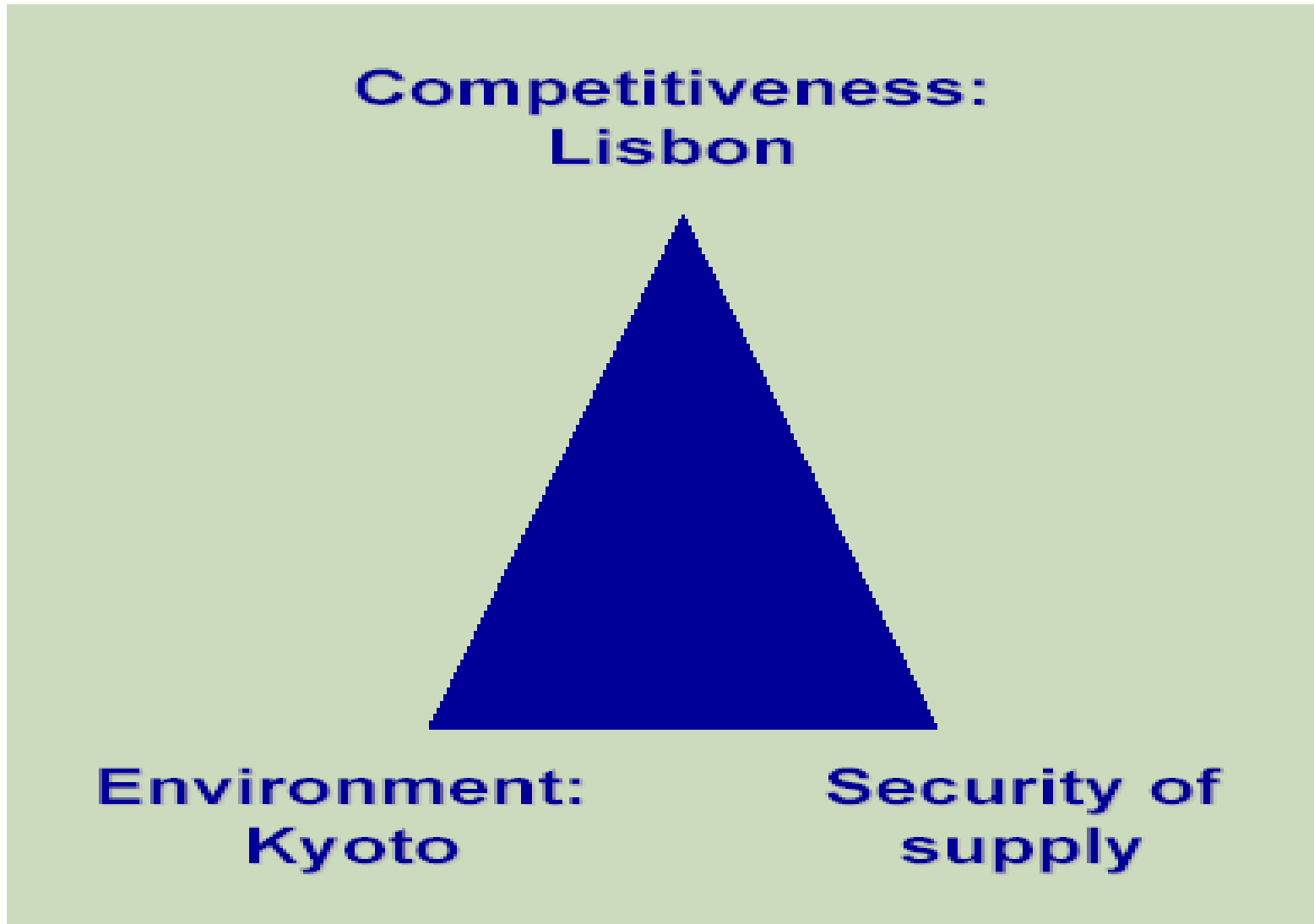


Security of Supply and Gas to Europe

Mini-Gas Forum

13 October 2006

Vienna



- Green Paper 2000
- EU Gas Directive (2003/55/EC)
- Directive 2004/67/EC
- Green Paper 2006

Green Paper (2000)

Monitoring;

- The extent to which gas supply is covered by new long-term contracts for imports from third countries
- The existence of adequate liquidity of gas supplies
- The level of working gas in storage and of the withdrawal capacity of gas storage
- The degree of interconnection of the national gas systems of Member States
- The foreseeable gas supply situation at European Energy Community level concerning specific geographic areas in the Community

EU Gas Directive (2003/55/EC)

- The Security of Supply is regarded as a public service obligation
- Enables Member States to take the requisite measures to safeguard supply in the event of a sudden crisis in the energy market
- General security-of-supply policies; transparent, solidarity-based, non-discriminatory and consistent with the requirements of a single market in gas

Directive 2004/67/EC on Safeguard Security of Natural Gas Supply

- Clarifies the general roles and responsibilities of the different market players
- Defines general, transparent and non-discriminatory security of supply policies
- Member States shall prepare in advance and, if appropriate, update national emergency measures
- Implementation of Directive by 19 May 2006
- Monitoring of implementation; By 19 May 2008

Directive 2004/67/EC; Monitoring

- The degree of new long-term gas supply contracts
- The adequate liquidity of gas supplies
- The level of working gas and withdrawal capacity of gas storage
- The level of interconnection of the national gas systems
- Demand-supply autonomy and supply sources

Green Paper 2006 Key Statements

- Competitiveness and internal energy market
- Diversification of energy mix
- Solidarity
- Sustainable development
- Innovation and technology
- External common energy policy

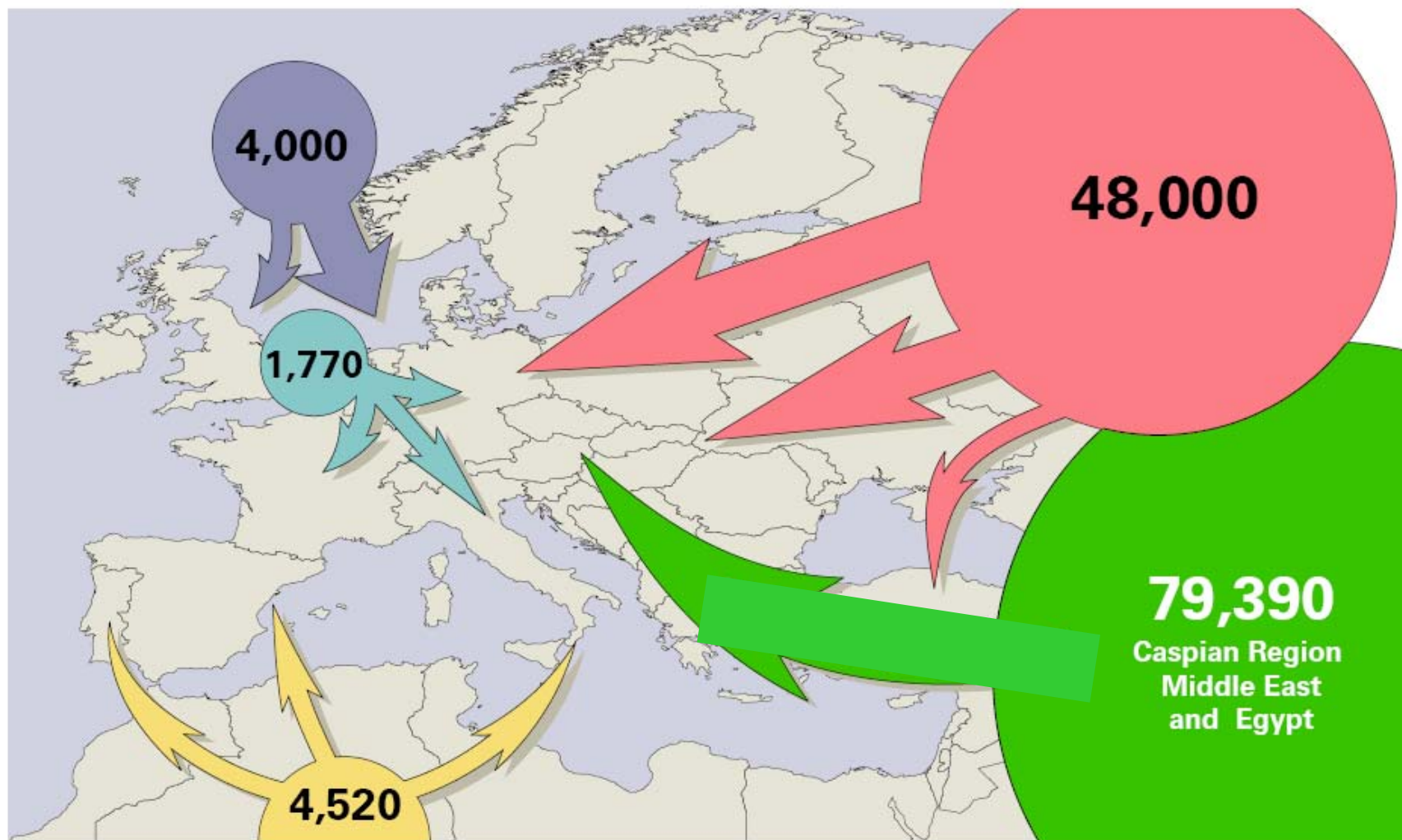
Green paper 2006; Outcomes

- Europe has not developed fully competitive internal energy markets
- There is an urgent need for investment
- 1 trillion Euro investment need over next 20 years
- Import dependency of 50% today
- Import dependency increase up to 80% in the next 25 years
- 70% to 80% of world reserves are within the European market's economic reach
- Global demand increase up to 60% by 2030

Green Paper 2006; Conclusions

- Completion of internal gas market through a well functioning European gas grid (European grid code)
- Single European regulator
- Create the framework to stimulate new investment
- More effective unbundling
- Boosting competition
- A common external energy policy
- Developing a pan-European Energy Community

Potential Sources for Europe



Source: BP Statistical Review 2005

East

- Large resources
- Weak economies
- Non-payment
- Lack of investment

West

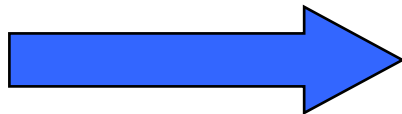
- Strong demand
- Import dependence
- Strong economies
- Developed markets
- Capital to invest

East

- Export/transit energy
- Attract investment
- Market reforms
- Improved technology

West

- Security of supply
- Investment opportunities
- Energy trade
- Access to resources



Energy flows



Investment flows

Infrastructure

- The countries of SEE neither major gas producers nor consumers
- The gas market relatively underdevelopment as a whole
- The gas market in Eastern Balkans (including Turkey) is relatively mature or rapidly growing
- The gas market in western Balkans is either under development or non-existent
- Limited domestic production
- Single supplier (except Turkey)
- Limited storage and linepack
- Lack of interconnection

Regulation

- Most of the countries in the region have their respective independent Regulators
- Natural Gas Directive 2003/55/EC is being adopted or mostly adopted by most of the countries in the region
- Most of the countries in the region have opened their markets
- Most of the countries identified at least some eligible threshold
- However, competition has not been fully introduced into region yet as the current monopolistic structures still prevails in most of countries

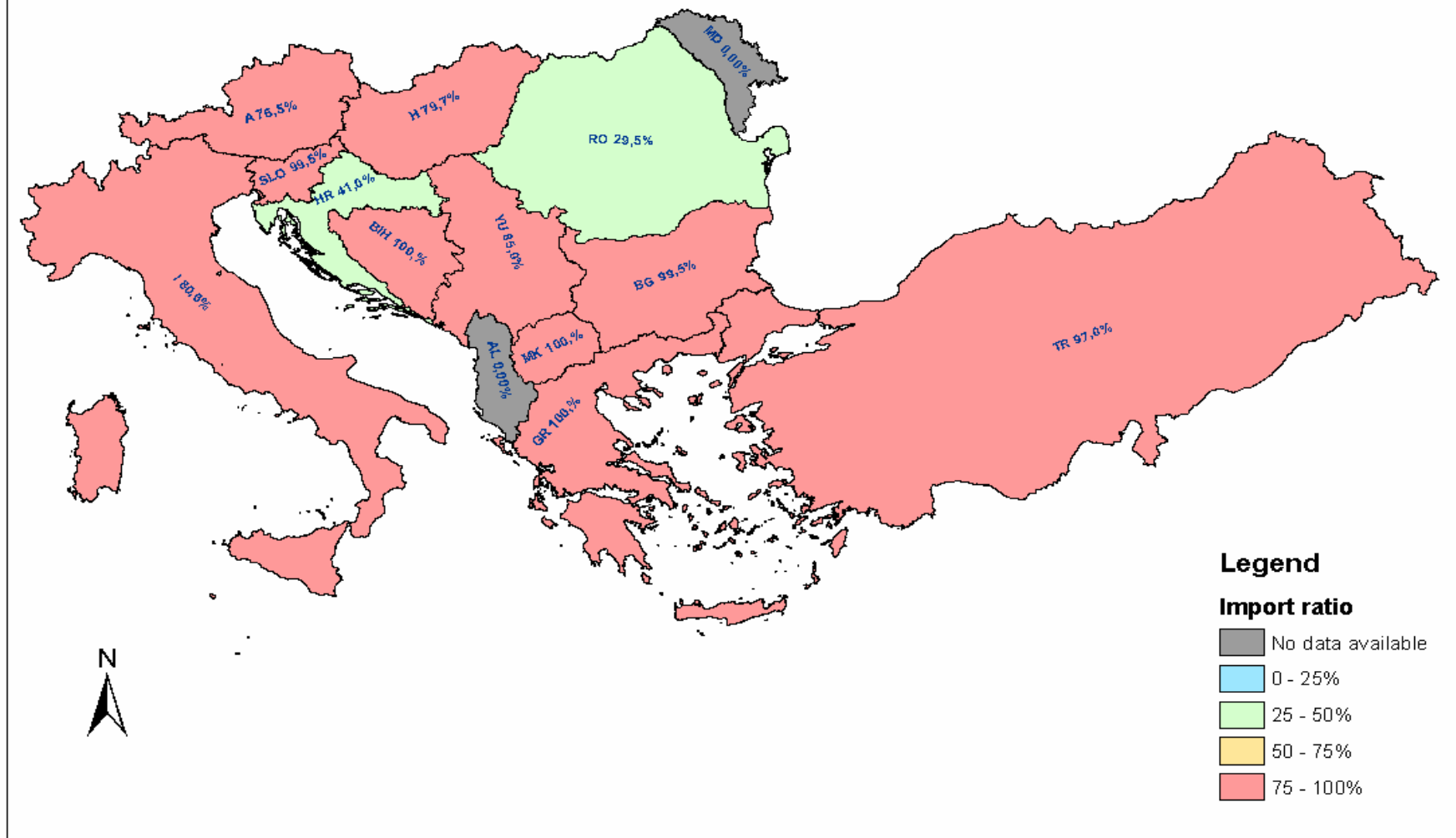
Security of Supply in SEE

% imported natural gas by sources

| | ALB | B&H | BUL | CRO | FYR | MN | RO | SER | TU | UNM | AU | GR | HU | IT | SLO |
|-----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RUS. FED. | 0 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 60 | 0 | 76 | 75 | 88 | 36 | 59 |
| NORWAY | | | | | | | | | | | 14 | | | | |
| GERMANY | | | | | | | | | | | 10 | | | | |
| ALGERIA | | | | | | | | | 19 | | | 25 | | 34 | 37 |
| UKRAINE | | | | | | | | | | | | | 2 | | |
| FRANCE | | | | | | | | | | | | | 4 | | |
| GER./AU | | | | | | | | | | | | | 6 | | 4 |
| NORWAY | | | | | | | | | | | | | | 17 | |
| TURKMEN. | | | | | | | | | | | | | | 7 | |
| NIGERIA | | | | | | | | | 5 | | | | | 6 | |
| IRAN | | | | | | | | | 16 | | | | | | |
| TOTAL | 0 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 100 | 100 |

- The major supply source for the region of SEE is Russian Federation
- Diversification of the supply sources is required

Import ratio in total consumption of ECSEE countries in 2003



Security of supply features

| Country | Multiple import sources | Multiple supply comp. | Multiple Connections gas sources | Significant domestic production | LNG Term. | Significant storage/linepack | Long term contracts |
|-------------|-------------------------|-----------------------|----------------------------------|---------------------------------|-----------|------------------------------|---------------------|
| Albania | No | No | No | No | No | No | No |
| Bos.& Herz. | No | No | No | No | No | No | Yes |
| Bulgaria | No | No | Yes | No | No | Yes | Yes |
| Croatia | No | No | Yes | Yes | No | Yes | Yes |
| fYROM | No | No | No | No | No | No | Yes |
| Romania | No | Yes | No | Yes | No | Yes | Yes |
| Montenegro | No | No | No | No | No | No | No |
| Serbia | No | No | No | Yes | No | No | Yes |
| Turkey | Yes | No | Yes | No | Yes | No | Yes |
| UNMIK | No | No | No | No | No | No | No |
| Austria | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Greece | Yes | No | Yes | No | Yes | No | Yes |
| Hungary | Yes | No | Yes | No | No | Yes | Yes |
| Italy | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Slovenia | Yes | No data | Yes | No | No | No data | Yes |

➤ SEE market is characterised by lack of Security of Supply Standards required

What can be done in a short - term perspective for the region?

- Existing gas infrastructure should be used in the most efficient manner
- Clear mechanism should be put in place to allow the interconnection and communication (interoperability of pipelines) of TSOs
- Clear market rules and responsibilities (network code and/or principles and procedures) should be implemented

What is the long - term need for the region?

- Diversifying supply sources
 - Caspian Sea
 - Middle East and
 - North Africa to the North and West

- LNG terminals and storages

- Creation of a single network code

- Enhancing new infrastructures (*Exemption 2003/55/EC Directive Article 22*)

- Common external energy policy for security of supply (SoS) is a minimum requirement for the completion of the internal gas market
- Definition of clear roles and responsibilities of all market players is needed
- Existence of national emergency measures among the Contracting Parties is essential
- Harmonized and stable regulation for a common SEE market is needed
- Interconnected infrastructure is of vital importance
- Cost reflective tariffs, transparent and non-discriminatory access to the system is required
- Promotion of new infrastructure in line with Directive 2003/55/EC

- SEE is geographically well located to become a gas transit transmission region between the major producers, i.e Region of Caspian and Middle East and the major importers from Central & Western Europe
- However, this role can only be fully achieved, if a harmonized regulatory framework is implemented.
- Such framework should promote the required investments by allowing their cost recovery in a secure and economic way
- Current regional projects, if carried out on time, will
 - strengthen security of supply by interconnecting countries
 - reduce cost of gas supply
 - increase gas availability and access in the region

Energy Community Secretariat

Am Hof 4,

A- 1010 Vienna

Phone: 0043 1 535 2222

Email: contact@energy-community.org

www.energy-community.org