



# *Ibero-American Conference in Engineering Education and Collaboration*

Initiative of Heads of State,  
Summit of the Americas

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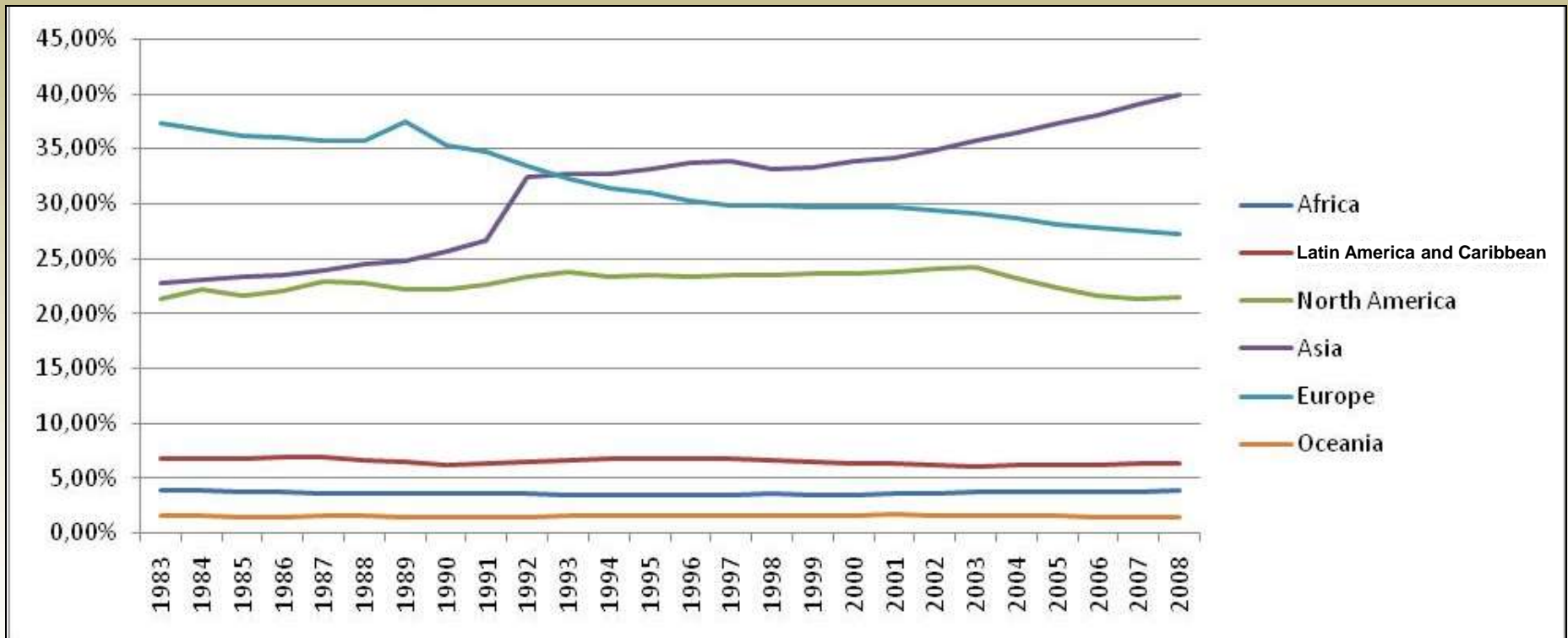
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# SUMMARY

- International Economic scenario
- The Knowledge Society and the double aspects of Engineering:
  - Innovation
  - Social responsibility and Sustainability
- Actions

# GDP EVOLUTION RELATED TO WORLD REGIONS



Source: World Economic Outlook, IMF

The Gross Domestic Product – GDP – is very far to be taken as the single parameter for development analyses; nevertheless, it is still an important reference.



# KNOWLEDGE SOCIETY

In the Knowledge Society,  
Engineering must be taken as an  
important area with two main  
aspects:

- Innovation
- Social Responsibility and Sustainability



# KNOWLEDGE SOCIETY (2)

Engineering has become an area of interactions between Schools of Engineering, the Productive Sector and the Civil Society, pointing its non technical characters, and its deep influence on wealth growth and inclusion.



# INNOVATION

- Innovation is the engine of wealth, and basic and applied research in Engineering must be fostered, always aiming new products and services
- It is strategically mandatory to build the capacity to transform information and knowledge in effective wealth, in an inclusive way



# SUSTAINABILITY

In 2002, in Johannesburg, the United Nations defined the Millennium Goals. Five basic items of infra-structure should be reached at the level of the developed world by developing countries by 2015:

- Water
- Energy
- Health
- Agriculture
- Bio-diversity

These 5 items are deeply connected to Engineering. Besides those 5 items, mechanisms of universal access to information must be designed.



# SUSTAINABILITY (2)

In 2008, during the World Engineering Convention, held in Brasilia, six logic axes defining a new way of practicing Engineering were established:

- Natural resources are limited.
- Today's Engineering professional must transcend boundaries.
- Engineering must be committed to unlimited social responsibility.
- Innovating means producing and not causing degradation.
- Access to information means not only connectivity but also being able to interpret reality.
- Engineering must be able to foresee the future and foresee its own systemic limits.



# EFTA AND POLITICAL SUPPORT

## Agenda of the 2nd Meeting of Ministers and High Authorities in Science and Technology

***“Science, Technology, Engineering and Innovation  
as tools for Prosperity”***

1. STEI and public policies for integral development
  - a) Social inclusion and cohesion
  - b) Sustainable food production
2. STEI as tools for sustainable natural resource management
  - a) Biodiversity, environment and biotechnology
  - b) Energy resources
3. STEI as tools for increasing productivity
  - a) Education and human-capacity building
  - b) Technological Innovation for competitiveness

***tailored-made support***  
**EftA obtains full support from agenda item #3**

# 2ND MEETING OF MINISTERS AND HIGH AUTHORITIES IN SCIENCE AND TECHNOLOGY

## *Science, Technology, Engineering and Innovation as tools for Prosperity*

### Article III. 5. of the Mexico Declaration:

Improve the quality of education in applied science, technology, engineering and mathematics, fostering certification and accreditation of engineering programs in the region, strengthening the links between the scientific-technological sector and the productive sector, including training for young people in entrepreneurship abilities and skills.



## Plan of Action



III.1. To review and update university engineering curricula to train engineers and technologists who are highly qualified and oriented toward applied sciences. The curricula should encourage entrepreneurship.

**III.6. To reinforce the Engineering for the Americas initiative by supporting work of the OAS to seek and obtain resources to fund its action program and launch it.**



# EFTA KEY STRATEGIES

## Engineering for the Americas™ (EftA)

1. **Educational Innovation:** To encourage the innovation and reform of engineering education and the implementation of new educational techniques that involve the productive sector as a key partner, motivator and collaborator in shaping educational improvements and activities that are relevant to market needs as well as foster a culture of life long learning.
2. **Accreditation and Quality Assurance:** To foster activities leading to an understanding to the importance, establishment or enhancement of quality assurance, methods of accreditation, and integration of national, regional and hemispheric systems.
3. **Job Creation:** To engage with Industry to create an ongoing real world experience for students, stimulate employment through internships and coops, and drive a sustained Industry / Academia interaction around producing appropriate outcomes.





# Thank you

# Gracias

# Obrigado

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