

The  
**National  
Industrialisation  
Support  
Initiative**

**CSIR**

*our future through science*

## LOCAL INDUSTRY SUPPORT FOR GLOBAL COMPETITIVENESS

The South African engineering and manufacturing industries drive employment and growth in the economy, but face a large industrialisation and supplier development challenge in a globally competitive and knowledge intensive market. The CSIR established the National Industrialisation Support Initiative (NISI) to enable industry participants and new entrants to deliver globally consumed products and services that are

eco-friendly, regulatory compliant and sustainable. NISI enables industry participants to co-create globally competitive products and services using a Product Lifecycle Management (PLM) platform. PLM streamlines the flow of multi-disciplinary information about products, services and related processes throughout a complete lifecycle, to ensure that the right information is available in the right context and at the right time.

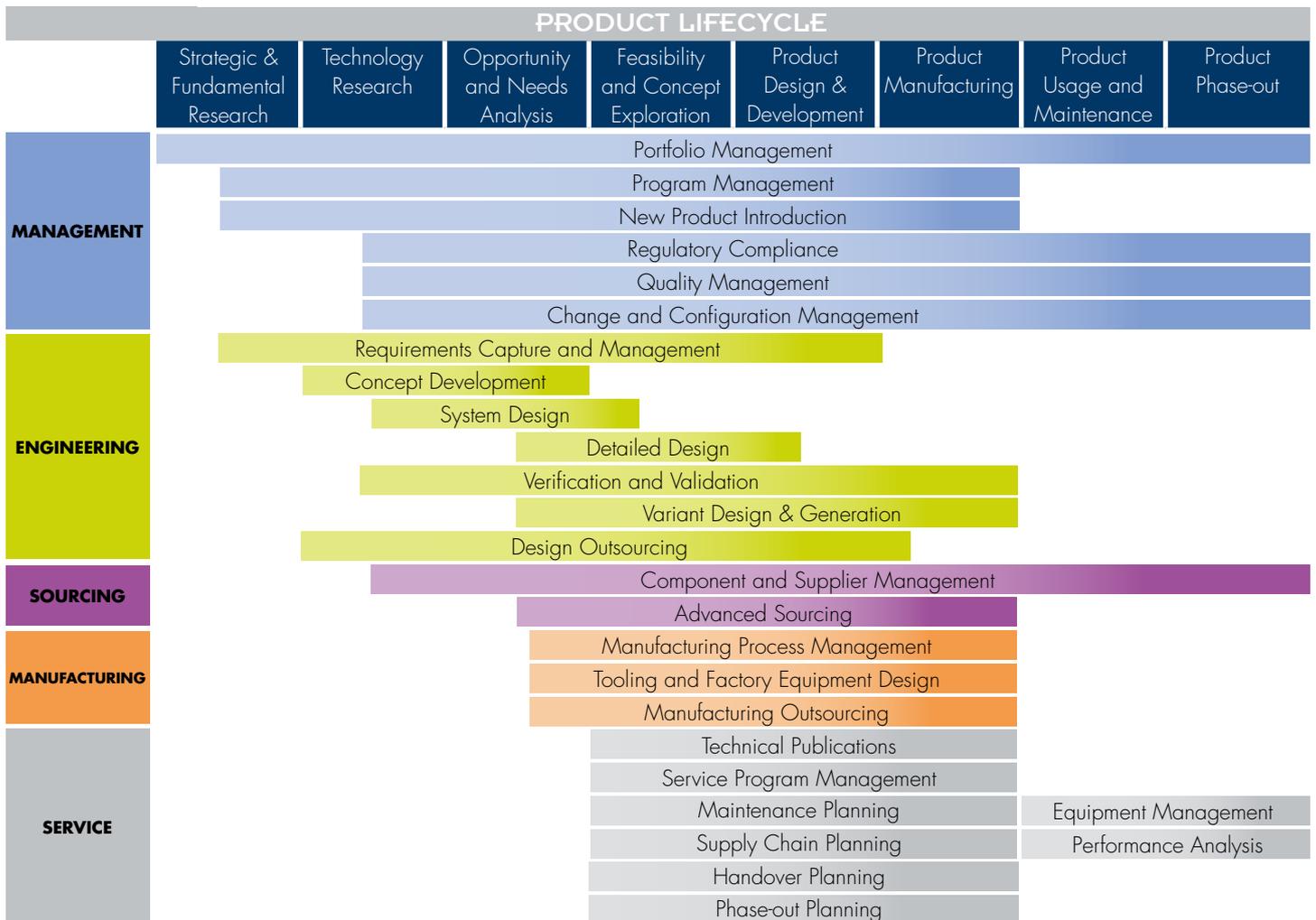
### THE NISI CONCEPT – CONNECTING LOCAL TO GLOBAL INDUSTRY:



The CSIR hosts a Product Lifecycle Management facility where we:

- Help you develop your product and people on our platform to experience the value of PLM.
- Provide advice and support on engineering and PLM.
- Provide training and practice-based knowledge transfer.

Bring your products and people to co-create knowledge-intensive products today and supplier development through PLM services in the cloud tomorrow.



## NATIONAL CONTEXT

The National Industrial Policy Framework (NIPF) consistently states that manufacturing has a vital role to play in driving employment and growth in the economy.

It is also stressed that industrial policy should be framed and driven by a particular focus on value-adding sectors that embody a combination of relatively high employment and growth multipliers.

The government has placed renewed focus on localisation through the Industrial Policy Action Plan (IPAP). This plan identified 16 industry sectors to be targeted for governmental support in an attempt to increase local production. Modern manufacturing is complex though, with globalisation and sophisticated techniques calling for more

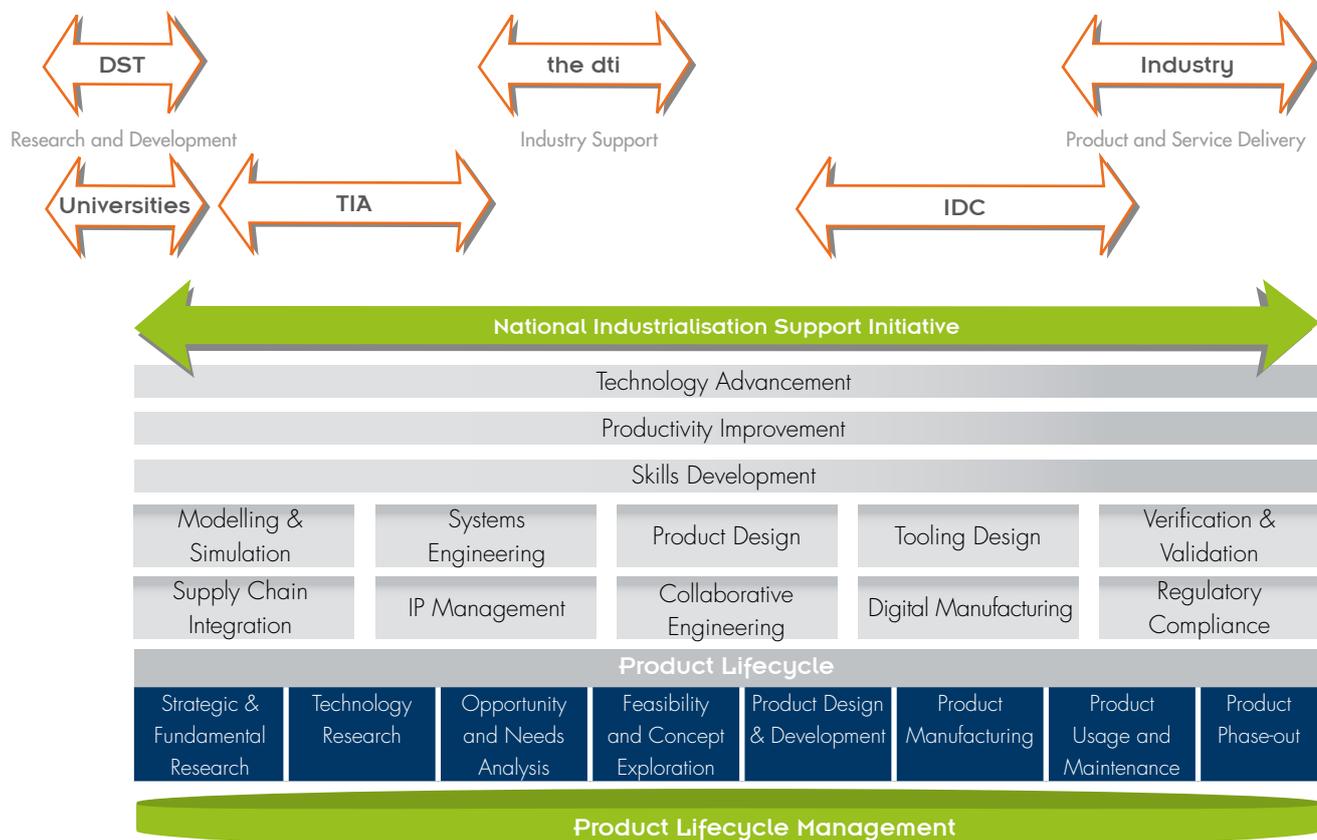
### The NIPF has the following key objectives:

- To promote diversification beyond the economy's current reliance on traditional and non-tradable services via the promotion of value-addition.
- To promote industrialisation characterised by increasing participation of historically disadvantaged people and marginalised regions in the industrial economy.
- To contribute towards industrial development in Africa, with a strong emphasis on building the continent's productive capacity and securing deeper regional economic integration.
- To ensure the long-term intensification of South Africa's industrialisation process and movement towards a knowledge economy.

specialised facilities and production lines. Even though the product itself may be quite simple, the production process and supply chain may be complicated.

The product of one enterprise is often one of several in the design and production process of another enterprise. Or the product of one

company is used to maintain the product of another company. Each step in this value added chain, from raw material reclamation to supporting end-user products, represents a localisation or industrialisation possibility for South Africa. However, modern products require modern techniques, especially when supplying to large, global clients.



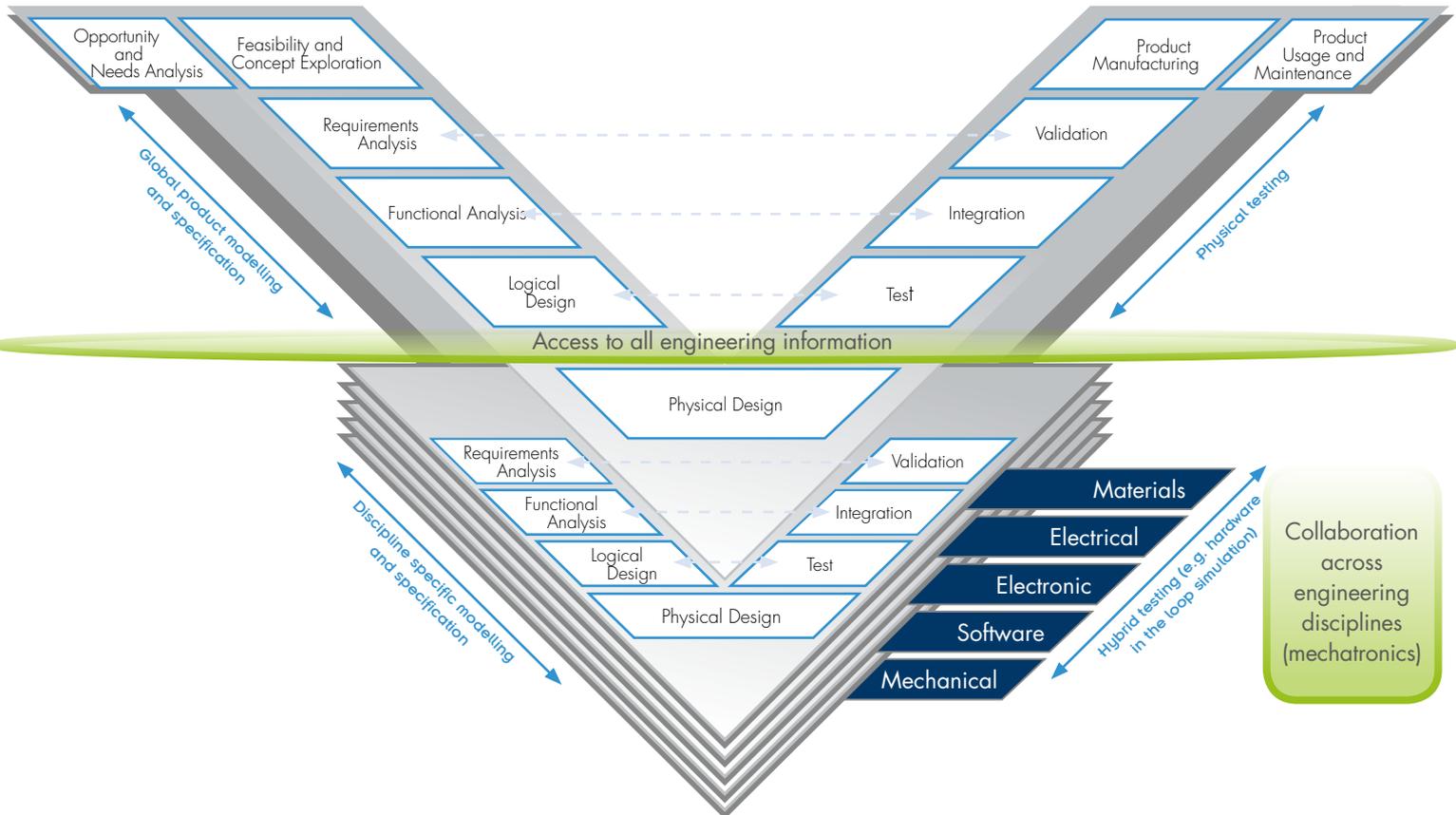
## PRODUCT LIFECYCLE MANAGEMENT

Product Lifecycle Management (PLM) is a strategic business approach that applies a consistent set of business solutions in support of the collaborative creation, management, dissemination, and use of product information, spanning from initial idea to eventual phase-out. PLM aligns people, information, processes and business systems and provides a product information backbone for

companies and their extended enterprises. By adopting PLM as a complete business approach, local engineering and manufacturing enterprises can participate in global industry by achieving improved product control, quality and regulatory compliance. CSIR hosts a facility where local industry can use these PLM business solutions to support their business and growth.

# TRACEABILITY ACROSS THE COMPLETE PRODUCT LIFECYCLE

Eco-friendly, regulatory compliance and sustainability



Co-creation between industry participants and new entrants

## ABOUT THE CSIR

The CSIR (Council for Scientific and Industrial Research) is one of the leading R&D, technology and innovation institutions in Africa, with a track record spanning close to 70 years. The CSIR undertakes scientific research and technological development in areas identified as national priorities. These are the natural environment, safety and security, health, the built environment, energy and industry. Delivering its contribution across the research and innovation value chain, and with the objective to achieve evident impact, the CSIR strives for excellence in all its endeavours in order to increase the global competitiveness of industry and the quality of life of people in South Africa – as well as in the region through collaborative partnerships.

The CSIR provides value to its clients by establishing, improving or sharing capabilities with other organisations and supporting decision making, strategic (long-term) technology planning, portfolio management and operations.

The CSIR is an independent agency and engages with clients and partners as an unbiased “honest broker” of science, engineering and technology services and solutions.

A significant emphasis is placed on partnerships (local and global), rendering support to industrial development and competitiveness, and ensuring opportunities to establish and grow future science and technology skills.

[www.csir.co.za](http://www.csir.co.za)

## INTEGRATIVE SYSTEMS GROUP (ISG)

The CSIR ISG is responsible for solving large national problems, conceptualising and driving complex integrative programmes that mobilise problem solving, foresight, research, enterprise architecture and engineering capabilities for key clients.

### Areas of expertise

- Whole-of-government Integration
- Enterprise Architecture and Engineering
- Product Lifecycle Management
- Systems Engineering
- Telecoms Engineering
- Information Security and Privacy

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