supplier development is to introduce the concept of continuous improvement into the business environment. When the benchmarking exercise is completed for a company, several areas are identified, which require improvement in order to enhance the competence and competitiveness of the business. Not all of these areas will relate to technology interventions.

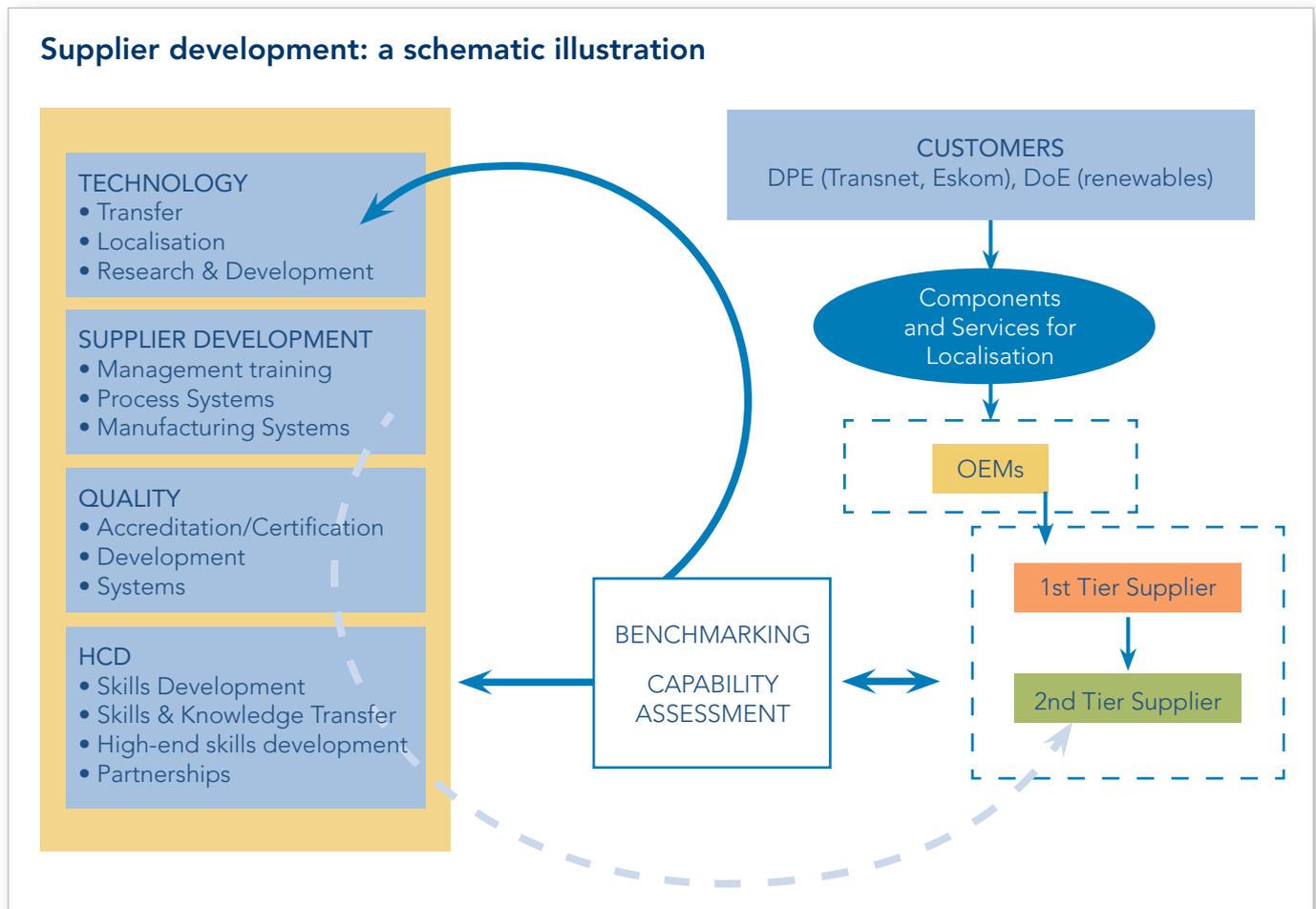
To realise the full effect of technology interventions, there is a need to improve

the effectiveness of all related areas. The supplier development plan addresses areas that require interventions to develop the process and performance of the business.

Tools include:

- lean manufacturing
- process modelling and optimisation
- six sigma
- quality systems
- theory of constraints
- production systems.

Supplier development: a schematic illustration



Conclusion

The achievement of the goals of the TLP will result in expanded local manufacturing capability, resulting in increased industrial activity.

A competitive local manufacturing and services industry helps to grow the economy, establish and retain decent jobs and reduce the dependency on imports.

The TLIU's holistic implementation of the TLP will enable to SOCs to maximise their localisation goals.



For more information contact:

TLIU • email: ABhugwandin@csir.co.za • Tel: +27 12 841 4241 • www.csir.co.za