

# **FRIDGE**

## **Preparation for the Chemicals Sector Summit**

Presented to the FRIDGE sub-committee

21 April 2005



**KAISER  
ASSOCIATES**

**ECONOMIC  
DEVELOPMENT  
PRACTICE**

# Outline of presentation



**Project overview**

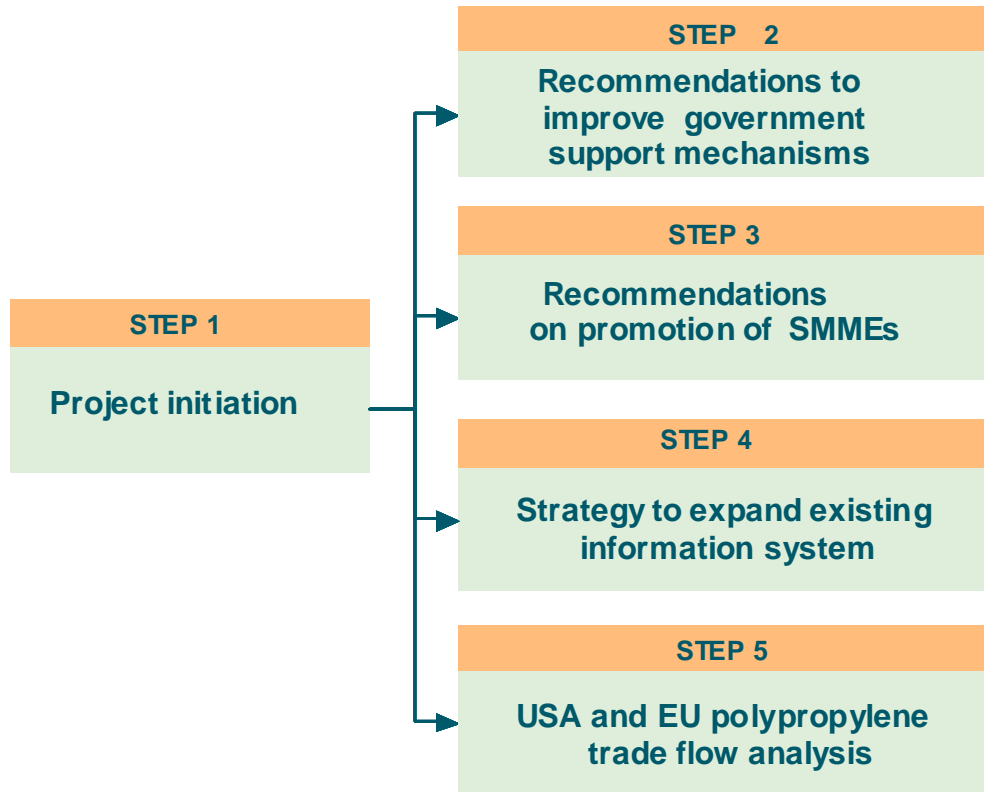
**Improving government support mechanisms (Step 2)**

**Strategy to expand the existing information system (Step 4)**

**Analysis of polypropylene trade flows to/from the US and Europe (Step 5)**

**Next steps**

# Project overview



Kaiser Associates conducted research for Steps 2, 4 and 5, while Blueprint Consulting conducted research into promotion of SMMEs (Step 3)

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# Support for the chemicals sector can be improved through improvement across all incentives

## Shortcomings in incentive offering

### Shortcomings in **support schemes**:

- ▶ Lack of assistance in accessing market information
- ▶ Inadequate assistance with marketing in export markets
- ▶ Inadequate accommodation of sector-specific needs e.g. capital intensive nature of the sector

### Shortcomings in **incentive administration**:

- ▶ Fragmented and uncoordinated
- ▶ Lack of awareness of government support and criteria for qualification
- ▶ Complicated and cumbersome application process
- ▶ Lack of transparency once an application is submitted

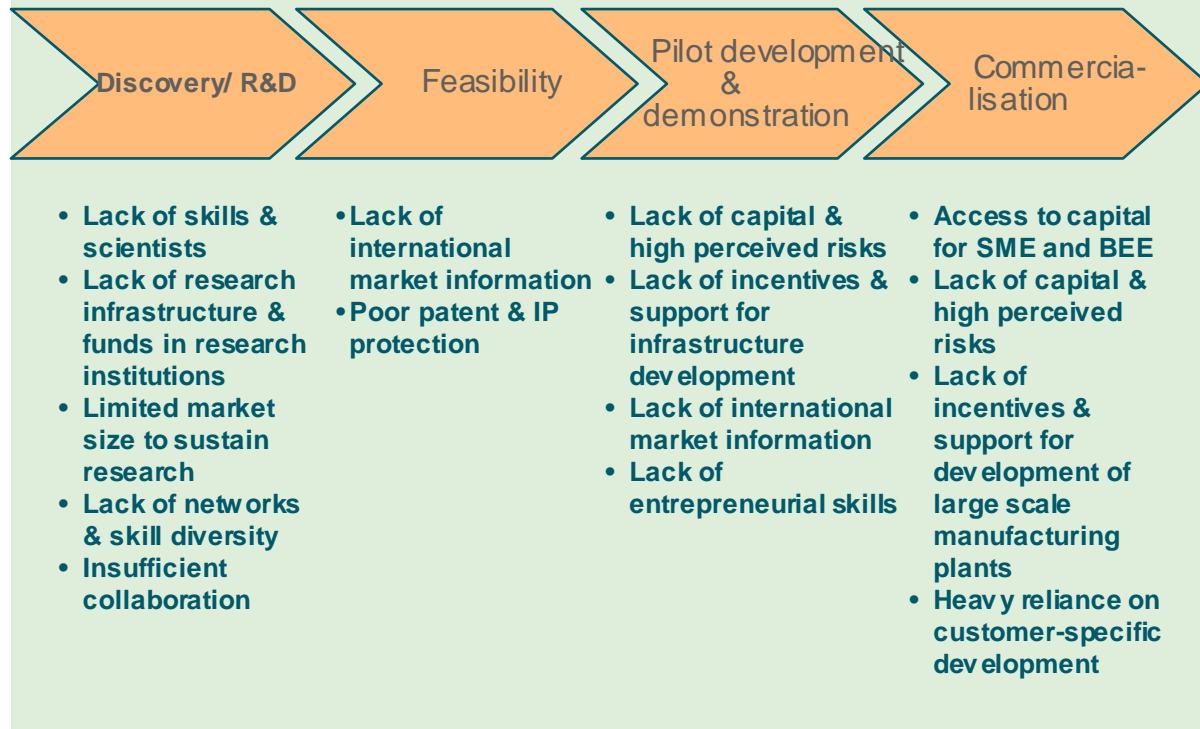
## Recommendations

- ▶ Expand incentives that focus on market access and marketing
- ▶ Take into account the specific needs of the chemicals sector when applying selection criteria
- ▶ Streamline and coordinate incentive offerings
- ▶ Make incentives more accessible by:
  - Developing a single source of information and administration
  - Enhancing the role of intermediaries/consultants
  - Publicising available incentives in key industry publications
  - Communicating the role of Manufacturing Advisory Centres/replacement SEDA access points

These recommendations may be not be exclusive to the chemicals sector and could be applied across other sectors and general incentive administration

# Innovation facilitation: at each stage of the innovation chain there are significant barriers to innovation

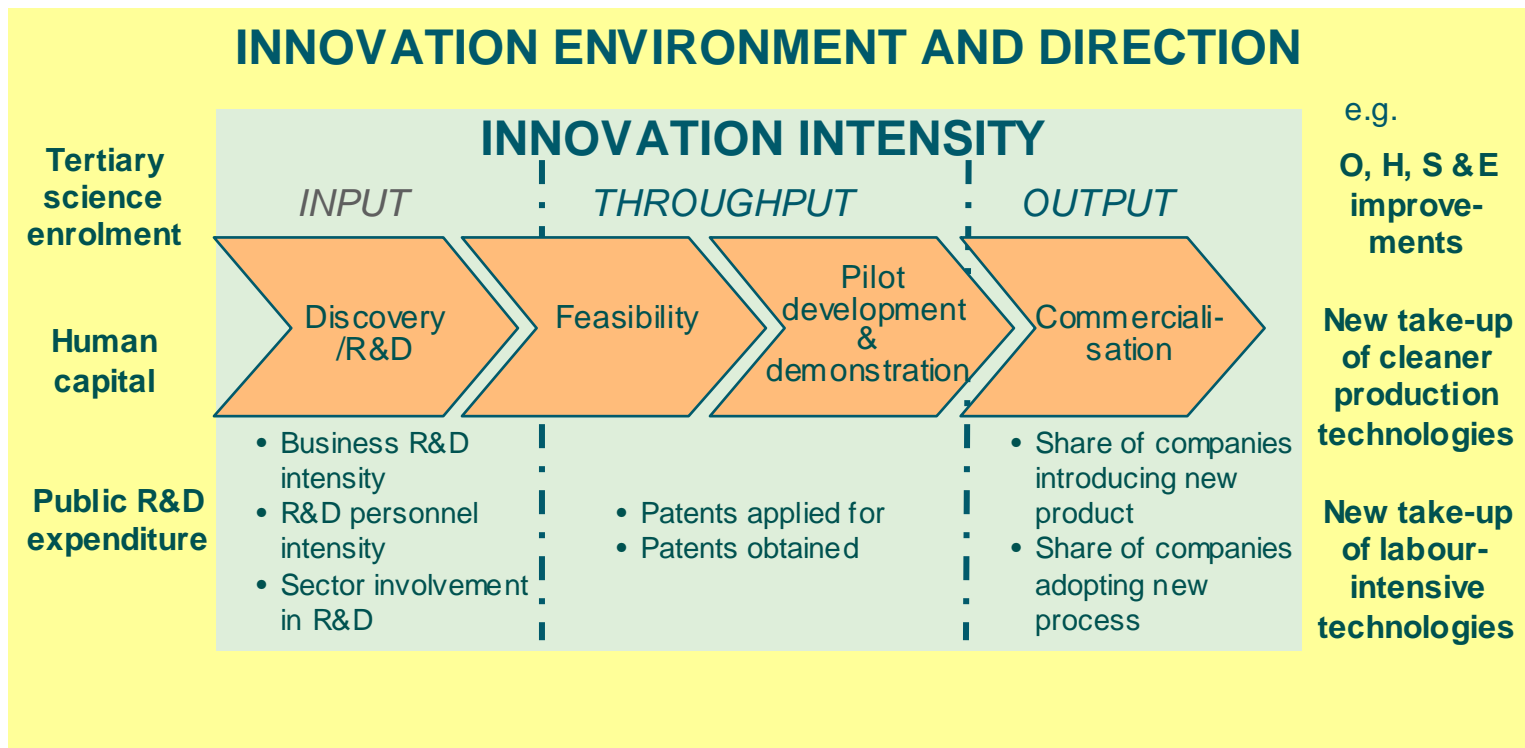
## OBSTACLES IN THE INNOVATION CHAIN



Opportunities to stimulate innovation therefore include:

- ▶ Lessening these barriers to innovation through appropriate support
- ▶ Improving on other shortcomings of the current incentive offering

# It will be important to measure innovation intensity and direction in order to determine if objectives are being met



- ▶ Indicators of innovation intensity should be monitored to gauge intensity in the input, throughput and output stages of the innovation chain
- ▶ Indicators of innovation direction should be monitored to gauge wider enabling environment concerns and innovation outcomes

# Recommendations to improve incentive offering to facilitate innovation

Shortcomings in incentive offering	Recommendations
Lack of a seamless support across the innovation chain	<ul style="list-style-type: none"><li>▶ Develop Innovation Centres to foster collaboration across entire innovation chain</li></ul>
Too much focus on later stage of innovation chain	<ul style="list-style-type: none"><li>▶ Lobby for additional funds for discovery and early feasibility testing</li><li>▶ Collaboration by research institutions and the private sector</li><li>▶ Development of research infrastructure and funds in public research institutions</li></ul>
Few incentives to support enlarging levels of R&D staff	<ul style="list-style-type: none"><li>▶ Lobby for additional funds or incentive programmes that encourage employment of more research personnel (e.g. grants)</li><li>▶ Resolve policies that prioritise upskilling staff for production activities over increasing research and development employment</li></ul>
Inadequate support for pilot plant development and commercial scale up	<ul style="list-style-type: none"><li>▶ Lobby for additional funds to accelerate commercial ramp-up</li></ul>

Basic discovery and research, pilot-plant development and commercial scale-up, and HR skills are critical areas to stimulate through appropriate incentives

# Recommendations on incentives and support for large enterprises

Larger enterprises have greater capacity to access incentives, however additional support is needed:

- ▶ Encourage development of **additional start-up finance schemes** as there is a potential market failure amongst private sector lenders to provide adequate funding
- ▶ More support for **accessing market information** and conducting marketing activities in key export markets
- ▶ Review **level, terms and conditions of development finance and tax incentives**
- ▶ Ensure that granting criteria **take into account the capital intensive nature of the chemicals industry**, and that further investment will most likely result in increased capital intensity

The focus of support should be on improving market access and less burdensome conditions for accessing development finance

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# Stakeholders in the chemicals industry have a wide range of information requirements, from market and trade issues, technical information to personal interest information...

The main gaps in information provision by the current Chemweb/ Chemissa portal site include:

- ▶ International market information
- ▶ Chemicals research and technology in South Africa and internationally
- ▶ Government initiatives and support for the chemicals sector in South Africa
- ▶ Hazards and environmental issues internationally, for example, initiatives such as Responsible Care

Recommendations to fill these gaps were:

- ▶ **Linking to other sites** that provide relevant, up-to-date, accurate content,
  - ▶ e.g. Sites on trade agreements and trade information, including Generalised System of Preferences, Southern African Customs Union on the Department of Foreign Affairs site, COMESA website, SADC Trade, Industry and Investment Review 2004, AGOA, CEFIC Position papers
- ▶ **Developing original content** for the portal site,
  - ▶ e.g. Develop more recent South Africa-specific articles with input from industry experts

On an ongoing basis the website should be expanded as new information becomes available in line with best practices in website management, including assessment of linked sites against a checklist, and promotion of awareness and website usage

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# Demand by EU and US

## Polypropylene

- ▶ The **total import value** for the selected PP products was about **US\$9bn**
- ▶ **EU markets dominate** this demand
- ▶ Demand is greatest for **primary products**
- ▶ When **adjusted for intra-regional trade**, the total import market value shrinks dramatically, and the **US and secondary products become more important**
- ▶ Highest potential product-market opportunities for secondary products are:
  - ▶ HS 392020 Film and sheet to the US, Belgium, Germany and France

## Nonwovens

- ▶ The **total import value** was approximately **US\$5.2bn** in 2003
- ▶ The **EU accounts for the majority of this demand**
- ▶ When **adjusting for intra-regional trading**, **US imports are not greatly affected**, and the **EU market is greatly reduced**
- ▶ Highest potential product-market opportunities are:
  - ▶ HS 560311 Nonwovens to the US
  - ▶ HS 560312 Nonwovens to the US and UK
  - ▶ HS 560313 Nonwovens to the US

# Supply by South Africa

## Polypropylene

- ▶ South Africa **exported a total of US\$105.7m**
- ▶ The vast **majority of exports went to African countries**, in particular Nigeria and Zimbabwe
- ▶ Hong Kong is the only significant non-African export market for South African polypropylene products
- ▶ There currently appears to be only **limited beneficiation of PP products for export**

## Nonwovens

- ▶ In 2003, South Africa **exported a total of US\$29.8m** across the nonwovens commodity groups tracked
- ▶ The **majority of exports went to EU countries**, with 24% of exports going to Belgium. Only 5% of total nonwovens exports from South Africa went to the US in 2003.

South Africa's penetration of target export markets is very low – typically <0.01% for polypropylene products and <3% for nonwovens

# Opportunities for polypropylene and nonwovens products

## Opportunities for polypropylene

### HS 392020 Film and sheet

- ▶ Develop new export markets in the US and UK
- ▶ Expand existing relationships in France, Belgium, and Germany

### HS 550340 Staple fibres of polypropylene

- ▶ Expand existing exports in Germany, UK, Belgium and Austria

## Opportunities for nonwovens

### HS 392190 Film and sheet

- ▶ Expand into markets in the US, Germany, France, the UK, Italy, and Belgium

### HS 560313 Nonwovens

- ▶ Develop existing relationships in the Belgian and UK markets
- ▶ Enter the German market

### HS 560312 Nonwovens

- ▶ Develop exports to the US, UK, Germany and Italy, and
- ▶ Build on existing exports to Spain and Belgium

### HS 560311 Nonwovens

- ▶ Develop exports to the US
- ▶ Expand existing market share in Germany

# Additional market research revealed the following opportunities in end-use products

PP is one of the fastest growing inputs into **packaging**:

- ▶ **Flexible packaging** where the best opportunities are in food packaging
- ▶ **Caps and closures** where PP is increasingly used for threaded plastic pressurised caps
- ▶ **Plastic containers**
- ▶ **Protective packaging** where there are growth opportunities for polyolefin foams
- ▶ **Sterile medical packaging**

PP use in nonwovens industry is mostly for **personal hygiene and medical uses**:

- ▶ **Disposable nonwovens**
- ▶ **Spunbonded nonwoven fabrics**
- ▶ **Carded nonwovens**
- ▶ **Surgical drapes**

The **automotive** industry also provides strong growth potential for PP use (although there are high barriers to new supplier entry):

- ▶ **Headliners, trunk liners and carpet backing**
- ▶ **Step/running boards** have been identified as a growth area for long glass PP
- ▶ **Automotive exteriors** such as bumper facia, fender liners, trim and front wings

## However the following challenges to exporting exist:

- ▶ Competitive total landed cost is strongly influenced by **transportation costs**
- ▶ Focus on competitive **operating costs** rather than raw material costs
- ▶ Competitive **production technology**
- ▶ Building **effective channels to market**
- ▶ **Energy and monomer costs** are widely expected to continue to increase.
- ▶ Threats presented by **Asian PP producers**

Therefore South African producers will need to overcome these challenges to develop a successful end-use PP and nonwoven industry

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# Next steps

## Government support mechanisms and incentives

- ▶ Further statistics on incentive usage should be made available (via the Trade and Industry Chamber of Nedlac)
- ▶ Take into account agreed recommendations when reviewing incentive administration and design

## Expansion of information system

- ▶ Improve website structure
- ▶ Finalise and incorporate recommended links
- ▶ Develop new information where recommended
- ▶ Expand the website on an ongoing basis using best practice in website management to assess new links and promote awareness and usage of the site

## Polypropylene and nonwovens opportunities

- ▶ A more detailed assessment of market drivers and opportunities in prioritised products and South African competitiveness in supply should be conducted
- ▶ These products could include products outside of the chemicals sector, which would require collaboration with other industries