

FIDIC Annual Conference

**Consulting Engineers and the
Renewed Impetus in
Infrastructure Investments**

Cesar Queiroz

Lead Highway Engineer

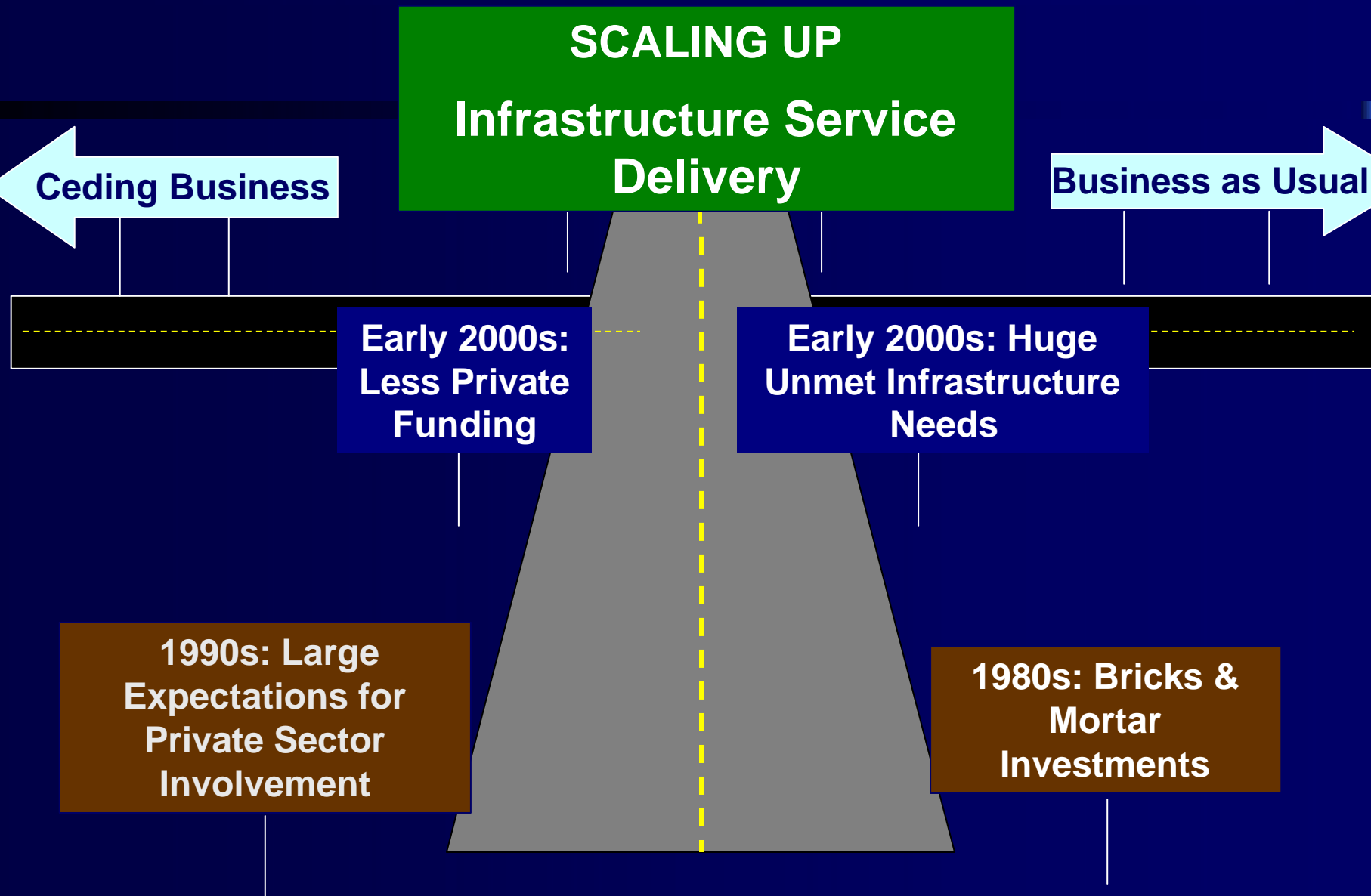
The World Bank

Copenhagen, September 13, 2004

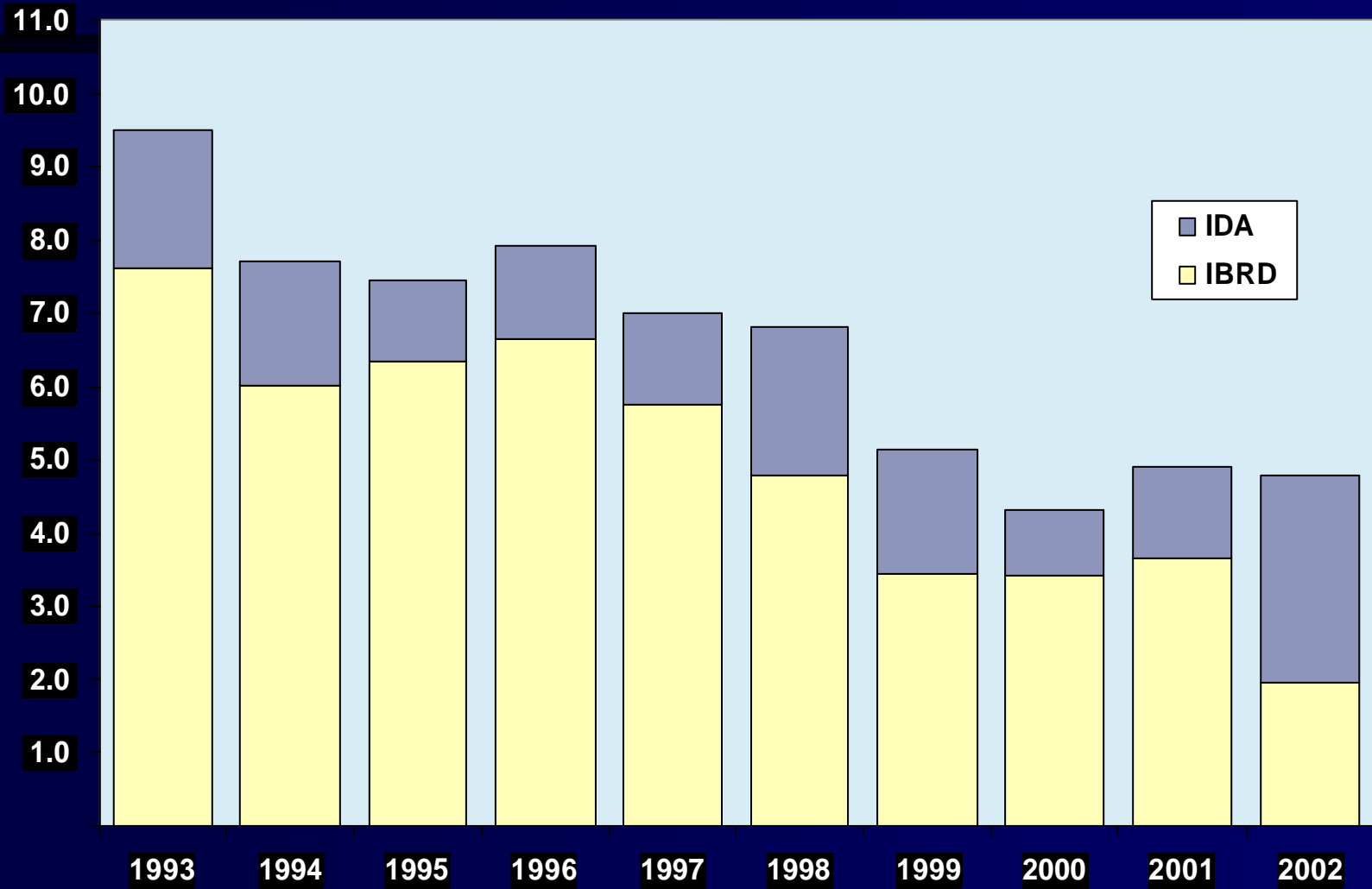
Presentation Outline

- The infrastructure business at a crossroads
- Public and private flows for infrastructure
- Infrastructure and the Millennium Development Goals
- Development of the infrastructure business
- PPP and public policy
- Opportunities and challenges for consultants
- Role of the business community
- Integrity management
- The engineer of tomorrow

The Infrastructure Business at a Crossroads

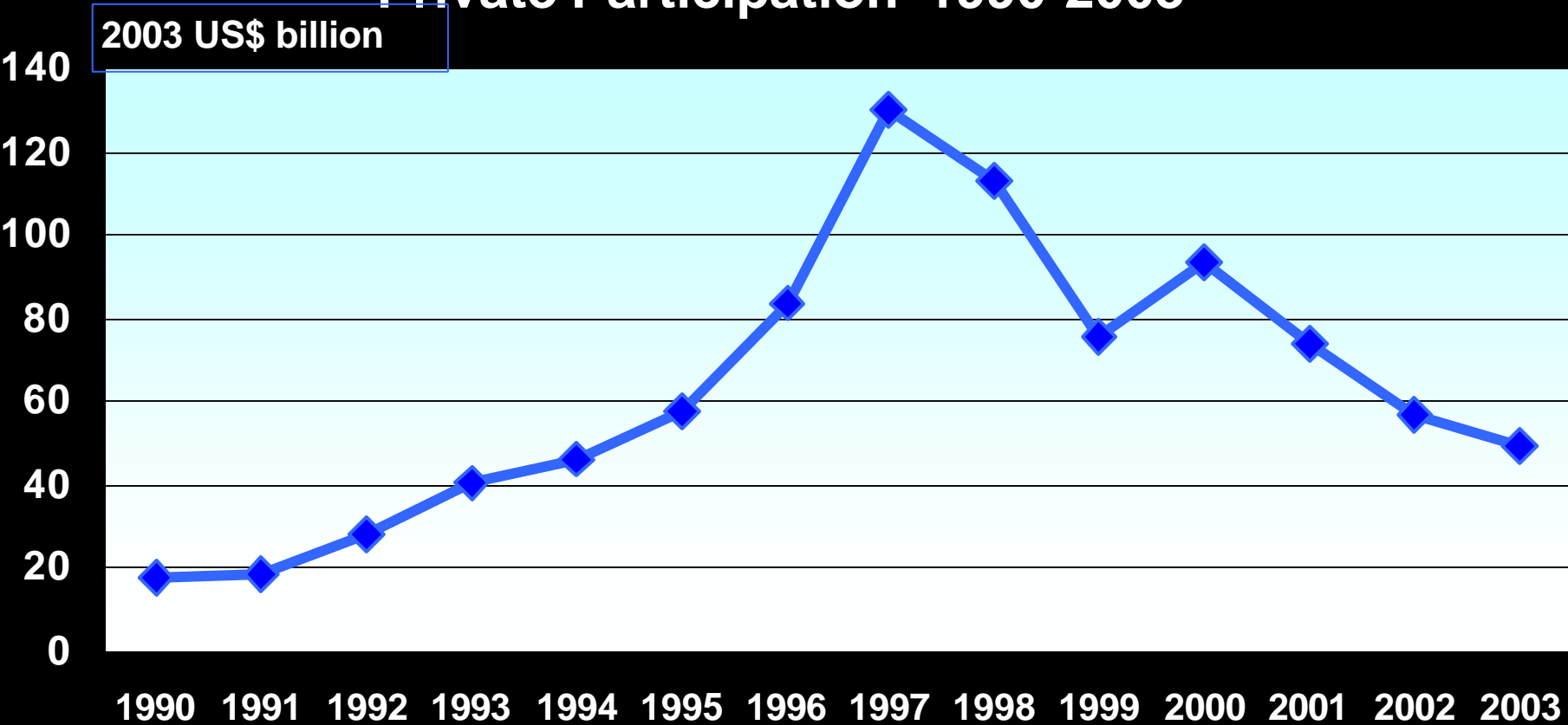


IBRD/IDA Infrastructure Investment Lending Declined



Decline in private sector flows for infrastructure after the late 1990s

Investment in Infrastructure Projects with Private Participation 1990-2003



Two Recent Changes Are Affecting Our Business

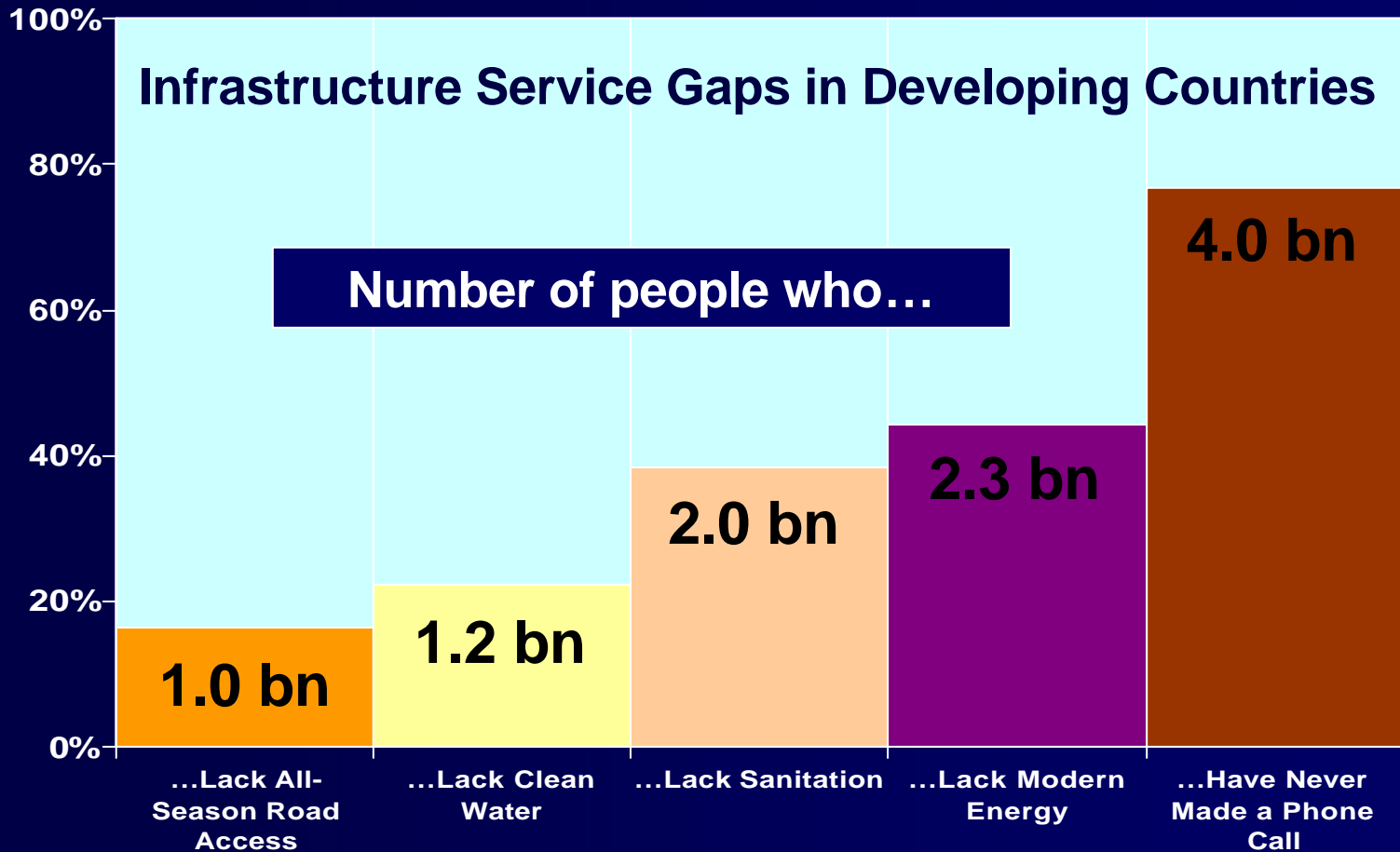
- 1. Decline in private sector flows for infrastructure after the late 1990s**
- 2. Increased recognition of the contributions of infrastructure services to the Millennium Development Goals (MDGs)**

Millennium Development Goals

- 1. Eradicate Extreme Poverty and Hunger**
- 2. Achieve Universal Primary Education**
- 3. Promote Gender Equality and Empower Women**
- 4. Reduce Child Mortality**
- 5. Improve Maternal Health**
- 6. Combat HIV/AIDS, Malaria and other Diseases**
- 7. Ensure Environmental Sustainability**
- 8. Develop Global Partnership for Development**

Increased recognition of the contributions of infrastructure services to the MDGs

% of Developing Country Population



The World Bank Response

- Offer a broad menu of options for public and private sector infrastructure provision
- Do a better job in demonstrating and communicating the development impact of infrastructure
- Facilitate the delivery of more just-in-time investment lending
- Remove policy constraints to increased use of guarantees as a way to engage private sector

Bank Group Infrastructure Business in 2-3 Years

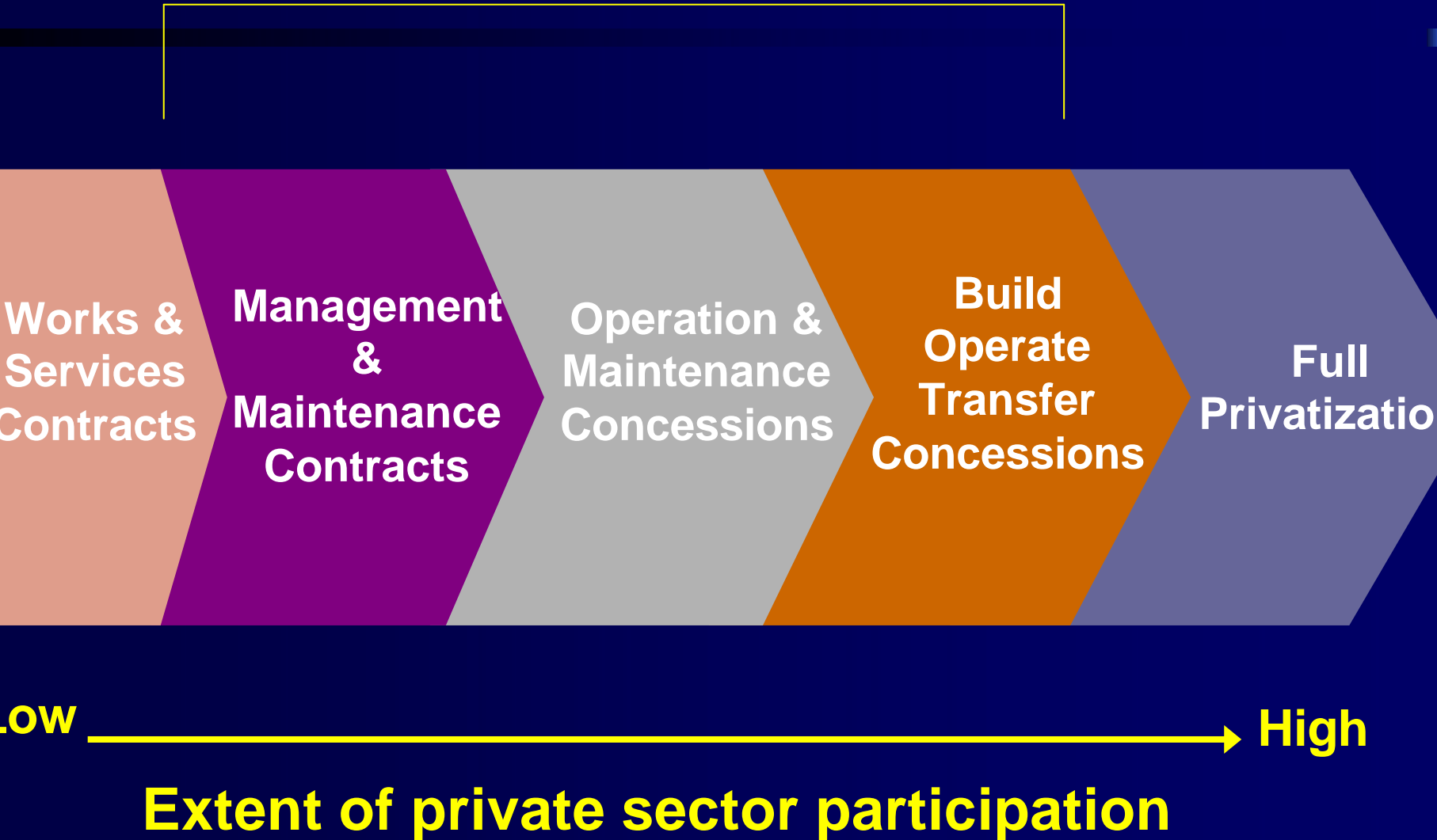
SCALING UP

Infrastructure Service Delivery
to Contribute to the MDGs

- o Increased pipeline for infrastructure projects
- o Improved quality of analytical work



Public Private Partnerships (PPP)



PPP and Public Policy

- **Proposed projects should be part of Government program**
- **Subject to full social cost-benefit assessment:**
 - to ensure public as well as private benefits
 - to establish need, and provide basis for public participation in financing
- **Concession award and agreement should:**
 - be well designed
 - be transparent and competitively procured
 - have clear rules for regulation of the concession

Some Future Challenges

- **Point-of-use charging**
 - Depends on ability to pay/willingness to pay
- **New toll collection technologies**
 - Reliability, take-up, back-office processing, etc.
- **Pricing sophistication**
 - Discounts (frequent user programs, resident discount schemes), peak/off-peak pricing, day-of-week, season-of-year, etc.
 - Dynamic/congestion pricing (by level-of-service)
 - Urban congestion charging

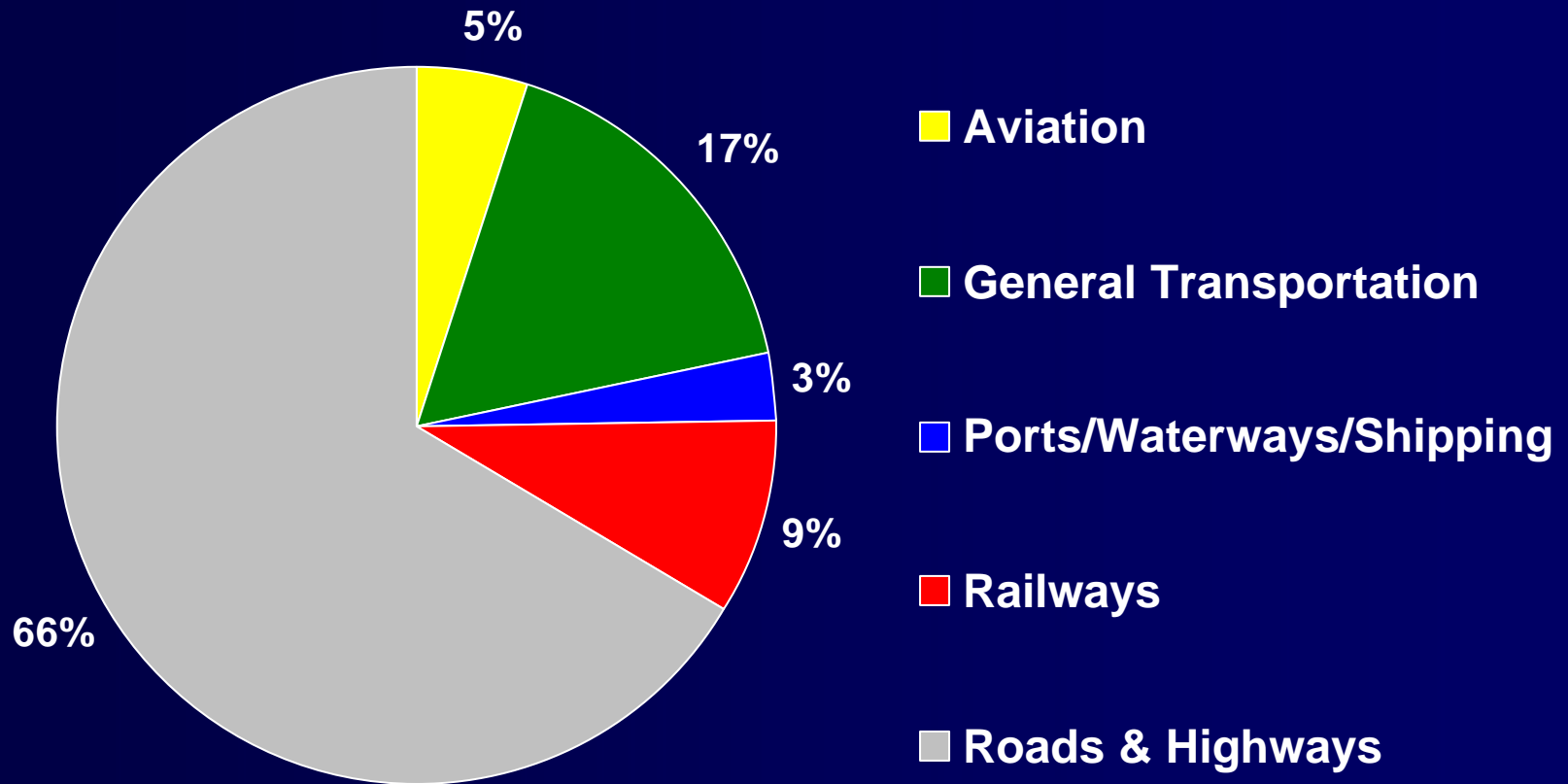
Some World Bank-related Sites

- **Toll Roads and Concessions**
http://www.worldbank.org/transport/roads/toll_rds.htm
- **Public-Private Options for Roads**
<http://rru.worldbank.org/Toolkits/PartnershipsHighways/>
- **Port Reform Toolkit**
<http://www.worldbank.org/html/fpd/transport/ports/toolkit.htm>
- **How to Hire Expert Advice on PPP**
http://rru.worldbank.org/Toolkits/Documents/Advisors/Full_Toolkit.pdf
- **Labor Issues in Infrastructure Reform**
www.ppiaf.org/Reports/LaborToolkit/toolkit.html

2004: Infrastructure Lending is Growing!

- **Increase infrastructure lending from \$5 to \$7 billion by mid-2005**
- **Transport to take the lead**
- **Increased analytical work**
- **Increase emphasis on measuring impacts**

Transport Lending 2002 to 2004: \$ 3 billion/year; 25 projects/year

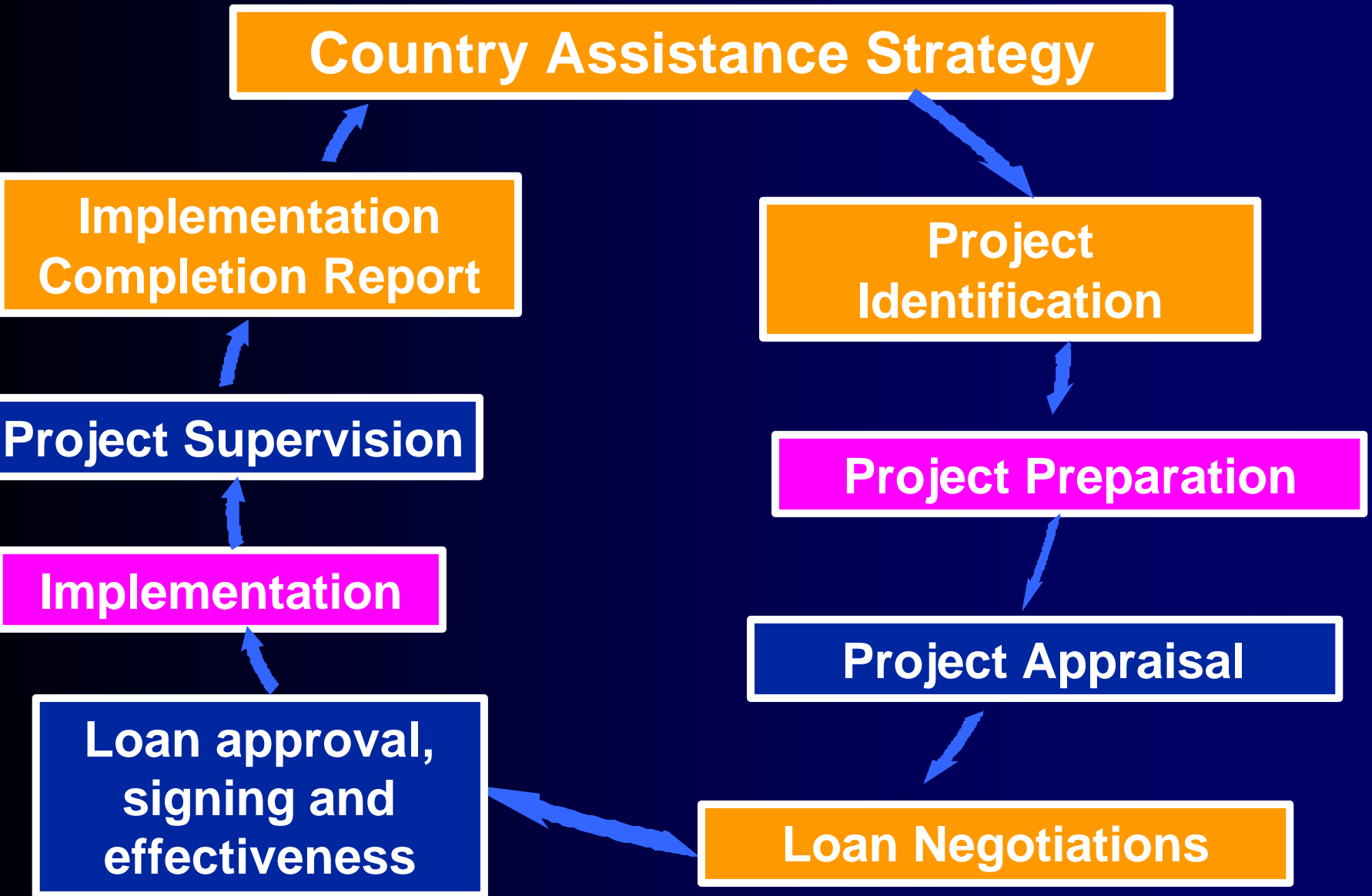


Objectives of the Transport Program

- **Promote economic growth, *through***
 - **Construction of trunk infrastructure**
 - **Improved maintenance and safety**
 - **Improved trade facilitation and transport**
 - **More efficient enterprises; more private sector involvement**
- **Alleviate poverty, *through***
 - **Provide infrastructure to serve poor rural and urban communities**
 - **Increased access to transport services**

Opportunities for Transport Consultants

- **Studies**
 - Plans and strategies, PPP
 - Poverty and transport
 - Links between transport and growth
 - Environment and safety
- **Design**
 - Highways and roads, transport logistics facilities, public transport facilities
- **Supervision**
 - Major civil engineering contracts



Joint activity

WB activity

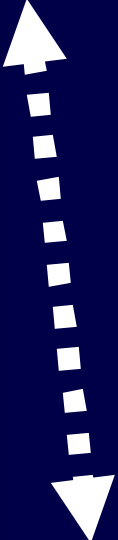
Client activity



Loan Agreement



**Prequalification
Bid Documents
Bid Evaluation
Contract**



Role of the Business Community

- ⇒ Read up on the Bank's lending strategy in specific countries/sectors**
- ⇒ Identify projects of interest by tracking the World Bank's website**
- ⇒ Market your expertise directly to the borrower of WB funds/grant recipient**
- ⇒ Understand the project cycle and procurement and consultant guidelines**

Role of the Business Community

- ⇒ **Continual academic interest to remain competitive**
- ⇒ **Intellectual curiosity to identify new fields (e.g., trade facilitation, transport security)**

Integrity Management

- James D. Wolfensohn's speech on the "cancer of corruption" in 1996: "the Bank Group will not tolerate corruption in the programs that we support"
- WB publicly names companies found to have been engaged in corrupt practices:
<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/PROCUREMENT/0,,pagePK:84271~theSitePK:84266,00.html>

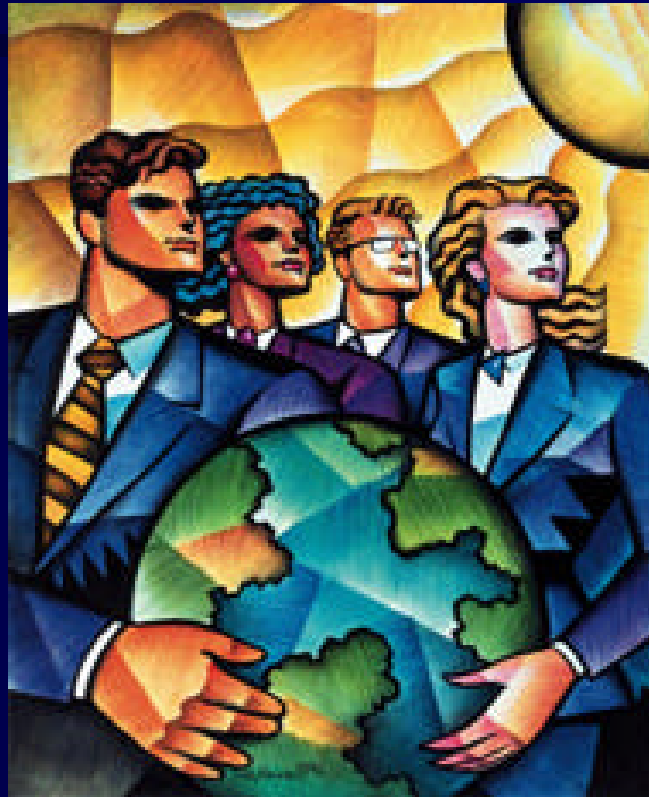
Integrity Management

- **Cost of corruption: \$1 trillion is paid in bribes each year (WBI research)**
- **The effectiveness of development assistance is predicated on an environment of integrity**
- **The consulting industry can serve as one of the key pillars in the struggle against corruption in the provision of infrastructure**

Economic Development, Infrastructure and Corruption

Economy	PRD km/mil pop	CPI
Low-income	170	2.1
Middle-income	1,660	4.1
High-income	10,110	7.7

The Engineer of 2020



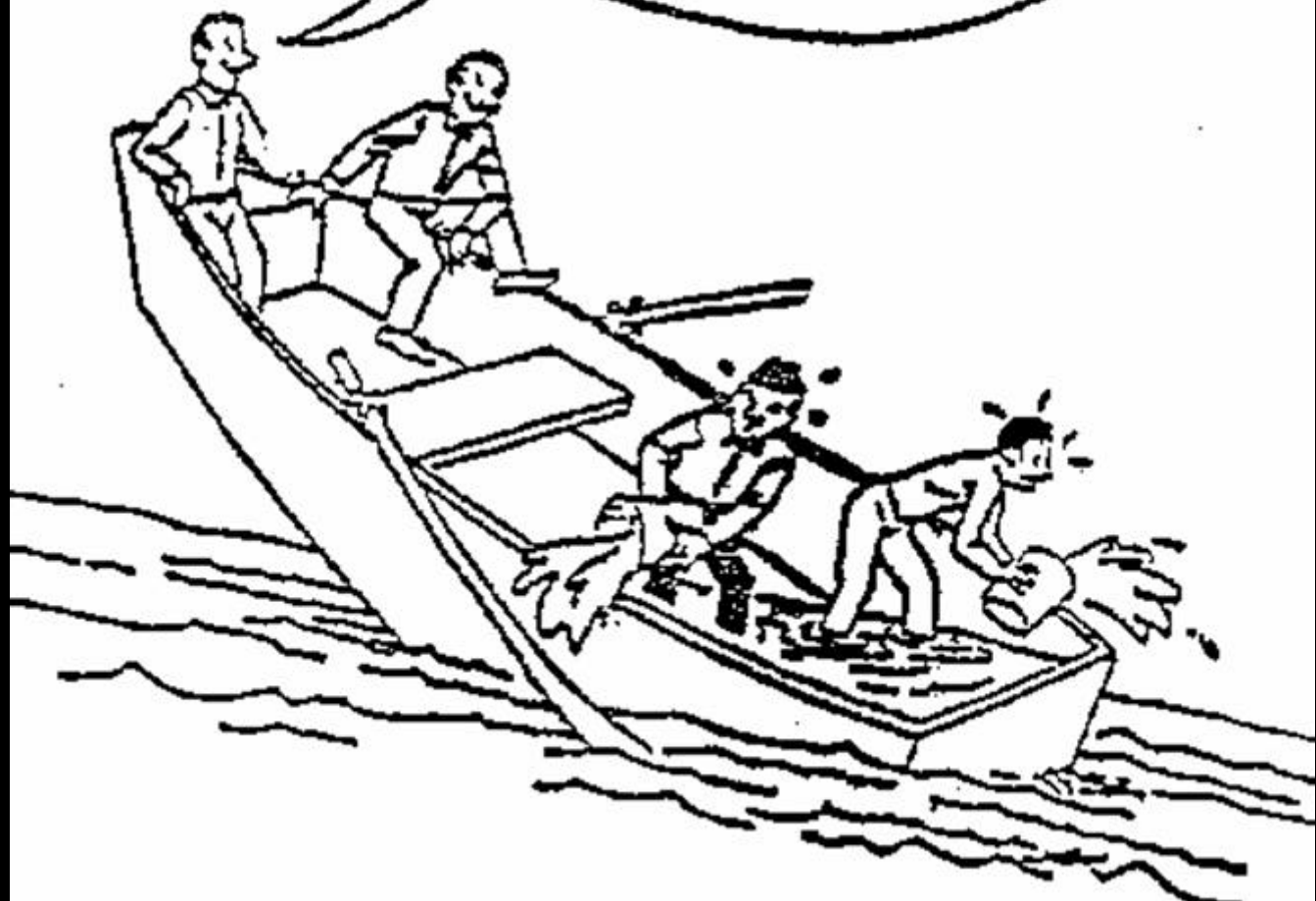
National Academy of Engineering
www.nae.edu

The Engineers of Tomorrow

- Need to adopt a new vision to ensure they are broadly educated, become leaders in the public and private sectors, and represent all segments of society
- Factors that could define the world in 2020 include new breakthroughs in biotechnology, natural disasters triggered by climate change, and global conflicts driven by an imbalance in resources among nations

...and consequently we must be prepared to accommodate new social, economic, legal, and political constraints when planning projects. In other words, adopt a holistic approach to projects

I'm sure glad the
hole isn't in our end...



Thank you!