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IDEAS THAT WORK
8-9 October 2015 | CSIR ICC

The use of science and technology to enable localisation

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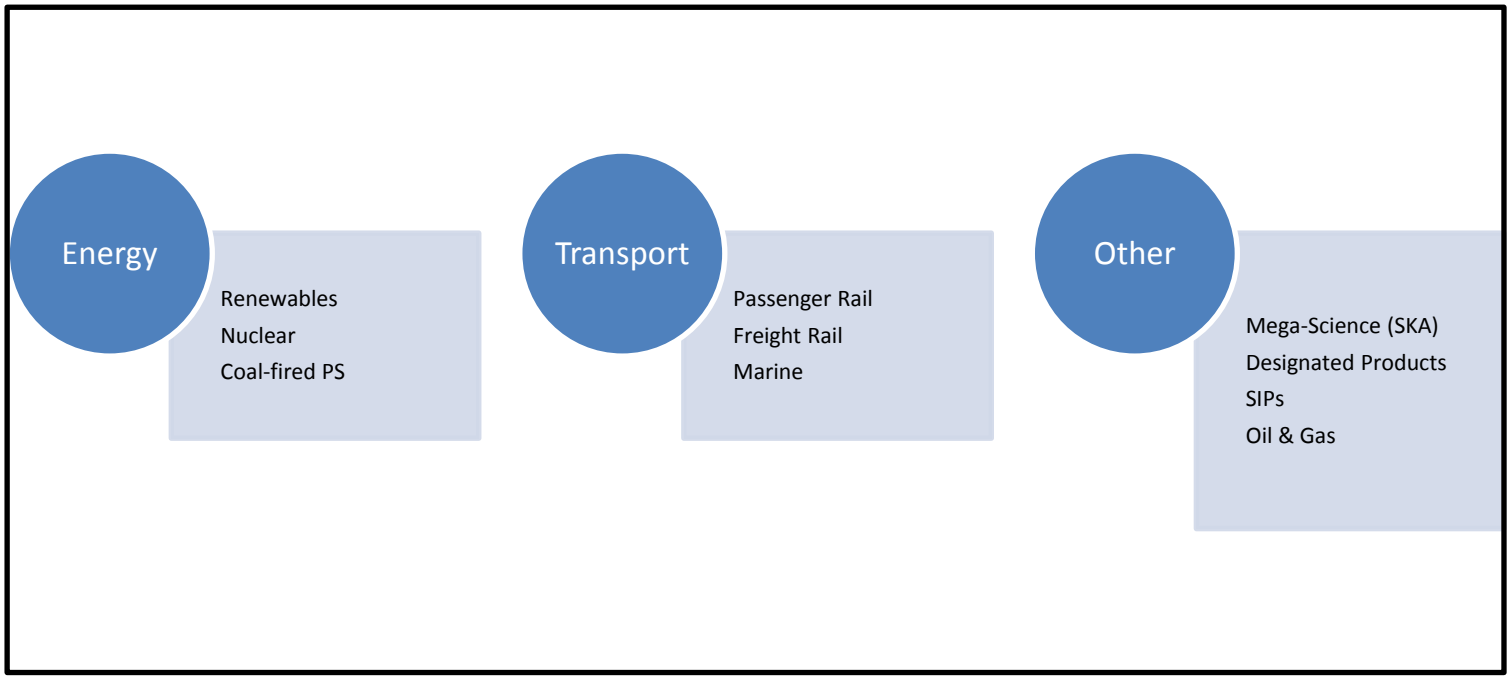
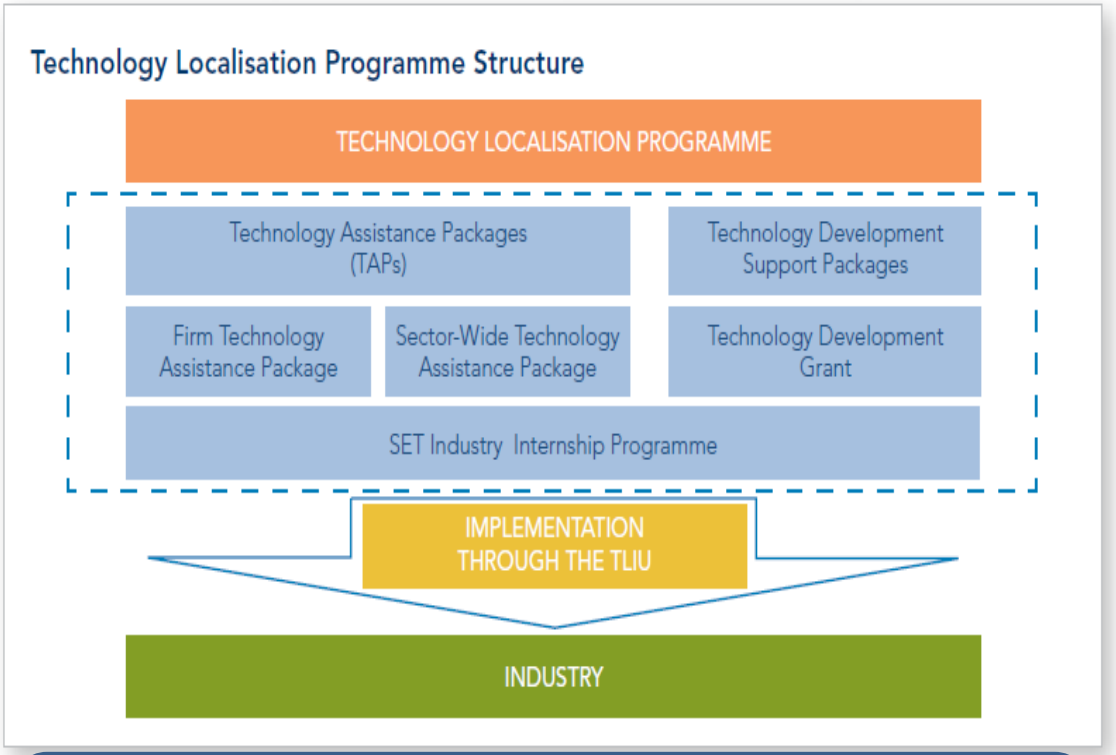
Background and objectives

- The Technology Localisation Implementation Unit (TLIU) is an initiative of the DST that is hosted at the CSIR.
- The programme is aligned to the infrastructure rebuild programme of the country as well as other national development imperatives.
- The mandate of the programme is to assist with the technological enhancement of the South African manufacturing sector as defined within the Technology Localisation Plan (TLP) of the DST.

Main focus areas



Instruments of the programme



INDUSTRY ANALYSIS

Profiling

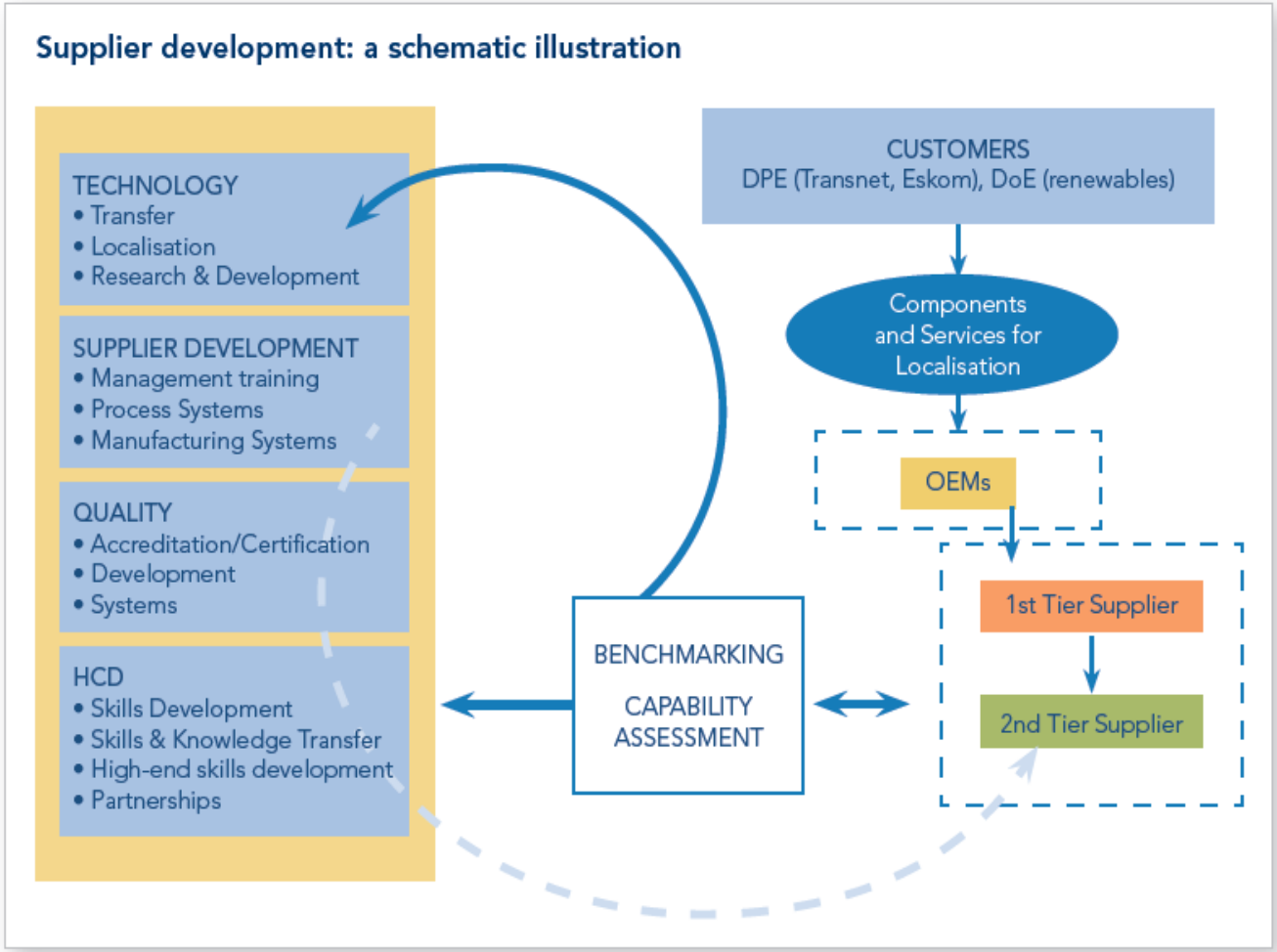
Benchmarking

Monitoring and Evaluation

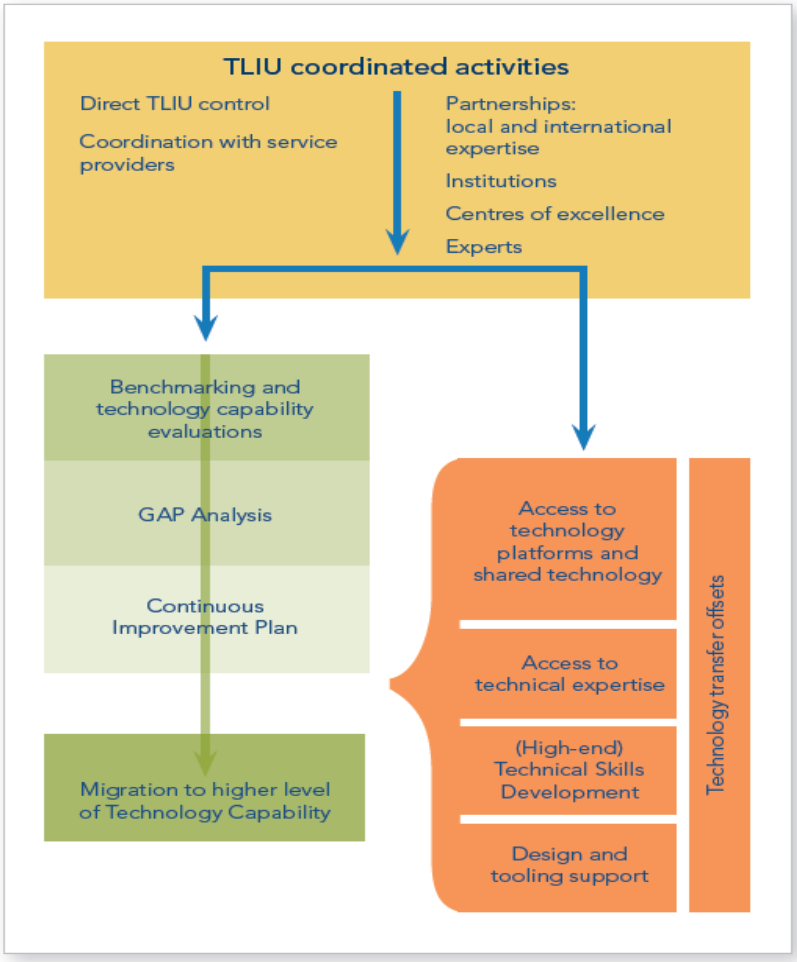
Impact of programme to date

Life to date figures since March 2012	
Item	**Qty**
Support provided towards the development of new products	14
Companies where export potential has been developed	16
Import substitution projects supported	20
Companies gaining work with an SOC	35
Companies supported where SOC work has been retained	47
The creation of jobs due to the implementation of assistance packages	187

Supplier Development & Localisation

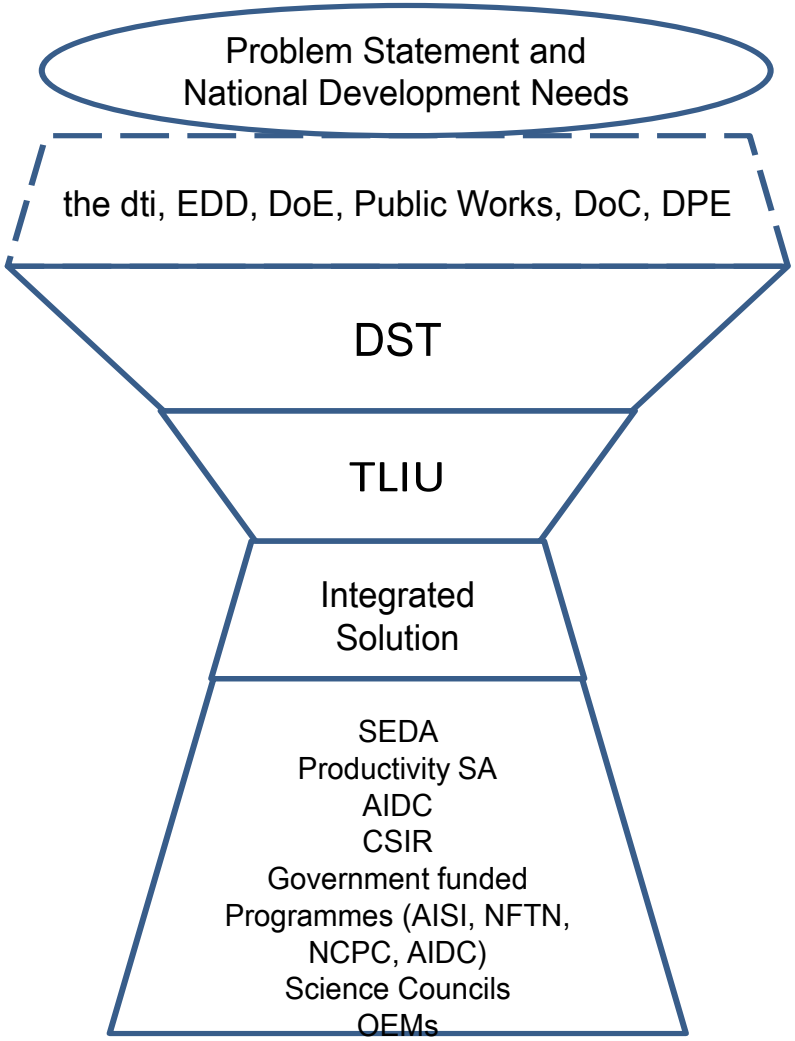


Firm Assessment



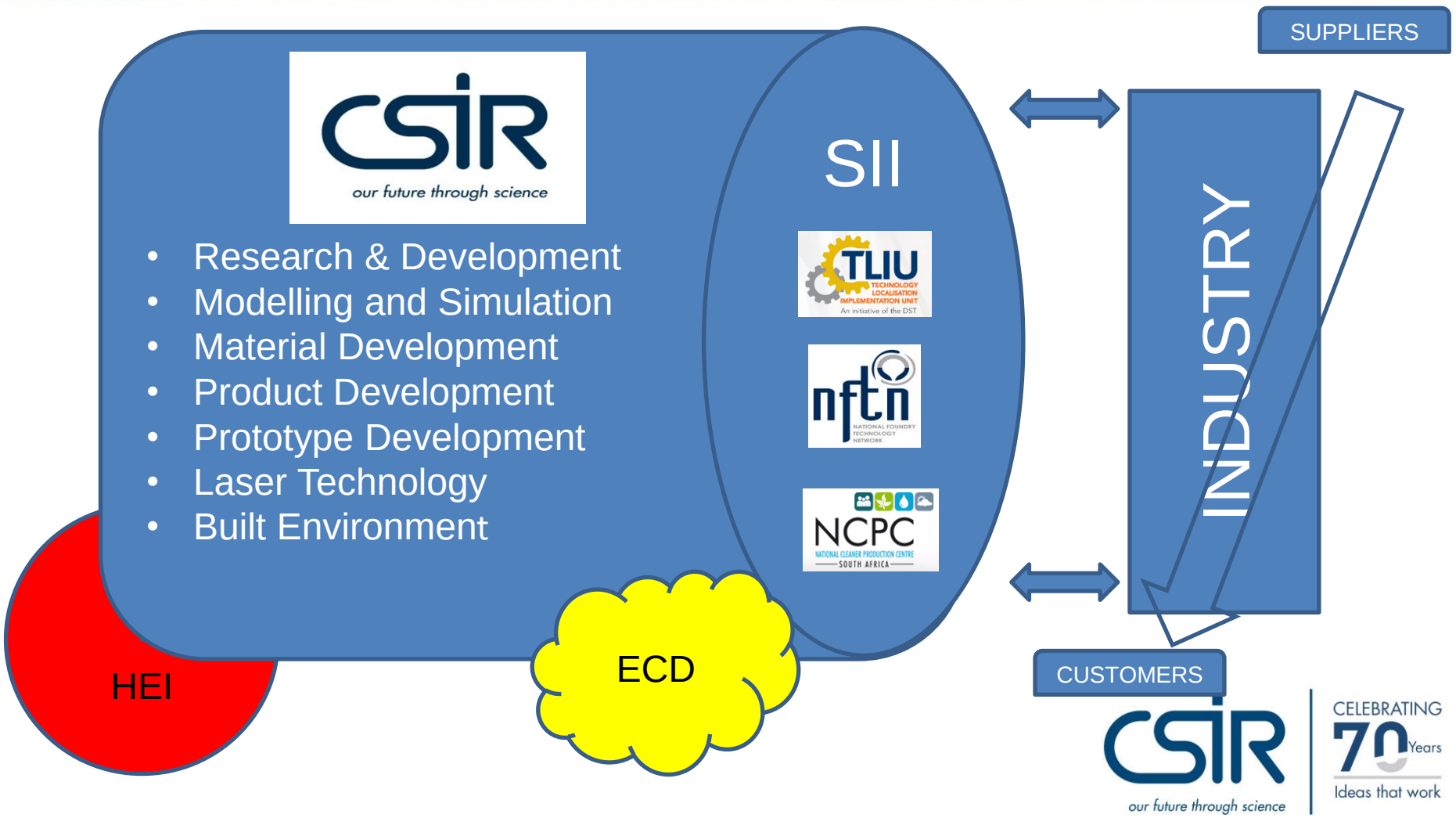
- The programme follows a structured approach
- The offerings of the programmes are classified into certain themes that are related to technology.
- Continuous improvement is achieved through monitoring and evaluation.

Broader role of the TLIU



- Rhythm meeting forums
- Profiling database
- Benchmarking and Technology Capability Assessments
- Energy Assessments

R&D and Implementation



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Case Studies

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Company Assisted: Insulectric

- Insulectric (Pty) Ltd are specialists with regard to Electrical Insulation and High Temperature Electrical Insulation
- The TLIU has assisted Insulectric towards the development of an asbestos-free cement board insulator
- The Built Environment division of the CSIR was instrumental in this project and this project has resulted in the development of new IP

Company Assisted: PTT

- The TLIU assisted Powertech Transformers (PTT) with the development of a Finite Element Model (FEM)
- The FEM was used to determine the short-circuit integrity in transformer windings caused by lightening
- This project was done in collaboration with the University of Pretoria and a variety of international subject matter experts
- This project has resulted in the development of local design capability for transformer windings
- This project has assisted PTT to retain and gain orders with Eskom as well as gain orders into Nigeria

Company Assisted: Adventure Power

- The TLIU assisted Adventure Power with technology interventions that allowed the company to comply with international standards for wind turbine manufacturers as defined by Germanischer Lloyd
- Through the technology implemented that company can now produce one 16 m wind turbine blade per day as opposed to a lead time of a month previously
- The company has sold and installed a total of six 300kW wind turbines
- This has resulted in the creation of an additional 21 jobs at the company
- Currently the company is working on export orders to the Phillipines

SWTAP: Casting Simulation Network

- The Casting Simulation Network (CSN) was established to support the foundry industry with high-end technology
- The network was established as a centre of excellence within a public institution in order to create access to the entire sector
- The network also support R&D within the foundry sector
- Simulation is the discipline of designing a 3D computer model of an actual or theoretical physical system, testing the model virtually on a computer, and analyzing the results.

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Thank you

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