

Globelics Academy, Lisbon 2005

A thick, horizontal yellow brushstroke with a textured, painterly appearance, spanning most of the width of the slide.

Effectiveness of technology policy in South Africa:

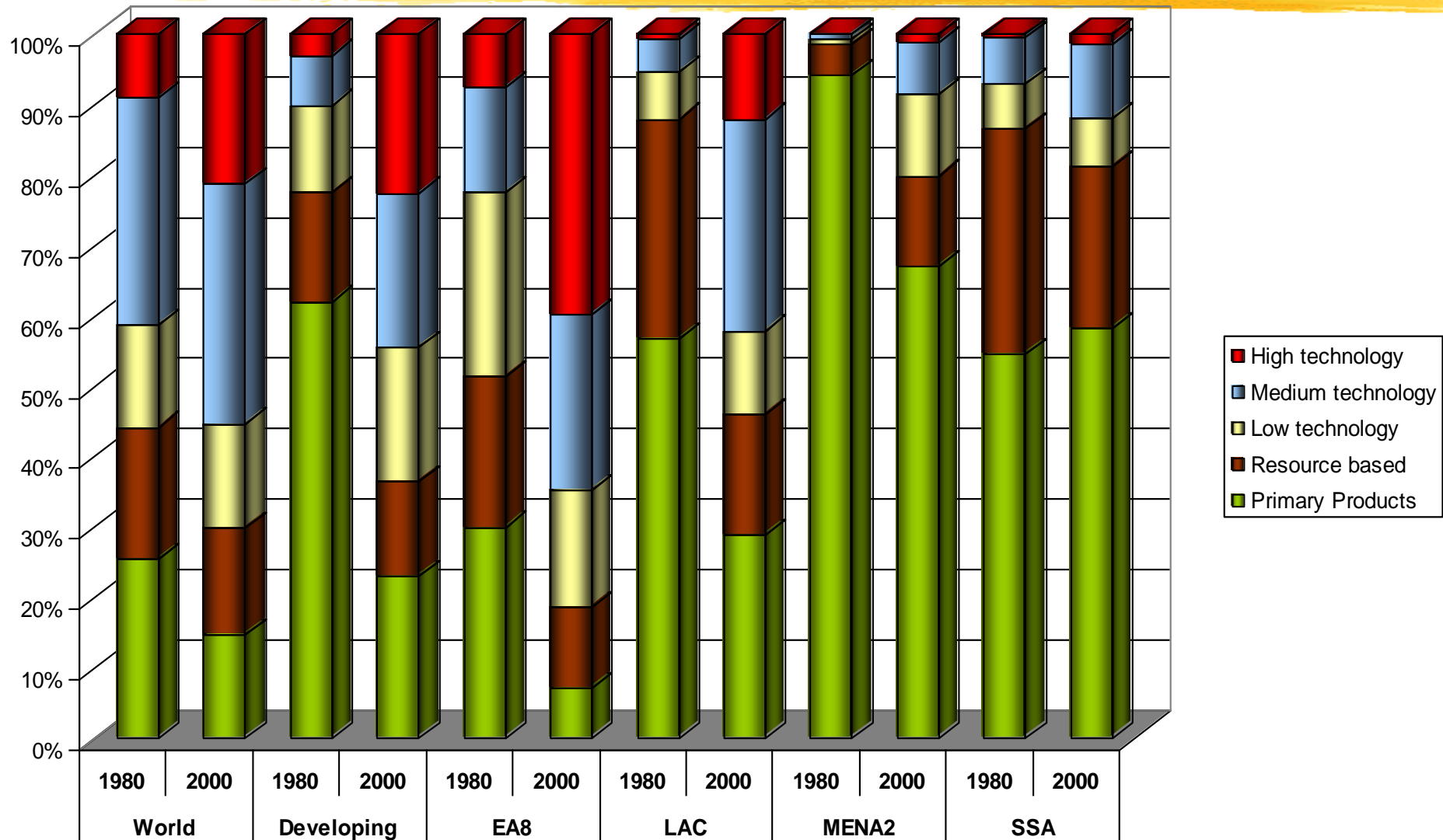
**Technological learning in the ICT sector and
institutional capabilities**

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Observations in SSA

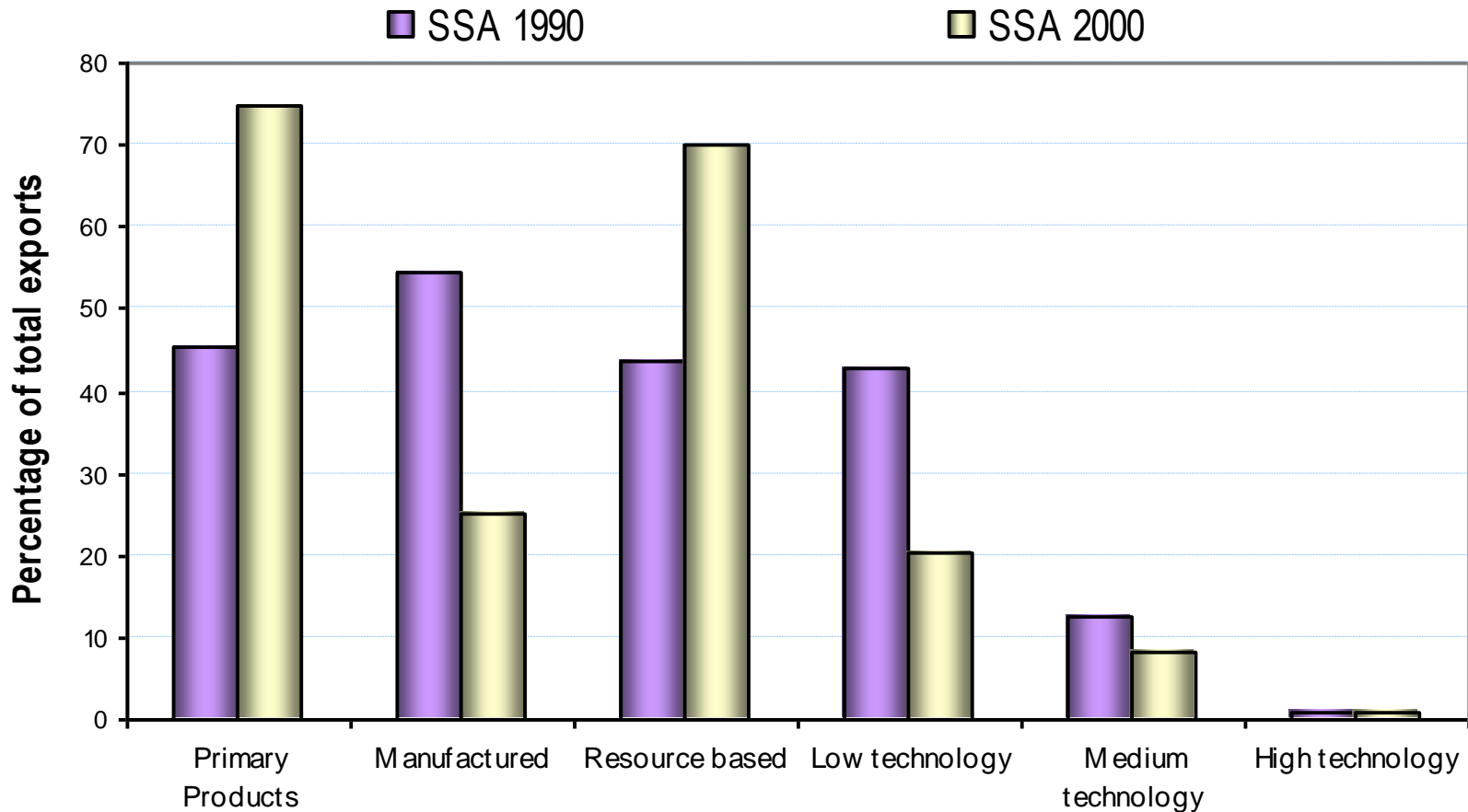
- 1) Sub-Saharan Africa increasingly specializing in **Primary Products**.
- 2) SSA is lagging behind in **volume** of manufacturing and in **technological content** of manufacturing
- 3) Context of **rapid competitiveness** in technological terms
- 4) **Divergence of SSA** technological structure with industrialized and developing regions.
- 5) **South Africa** seems to have taken a different strategy but its effectiveness is still under question

Composition of exports trends in the world

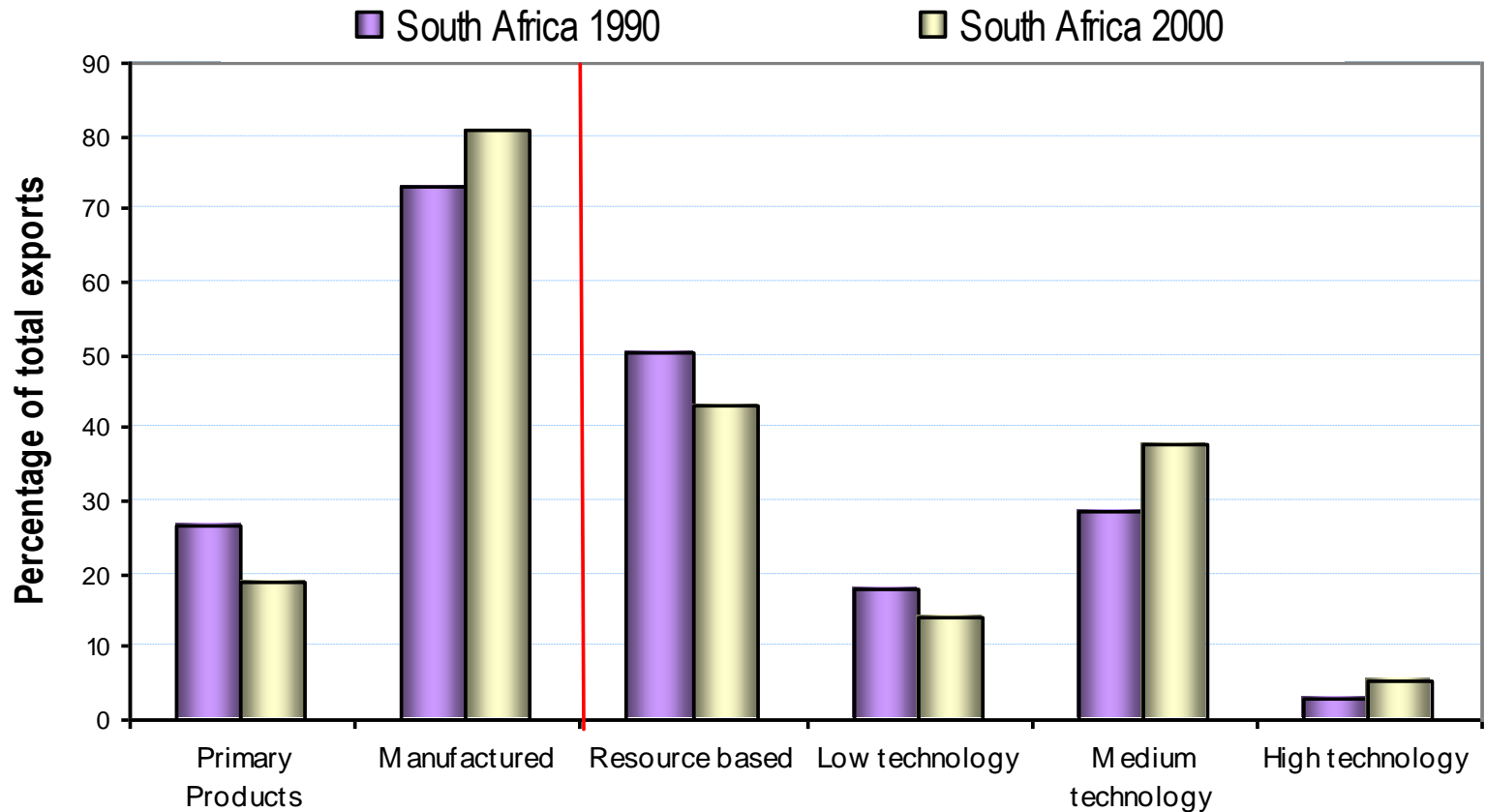


What is South Africa doing?

**Export trends in Sub-Saharan Africa exc South Africa
(1990-2000) by technological category**



Export trends in South Africa (1990-2000) by technological category



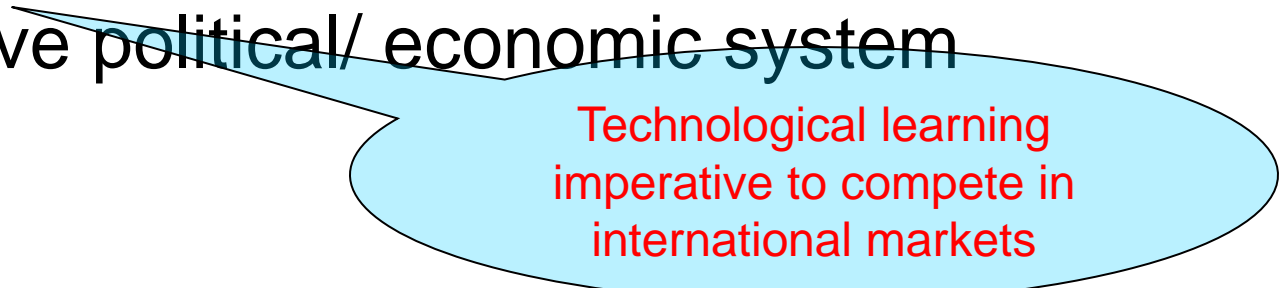
South Africa's bid for technology has been reflected in policy



The **ICT sector** has been recently targeted by the South African government to promote South Africa as a significant player in global ICT markets

Problems: legacies from apartheid, low skilled population, poverty, endemic unemployment, high inequality, AIDS, etc

SMEs centre of government agenda to promote a more inclusive political/ economic system



Technological learning
imperative to compete in
international markets

ICT policy



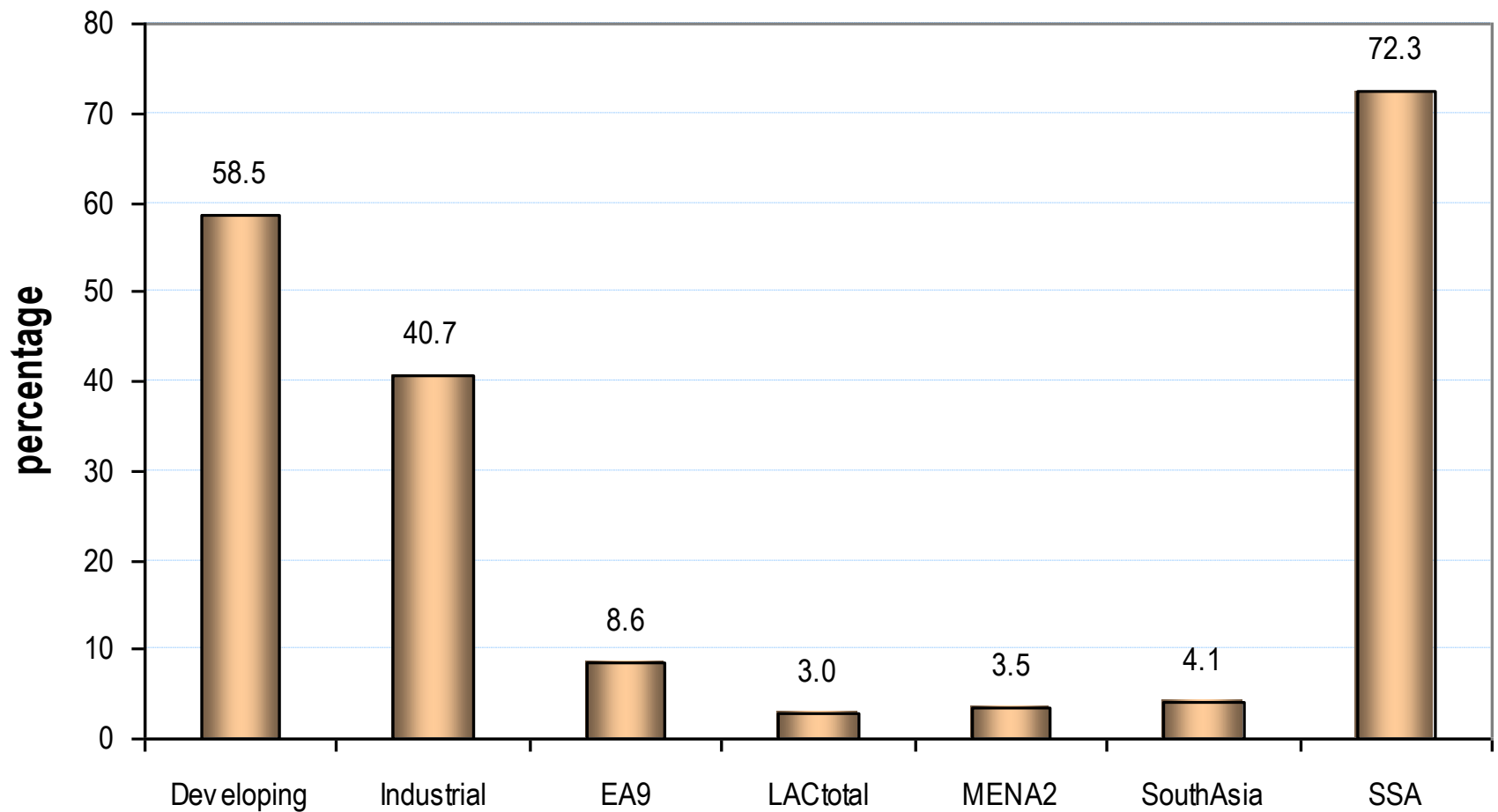
- **1996 White Paper on S&T policy** , Dep. of Arts, Culture, Science and Technology (DACST). The key concept in this paper is “National System of Innovation”
- Since then sophisticated policies regarding innovation and promotion of absorptive capacity
- Sophistication in design not reflected in evaluation of policies
- **2000 South African ICT Sector Development Framework**

Goals of ICT Development Framework



- Accelerate **growth of ICT SMMEs**
- Focus on **nascent ICT clusters** particularly in Gauteng and Cape Town
- Promote South Africa's strong local market for ICT and **presence in developing countries**

Destination of South African Exports of ICT manufactures in 2003





Support ICT
SMMEs



➤ Three specific ICT support programmes

- **The Innovation Hub**- funded by Gauteng local government
- **Bodibeng Technology Incubator**- part of GODISA programme (national initiative, DTI and DST)
- **Tshwane technikon**- part of Tshumisano Technology Stations Programme (DST)



Based in
Gauteng
province

Two aspects to study



- **Firms side:** Effect of support from these programmes
 - Firm sample composed by both firms receiving support from them and not, to compare effects
- **Institutional side:** linkages between industry and policy-making. The three programmes are directly linked to **firms** but also respond to **national goals** of technology development.
 - Formal and informal connections between directors of these programmes and policy makers (DTI, DST, local government)

Research Questions



- Can technology policies explain the patterns of technological learning and competitiveness of the ICT sector in South Africa?
- To what extent is the effectiveness of these policies influenced by the structure and practices of the existing institutional network?
- How can information be best obtained to improve the effectiveness of the South African NSI?

Methodology



- Interview 80 SMMEs in the ICT sector (40 +40)
- Interviews to relevant people directing the three programmes and examine their connection to DST, DTI and Gauteng local government



Thanks!

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