

IGU Strategy Committee (PGC B)

Study Group 1

World Gas Supply, Demand and Trade

Oran, Algeria
27th – 28th November 2012

Our tasks – as defined in the *IGU Triennial Work Programme*



PROGRAMME COMMITTEE B (PGC B) STRATEGY



Terms of reference – Study Group 1

Committee Objective

The Committee's principal objectives are

- 1) to analyse the forecasts, policies and economics affecting regional and global **gas supplies, demand and trade**;
- 2) to examine **wholesale gas price formation** and gas pricing trends for both indigenous production and international trade;
- 3) to share information on **company strategies** in relation to commercial and regulatory change;
- 4) to coordinate work on **the 2050 natural gas prospective**.

Firstly, **Global and Regional Gas Supplies, Demand and Trade Scenarios (from 2000 to 2035)**.

This study aims to:

- Develop gas demand scenarios based on different economic growth possibilities including the price elasticity of demand, potential development of alternative and renewable energy in the power sector, environmental regulation, etc.
- Analyse strategic issues related to the growth of global supply and demand of unconventional gas.

STUDY GROUP 1

The World Gas Supplies, Demand & Trade Study Group will:

- Continue to analyse regional scenarios and levels of uncertainty in gas supplies, demand and trade, by considering both the 2000 – 2035 timescale and identifying future scenarios that include the BAU and IGU green scenario
- Identify government policies and company strategies that affect:
- Indigenous gas supplies and exports including non conventional gas
- Local market development
- Development of alternative energies in the power generation sector
- Inter-regional trade
- Other stakeholders

What we need to achieve our target:

- Regional expertise for all world regions
- Market developments, role of gas in primary energy supply
- Local energy and natural gas policies
- Regional upstream developments and interactions
- Global view on international energy flows

World gas supply, demand and trade 2009 - 2012

- General approach:
 - World primary energy consumption by region
 - World gas supply and demand by region
 - Sectoral demand split (residential, industrial, power, ...)
 - Regional development of supplies
 - Global development of trade patterns
 - Time scale: 2010 – 2030
 - Two scenarios: „reference case“ and „green scenario“
- Methodology:
 - Utilise the most appropriate forecasting approach per region
 - „Regional focal points“ responsible for collecting best available local expertise
 - Green scenario could be a different approach for each region

- Methodology

- Bottom up: collect and structure data from all regions demand forecasts, production forecasts, infrastructure developments, policies

first hand data from experts with local experience

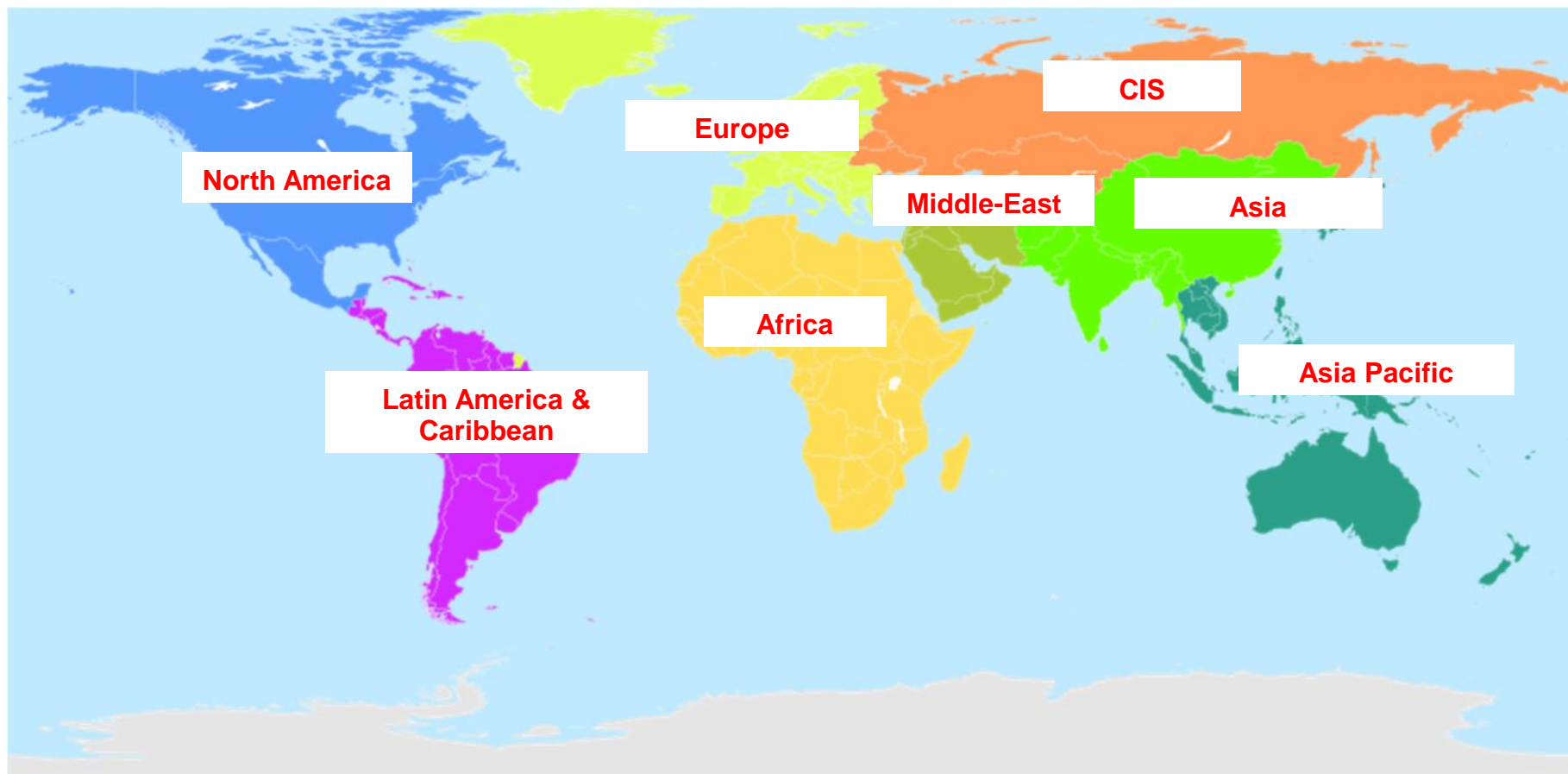
- Top down: generate meaningful result by assembling and reassessing global figures

guarantees consistency of the details in the global picture, generates additional insight on supra-regional effects

- Modeling tools:

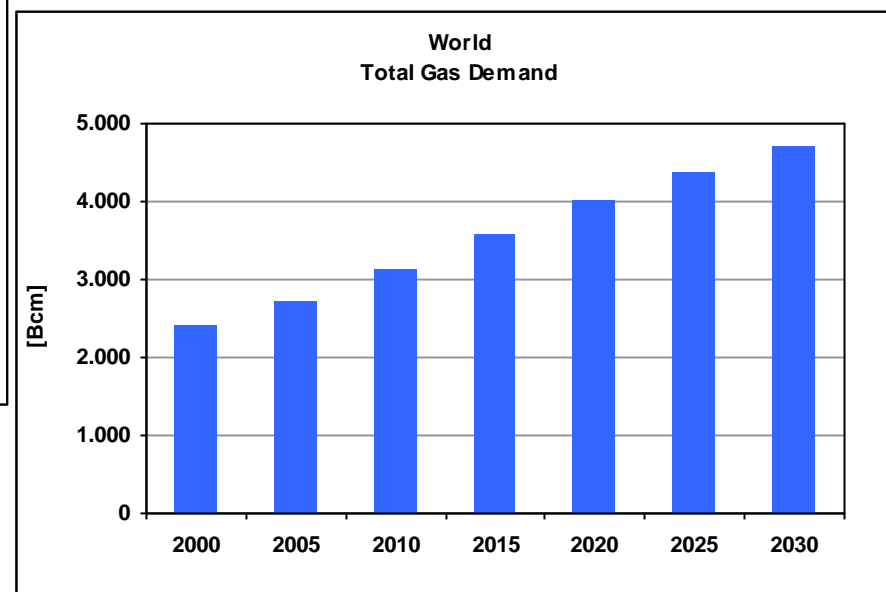
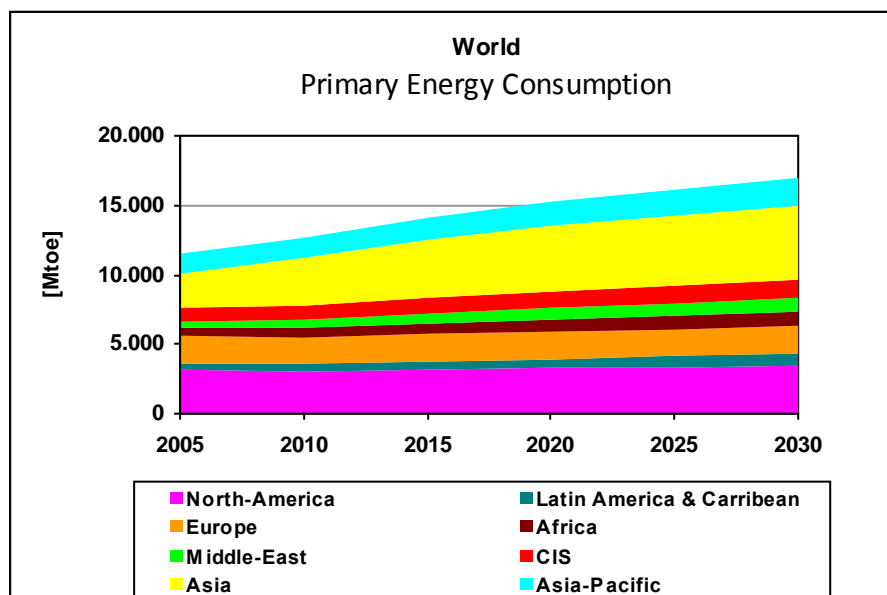
- Excel spreadsheet was available and well proven
- We decided there was neither need nor resources for a more intricate model

IGU regions

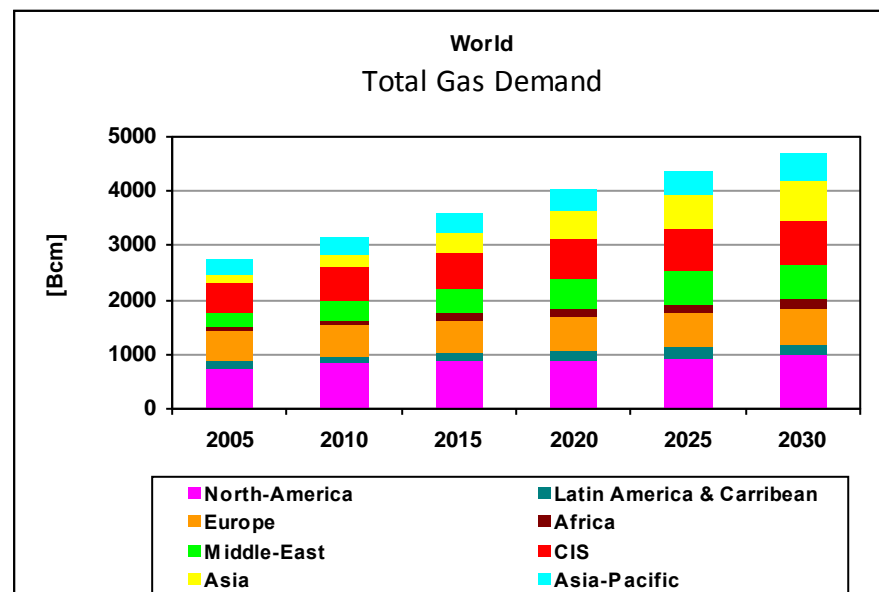
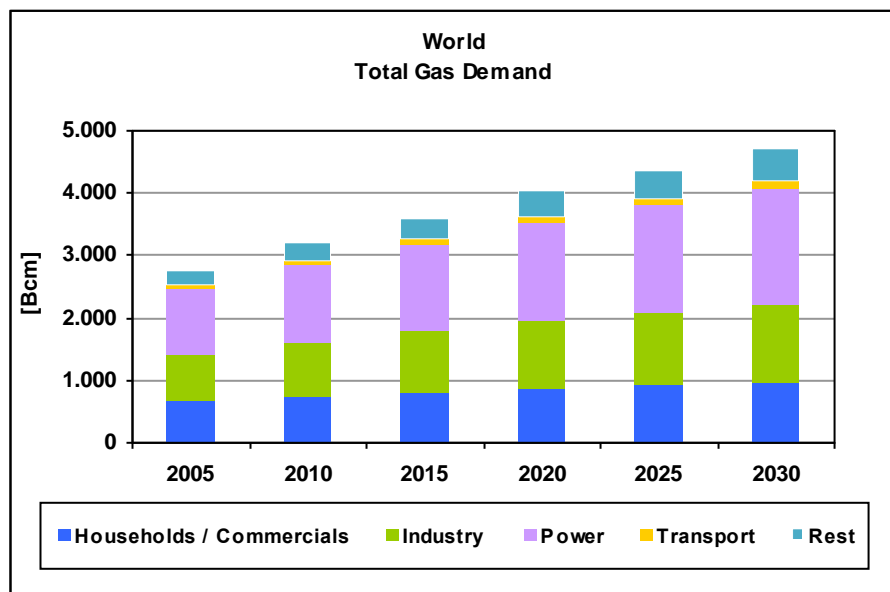


Results from previous triennium

- World energy and the role of gas in it

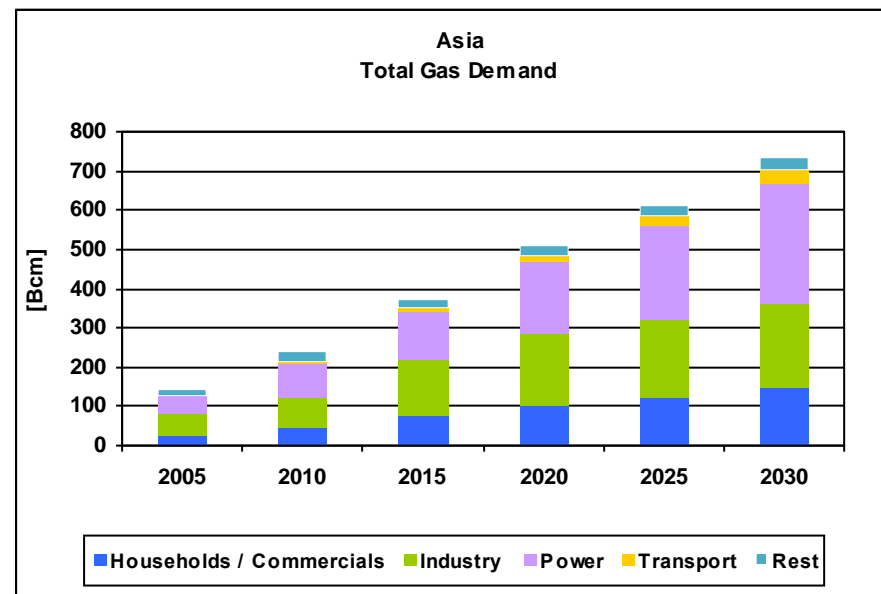
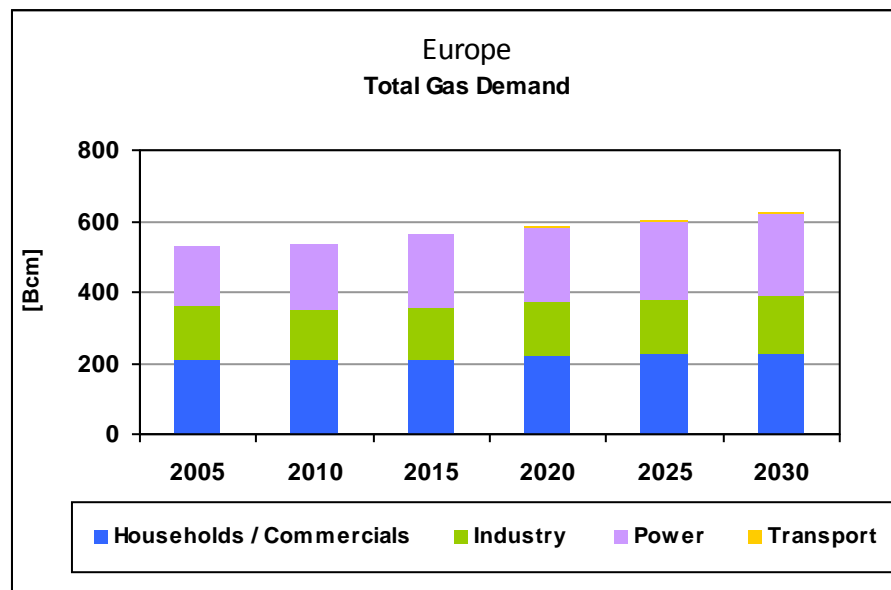


Results from previous triennium



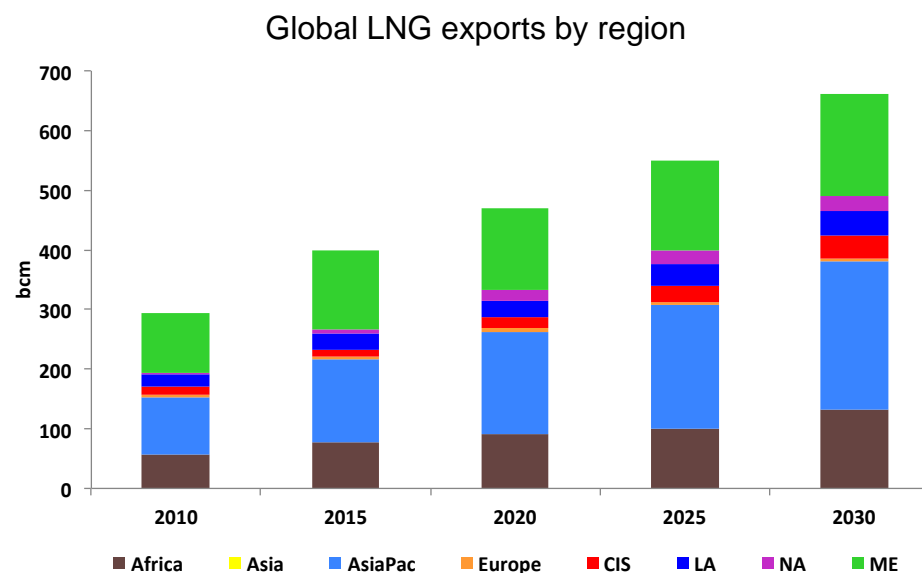
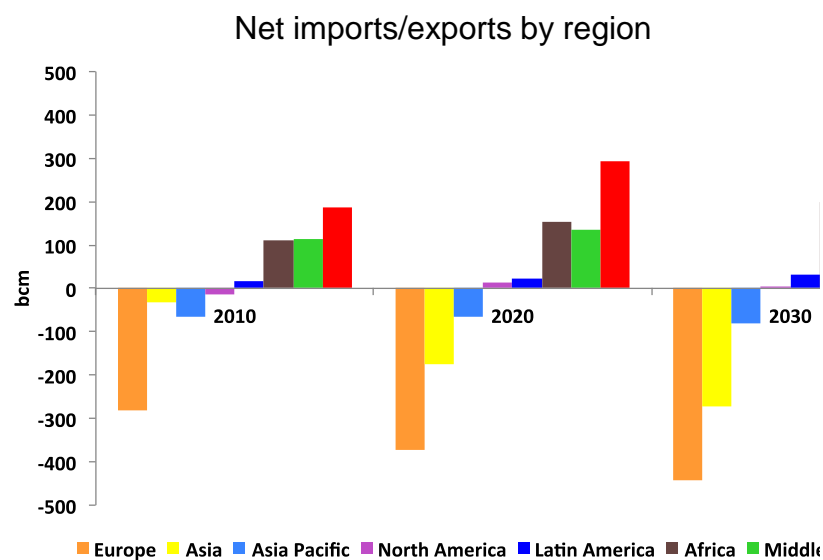
- Gas is still a growing fuel
- Power is (still) the growth sector
- Asia and the Middle East are the growth regions

Results from previous triennium



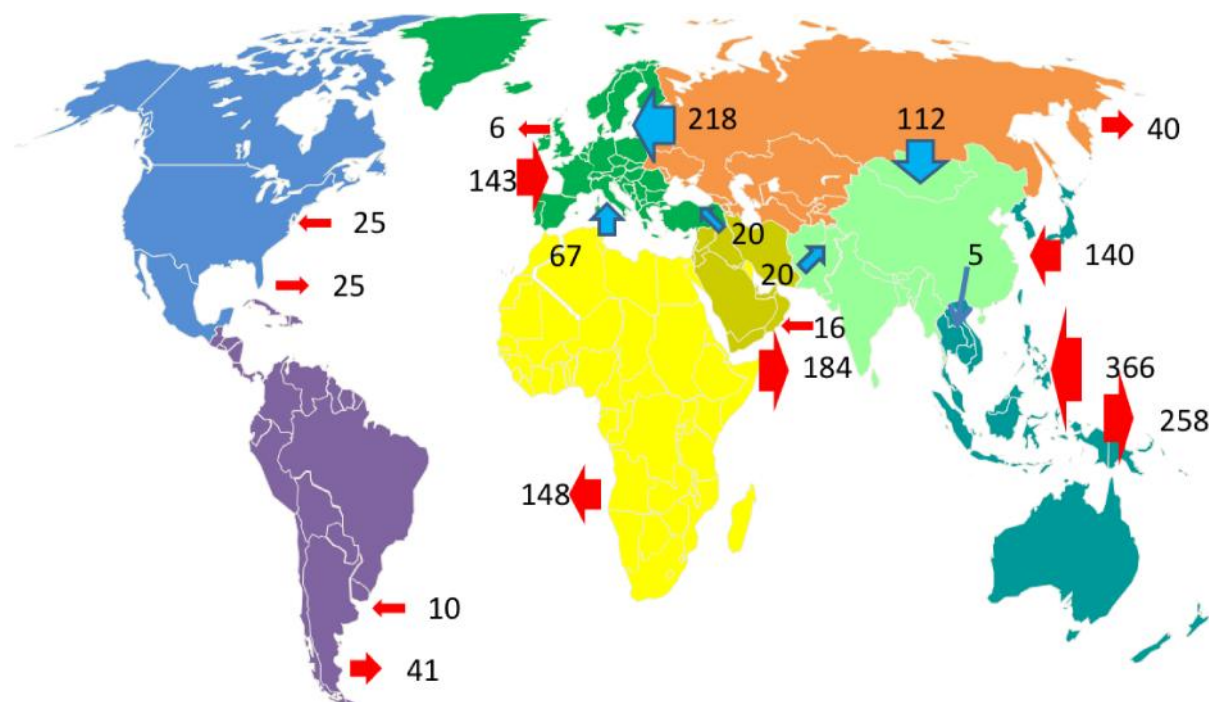
- Regional results: fast growing vs. mature and stagnating regions
- Natural gas can be the „green fuel“ and a „pollutant“ somewhere else

Results from previous triennium



- Global supply and demand patterns – increased supraregional trade
- Asia is joining Europe as a major importer of gas

Results from previous triennium

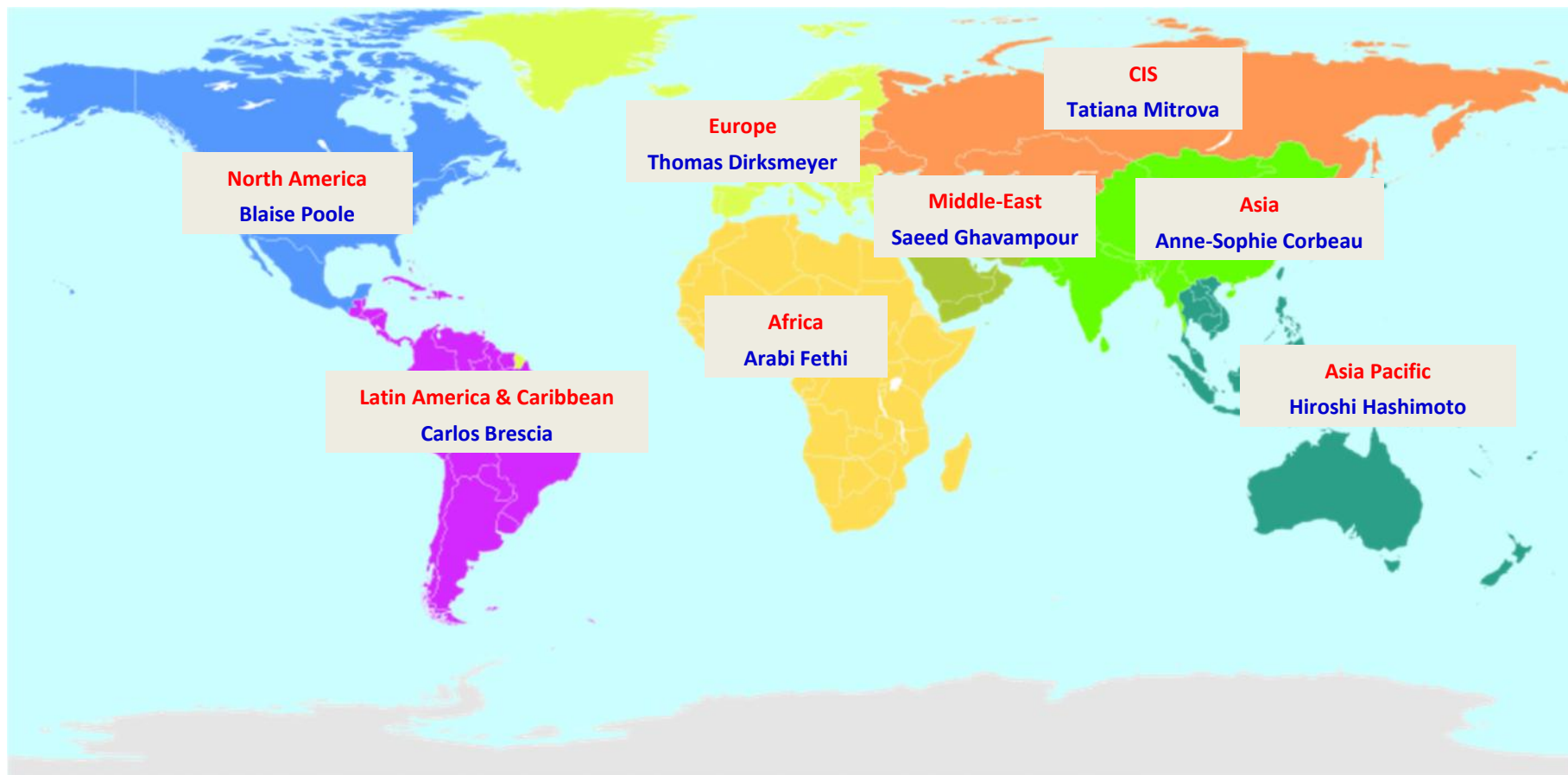


- Global supply and demand patterns – increased supraregional trade
- The CIS appears as a natural supplier to Asia
- North American production keeping up with demand growth

Basic Assumptions

- We maintain the general target to develop a global perspective from local demand patterns
- We maintain the concept of a reference case and at least one additional scenario
- We extend the forecasting period to 2035 and collect input for the 2050 perspective
- We need experts for each regional energy market as „Regional Focal Points“

IGU regions and regional focal points 2009 - 2012



World gas supply, demand and trade 2015

- World supply, demand and trade report 2015:
 - proven track record
 - competent team
 - extension to 2035
 - more detailed look at scenarios and compatibility of assumptions
- More focus on government and company policies
- Challenges:
 - what do we know about 2050?
 - what can we do better than other analysts?
 - how can we include price sensitivities into the supply/demand picture?



„The competitors“ in PGC-C complementary approaches



INTRODUCTION

The basic objective of Programme Committee C (PGC C) is to identify and analyse the emerging issues and key market drivers facing both developed and developing gas markets, and to provide insights into how those gas markets can be promoted.

PGC-C working program has certain overlap with our study group

STUDY GROUP C.1

The Impact on Natural Gas of the Worldwide Anti-Nuclear Trend

STUDY GROUP C.2

Implications of Expansion in Unconventional Gas

STUDY GROUP C.3

Security of Gas Supply and Demand

STUDY GROUP C.4

Energy Poverty and Lack of Access to Gas



Comments?