

# THE DEVELOPMENT OF A NATIONAL INDUSTRIAL DESIGN STRATEGY

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# Definition

“Industrial Design is an applied **art** whereby the **aesthetics** and **usability** of **products** may be improved. Design aspects specified by the industrial designer may include the overall shape of the object, the location of details with respect to one another, **colors, texture, sounds**, and aspects concerning the use of the product **ergonomics**. Additionally the industrial designer may specify aspects concerning the production process, choice of materials and the way the product is presented to the consumer at the point of sale (**branding, positioning of the logo etc.**). The use of industrial designers in a product development process may lead to added values by improved usability, lowered production costs and more appealing products. Product Design is focused on products only, while industrial design has a broader focus on concepts, products and processes. In addition to considering **aesthetics, usability, and ergonomics**, it can also encompass the engineering of objects, usefulness as well as usability, market placement, and other concerns.”

*[http://encyclopedia.laborlawtalk.com/Industrial\\_design](http://encyclopedia.laborlawtalk.com/Industrial_design)*



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# Definition

“Industrial design is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer. Industrial designers develop these concepts and specifications through collection, analysis and synthesis of data guided by the special requirements of the client or manufacturer. They are trained to prepare clear and concise recommendations through drawings, models and verbal descriptions”

*Industrial Design Society of America*



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# Definition

**Industrial design (ID) is the creation and development of concepts and specifications to improve existing products or develop new products or services.**

**It is the design of products from teaspoons, computers, automobiles and toothbrushes to the design of a corporate identity.**

**ID deals with consumer products as well as industrial products and services.**

**The industrial design process begins when a need for change, improvement or new product has been identified and ends with the fully designed product, process or model.**



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# RATIONALE



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# SA INVENTIONS THAT HAVE MADE IT GLOBALLY



**Sticky Stuff**  
George Pratley  
1948



**Tellurometer**  
Trevor Wadley  
1955



**Kreepy Krawly**  
Ferdinand Chauvier  
1974



**CAT SCANNER**  
Allan Cormack &  
Godfrey Hounsfield  
1979

# Recent Inventions



**Bumbo Babysitter**  
Donald Pillai



**Earglove**  
Tasos Calantzis

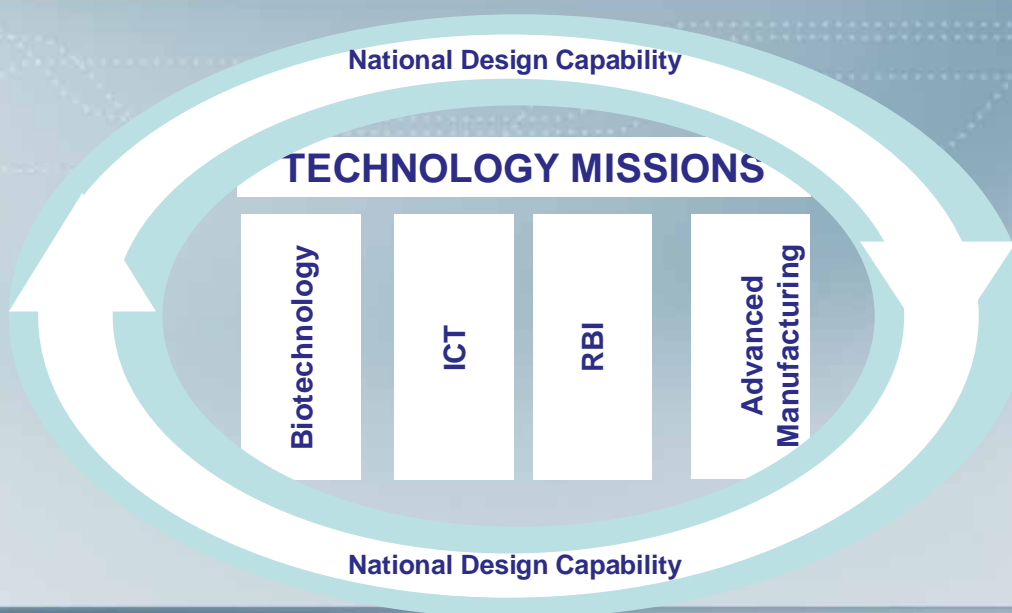


**Lodox Statscan**  
Rodney Sandwith

# NATIONAL R&D STRATEGY

- Key enabler of economic growth
- Focuses:
  - enhanced innovation
  - Science, engineering and technology
  - Human resources and transformation
  - Creating an effective government S&T system

# NATIONAL R&D STRATEGY





# THE SOUTH AFRICAN INDUSTRIAL SITUATION



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## THE SOUTH AFRICAN INDUSTRIAL SITUATION

- SA spends R3,9 bn on Royalties & Licenses
- Between 1996 and 2004 lost 75 000 clothing and textiles jobs
- Mining industry is declining (nearly 200 000 jobs lost between 1996 and 2004)
- Reluctance to use SA-designed products
- Manufacturing industry – more assembly as opposed to actual manufacturing
  - Automotive Industry
  - TVs

**And yet, South Africa is blessed with a wealth of capable designers!!**



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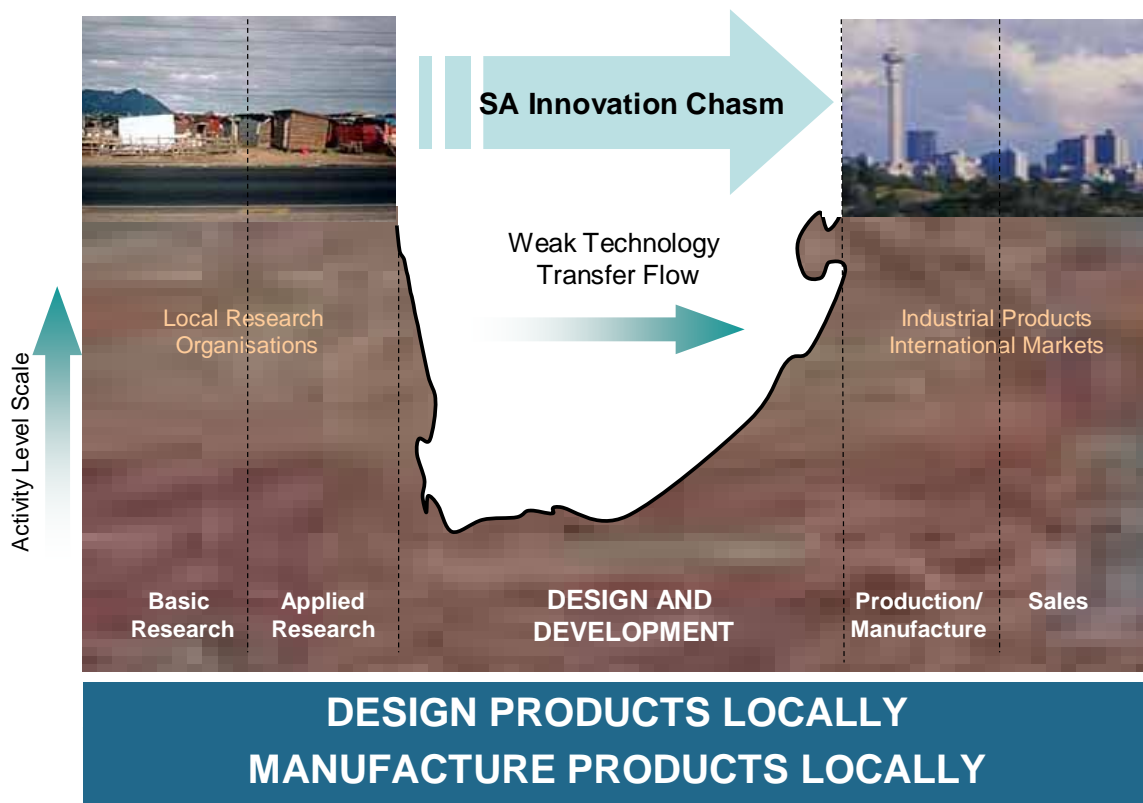
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# THE SOUTH AFRICAN INDUSTRIAL SITUATION

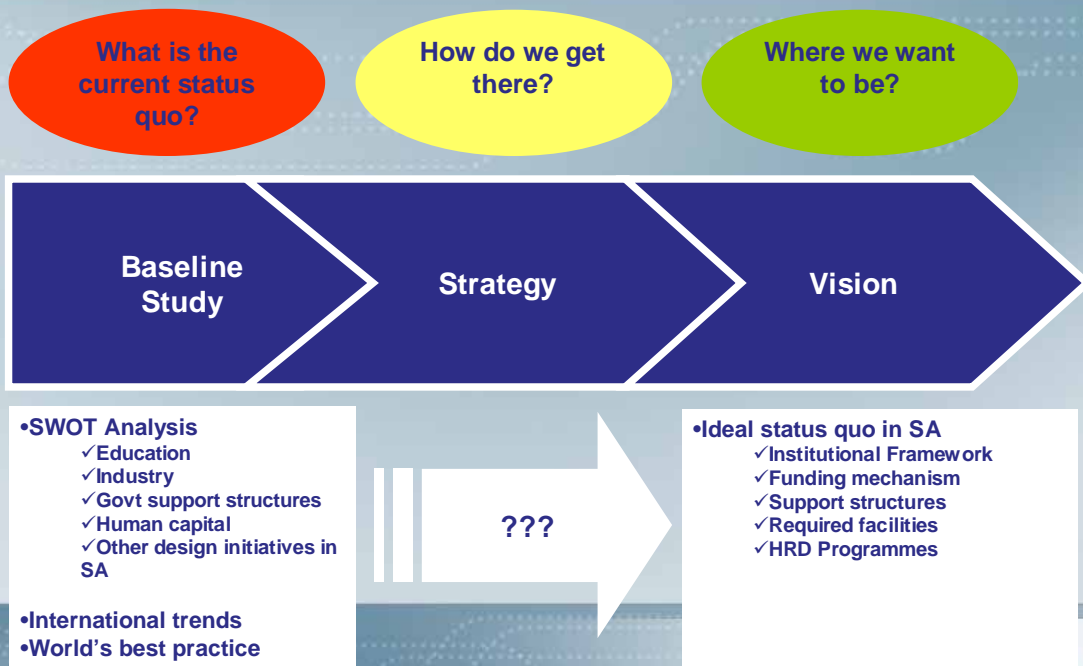
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- SA is a manufacturing economy
- Manufacturing contributes about 25% of the economy's total productive capacity
- Potential to create wealth and jobs

## THE SOUTH AFRICAN INDUSTRIAL SITUATION Contd.



## PROCESS FOLLOWED



## PURPOSE OF BASELINE STUDY

- Determine the status of design in SA, with special emphasis on Industrial Design
- Establish whether gaps exist between what is being done in SA and selected countries
- Recommend solutions to the gaps observed
- Develop a business model for Design in SA, that will add value to the economy and support the national system of innovation.



# OUTCOMES

## SUMMARY OF OUTCOMES STUDY

### Strengths:

- SA has innate talent (e.g. dolos, Hippo Roller, Cat Scanner, Baracuda, etc.)
- Relatively good tertiary education system
- Government policies are in support of innovation
- Institutions that support innovation (e.g. CSIR, Design Institute, Mintek etc.)

## SUMMARY OF OUTCOMES STUDY

### Weaknesses/Barriers:

- Lack of local support for design/designers (SA companies contract design work to international companies e.g. SAA logo)
- Lack of government support

Ø Government funding priorities in social issues  
Ø Funds are available but are difficult to access { poor support from administrative functions}  
Ø No policy for preferential procurement  
Ø Cost of education too high

- Multinationals do not invest in local design, & local firms predominantly operate in “Softer Design”

Ø Parent company use a centralised approach in dealing with design  
Ø Lack of credibility in global terms of SA as a provider of design services



## SUMMARY OF OUTCOMES STUDY

### Weaknesses/Barriers:

- Insufficient capital investment for encouraging quality in education facilities and staff
- Pool of educated and trained persons too lean
- Lack of cooperative effort between academia and industry
- Lack of opportunities for employment as “Designer”



# SUMMARY OF OUTCOMES STUDY

## Opportunities:

Short/  
Medium Term

- Ø Biotechnology
- Ø Information and Communications Technology
- Ø Automotive Parts Supply
- Ø Mining

Medium/  
Long Term

- Ø Jewellery and fashion design
- Ø Aerospace and gas/oil industry services
- Ø Instrumentation and controls
- Ø Communications design-graphic and visual arts



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# WAY FORWARD



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# PROPOSED WAY FORWARD

Task	Description	Comment
1	Involvement of other govt. departments, science councils, industry and academia.	Arts and Culture – Design Policy of SA – to include DME and DTI, science councils, industry and academia.
2	Establishment of a Project Steering Committee	Govt departments Other key stakeholders
3	Establishment of the <a href="#">Design Centre South Africa</a>	Branding Business Plan
4	Incorporate all design initiatives into DECSA	E.g. DST's Design for 2010

# PROPOSED WAY FORWARD



Task	Description	Comment
1	Regional workshops on the outcome of the baseline study, and proposed way forward	<b>Northern Region:</b> Gauteng, NW, Limpopo, Mpumalanga Eastern Region: KZN & Free State Western Region: WC & EC Cape Region: C&EC
2	Involvement of other govt. departments and science councils, industry and academia in Policy of SA – to include DME and DTI	Drafting
3	Establishment of a Project Steering Committee	Govt departments Other key stakeholders
4	Establishment of the Design Council of South Africa	Branding Business Plan
5	Incorporate all design initiatives into DECSA	E.g. DST's Design for 2010

**IDEA**

# THANK YOU!!

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## DESIGN CENTRE SOUTH AFRICA

