



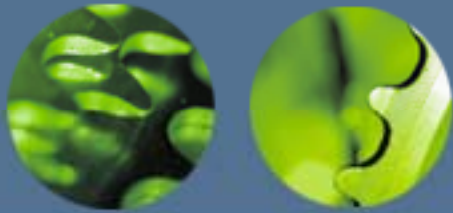
Department of Science and Technology

Unit: Technology Localisation

A close-up photograph of a metal gear, showing its teeth and the fine lines of its surface. The background is a blurred blue color. The text 'Technology Localisation Plan' is overlaid on the right side of the image.

## Technology Localisation Plan

WORKSHOP ON 21 June 2010



## Rationale

### Past Experiences:

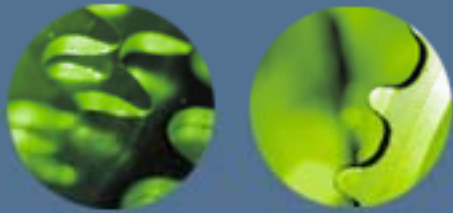
- Localisation of Tooling for the Automotive Industry
- NIPP
- A400M
- SALT



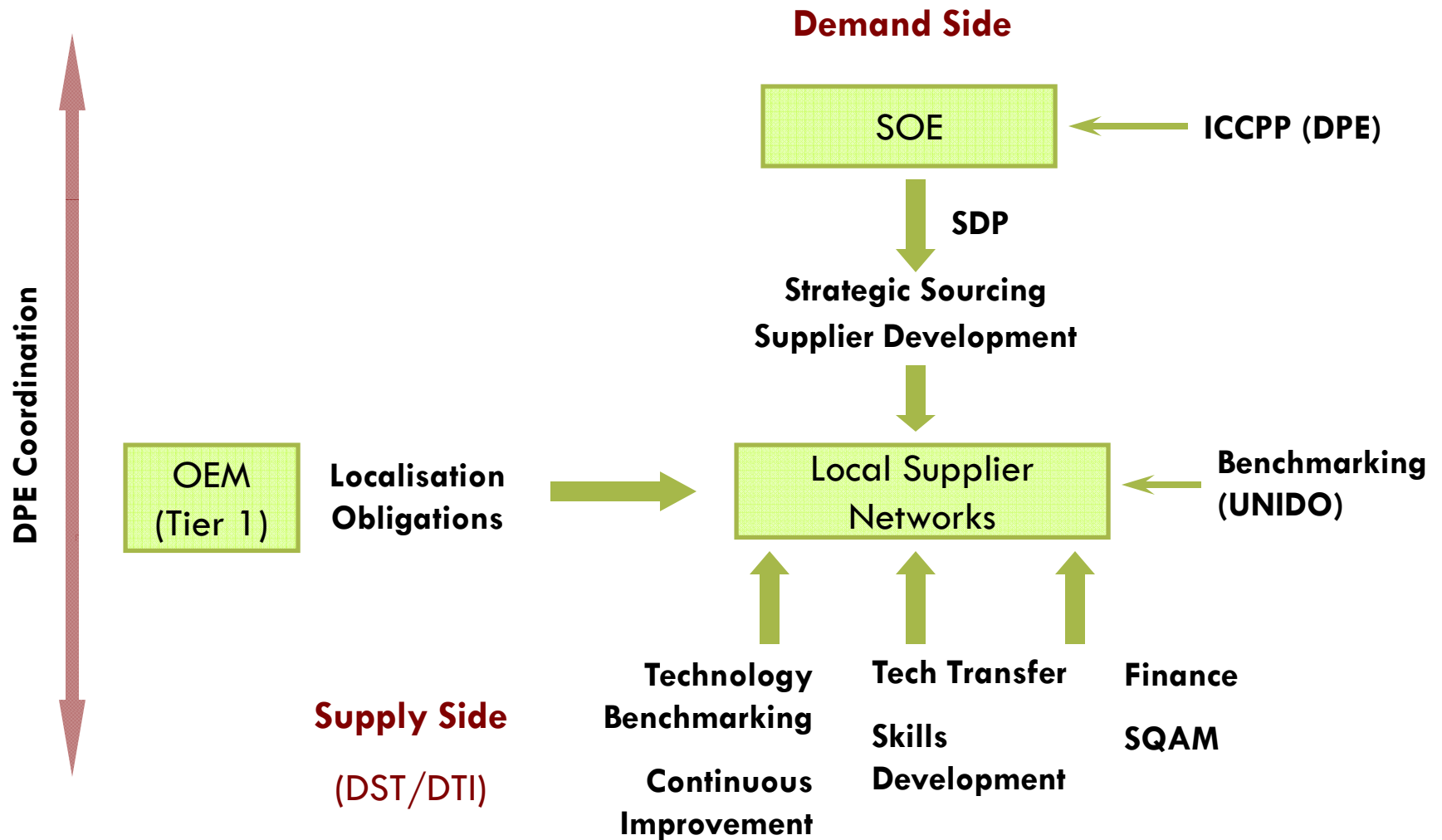
No measured approach to  
Technology Localisation opportunities.

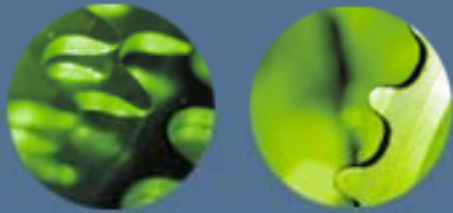
### Government Policy:

- NIPF
- CSD Policy (February 2007) –  
Competitive Supplier Development Programme



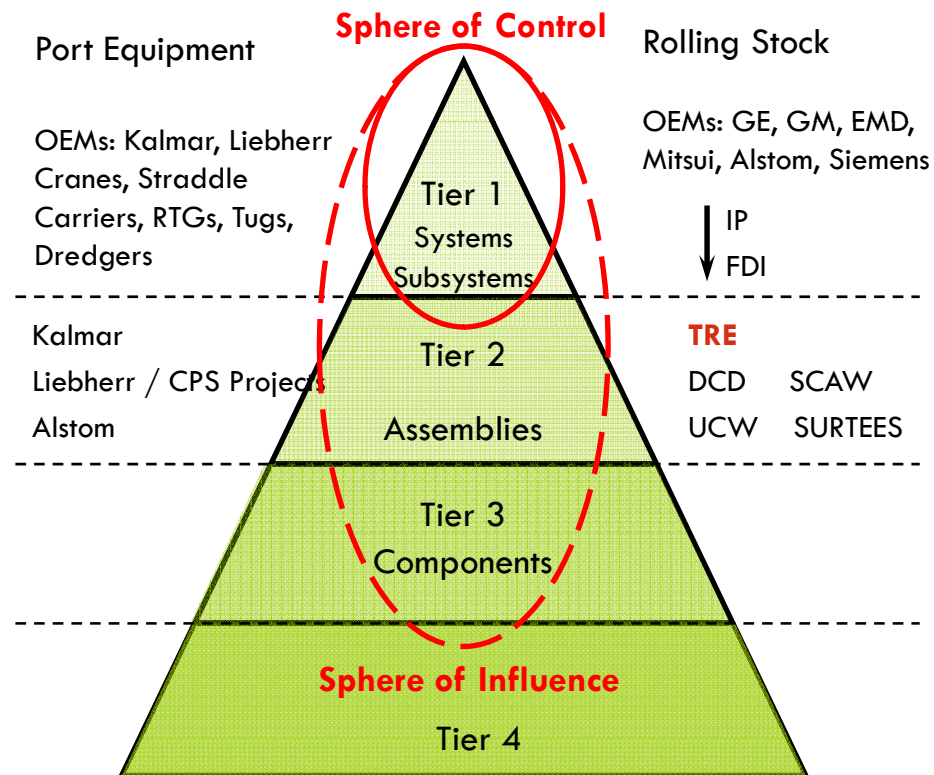
# CSDP – Overall Framework

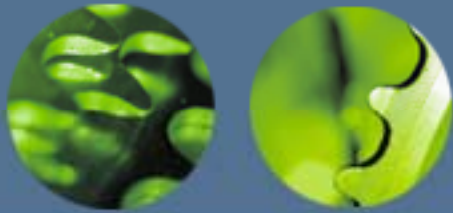




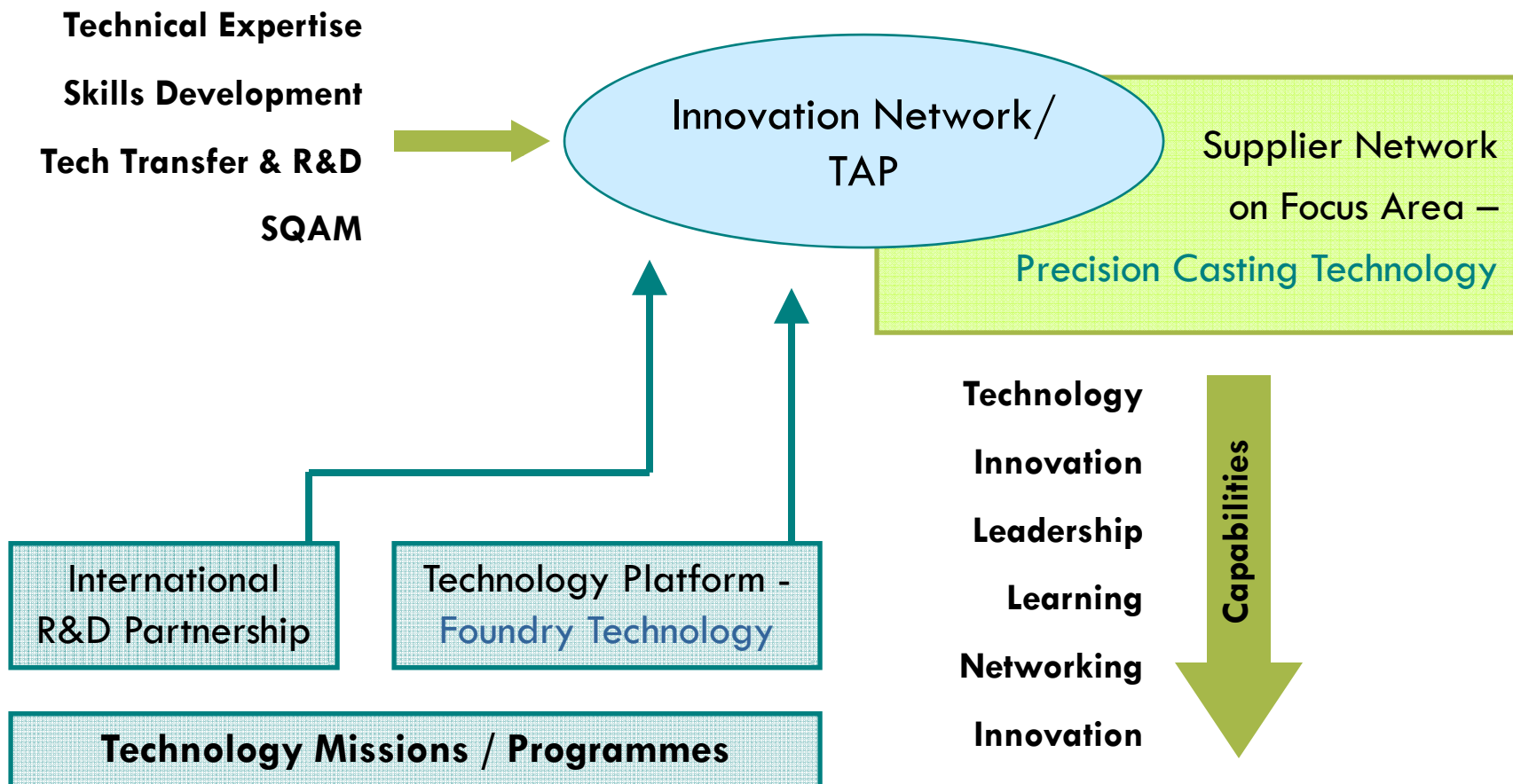
# SOE Supply Chain

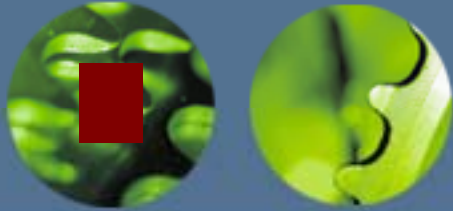
## TRANSNET Supplier Base



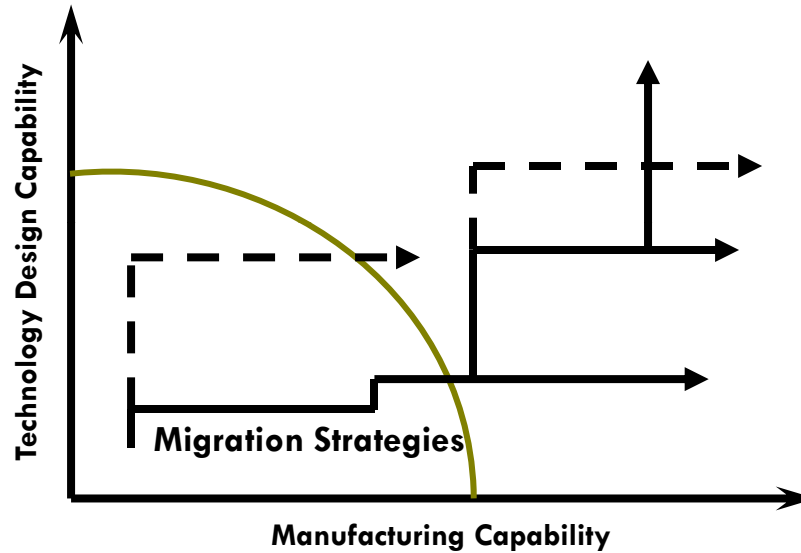
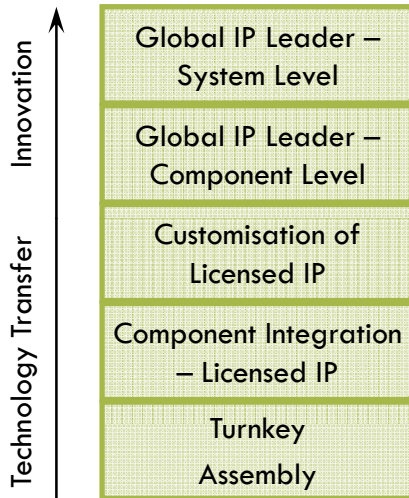


## CSDP – DST Interface



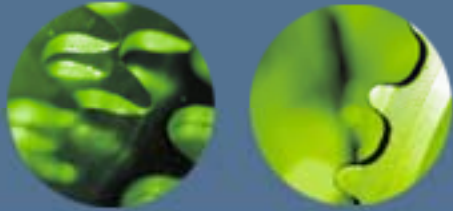


# Technology Migration Scorecard



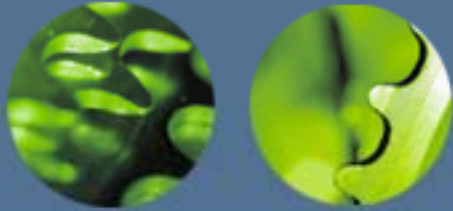
Combination of Design and Manufacturing Capabilities for Sustainable Global Competitiveness

Import	Labour intensive Manufacturing (Prototype manufacture, furniture, clothing)	Capital Intensive Process Manufacturing (high value metal and plastic components)	Complex Assembly Intensive flow (Auto, Aerospace, Capital Goods)	Innovation Intensive Manufacturing (Systems Integration)
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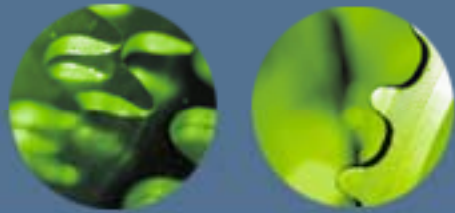
## Role of DST

- Capacity and Organisation (internal and external)
- Identification of Technology Localisation Opportunities (Strategic)
- Supplier Network Development (technology related)
- Benchmarking & Technology Capability Assessments (systems development)
- Inter-Governmental Partnerships and Joint Planning
- **Regional Government Support for Localisation**
- Technology Assistance Package (TAP) – mobilisation of resources

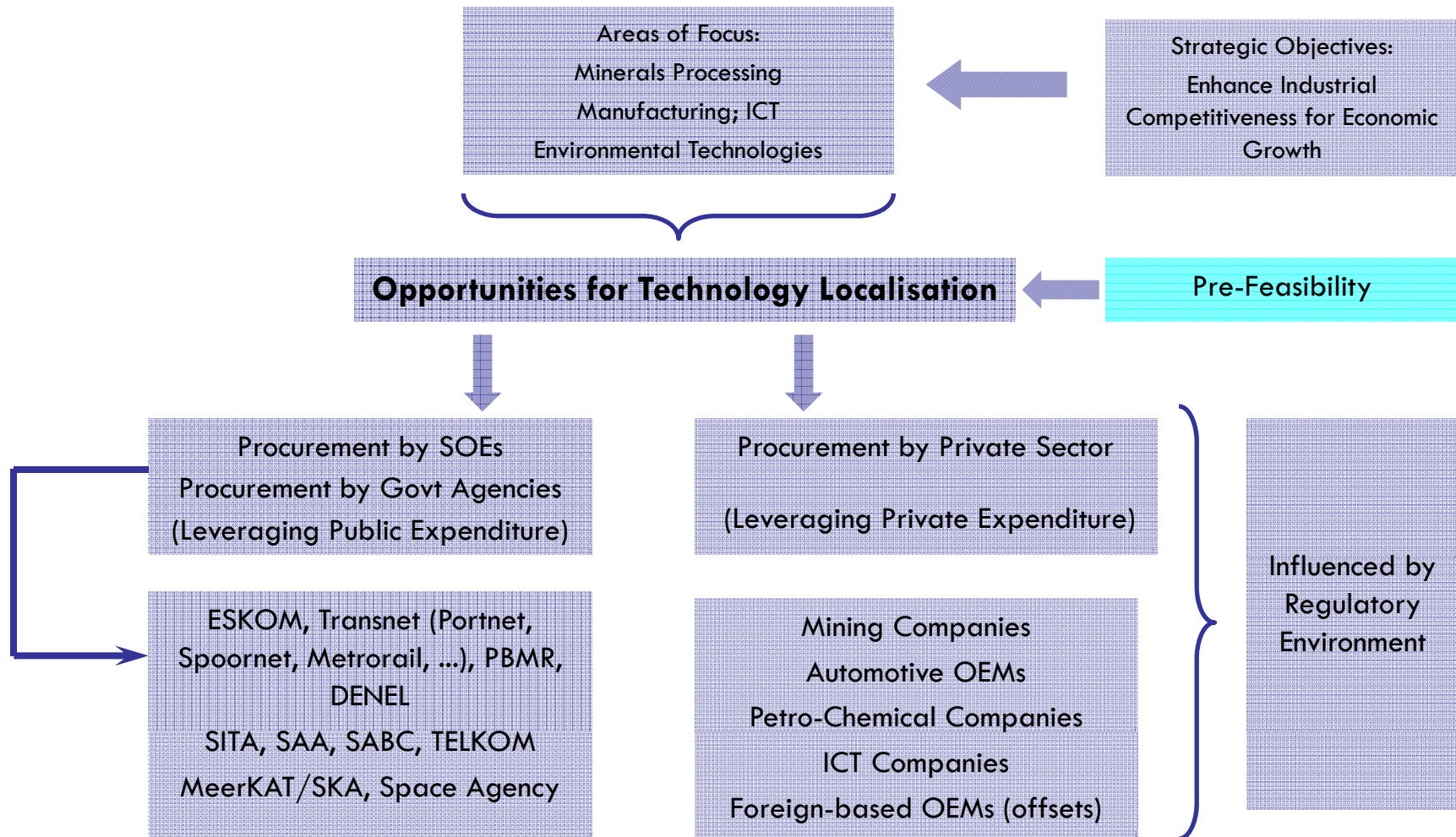


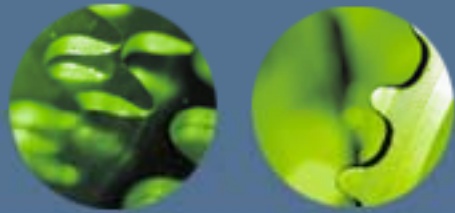
## Extension into other opportunity areas for Technology Localisation

- MeerKAT (Composites Dishes, PV and Concentrated Solar Power, etc)
- Space Technology (Satellite components and sub-assemblies)
- Set-Top Boxes to support Digital Migration Strategy
- Aerospace Components
- Pharmaceuticals (ARVs and APIs)

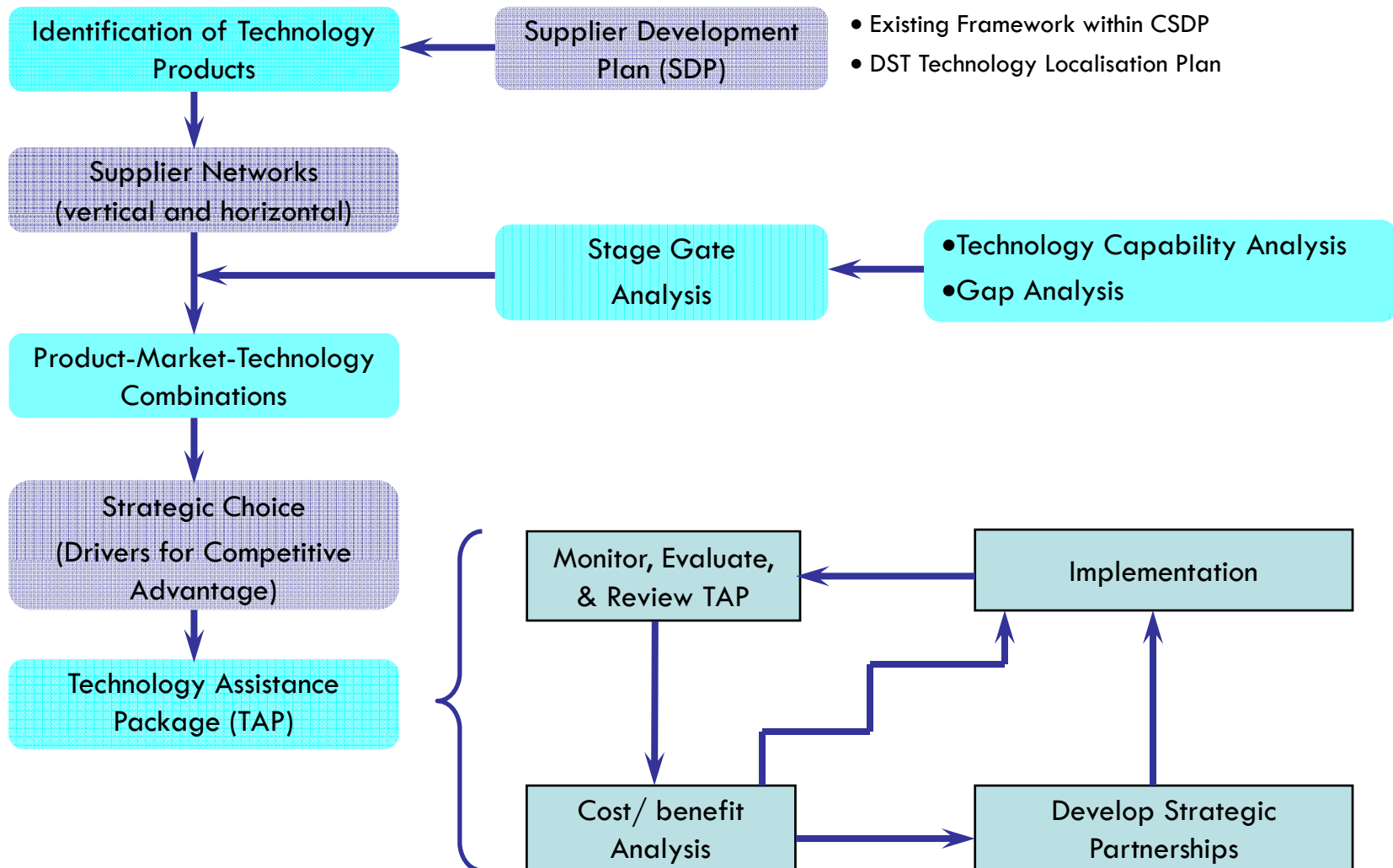


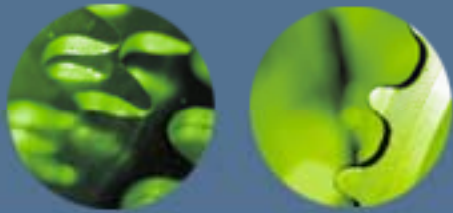
# PROTOCOL FOR DST ENGAGEMENT IN LOCALISATION INITIATIVES



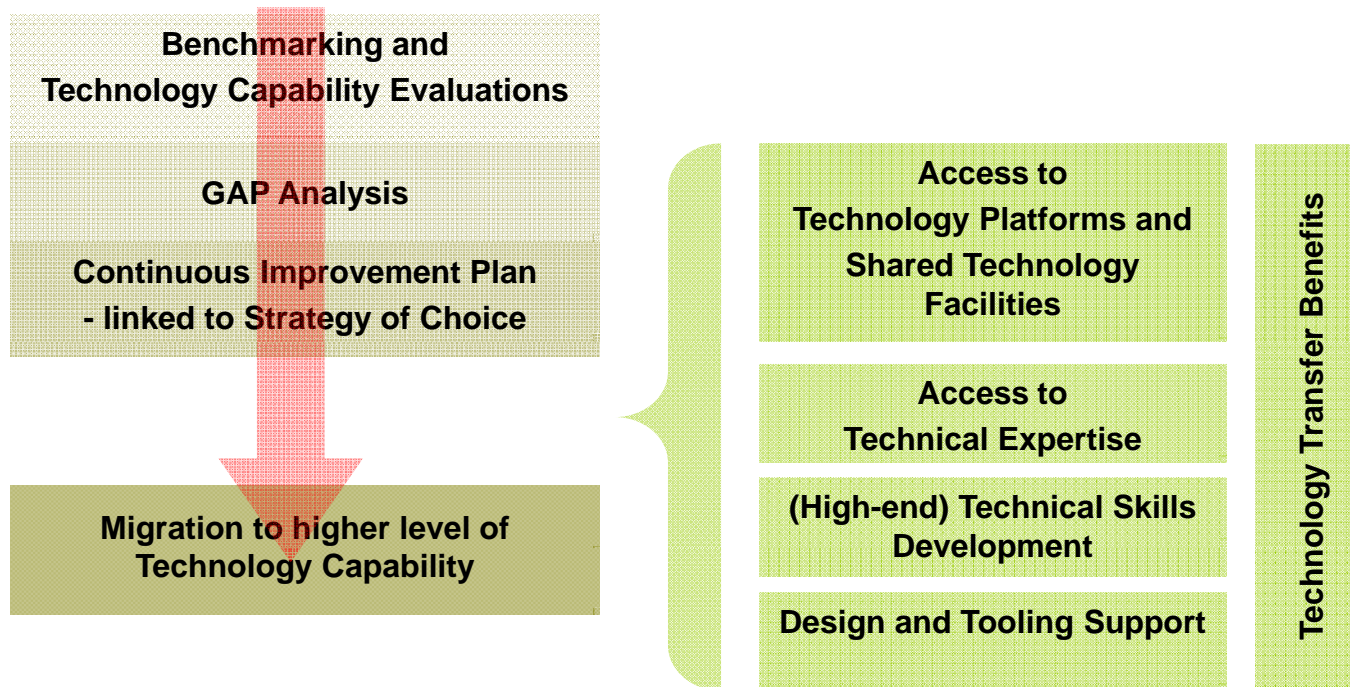


# PROTOCOL FOR DST ENGAGEMENT IN LOCALISATION INITIATIVES





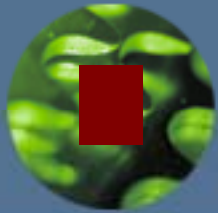
## Integration of the elements of TAP (supply-side measures)



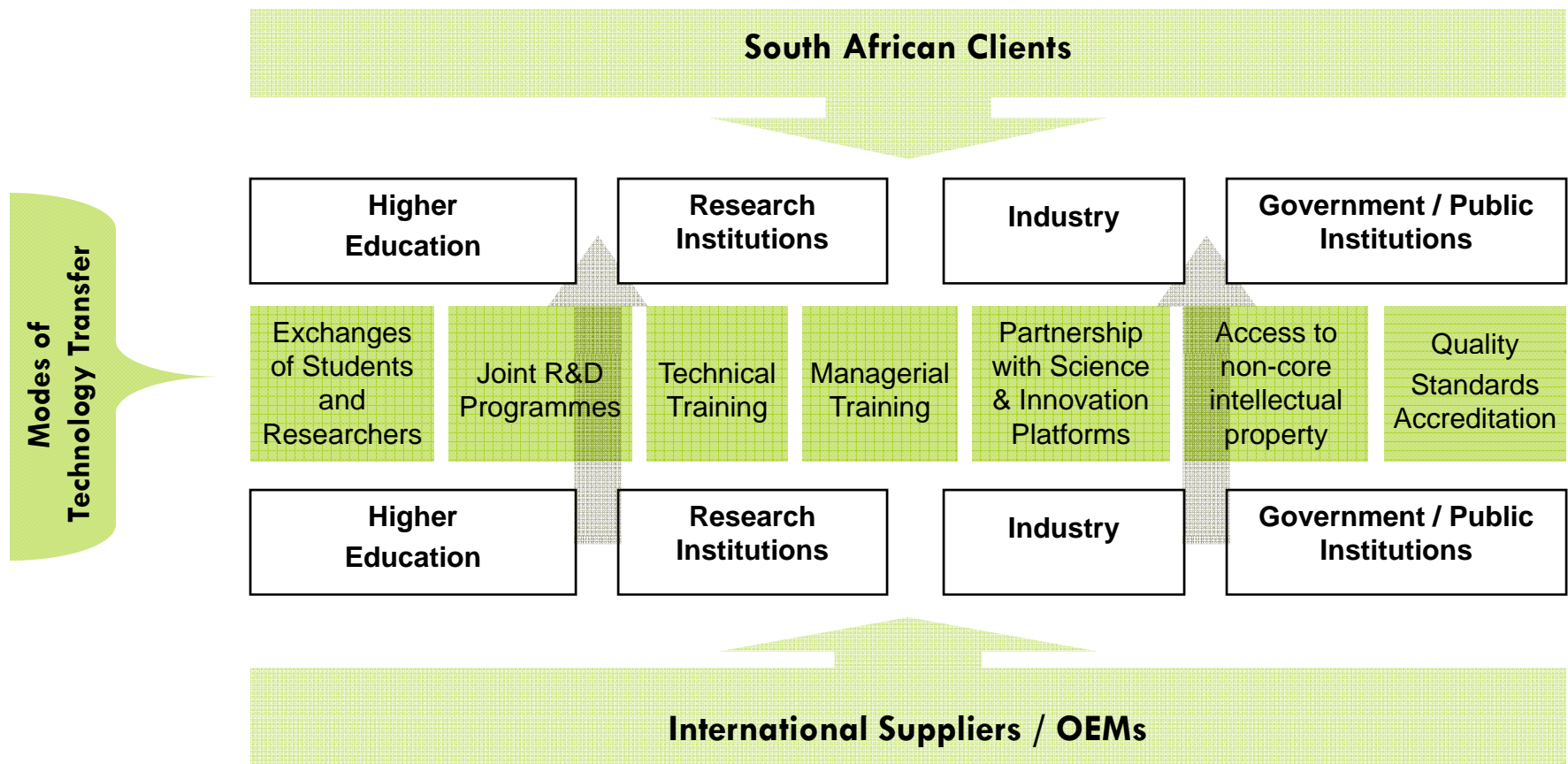


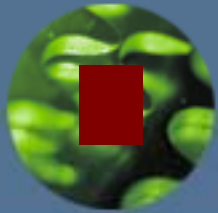
# Areas for Technology Assistance

Lean & Clean Manufacturing	R&D for improving productivity	Reducing casting scrap	Improving in-house metallurgical expertise	Skills Development improvement	Energy reduction	Improve fettling sophistication	Mould/Pattern/ Tooling improvements	Require Accreditation/ QMS	Assistance with Design Packages	Reduction in man-hours per ton
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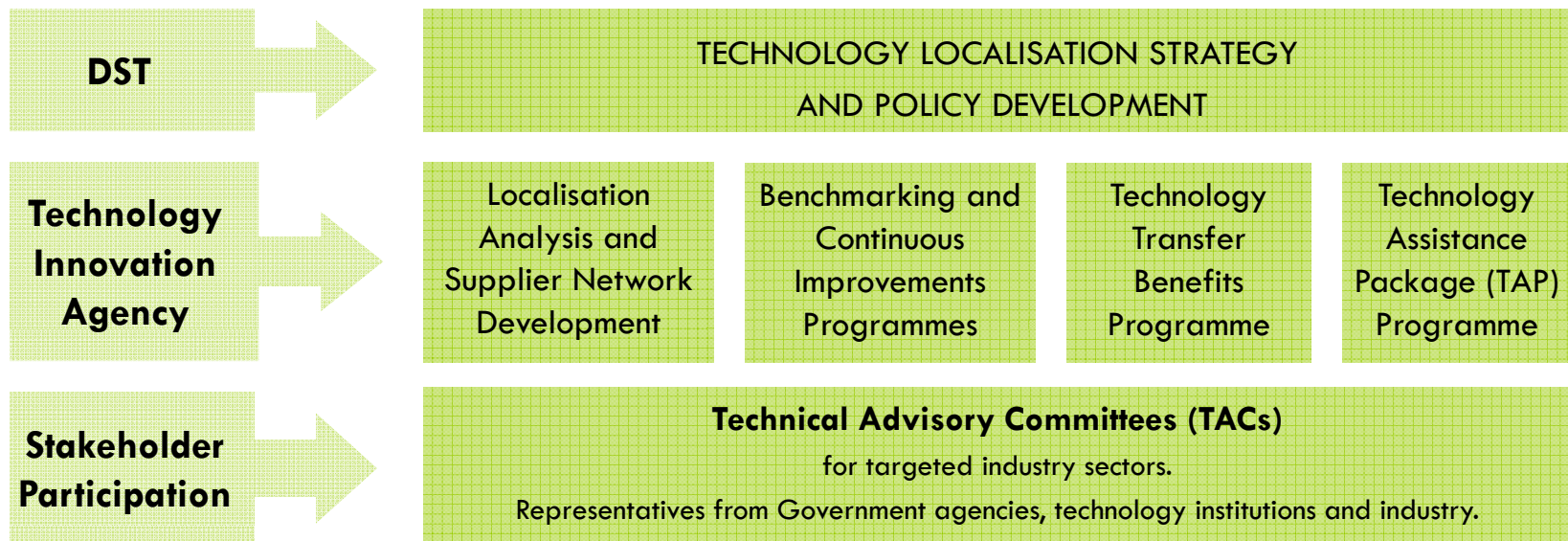
# The elements of TAP: Technology Transfer Benefits Programme

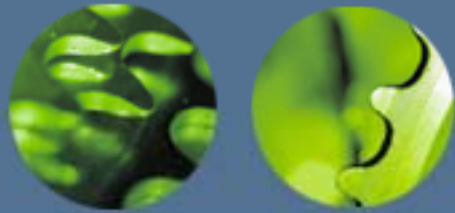




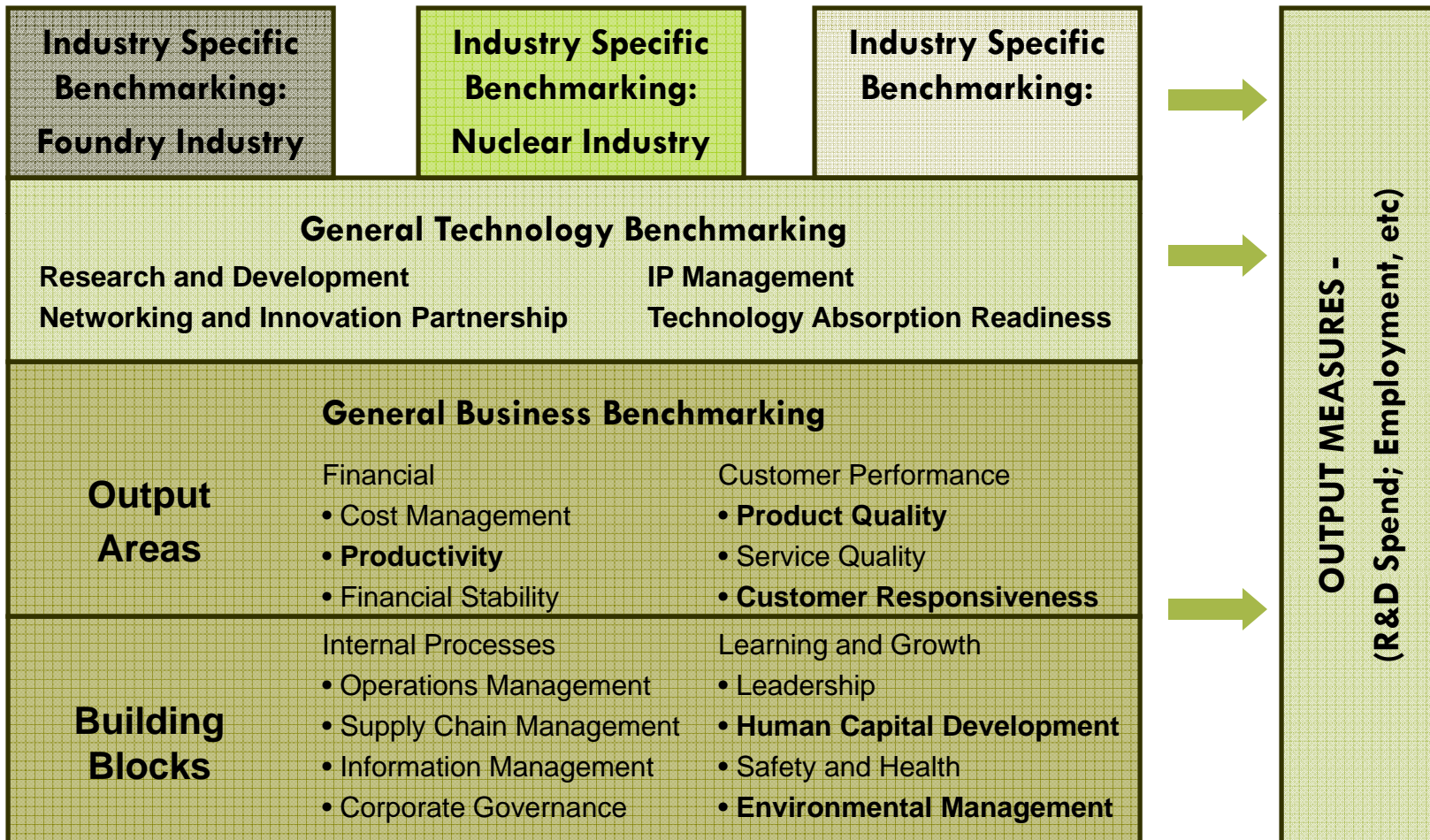
## Implementation Model

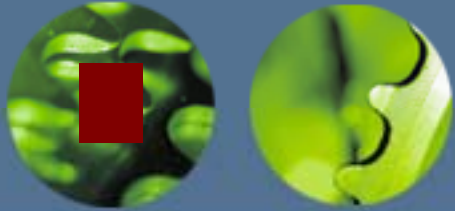
- Three-tiered integrated approach
- Effective stakeholder participation
- Four Portfolios





# Key Performance Areas evaluated in the (Company-level) Benchmarking





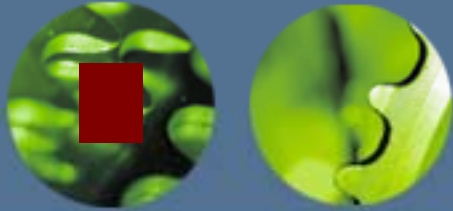
## Impact Measures

PRIMARY MEASURE - RETURN ON INVESTMENT



MEASURES

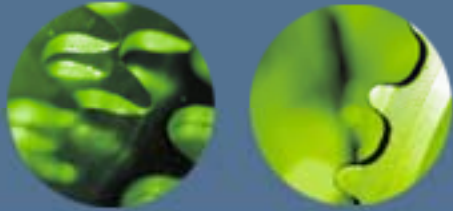
- Growth of market share in volume for specified commodities.
- Growth in foreign exchange from industry exports.
- Growth in industry jobs throughout the value chain.
- Growth in patents and publications.



## Impact Measures

### INTERIM MEASURES

- Number of companies that have committed to Continuous Improvement Plans linked to Technology Assistance Packages.
- Number of companies successfully migrated to higher levels of technology capability.
- Number of companies (Tier 2 & 3 levels) with TAP awards linked to buyer contracts through OEM CSDP obligations (as per tender requirements).



## Planned Inputs

### **2010/11 Onwards:**

- Implementation of TAPs for the Foundry Industry
- Implementation of Provincial Benchmarking Capacity Development.
- Planning for continued development of Benchmarking System (Technology Capability Evaluation component, including the Continuous Improvement Plan generator).
- Planning for benchmarking of 60 companies (Tiers 2 & 3) per year over next 3 years, with 25 per year enrolled for TAP.



**END**