



**Achieving the Millennium Development Goals (MDGs) in Africa:
NEPAD component on Sustainable Industrial Development
(Africa Productive Capacity Initiative)**

DEVELOPMENT OF PRODUCTIVE CAPACITY AND REGIONAL COMPETITIVENESS

21st November 2005 – Johannesburg

The DTI – Strategic Competitiveness Unit Workshop: National Strategy on Regional Industrial Development

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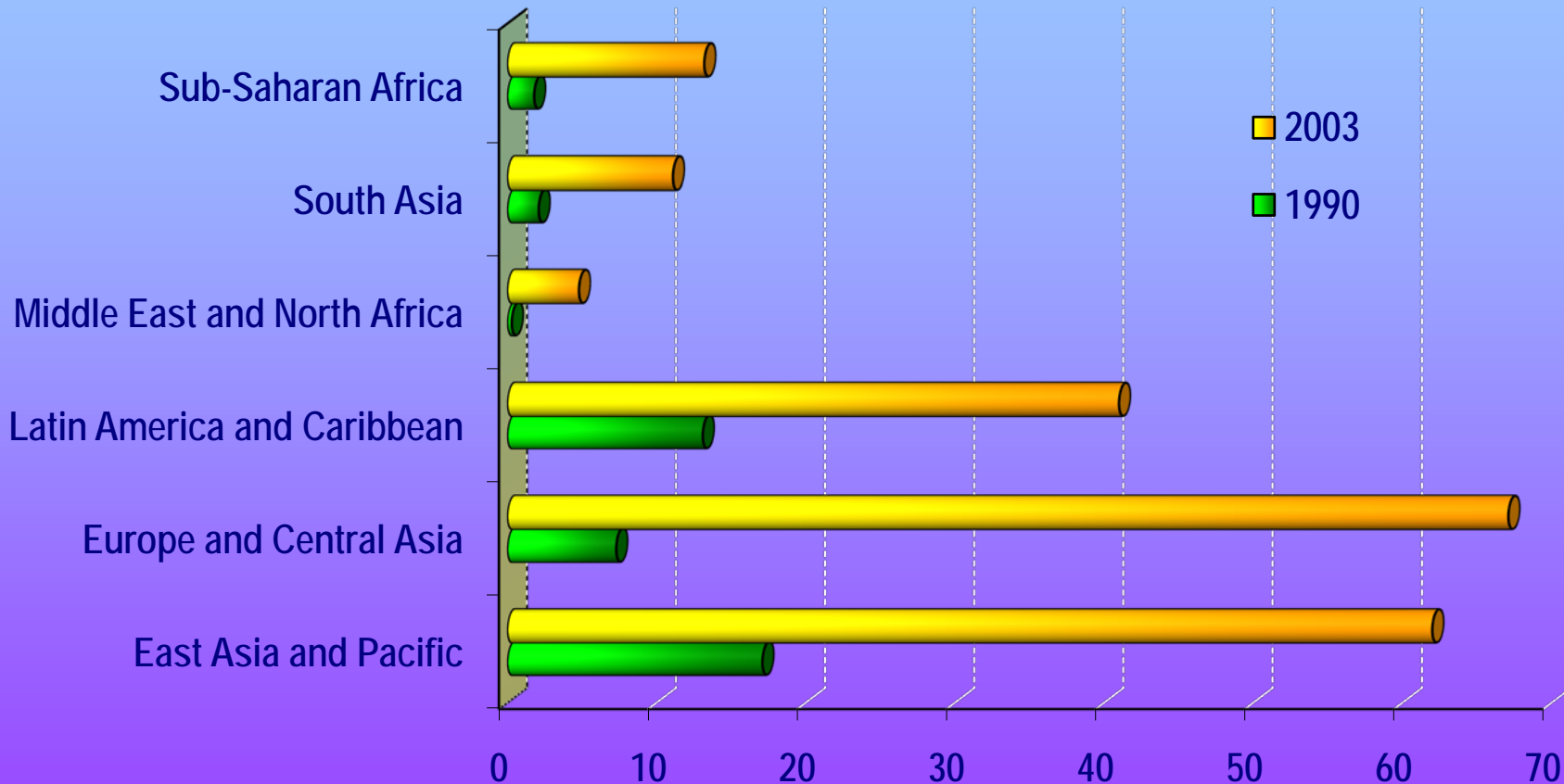
- **Reduce inequality to achieve the MDGs : Regions have a say**
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Conclusion and the way forward: Promoting Agglomeration approaches



**Introduction:
Attracting Global Private flows
through a performing Agglomeration culture**

Global Private Financial Flows to Developing Regions, 1998 and 2003 (in billions of \$ US)

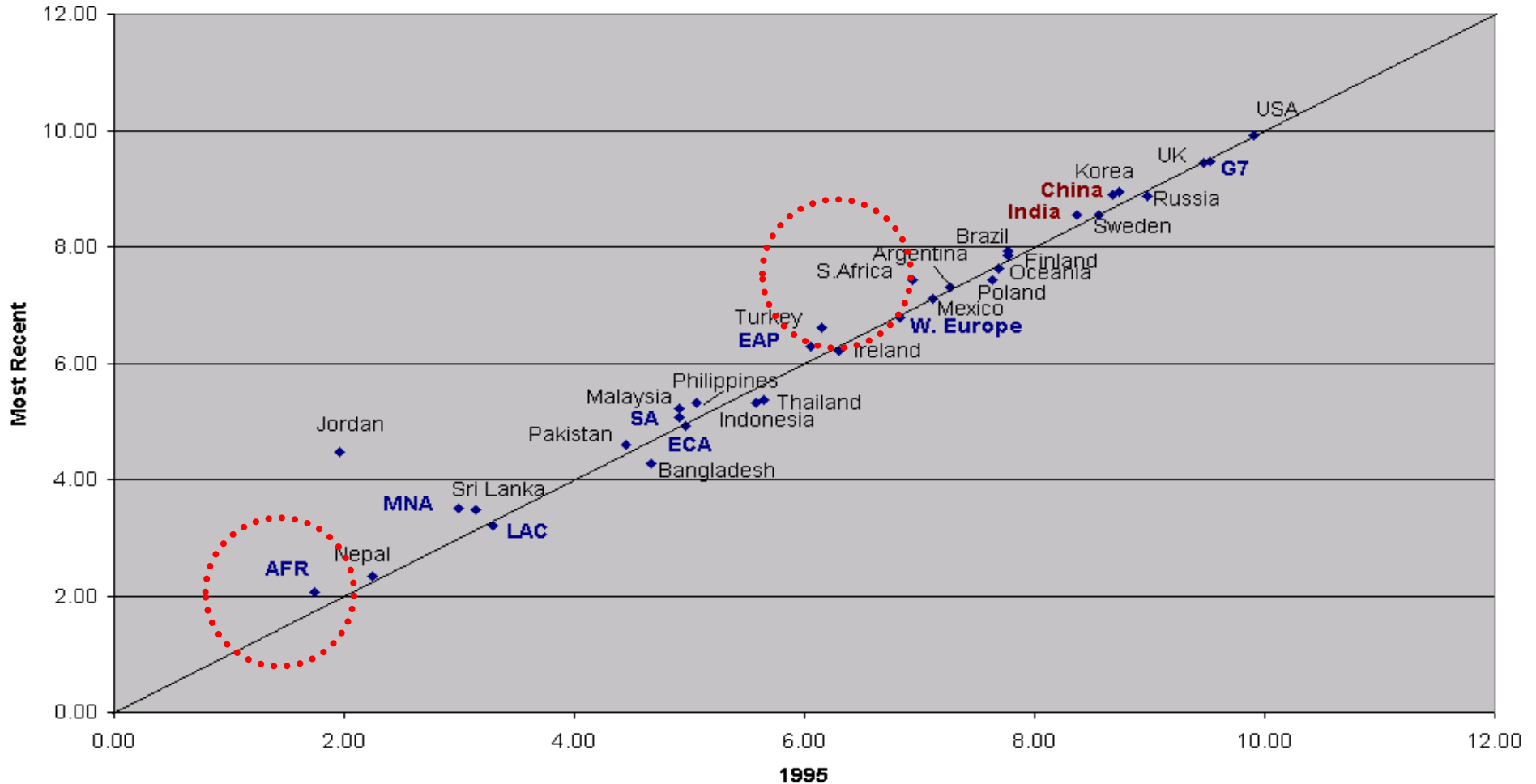


Global hubs of Technological Innovation 2000-2001



Knowledge and Innovation: Agglomeration matters, 1995

Populous countries and the world : Innovation (unweighted)

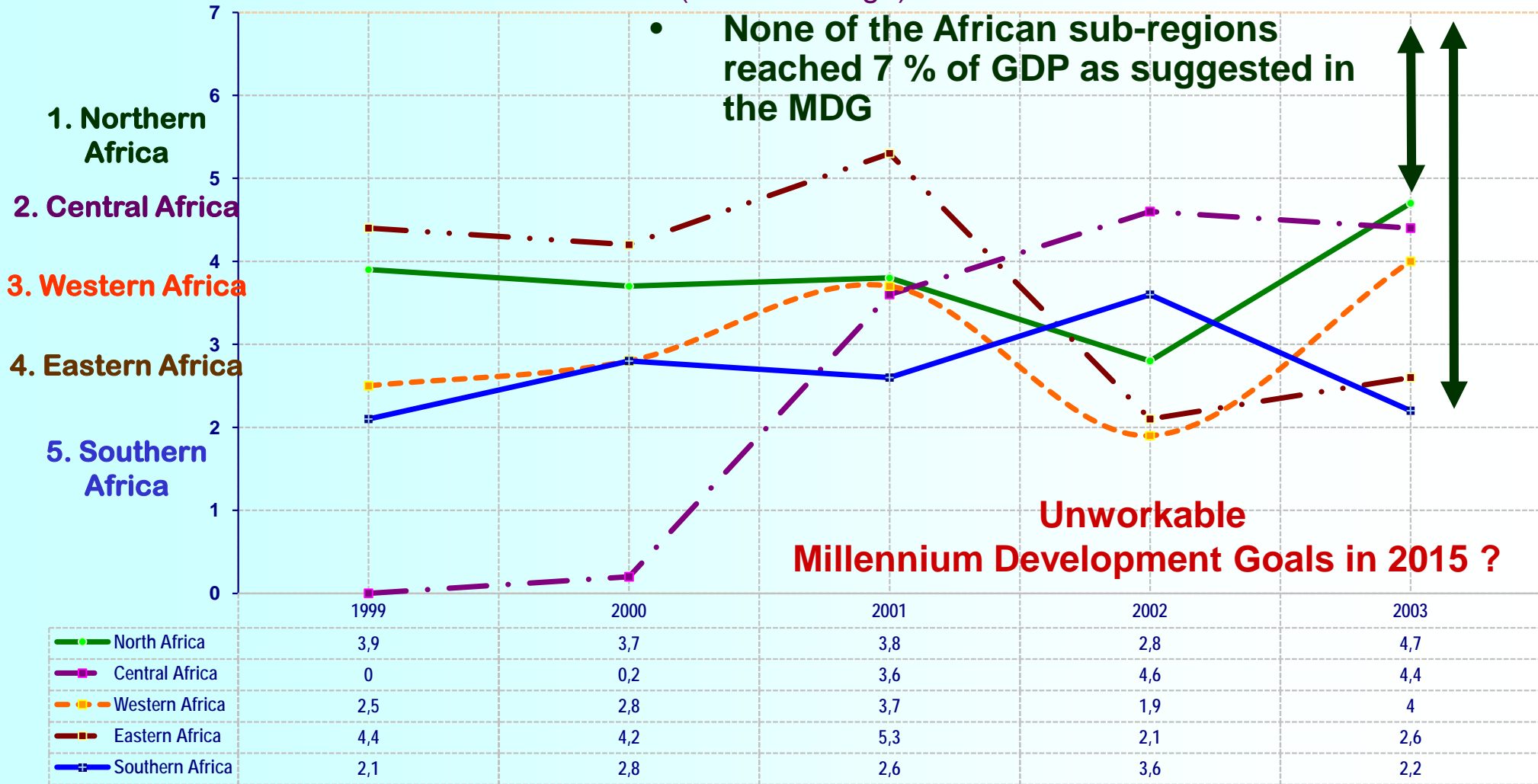




1. Reduce inequality to achieve the MDGs : Regions have a say

Real GDP Growth rates in African Sub-regions, 1999-2003

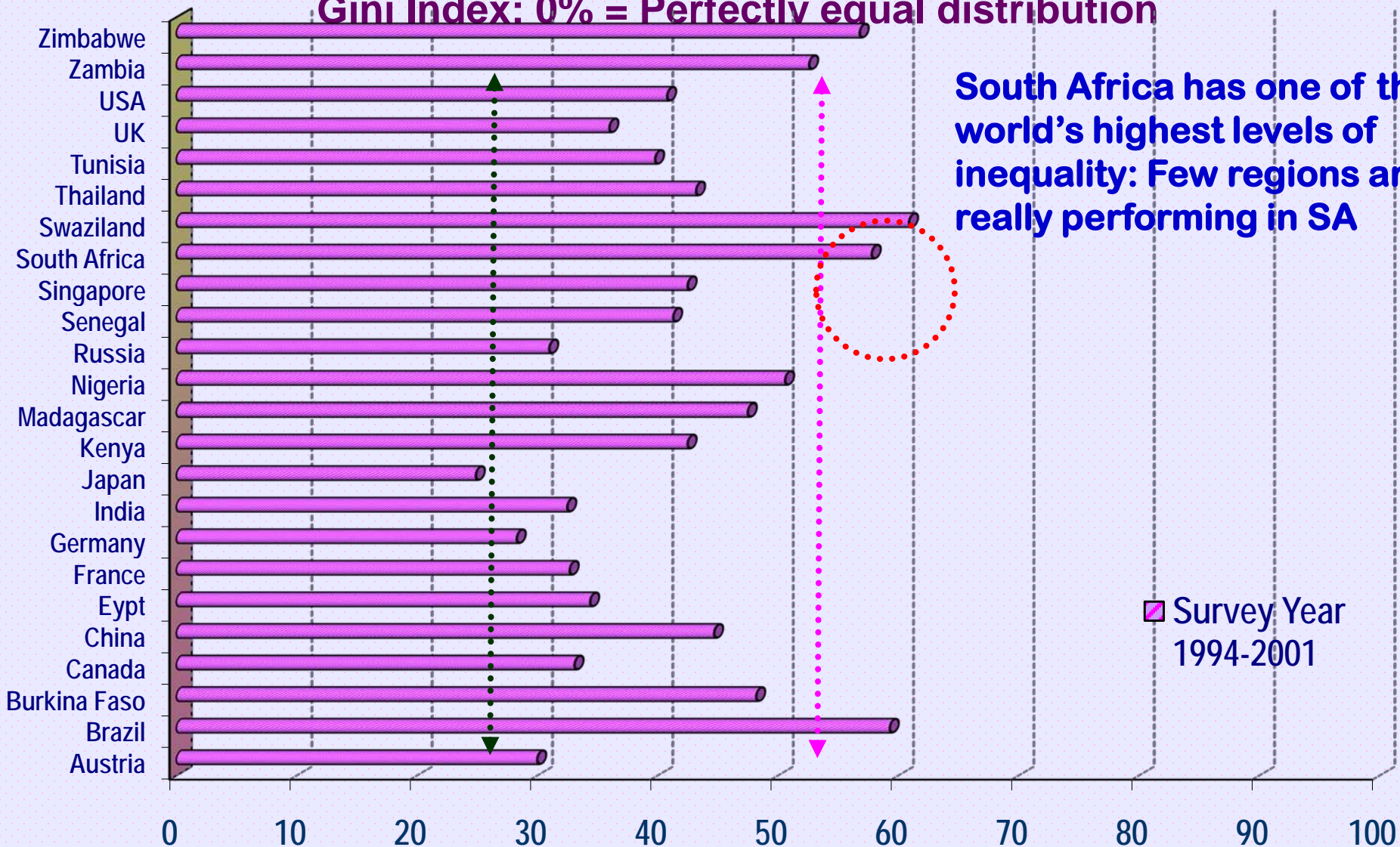
(in Percentage)





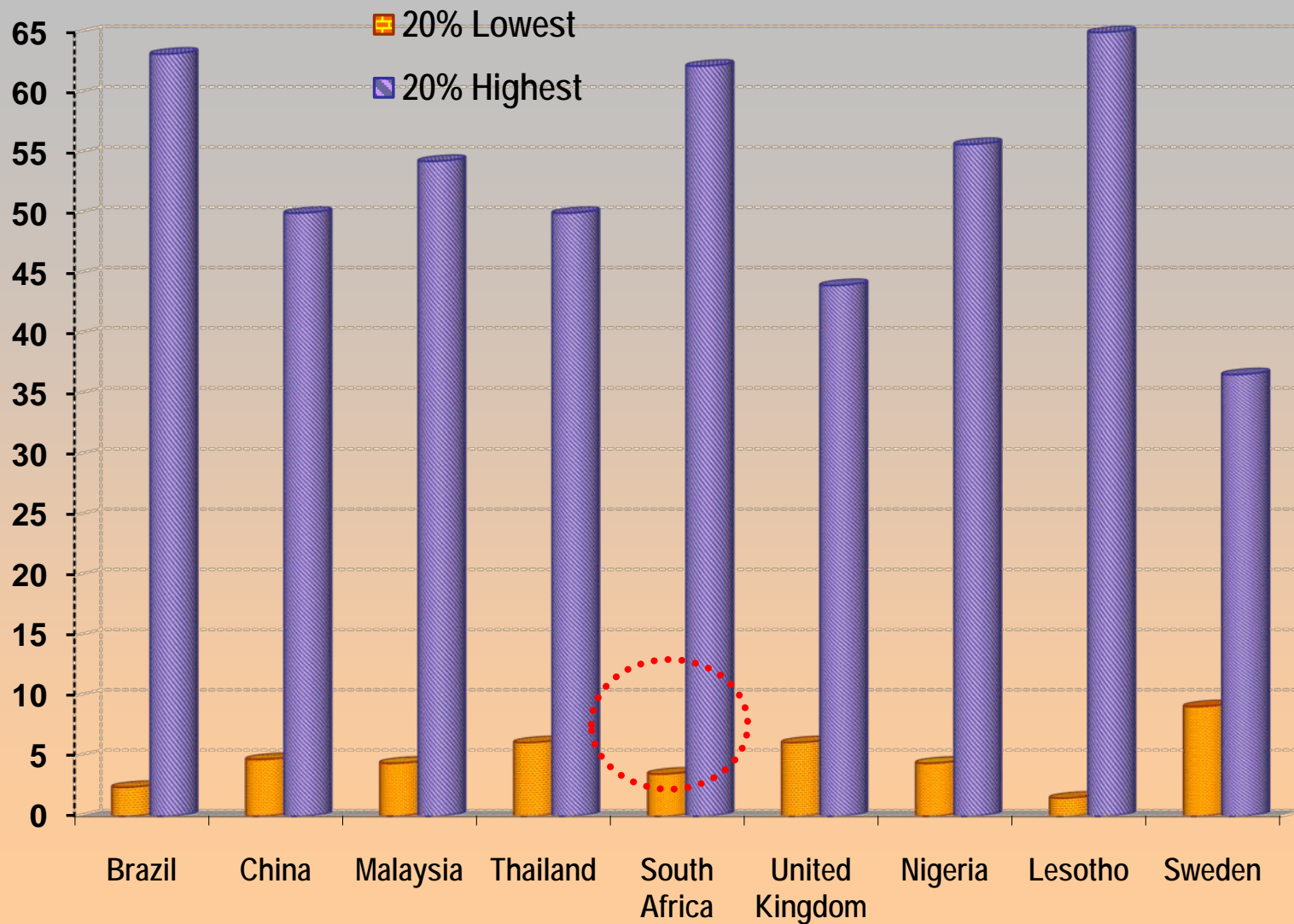
Distribution of income and consumption

Gini Index: 0% = Perfectly equal distribution





Level of inequality: Distribution of income or consumption Share of Lowest 20% and Highest 20% in selected countries



Value addition and strategy of a nation : Agglomeration approaches at the proximity level

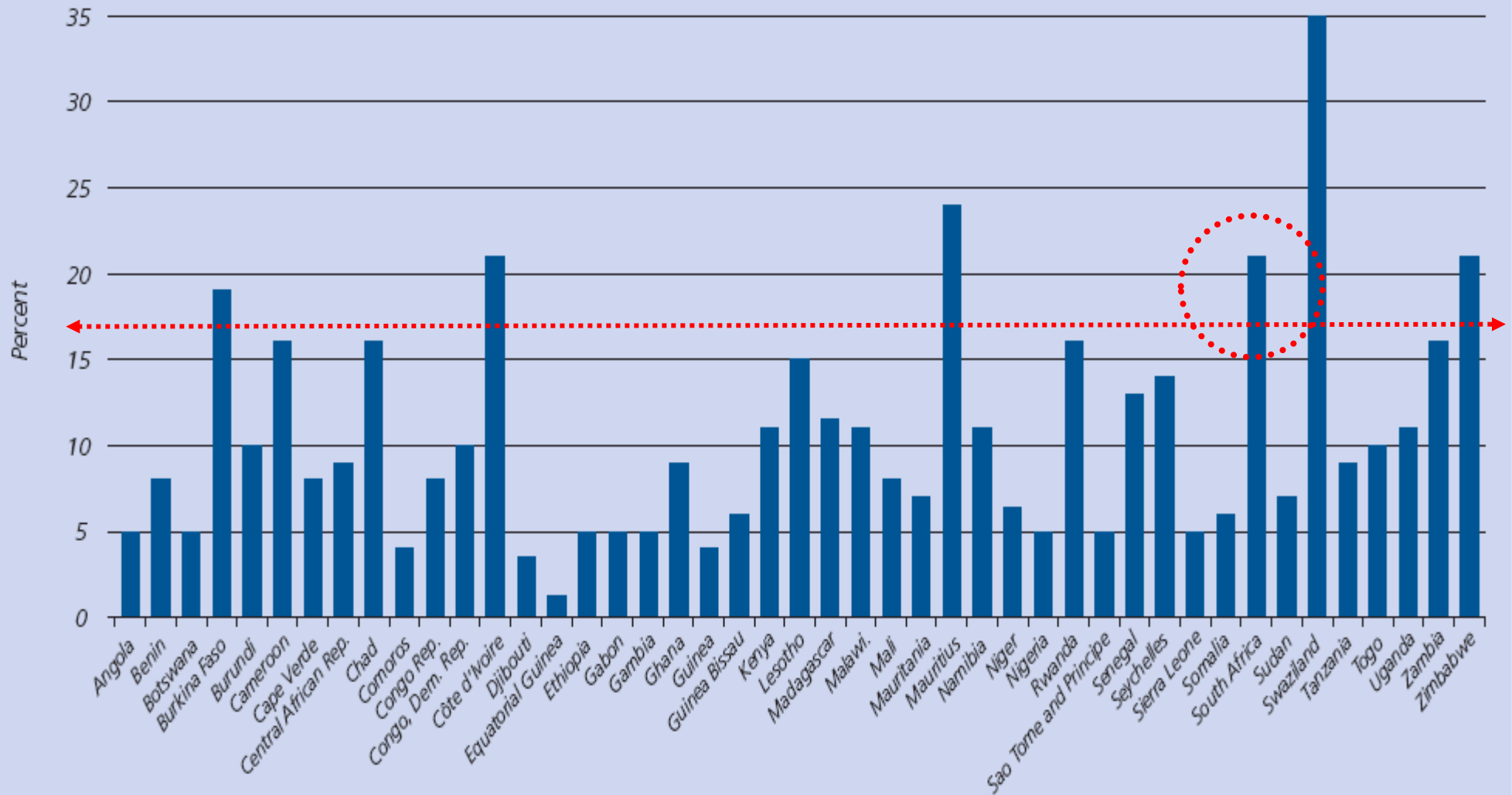
- ❑ **Failure of existing strategic policies to improve inequality and reduce poverty**
- ✓ **Could spatial and sectoral strategies on competitiveness promote economic and productive capabilities within and between provinces/regions?**
- ✓ **Should Regional industrial development be promoted as an integrated part of a national strategy?**
 1. **Y E S, there is no alternative (TINA) to diversification and Agglomeration approaches**
 2. **Learning to perform in Global/local economy (building performance at the proximity level)**

Multi-level Road Maps needed

1. **Multi-level governance: (continental, Regional, national and local)**
2. **Capability Building to ensure a smooth transition towards a Knowledge based economy (economic, social and environmental)**
3. **Upgrading skills and processes to achieve labour productivity through an increase in the technological content of the production system and upgrading of traditional processes (reducing transaction costs)**
4. **Ensure Shared Growth with a human face**
5. **Road Map building through multilevel network of economic watch system (Observatories)**
6. **Building Coherent strategy on multi-levels Road Maps**

Industrial development in Sub-Saharan Africa

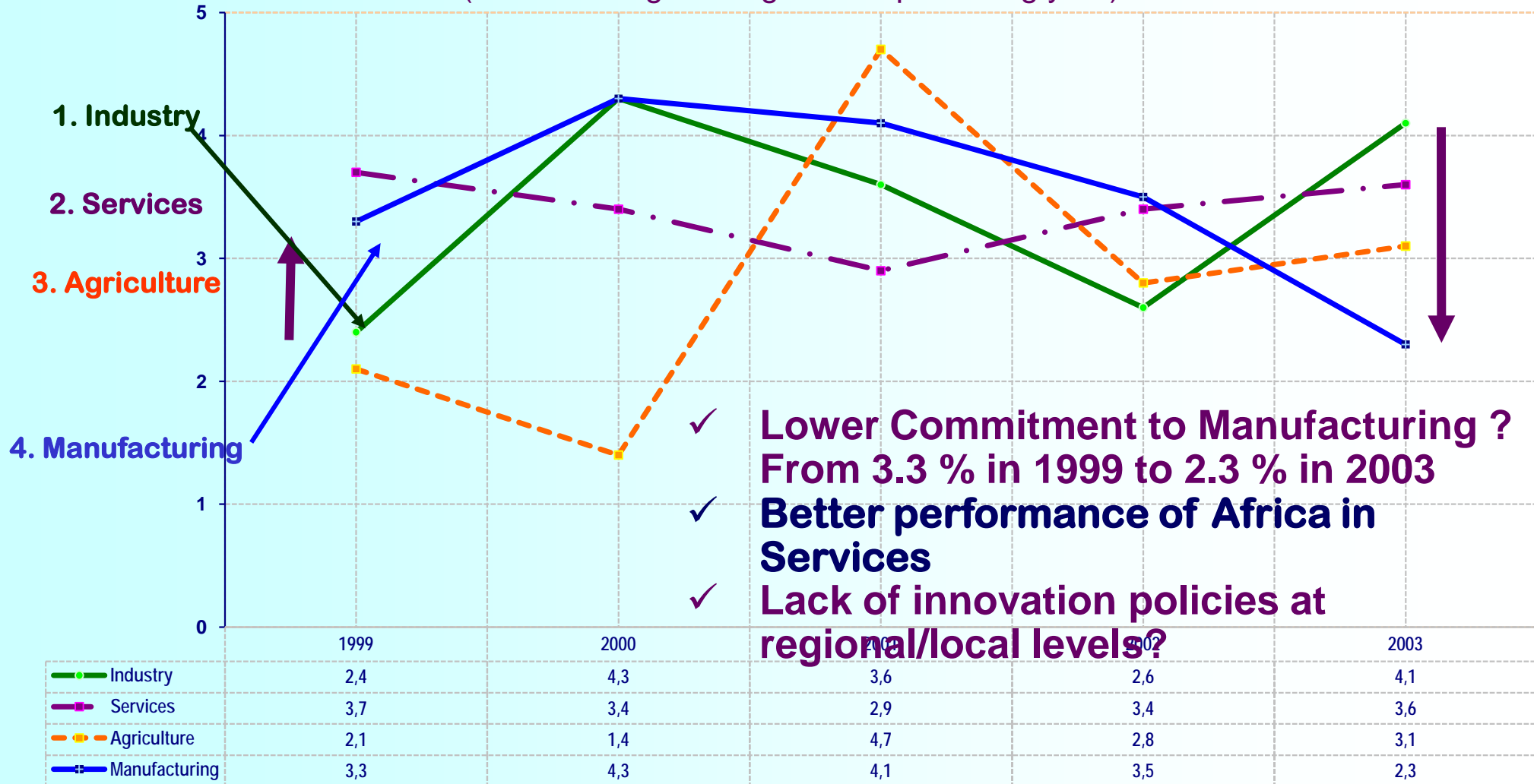
Share of MVA in GDP in Sub-Saharan African countries, 2001



Source: UNIDO Industrial Statistics database, 2003.

Sectoral Growth rates in Africa, 1999-2003

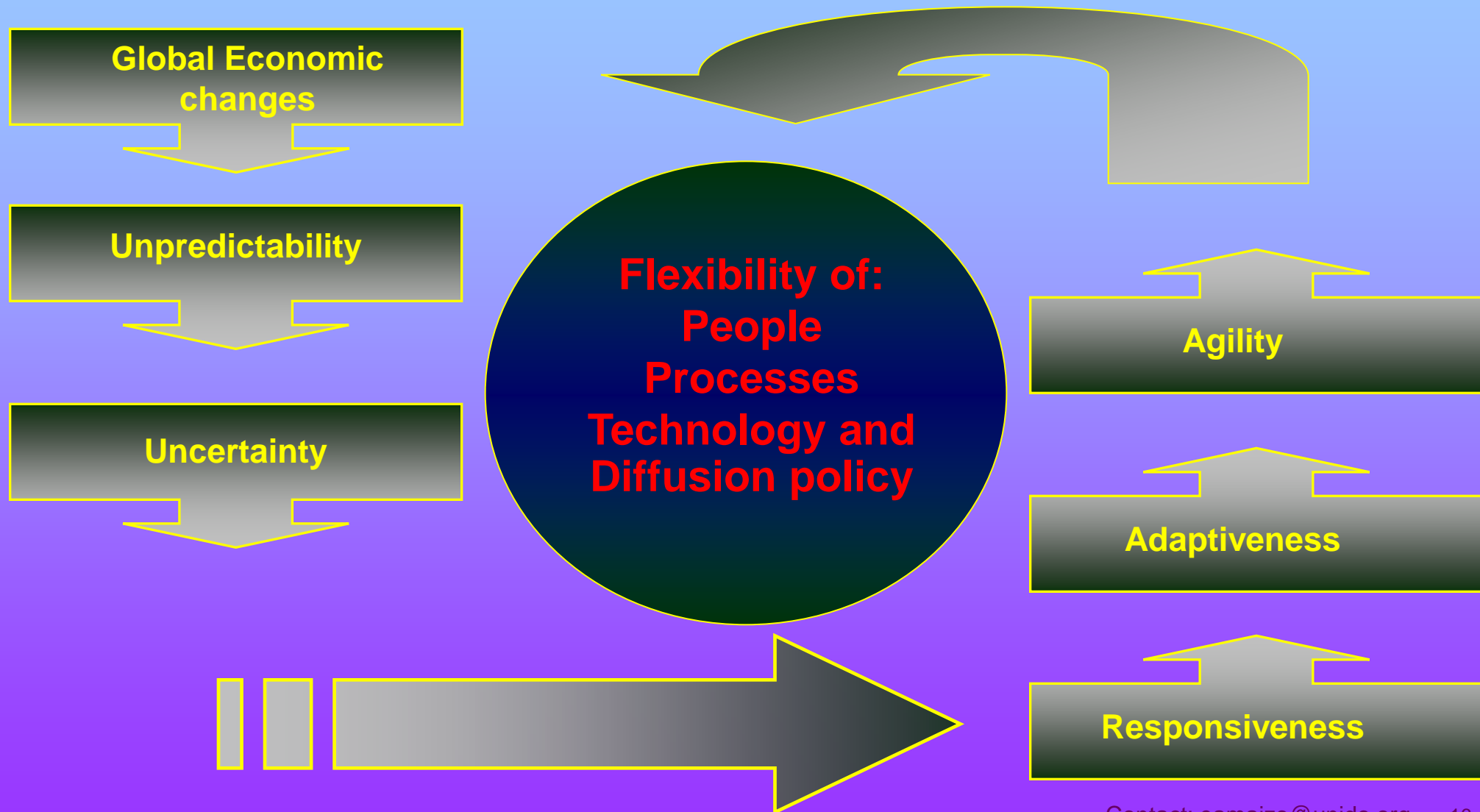
(in Percentage changes from preceding year)



Source: Data from ADFB, *African Development Report 2004*

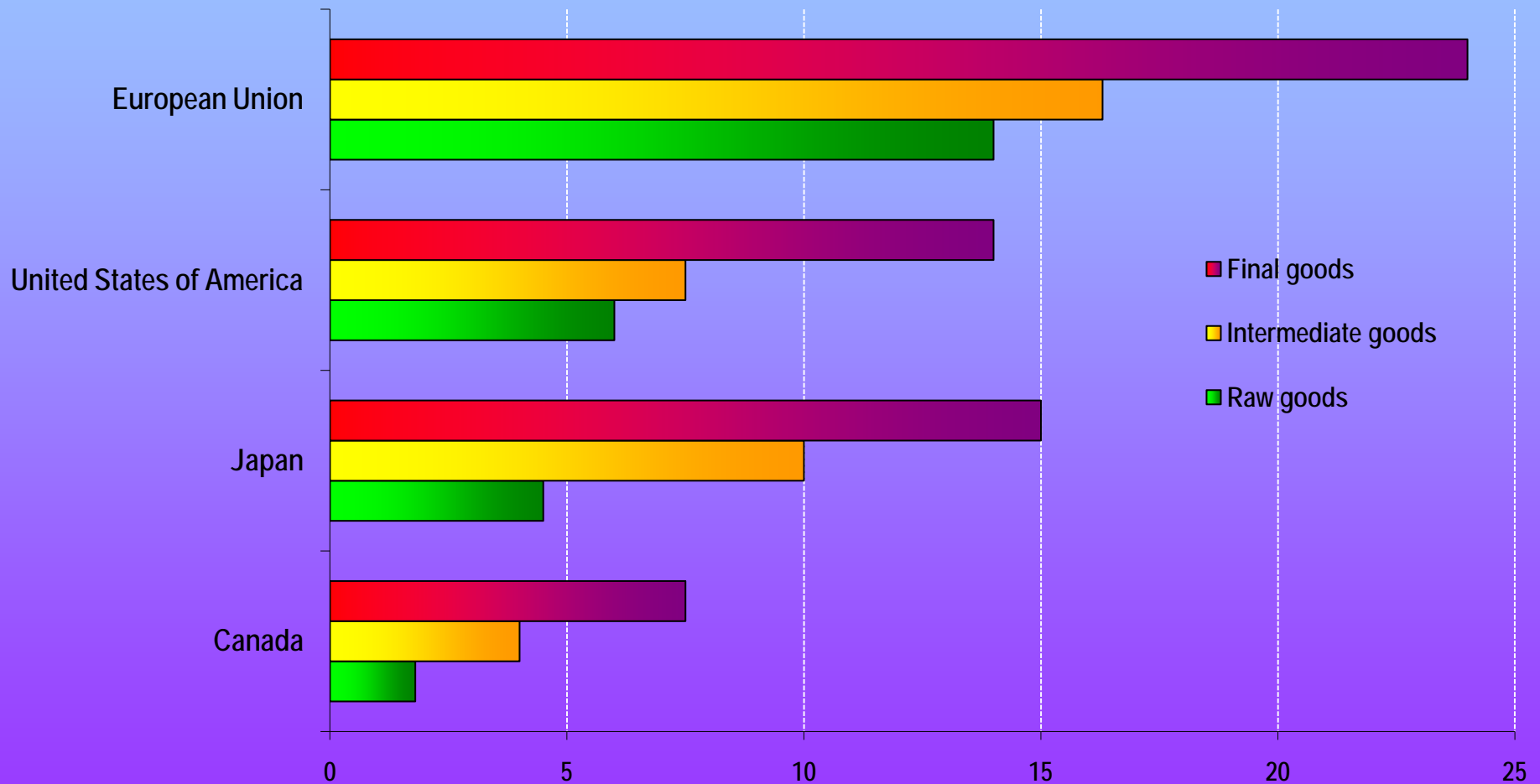
2. The new modernization process: Flexibility and Agility

The Chain of a structural change

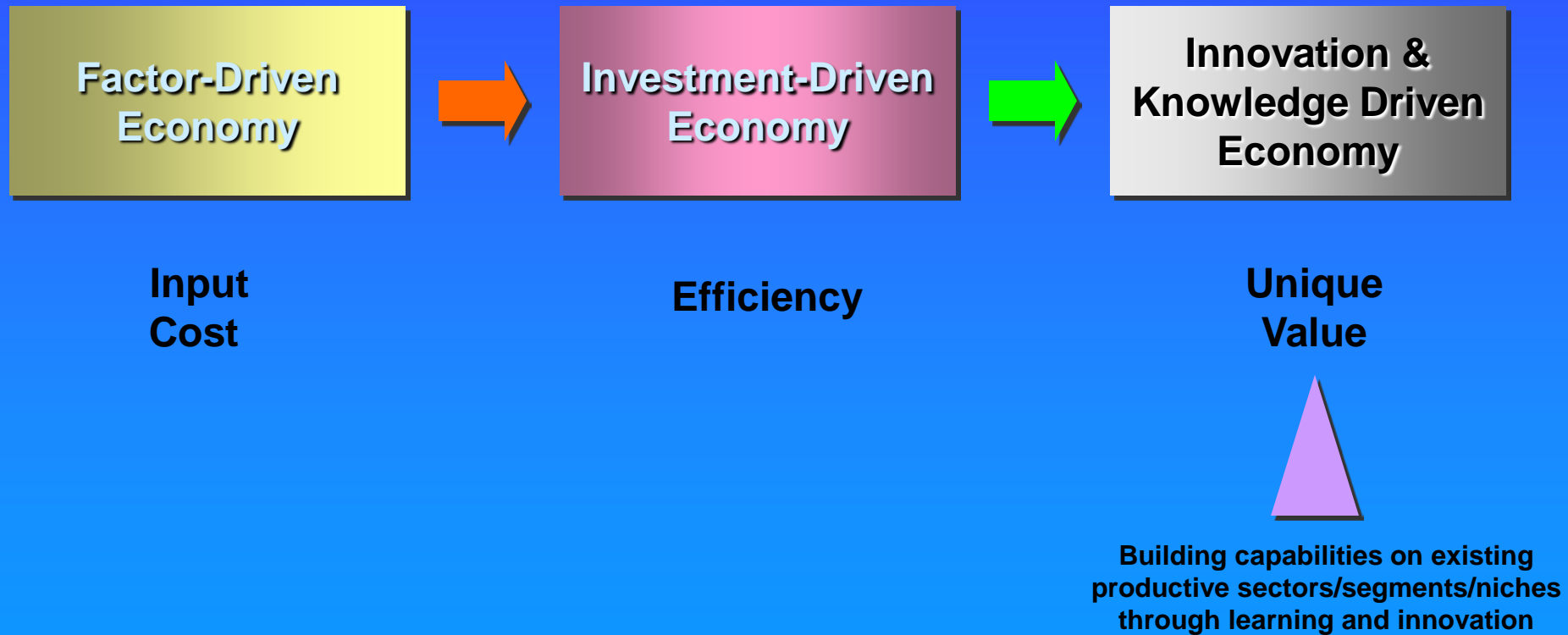


Major constraints: WTO/Doha challenge for Africa: Escalating tariff rates discourage development

(in %, simple mean tariff, 2004)

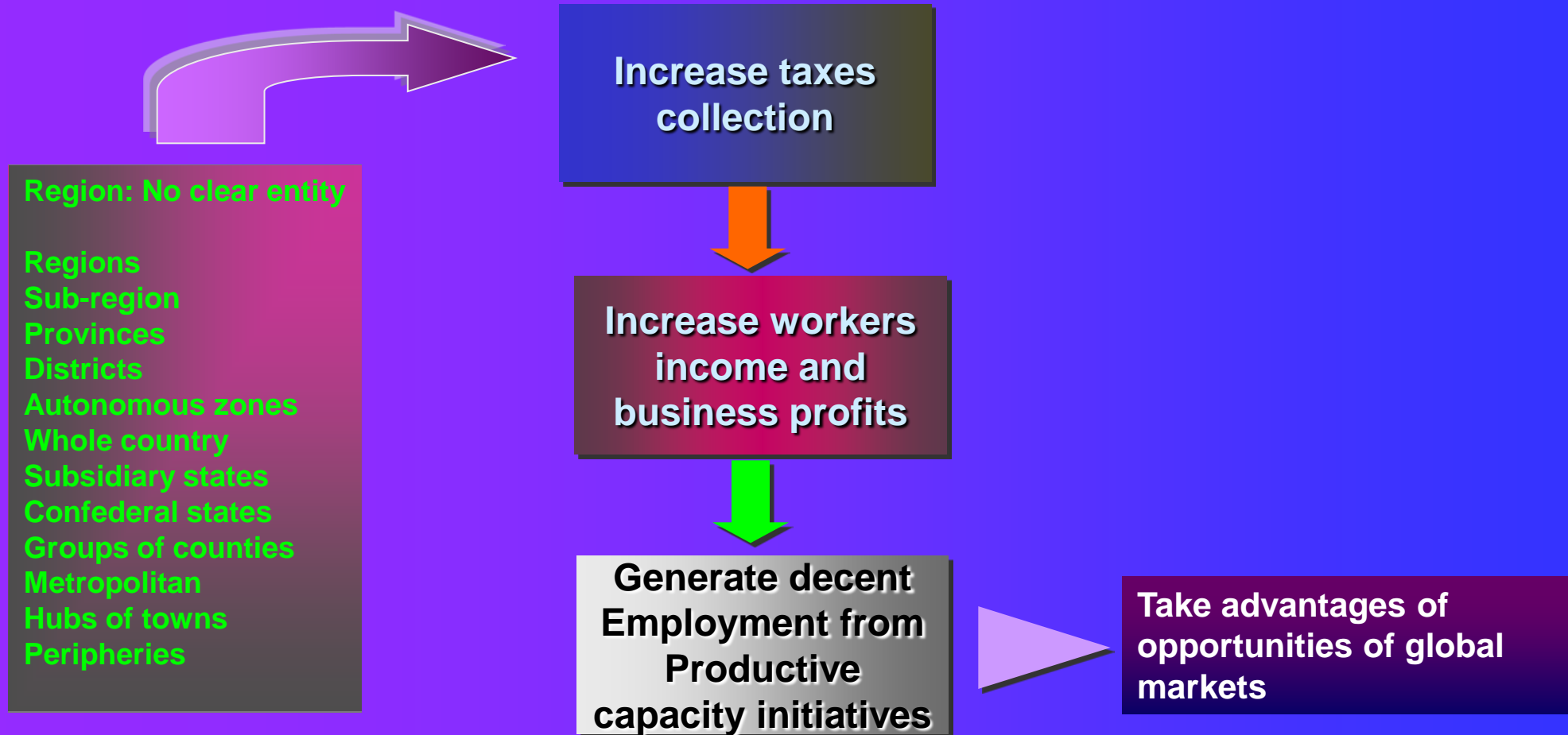


Stages Of Competitive Development : Towards a modernization process



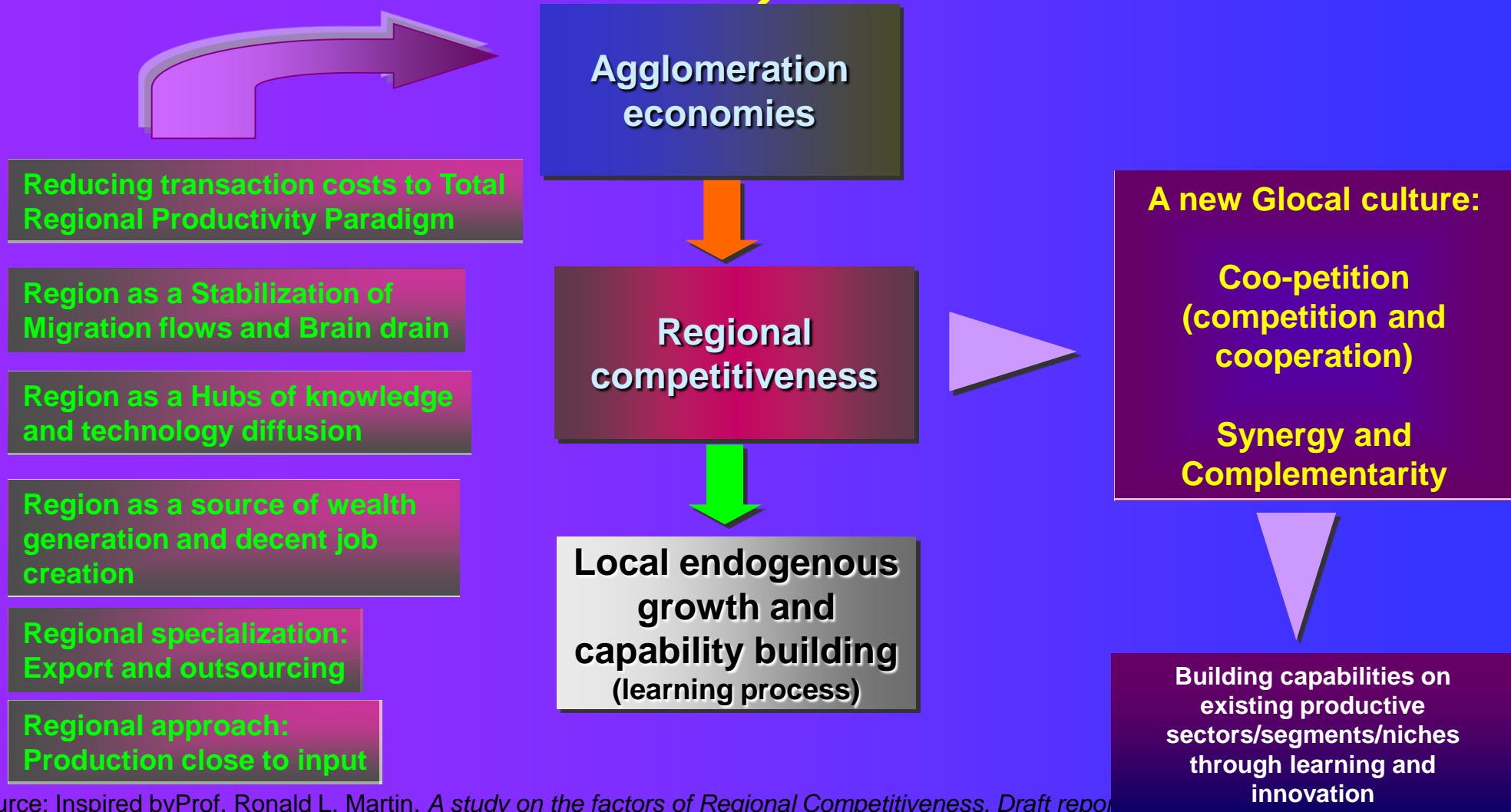
3. Regional competitiveness in Global Value chain :

Concrete objectives behind the improvement of Regional Performance



Regional competitiveness:

New industrial geography of production and intra-trade and exports



Source: Inspired by Prof. Ronald L. Martin, *A study on the factors of Regional Competitiveness*, Draft report for the European Commission, Directorate-General Regional Policy, European Union, university of Cambridge, 2005



Main regional factors of competitiveness:

Basic infrastructure
(road, rail, air, property)
Technological infrastructure
(ICT, Telecom, (large band, Internet
Knowledge infrastructure
(education, skills upgrading facilities,
business networking)
Quality of the Environment
(health, Housing, Green spaces, Cultural
interactions, safety and security)

Infrastructure and connectivity

Operational Public-Private Partnership Body (ies) organized in a network and led by representatives of the Private sector (including finance)

Migration of skilled workers
Diversity of skills
Knowledge-intensive skills
Outsourcing possibilities
Subcontracting possibilities

Human Capital and skilled and agile workforce

Culture of entrepreneurship
(Risk taking culture, low barriers to entry)
Sectoral concentrations
Employment concentrations, complexity of the production system in a value chain, high value-added activities
Global integration
(Export/global sales, investment, business culture, nature of FDI)
Innovation
(Level of patents, R&D, Number of Research institutes, linkages between enterprises and Universities)
Governance and institutional capacity
Capital availability
Specialization and complexity
Sound competition
Support institutions to the Private sector

Predictable and productive environment

Regulatory and incentives roles of the Regional State or Government

Peers Review Mechanism

Identify Agile Regions and upgrade the less competitive ones

APCI: Sectoral Action plans (national levels)
Regional Road Maps (Regional levels)

5. Towards a Regional Watch system (Competitiveness observatory built on a network basis)

4. PPPB monitoring mechanism with Budget (led by the private sector on a rotative basis)

3. Peers Review mechanism with similar regions outside Africa (Study and experience sharing tours)

2. Classify regions according to selected criteria (GDP, Labour productivity, availability of skills and outsource possibilities, build sectoral drivers and regional scoreboard)

1. Identify potential driving factors

Value chains, Competitiveness, Diversification, Employment

Innovation is key for a competitive Region performing in a Global production networks system

- ✓ **A non-linear process**
- ✓ **Innovation cannot be limited to technological innovation, innovation in managerial, organisational, marketing, new use in new contexts or technology and knowledge, new thinking, new approaches**
- ✓ **Innovation cannot be exclusively limited to “high tech users” Traditional sectors are concerned**
- ✓ **Multiple Actors under Market pressure (Government, innovation councils, scientists, suppliers, customers, enterprises, competitors...) structured in clusters, technology parks, free-processing zones, technology incubators, science parks, Diaspora/Brain gain...)**

A broad Definition of innovation in a region:

1. **Identification and diffusion of a product, process, practice which is new in a region environment (building on dynamic products)**
2. **Everything that helps an enterprise adapt to a changing environment (productivity improvement and technological and organizational upgrading)**

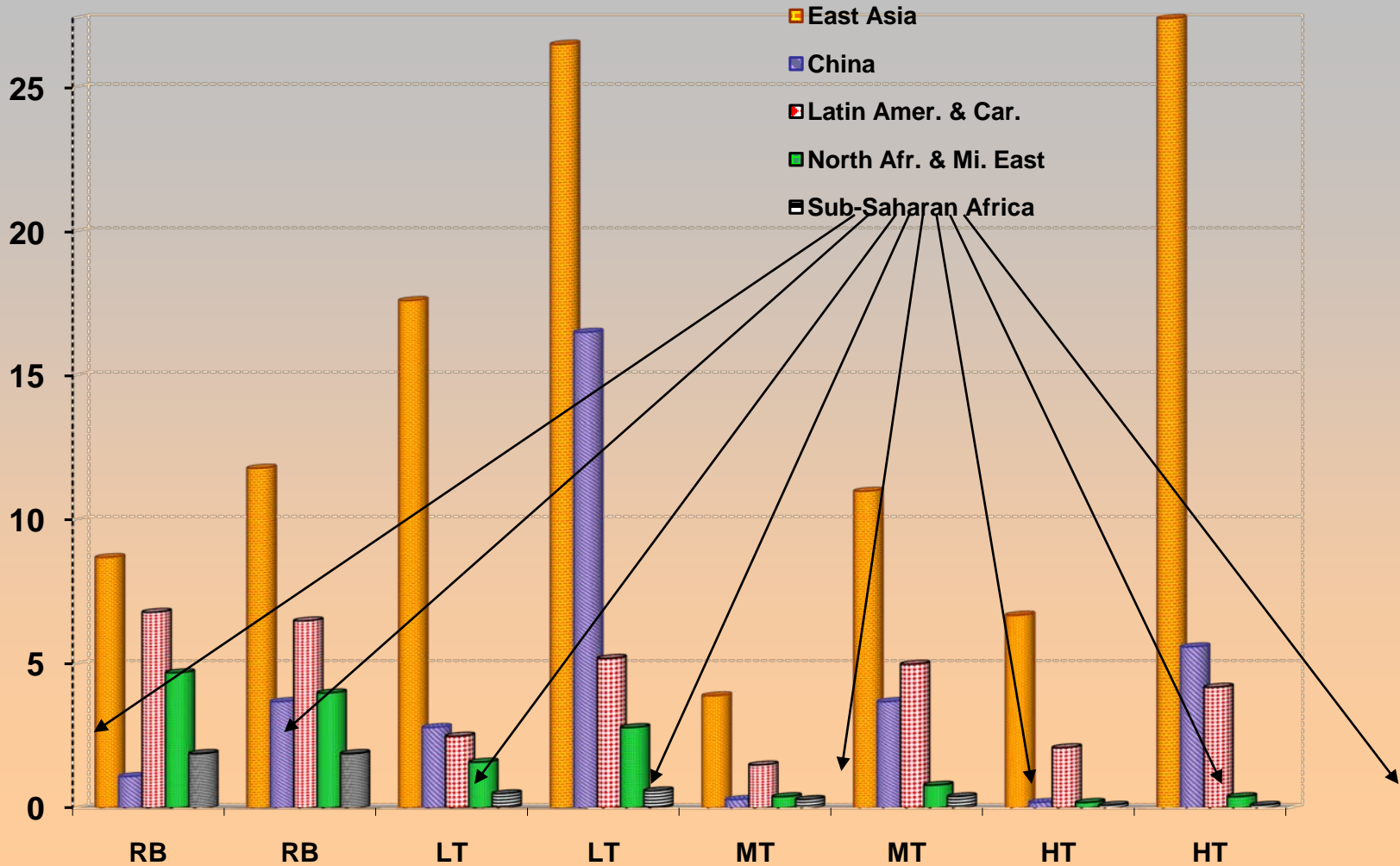
Innovation as part of an Agglomeration Process

- ✓ **Looking for a minimum critical level of added value combination and common features**
- ✓ **Hub of Competitiveness (concentration and synergies)**
- ✓ **Regional Competitiveness (convergence)**
- ✓ **Development of Cluster (specialization and agglomeration)**

Selected characteristics: Measuring competitiveness, using productivity

1. **R&D,**
2. **Win-Win Public-Private Partnership,**
3. **Creation and Diffusion of knowledge,**
4. **Fiscal and social incentives,**
5. **Networking,**
6. **Creating and maintaining jobs, Positive collateral effects,**
7. **Benchmarking with competitiveness indicators (drivers...),**
8. **Learning process,**
9. **Flexibility/Agility of enterprises,**
10. **Up-grading technological levels,**
11. **Modernization process...**

Technological content: Benchmarking World Regions, 1981- 2000



RB: Resources Based

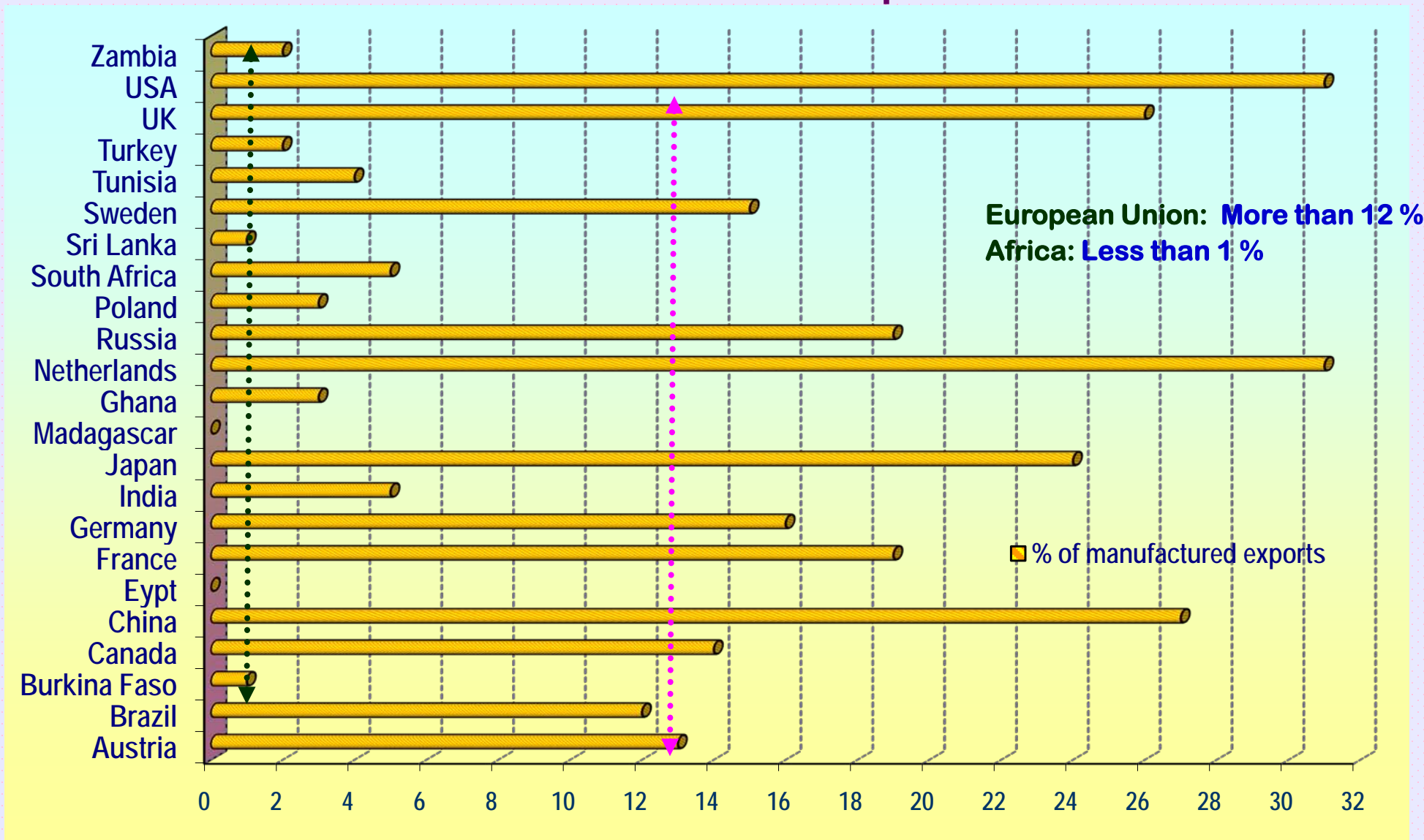
LT: Low technology

MT: Medium technology

HT: High technology

High technology exports

% of manufactured exports

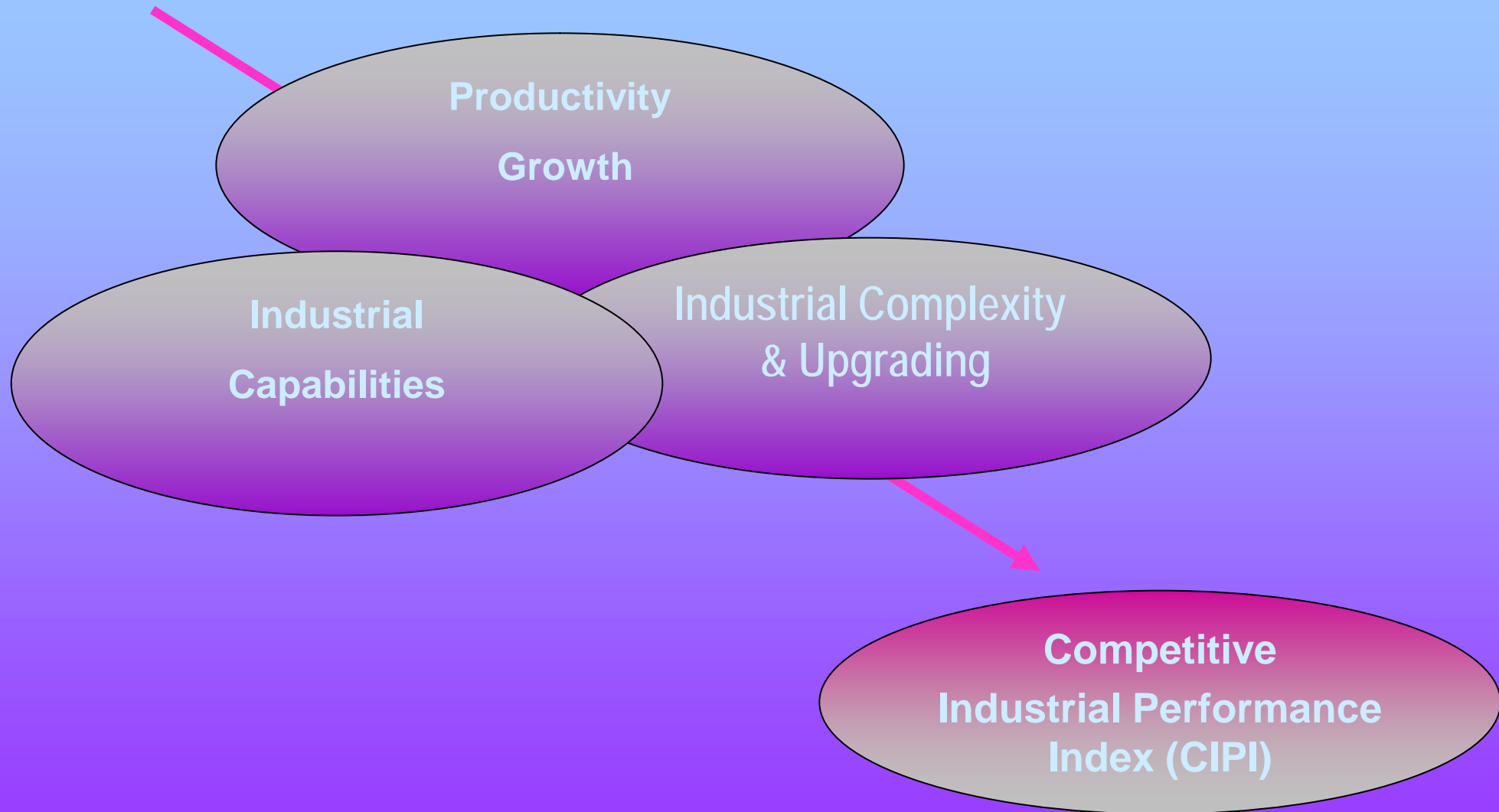


4. Measuring Industrial performance: A tool for Good Governance

Measuring Competitiveness using Productivity

- ✓ “Productivity depends on both the value of a nation’s products and services, measures by the prices they can command in open markets, and the efficiency with which they can be produced”
- ✓ Achieving high productivity in all sectors and at the regional level means that economies reached a high level of collective cohesion and coherence actions which could generate:
 - ✓ High wages
 - ✓ automatic upgrading process
 - ✓ Strong currency
 - ✓ Attractive returns to capital
 - ✓ High standard of living
- ✓ Competitiveness is defined as the ability to produce goods and services which meet the test of international markets, while at the same time maintaining high and sustainable levels of income with the ability of the agglomerated economies to generate with no special protection, relatively high income and employment levels”, Adapted from European Commission 1999.

UNIDO approach to measure industrial performance:



Industrial Performance:

“Attempt to qualify competitiveness in domestic and export markets”

Country’s industrial capacity and capability in domestic and exports markets

Country’s technological complexity and industrial upgrading

CIPI 1: Qualifying industrial performance

1. Industrial capacity

2. Industrial capability

3. 1 Industrial and technological complexity

4.1 Industrial upgrading

Component indices used in IDR 2002/2003

Manufacturing Value added per capita

Manufactured exports per capita

Share of medium and high technology activities in Manufacturing value added

Share of medium and high technology products in Manufactured exports

CIPI 2: Qualifying industrial performance

1. Industrial capacity

2. Industrial capability

3.2 Intensity of Industrialization

4.2 Export Quality

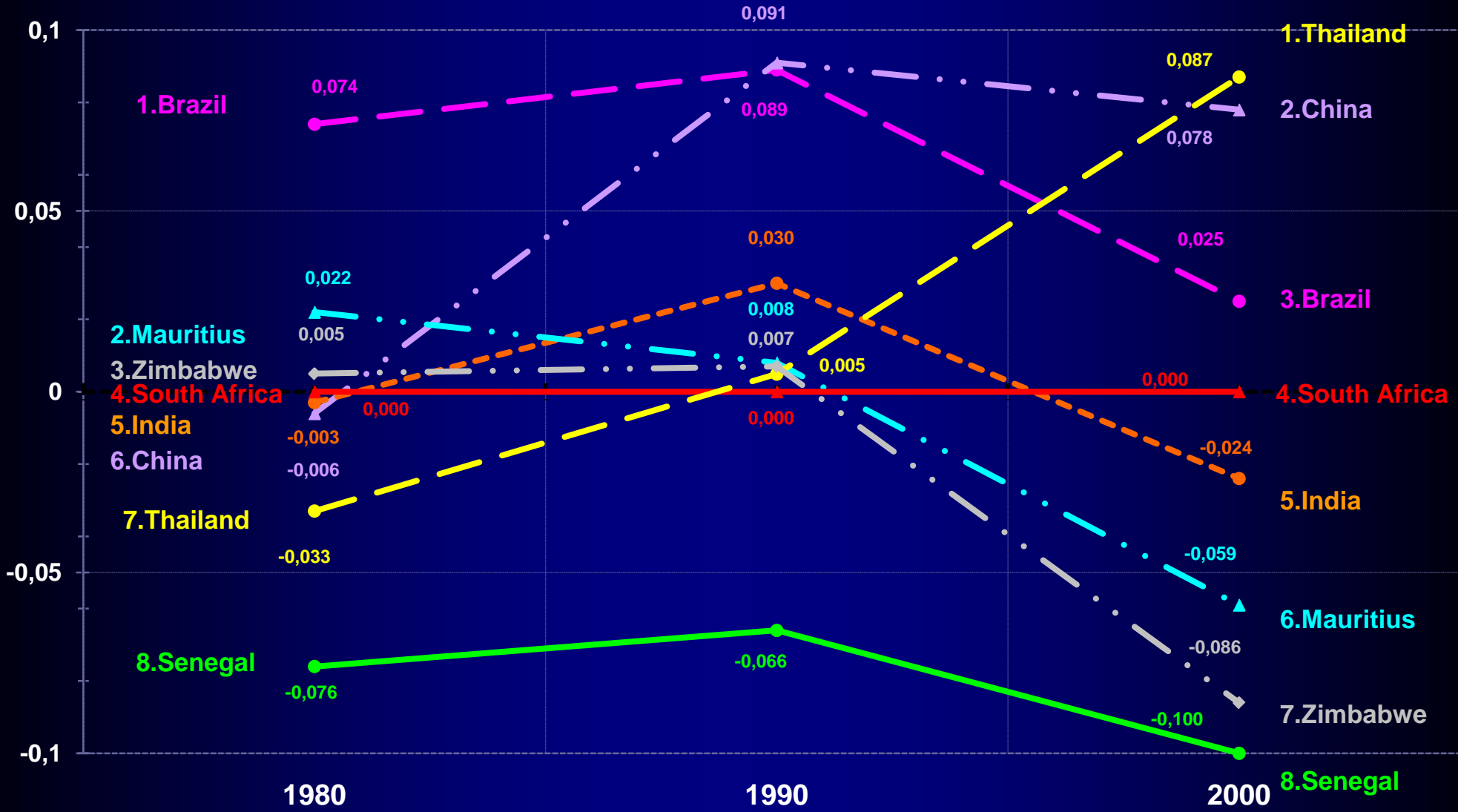
Improved Component indices used in IDR 2004/2005

Manufacturing Value added per capita

Manufactured exports per capita

a. Share of medium and high tech activities in Manufacturing value added
b. Share of Manufacturing value added in Gross domestic product

a. Share of medium and high technology in Manufactured exports
b. Share of Manufactured exports in total exports





5. Innovation and Learning at the enterprise level

Innovation and learning in global value chains:

- ✓ **Generating information and knowledge in at least three innovative directions: process, product and function**
- ✓ **Markedly improving inter-enterprise process and supply chain efficiency**
- ✓ **Important product development occurring both within and between linkages**
- ✓ **Internal enterprise process innovation as a new culture**
- ✓ **Gains in changing the mix of activities within enterprises and the global value chain through emphasizing design, finishing and marketing**

Supporting innovation and learning by firms

Institutional support to technological efforts of firms: Codification becomes crucial

Basic industrial services

- Promote inward investment
- Provide export services
- Provide management services
 - Collect marketing information
 - Collect data on exports and imports
 - Provide managerial consulting
- Provide financial services (accounting, tax assistance, investment advice)

Technology Information Centres

- Provide information technology to firms, including networks, software, Internet capabilities, intranet, and databases
- Perform troubleshooting, assistance, and repair to firms
- Provide training in informational technology applications

Metrology, Standards, Testing, and Quality Control Centres

- Define domestic standards
- Assist firms in meeting International Organization for Standardization (ISO) compliance standards
 - Train firms in ISO standards and regulatory requirements
 - Test products to ensure compliance with standards
 - Provide technical assistance to firms
- Help firms with calibration of instruments
 - Maintain calibrated standards and calibration equipment
 - Calibrate firms' machiner

Productivity Centres

- Improve quality
- Improve productivity, efficiency
- Provide training

Technological Extension Agencies

- Extend available technology to businesses lacking technical capabilities
- Help firms use cleaner production technologies
- Provide information on available technology
- Identify problems and use access to technology sources to solve problems
- Serve as external consultants and assist firms with trouble-shooting
- Promote cooperation of small and medium-size enterprises with larger research and cluster initiatives (South Africa MAC program)

Research and Development Laboratories

- Design new processes and products.
- Train businesses through demonstration, participation and extension
- Implement new technologies
 - Import and learn foreign technology
 - Adapt foreign technologies to local needs
 - Integrate these technologies into economy in collaboration with firms

The way forward: Five principles for National Strategy: Promoting Regional Innovation and Learning

1. Set priorities for **policy intervention** in line with the vision (Public/Private)
2. **Leverage national resources with foreign one** (as part of the global value chains)
3. **Public-Private Coordination** of the vision, the strategy, the framework conditions and the drivers
4. **Local capacity building** in terms of skills, knowledge, competencies and skills for operation
5. **Benchmarking with key actors** in the international community in strategy formulation

6. African Productive Capacity Initiative (APCI) and its Flexible Facility

**A well targeted programme-framework to
bolster the implementation of NEPAD**

Africa Productive Capacity Initiative (APCI): NEPAD component on sustainable industrial development

**The APCI is the policy framework for Africa's
industrialisation effort**

- ✓ **Comprehensive programme framework for developing value chains based on the existing strengths and competencies of organized groups of stakeholders active in promoting productive capacity at national, regional and continental levels**
- ❑ **Eight (8) core sectors: food processing, textiles and garments, mineral and metals products, woods and woods products, automobile equipment and assembly, pharmaceuticals and building materials**
- ❑ **Several cross-cutting issues**
- ❑ **Promoting Public Private Partnerships at all levels**

Full Support to APCI: From 2002 to 2005

UN, CAMI, UNIDO, NEPAD, AU, African Private Sector, UK Commission for Africa

1. **General Assembly Resolution 57/297, December 2002:** “Called upon the international community, including the UN System to channel its support for Africa’s industrialization efforts within the framework of the New Partnership for Africa’s Development”
2. **UNIDO’s and CAMI’s proposal was: Africa Productive Capacity Initiative (APCI)** CAMI Resolutions - **28 Nov 2003** and endorsed by UNIDO General Conference **5 Dec. 2003** as well as adopted as the sub-regional levels
3. **APCI was endorsed as the NEPAD component on Sustainable Industrial Development** and received support of African Union (African Heads of State in **July 2004**)
4. **APCI as the official follow-up to the former IDDA (end 2003), Report of the UN Secretary General on NEPAD implementation on Industrialisation** (A/59/206, **3 August 2004**, p. 8.)
5. **APCI adopted by the World Congress of the African Private Sector organized by the African Business Round Table, (Dakar, 19 Nov 2004)**
6. **APCI acknowledged by the UK Commission for Africa, March 2005**

Definition: the Africa Productive Capacity Initiative (APCI) is based on the value chain approach;

- ✓ A value chain is the sequence of production or value added activities leading to and supporting end users of a particular product: **From inception to final consumption**
- ✓ **Productive Capacity is the ability:**
 - ❑ **To produce goods that meet the quality requirements of present markets, and to upgrade in order to tap future markets.**
 - ❑ **Mastering the above through Public-Private Sector Partnerships should enable Africa to ensure its sustainable participation in the new global production settings based on production networks.**

Regional and Sectoral Priorities

in Support to Private Sector Development and Regional Economic Integration

ISIC* Rev. 2 or 3	8 Sectors	Eastern Africa	Central Africa	Western Africa	Northern Africa	Southern Africa
Food products, beverages and tobacco (ISIC 311/2/3/4)	Agro-food	Green	Green	Green	Green	Green
Textiles and wearing apparel (ISIC 321/2)	Textile and Garment	Green	Green	Green	Green	Pink
Leather and footwear (ISIC 331)	Leather and Leather products	Green	Light Blue	Light Blue	Light Blue	Light Blue
Wood and cork products (ISIC 331)	Wood and Wood products	Light Blue	Green	Light Blue	Light Blue	Light Blue
Metallic and non-metallic mineral products (ISIC 281, 361/2/9)	Mineral and Metallic products (processing of)	Light Blue	Light Blue	Light Blue	Light Blue	Green
Transport equipment (ISIC 384)	Auto equipment and assembly	Light Blue	Light Blue	Light Blue	Green	Light Blue
Chemicals (ISIC 351/2)	Pharmaceuticals products	Light Blue	Light Blue	Light Blue	Light Blue	Green
	Building materials**	Light Blue	Light Blue	Light Blue	Green	Light Blue

* Sectors are structured according to the International Standard Industrial Classification (Revision 2 or 3)

** Not anymore included in UNIDO technical assistance

*** Priority of selected countries in SADC

Source: Conclusions of the Ministerial sessions of various Sub-regional CAMI Meetings 2002 and 2003.

Cross-Cutting Priorities (estimated ranking)

in support to Private Sector Development and Regional Economic Integration

Promoting selected segments of the value chains or UNIDO Services Modules (i.e. Integrated Programmes):	Eastern Africa	Central Africa	Western Africa	Northern Africa	Southern Africa
Harmonization of <u>industrial strategies</u> and policies (including up-grading of statistical data)	2	2	1	6	1
Improving <u>quality infrastructure</u> and investment promotion	1	4	2	2	3
<u>Energy supply</u> especially in rural areas and modular costs	7	3	3	7	5
Information and communication technologies (use of Internet to <u>reduce transaction costs</u> in productive activities)	6	7	6	3	7
Focusing on <u>technology diffusion</u> , <u>clean production</u> and productivity	3	1	4	4	4
Conducive <u>regulatory and business environment</u> (support systems)	5	6	7	5	6
<u>Up-grading of skills</u> through learning and innovation process	4	5	5	1	2

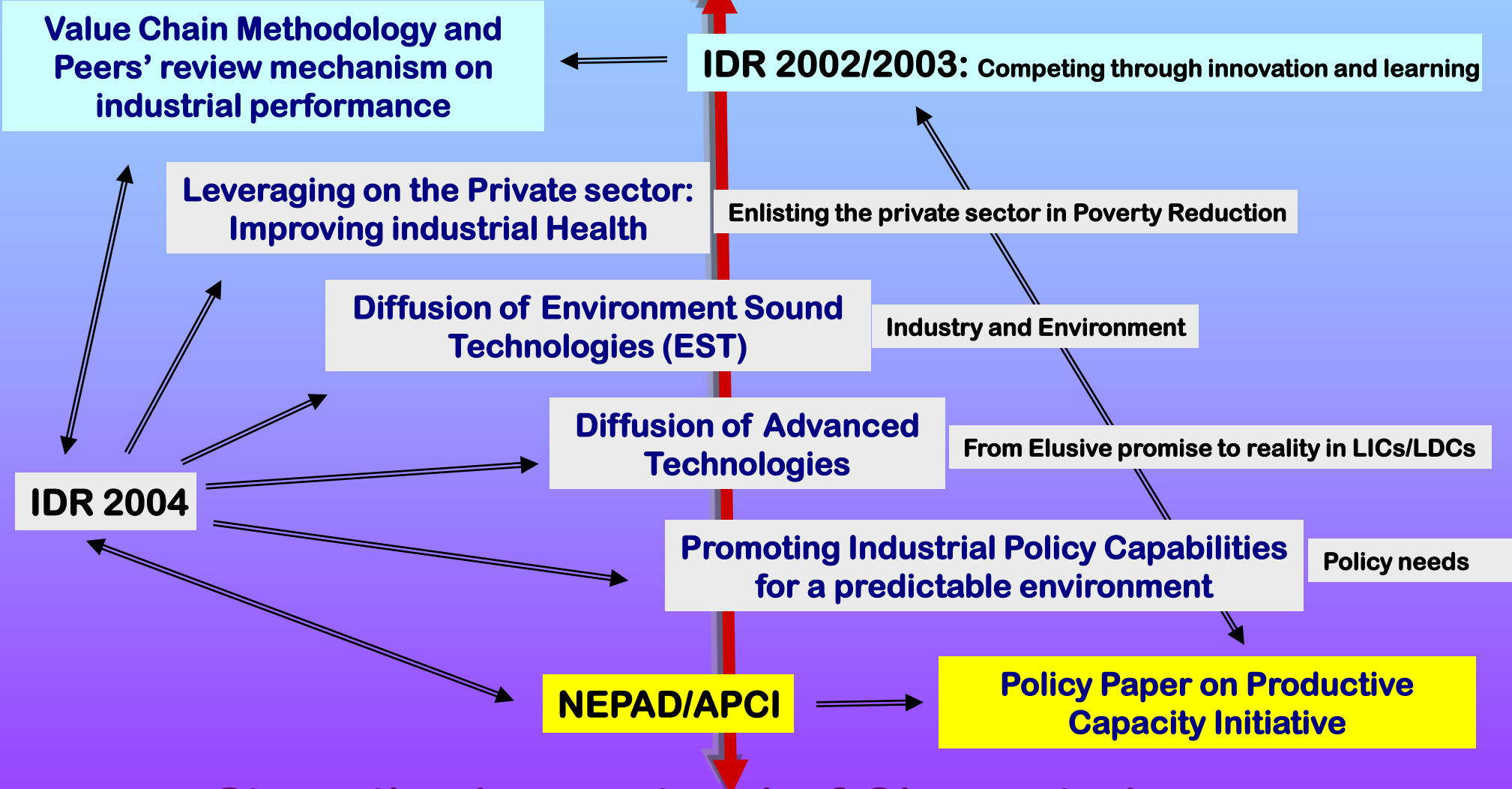
Source: Conclusions of the Ministerial sessions of various Sub-regional CAMI Meetings 2002 and 2003

The Flexible APCF (African Productive Capacity Facility)

- A set of resources dedicated to the support of regional and sectoral productive capacity initiatives
 - Loans
 - Loans guarantees
 - Grants
 - Technical assistance and expertise
 - Fiscal measures
 - Contribution in kind
- Marketing each identified financial stakeholders
 - Financial institutions (starting with IDB, WADB, ADB, BADEA...)
 - Private sector's contributions
 - Supportive Donors (Starting with Blair Commission, TICAD/Japan)
 - International organizations (UNIDO (seed money), UNDP, ILO, ACBF...)
 - Venture Capital
 - Governments' contribution (Cameroon, Nigeria)

Policy Dimension

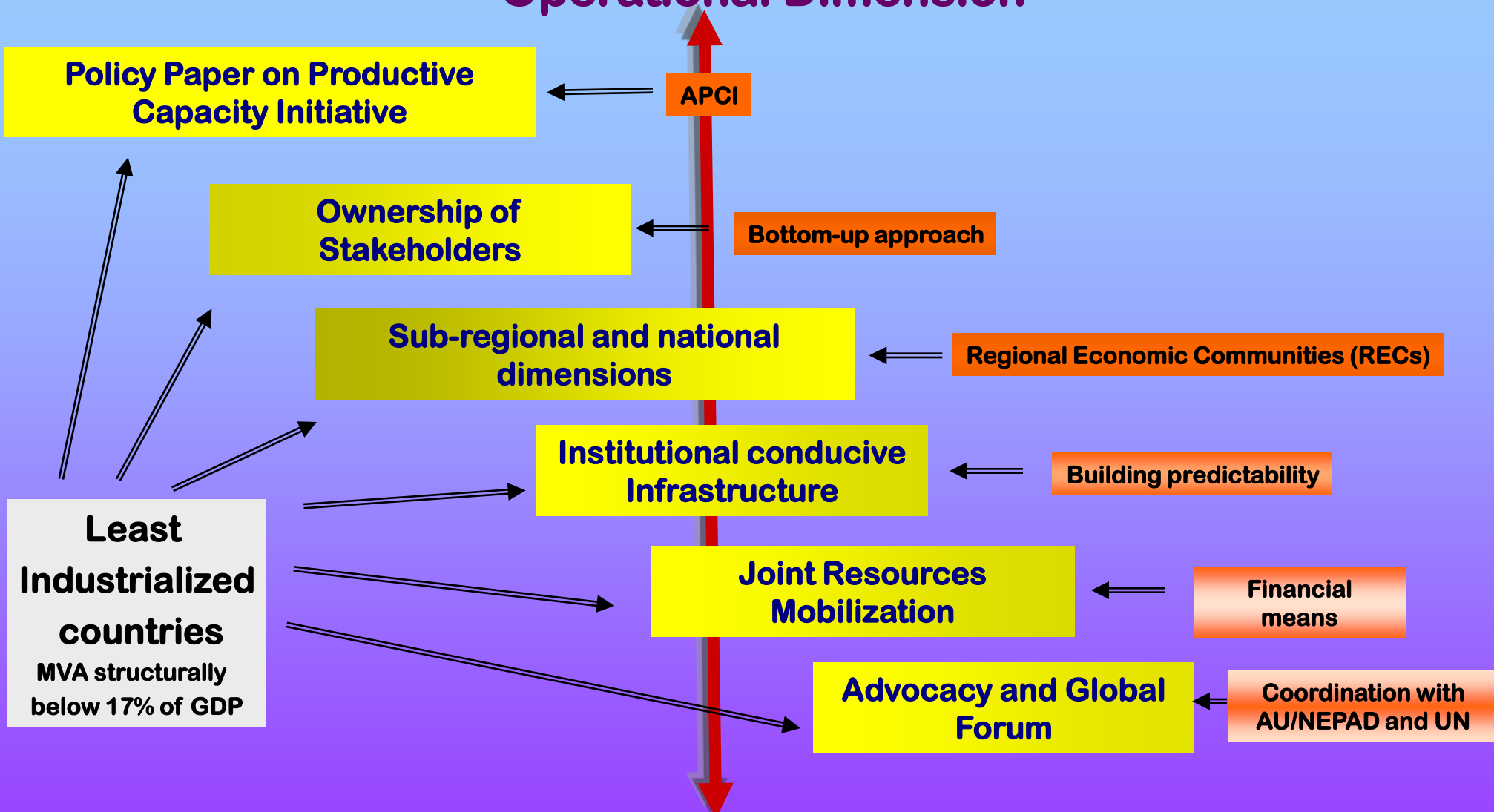
(endogenous development strategies?)



Strengthening a network of Observatories on competitiveness, Productive capacity and Employment



Operational Dimension

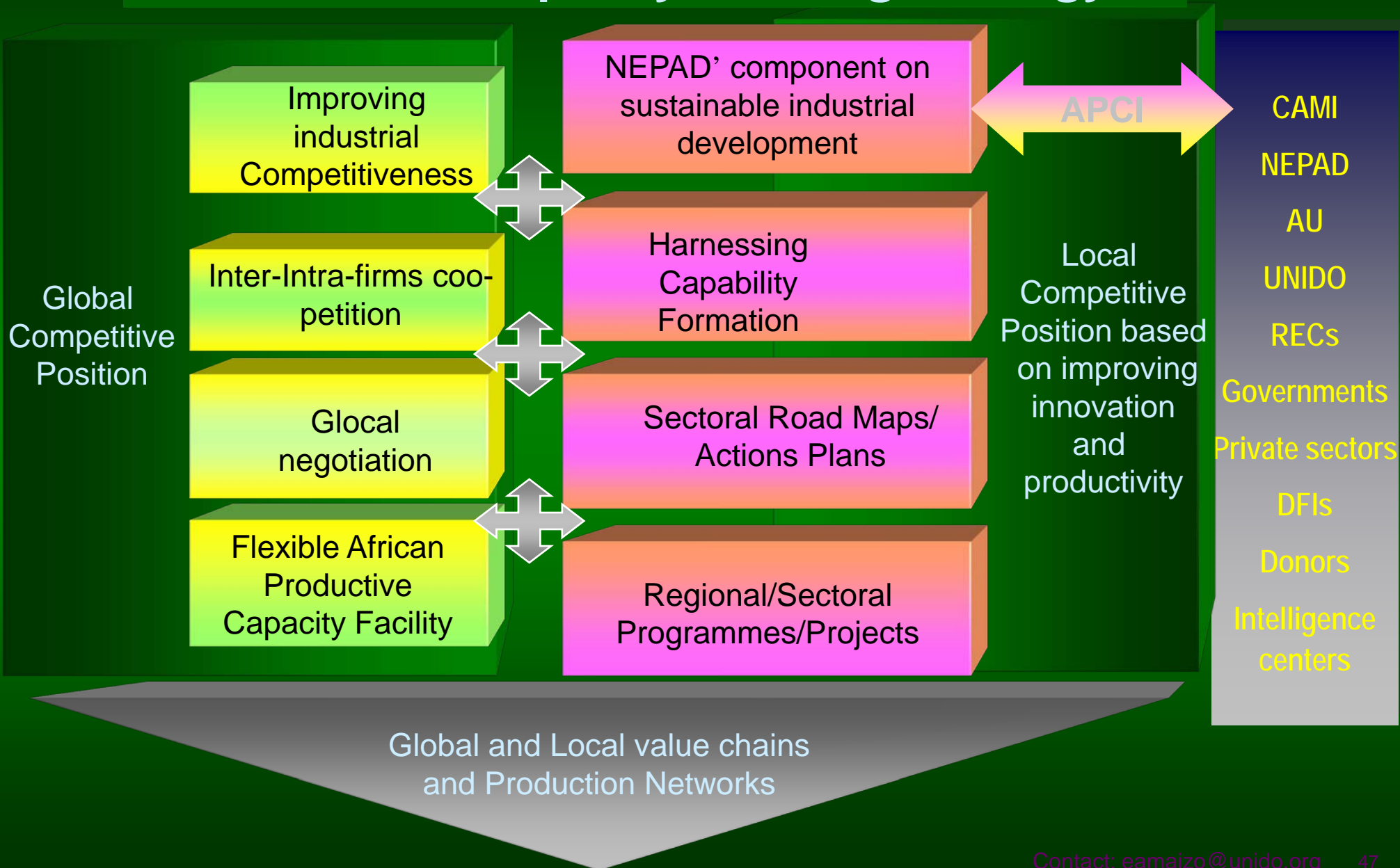


Building Joint Teams to raise awareness on Innovation, productivity and competitiveness

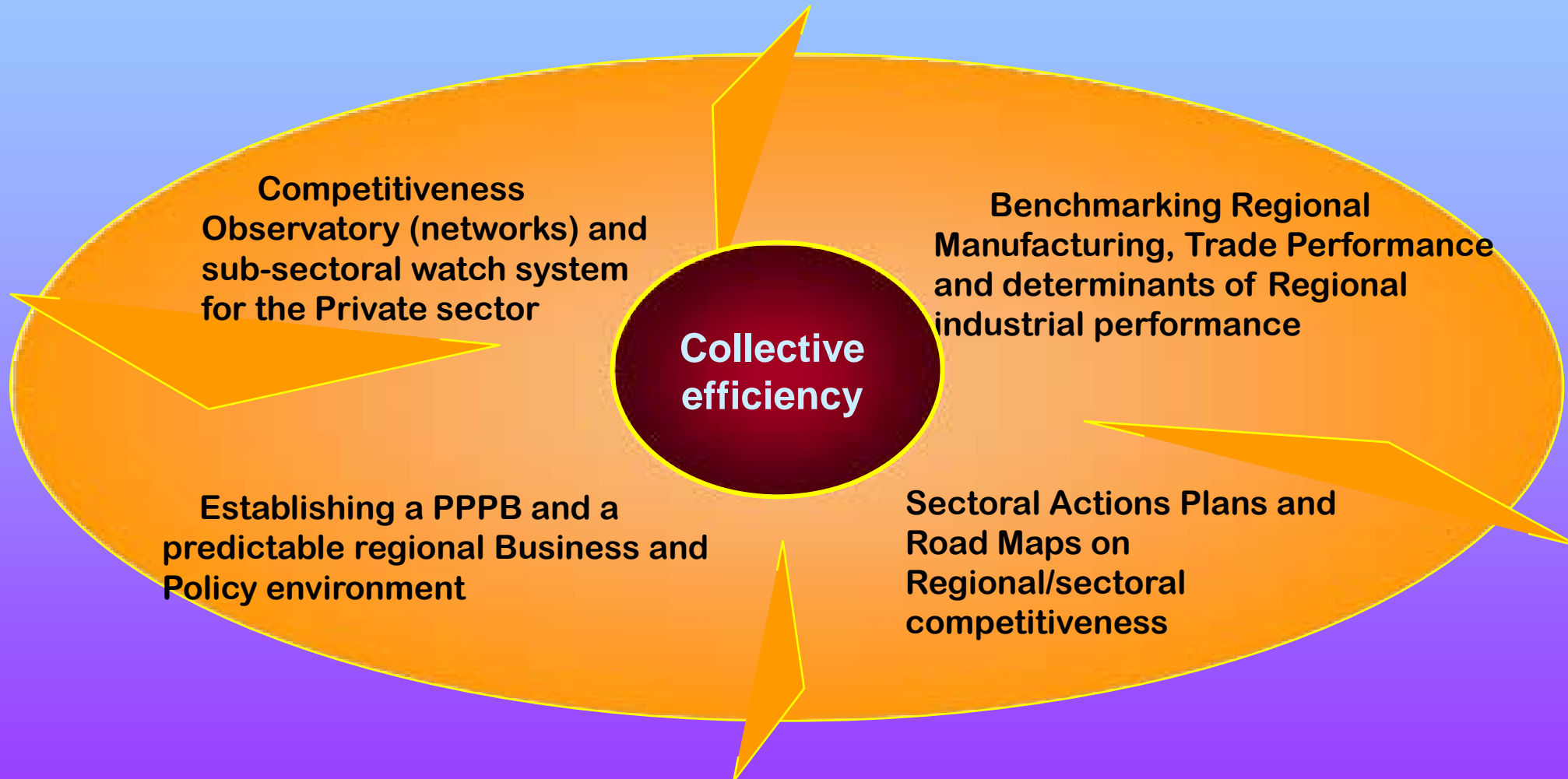
Conclusion: Promoting Agglomeration approaches

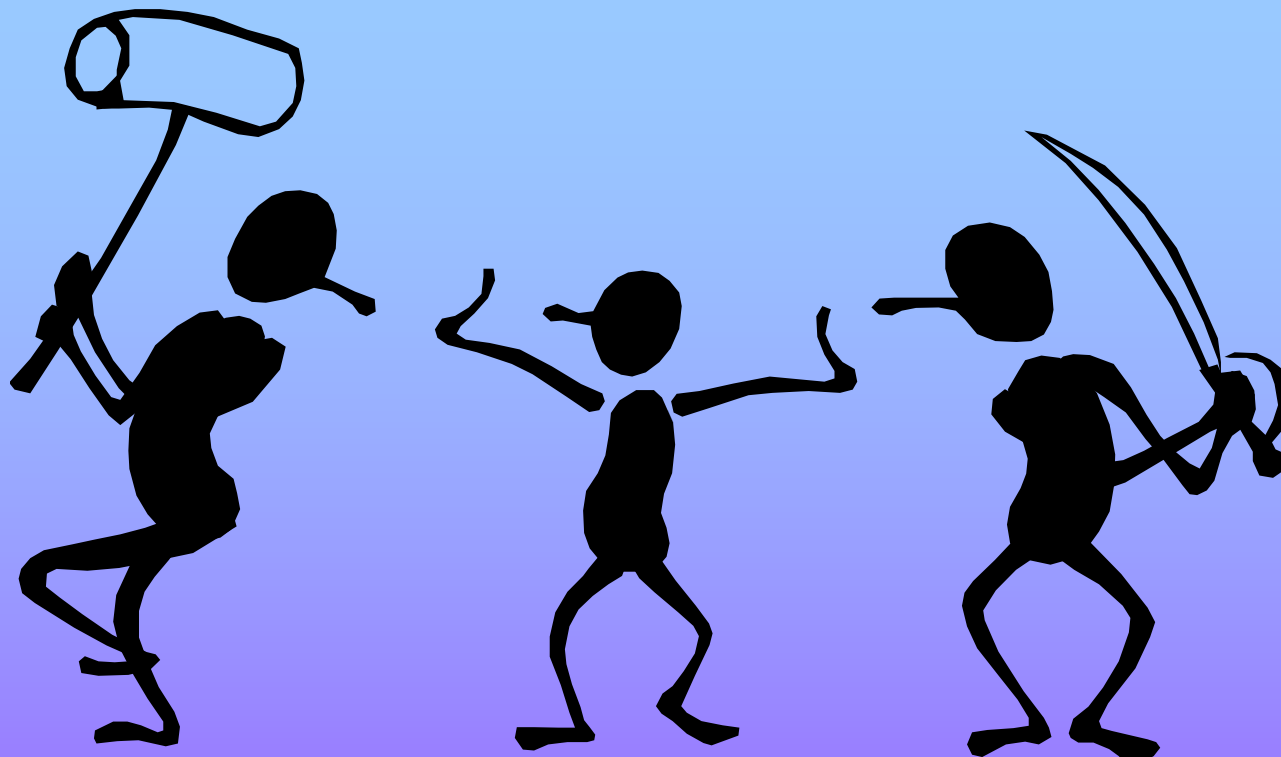


Productive Capacity Building Strategy



The Road Map on Regional Competitiveness





Discussions ?



Thank you for your attention!