



THE JANUARY 2009 RUSSIA- UKRAINE GAS CRISIS: implications for Europe

**Professor Jonathan Stern
Director of Gas Research
Oxford Institute for Energy Studies**

**IMEMO, Moscow
March 26, 2009**



OIES* Natural Gas Research Programme

WE ARE: a gas research programme at an independent academic institute, part of Oxford University, specialising in fossil fuel research

WE ARE NOT:

- consultants
- sellers of exclusive, high price business reports

WE PRODUCE: independent research on national and international gas issues

WE ARE FUNDED BY: sponsorship from companies and governments in gas producing and consuming countries

**Information about our Institute, our Programme and its publications can be found on our website:
<http://www.oxfordenergy.org/gasprog.shtml>**



Examples of Published Research

- **The Impact of the Russia-Ukraine Gas Crisis in South Eastern Europe**, Aleksandar Kovacevic
- **The Russo-Ukrainian Gas Dispute of January 2009**, Simon Pirani, Jonathan Stern, Katja Yafimava
- **Russian and CIS Gas Markets and Their Impact on Europe**, ed. Simon Pirani
- **Kazakhstan's Gas: export markets and export routes**, Shamil Yenikeyeff
- **The Potential Contribution of Natural Gas to Sustainable Development in South Eastern Europe**, Aleksandar Kovacevic
- **Is there a rationale for the continuing link to oil product prices in Continental European gas contracts?** Jonathan Stern
- **Ukraine's Gas Sector**, Simon Pirani
- **Natural Gas in Asia: the challenges of development in China, India, Japan and Korea**, 2nd edition, ed. Jonathan Stern

Free downloads from www.oxfordenergy.org



European Union Energy Policy: the “three legged stool”

- 1. CARBON REDUCTION: 20-20-20** mainly a priority of “old member states”
- 2. SECURITY OF SUPPLY:** import dependence – especially Russia – mainly a priority of “new member states”
- 3. LIBERALISATION AND COMPETITION:** gas and power markets – whose priority?

THE KYOTO-MOSCOW-LISBON TRIANGLE

**EU claims that these elements combine into a coherent policy, but do they?
eg climate versus security of supply**



The EU Energy Policy Agenda: key documents

- **March 2006: Green Paper on European strategy for sustainable, competitive and secure energy**
- **January 2007: An Energy Policy for Europe – 20/20/20 targets**
- **September 2007: 3rd Legislative Package on Electricity and Gas Markets**
- **November 2007: Low Carbon Energy Future – technology action plan**
- **January 2008: Climate Action – Energy for a Changing World**
- **November 2008: 2nd Strategic Energy Review – “Securing Our Energy Future”**



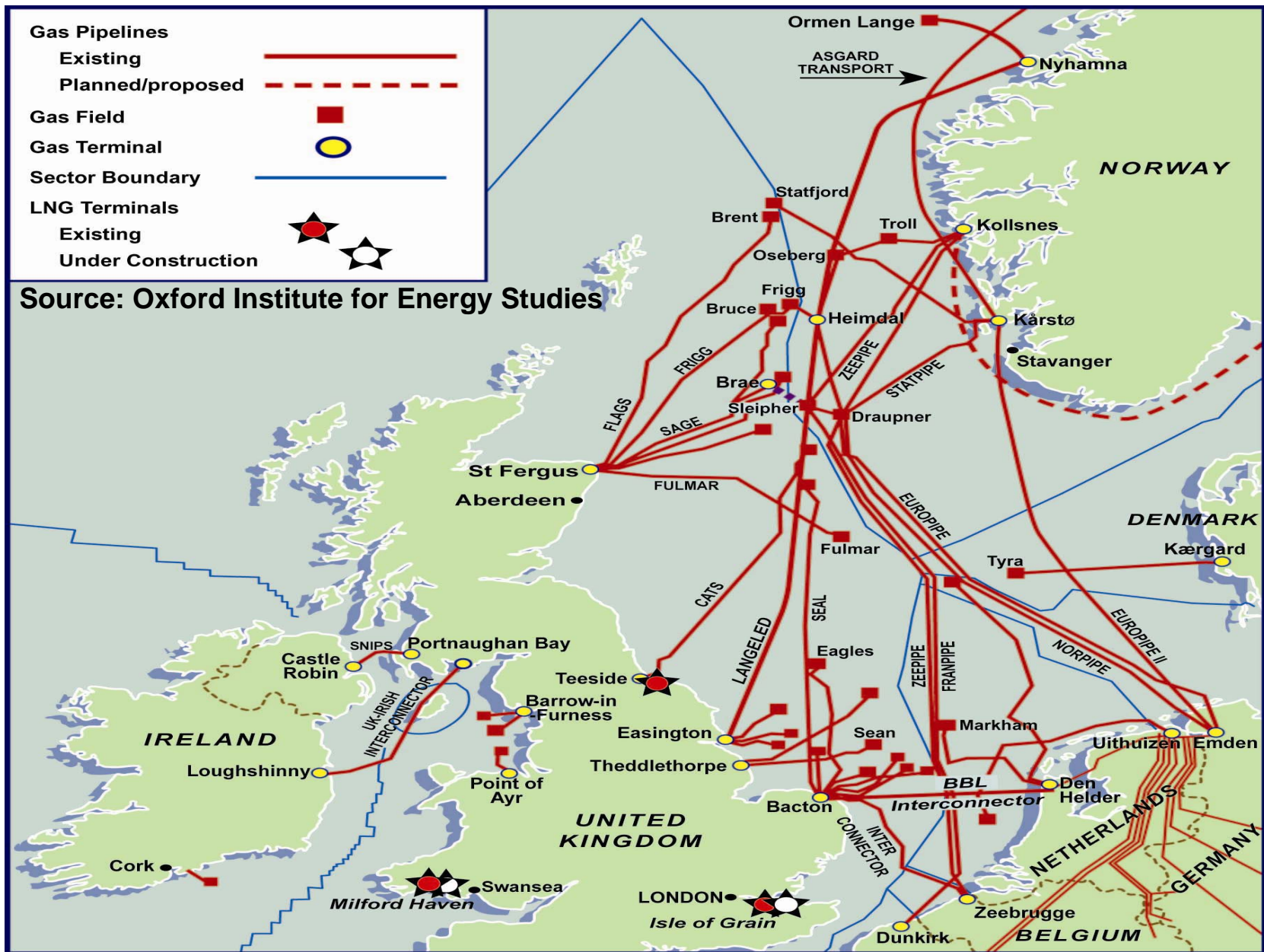
European* Gas Balance: 2007 (Bcm)

DEMAND	525
PRODUCTION	280
IMPORTS:	416 (87% pipeline 13% LNG)
LNG	53 (39% Algeria 30% Nigeria)
PIPELINE	(48% intra; 52% extra-Europe)
% of total imports:	
NETHERLANDS	12
NORWAY	21
ALGERIA	19
RUSSIA (CIS)	40

Source: Cedigaz * Europe = EU 25 + Norway, Switzerland and Turkey

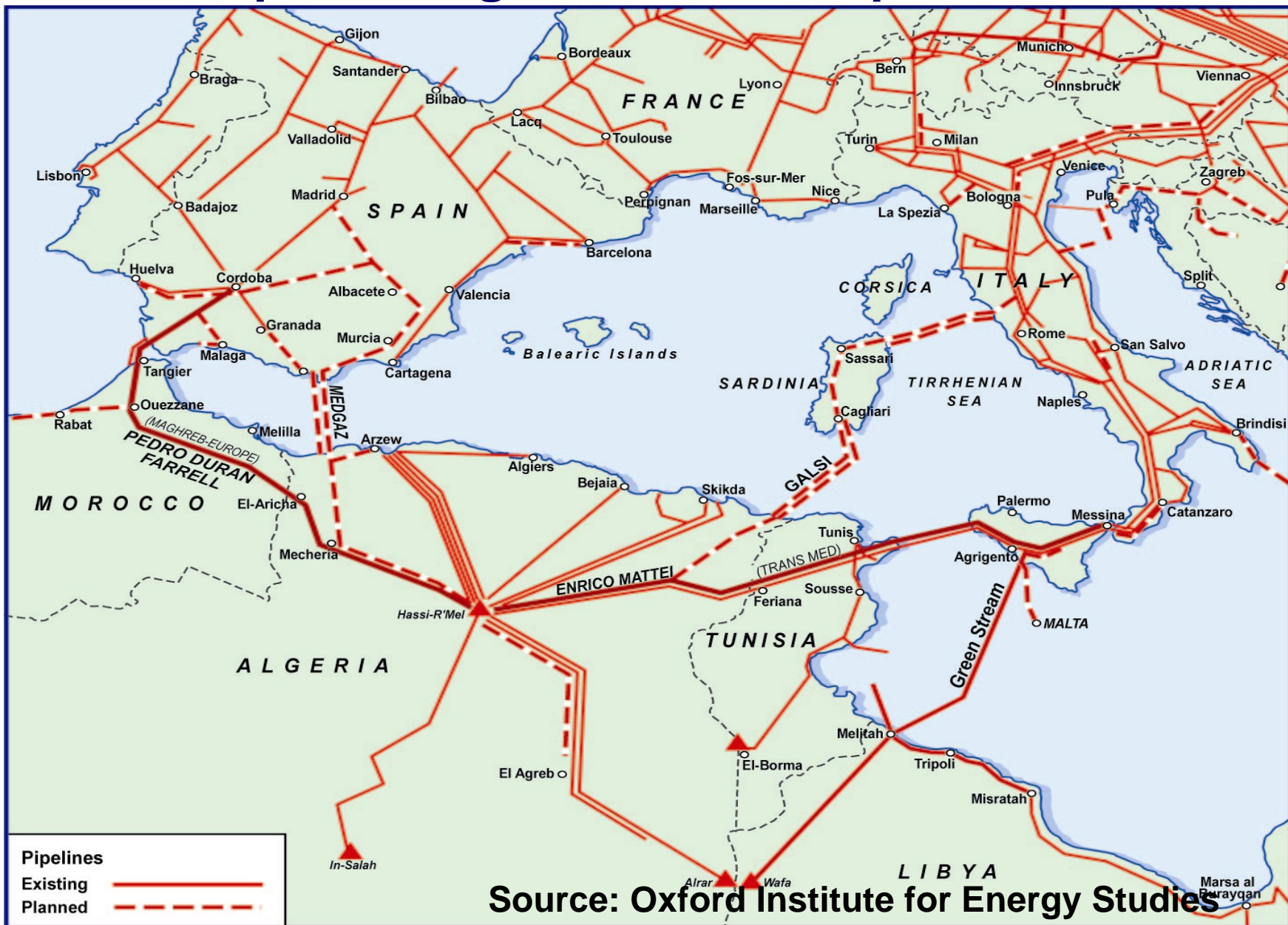


UK, Norwegian and Dutch Supplies



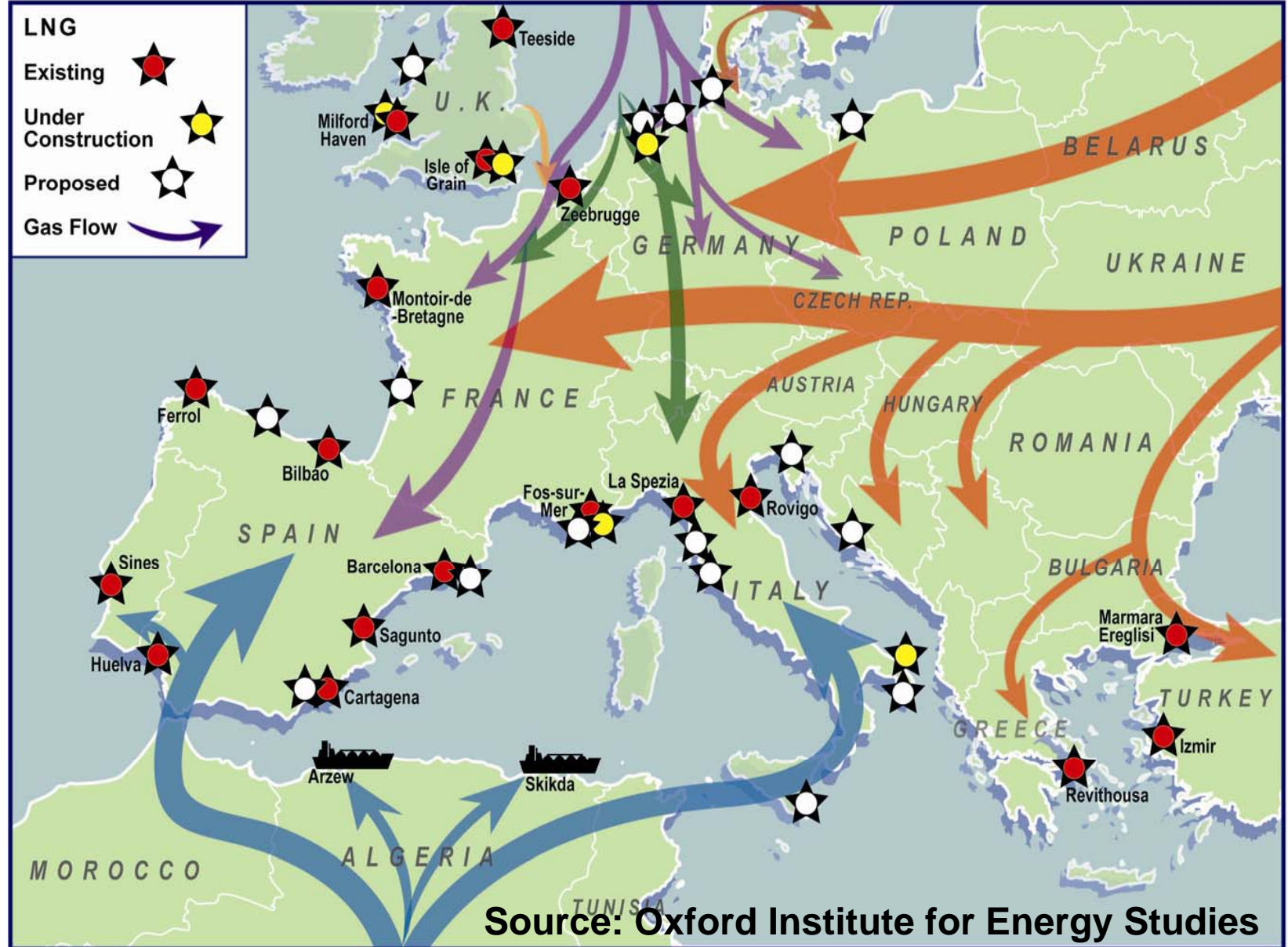


New Supplies from North Africa: Expansions plus Medgaz and Galsi Pipelines





European LNG Terminals





**2009 RUSSIA-UKRAINE CRISIS WAS
THE MOST SERIOUS GAS SECURITY
INCIDENT EVER EXPERIENCED IN
EUROPE AND ONE OF THE MOST
SERIOUS ENERGY SECURITY
INCIDENTS**

**EUROPE LOST 20% OF ITS GAS
SUPPLIES FOR TWO WEEKS IN THE
MIDDLE OF WINTER; MANY SOUTH EAST
EUROPEAN COUNTRIES LOST NEARLY
100% OF GAS SUPPLIES**



A Chronology of the Crisis as Seen From Europe

STAGE 1 - January 1-6, 2009:

- **Supplies to Ukraine cut off**
- **Supplies to Europe at nearly normal levels until the 6th**

STAGE 2 – January 7-22, 2009

- **7: supplies to Europe cut off**
- **11: EU monitors deployed but flows do not resume**
- **17-18: Political agreement reached**
- **19: 10 year supply and transit contracts signed**
- **20: European gas flows restart**
- **22: European gas flows returning to normal**



Actions of European Stakeholders

EUROPEAN UNION:

- **Although Brussels organised the Monitoring mission but..**
 - **monitors were suggested by A. Merkel and**
 - **mostly provided by EU gas companies**
- **When the mission failed to restore supplies Brussels had nothing else to offer**

ENERGY CHARTER TREATY:

- **Reminded parties of their responsibilities but**
- **Was unable to do more than that**

EUROPEAN GAS COMPANIES:

- **proposed a financial solution (eventually not needed) which was probably the catalyst for solving the crisis**



Impact of the Crisis on Europe

- North West Europe – hardly inconvenienced due to storage, alternative supplies and lower demand (recession)
- Central Europe – some interruptions especially in Slovakia (Hungary)
- South East Europe – huge problems especially: Bulgaria, Serbia, Bosnia; also Croatia and Romania:
 - Industry cannot restart after the New Year
 - No heat for many residential/district heating and public buildings

European impacts make this crisis unique, independent of which side was “at fault”



Energy Charter Treaty and Transit 1

- ECT reminded parties of their obligations to maintain transit independent of supply BUT..
- Nobody had thought what would happen if:
 - Ukraine said no gas was arriving from Russia
 - Gazprom said that Ukraine was blocking the transit network and...
 - Nobody could independently verify which was correct
- Hence the need for independent monitors

Not a single critical EU voice was raised against the Ukraine – a ratified ECT party



Energy Charter Treaty and Transit 2

It rapidly became clear that:

- Ukraine was much better prepared to withstand a long interruption of Russian gas than was (SE) Europe
- It would be impossible to resume transit to Europe without a resumption of Russian supply to Ukraine
- EU and the ECT had no political leverage over Russia or Ukraine and
- Brussels was unable to unwilling to come forward with the funds to resolve the dispute
- This is potentially deeply damaging to:
 - EU notions of energy security “solidarity”
 - ECT credibility as means of transit dispute resolution

Reform/updating of ECT becomes important



Which side do you believe was most at fault for the January 2009 Russia-Ukraine crisis?

	2009
RUSSIA	17.5
UKRAINE	27.5
BOTH	55.0

Source: FLAME* conference (respective years)

***NOTE: FLAME is the largest gas conference in Europe, held annually in Amsterdam with around 600 delegates**



How worried are you about a European gas business being increasingly dependent on imported gas

	2004	2005	2008
NOT AT ALL	47	16	34
A LITTLE WORRIED	27	26	27
WORRIED	19	32	30
VERY WORRIED	7	26	9

Source: FLAME conference (respective years)



Have the events of January 2009 (Russia-Ukraine crisis) made you more worried or less worried about the European gas business being increasingly dependent on imported gas?

	2009
MORE WORRIED	55.6
LESS WORRIED	9.7
NO DIFFERENT	34.7

Source: FLAME conference (respective years)



Which region to you see as providing the most reliable supply of gas into Europe in the next five years

	2007	2008	2009
RUSSIA	41.5	59.2	36.9
CASPIAN AND THE MIDDLE EAST	22.0	12.6	6.6
NORTH AFRICA	27.7	8.7	18.9
LNG	8.8*	19.7	37.7

***in 2007 the categories included “Turkey and the near east” which received 8.8% of the votes and did not include LNG**

Source: FLAME conference (respective years)



Are you comfortable with the level of Russian supply to European gas markets?

	2006	2008
VERY COMFORTABLE	10	6
COMFORTABLE	26	34
NEUTRAL	20	34
UNCOMFORTABLE	31	16
VERY UNCOMFORTABLE	13	10

Source: FLAME conference (respective years)



Do You Believe that Europe's Gas Security is Endangered by Over-Dependence on Russia?

	2009
YES	46.1
NO	12.8
ONLY SOME REGIONS	41.4

Source: FLAME conference (respective years)



Possible European Responses: 2009-11

- **Monitoring of Russian- Ukraine gas flows – especially in winter, likely to continue**
- **Urgent measures needed for SE Europe during winter months: additional north-south pipelines (+ other interconnections), expansion storage, connections to existing LNG supplies, demand reduction measures, fuel oil stocks BUT...**
- **who decides, who regulates and who pays (during a major recession)?**

No substantial support from EU stimulus package



EU Proposed Stimulus Package 20/3/09

TOTAL ENERGY including:	Euros 4.0bn
Carbon capture and storage	1.05Bn
Electricity interconnectors	0.91bn
Offshore Wind	0.57bn
Gas Interconnectors	1.44bn incl:
LNG (Poland)	0.08
Nabucco	0.20bn
Italy-Greece	0.10bn
Central/East Europe total	0.31bn
Mediterranean	0.37bn
North West/Nordic total	0.39bn

Central/South East Europe priority is not obvious!

Source: European Commission



EU-Ukraine Gas Investment Conference “Declaration” 23/3/09

Bn Euro 2.5, 5.5, 16 (?) loan for modernisation of Ukrainian network conditional on:

- **Greater transparency, elimination of corruption**
- **Independent ISO**
- **Conformity with EU Acquis – partnership, EET etc; TPA for storage**
- **Increase in Ukrainian network capacity of 60 Bcm**

- **Much of the declaration is unclear, naïve and probably will not happen (any time soon); consortium agreement not included**
- **Hugely negative Russian reaction was predictable but may be self-defeating**



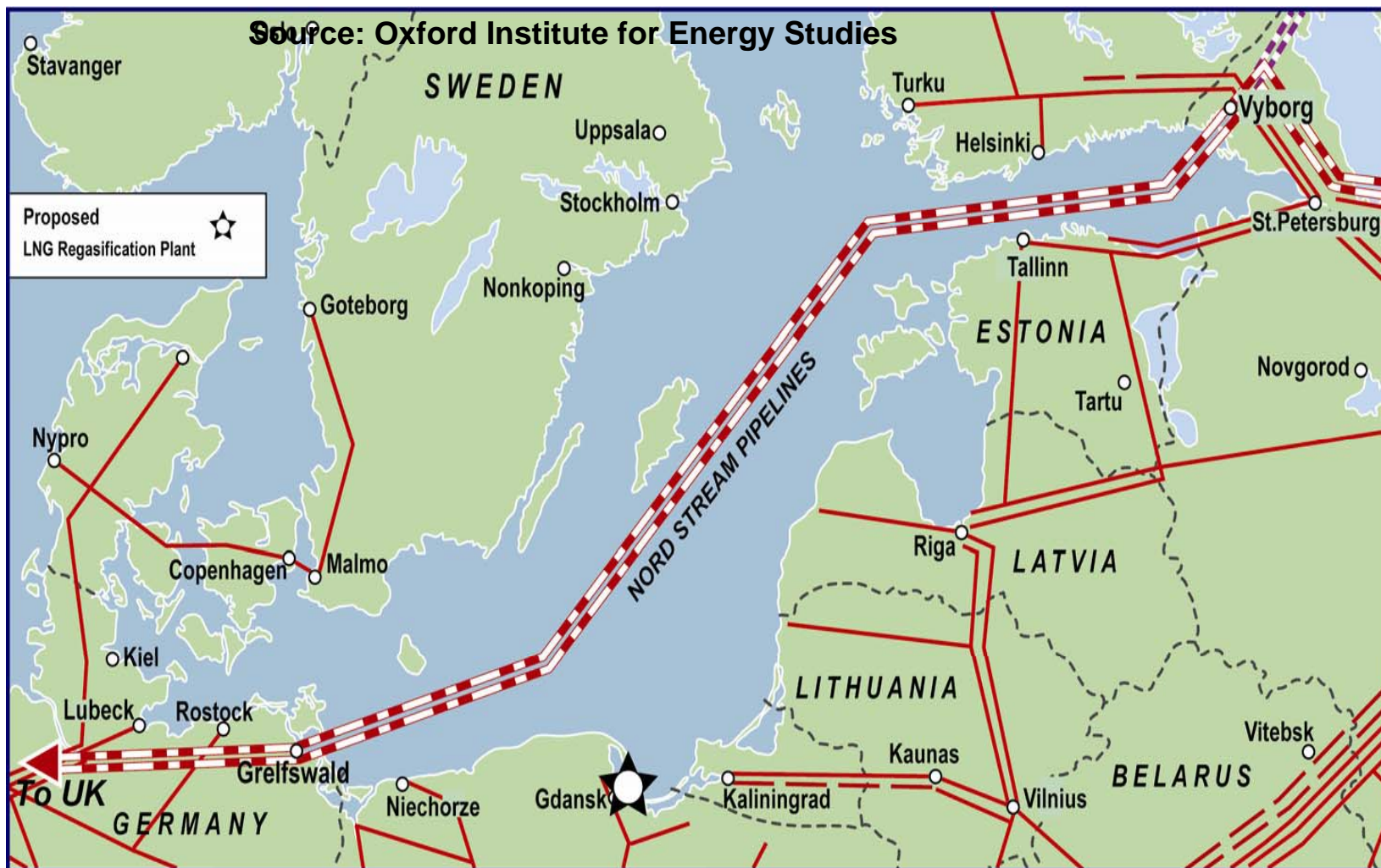
Possible European Responses : 2011-2015

- **Construction of Nord Stream and South Stream could become EU priorities**
- **This would – unless Russian export volumes increase substantially – dramatically reduce dependence on Ukraine**
- **New LNG terminals in CEE eg Poland and Croatia; CNG in Black Sea**

But note that only if Ukraine – or the Russia-Ukraine relationship – is considered to be the problem, do transit pipelines resolve the problem



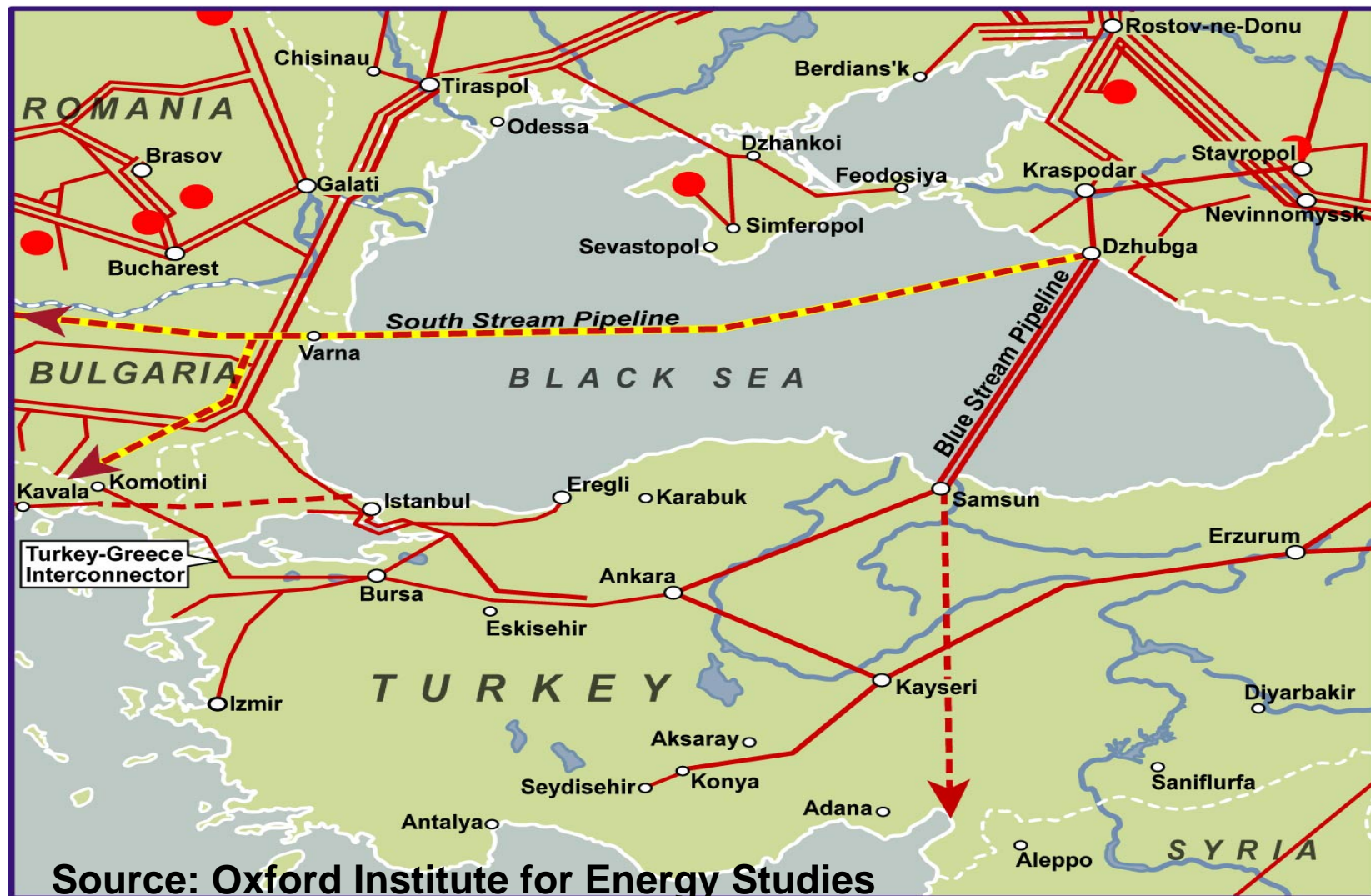
Nord Stream Gas Pipelines



Will this crisis now overcome Baltic opposition to the pipeline?



Blue Stream and South Stream Pipelines



South Stream becomes urgent for security reasons



CNG Options in the Black Sea





Longer Term Options: post-2015

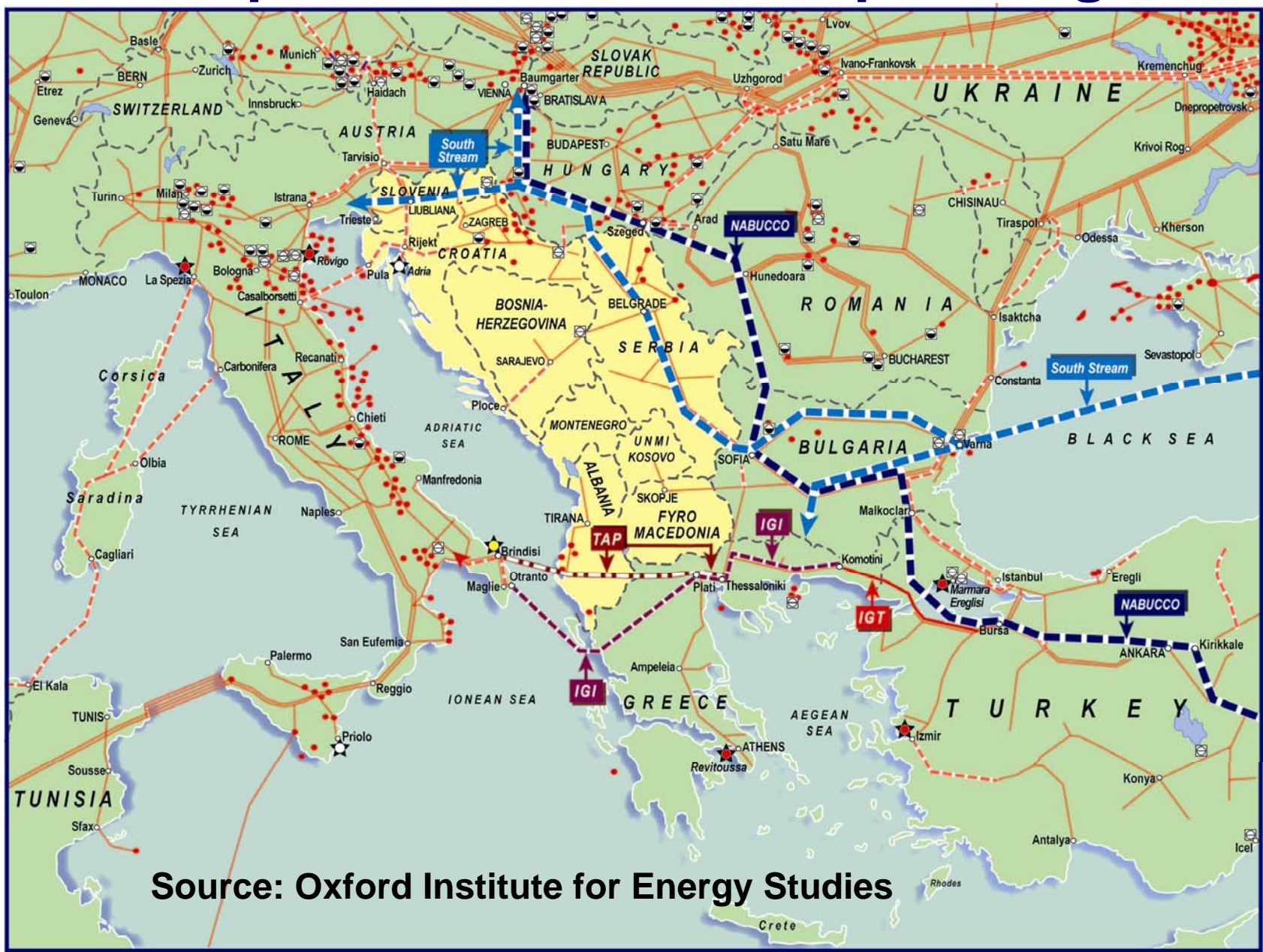
- Long distance pipelines from Central Asia/Caspian/Middle East eg Nabucco
- Additional LNG and CNG terminals in South East Europe
- Demand reduction/efficiency (systemic change, capital stock replacement) throughout CIS and Central/Eastern Europe

Is this about gas, or about transport capacity, or both?



Gas Pipelines From the Caspian Region

OXFORD INSTITUTE FOR ENERGY STUDIES
Natural Gas Research Programme



Source: Oxford Institute for Energy Studies



Longer Term Consequences of the Crisis for EU Gas and Energy Policy

- Any increase in long term Russian contract gas volumes to any European country may be questioned
- Rising EU gas imports may be increasingly questioned BUT...
- Impossible to do much about this before 2020, because nuclear power and coal CCS have 10-year lead times
- Post-2020 other energy options are available IF investments are made NOW

Key question is whether EU policy and 20/20/20 targets can be met and, if not, whether this is a problem



Have Russian-Ukrainian – and Russian-European – gas relations irrevocably changed as a result of this crisis?

- **Is it possible to restore credibility to the Russian-Ukrainian gas transit relationship:**
 - investment requirements/consortium proposals
 - likelihood of further disruptions
- **Can Europeans be reassured and, if not, how quickly can other arrangements be made in relation to: transit routes, other supplies?**

Can Gazprom and the Russian government successfully manage this relationship?