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*Financing options for investment and operation of
high-speed railway lines*

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Summary of presentation – key points



- Funding capital investments in railways - the basic principles
- Evaluation criteria for projects by type of stakeholder
- Case study of a higher speed railway section at the crossroads of three European countries
- New emphases for EU structural funding 2014-2020
- Potential applicability of project bonds
- Conclusions

Some characteristics of railways and their infrastructure



- Railways are generally capital intensive
- Infrastructure utilization spans the long term, can stretch over decades
- Economic and financial profitability indicators often diverge
- Railways generally are part of a much larger, complex system

What are the consequences for financing railway projects ?



- Large amounts of financial capital are required
- Funding needs to match the project operational period
- Appropriate cost recovery mechanisms need to be put in place
- Efficient system operation and profitability are paramount

What kind of financial funds can be envisaged ?



- Own resources
- Equity-type investments
- Loans, repayable over project operation
- Bonds – corporate or project
- Grants and subsidies

Often, these sources will be complementary

What are the sources involved ?



- Own resources
 - Equity-type investments
 - Borrowed funds, repayable over project operation
 - Grants or subsidies
- System or company
 - Investors – public, private internal, external
 - Banks, Investors, Multilateral Institutions
 - State, development assistance and structural funds

What these stakeholders will request or emphasize



- System or company
 - Internal analysis
- Investors – public, private
internal, external
 - Criteria defined by investors, can be anything ranging from a „hunch“ to a shareholder value analysis or project-specific studies
 - Project feasibility, often profitability-focused
 - Project feasibility, including strategic justification
- Banks, Investors,
Multilateral Institutions
- State, development
assistance and structural
funds

Pyramid of criteria – building blocks



➤ Internal analysis

➤ Criteria defined by investors, can be anything ranging from a „hunch“ to a shareholder value analysis or project-specific studies

➤ Project feasibility, often profitability-focused

➤ Project feasibility, including strategic justification

FINANCIAL ANALYSIS

ENVIRONMENTAL ANALYSIS

TECHNICAL ANALYSIS

SOCIO-ECONOMIC ANALYSIS



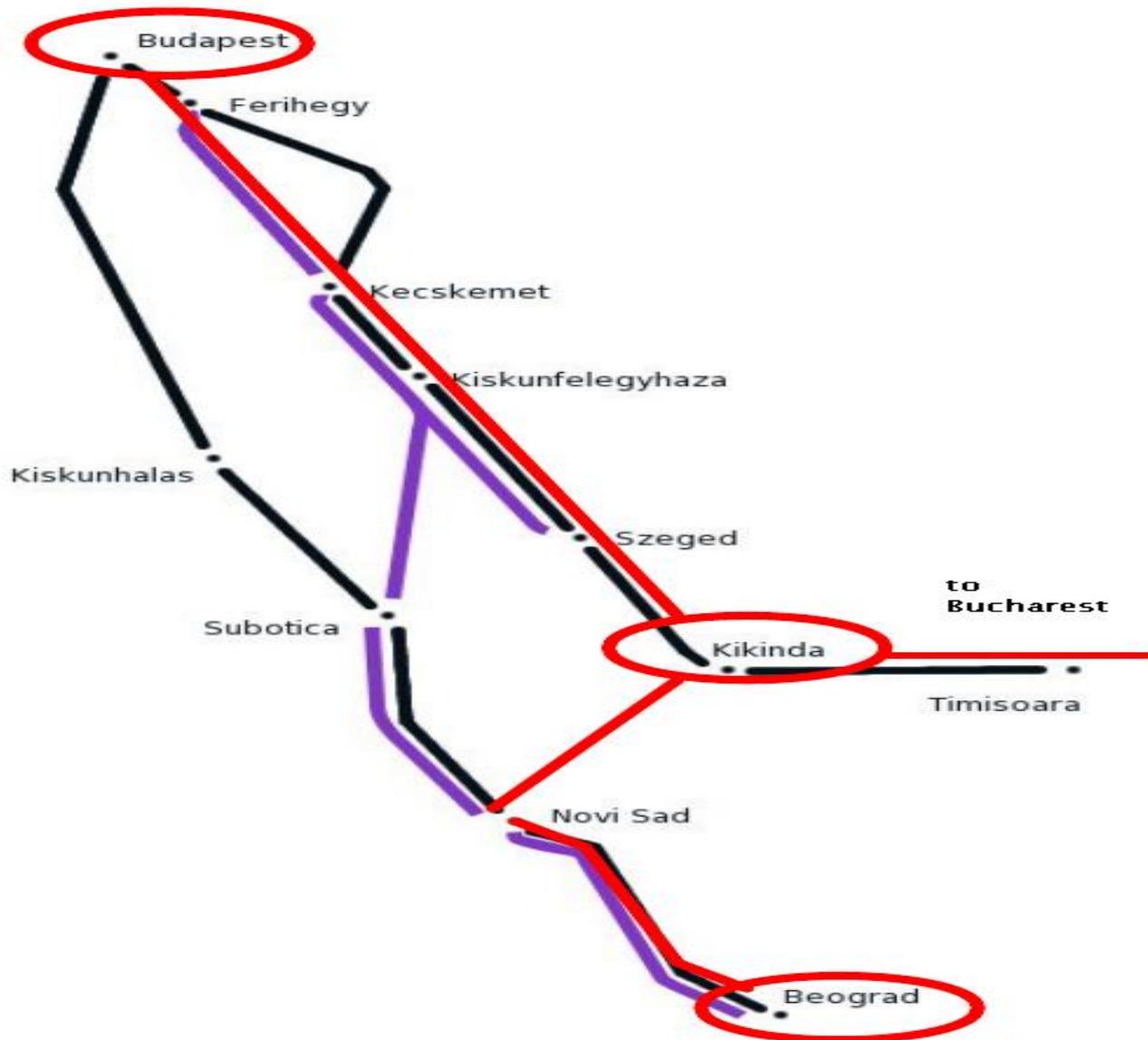
- Management of the system impacts on the risks and rewards of a project
- Management of the project in terms of construction and prospective operations
- Key issue of financial viability both during investment and operational stages



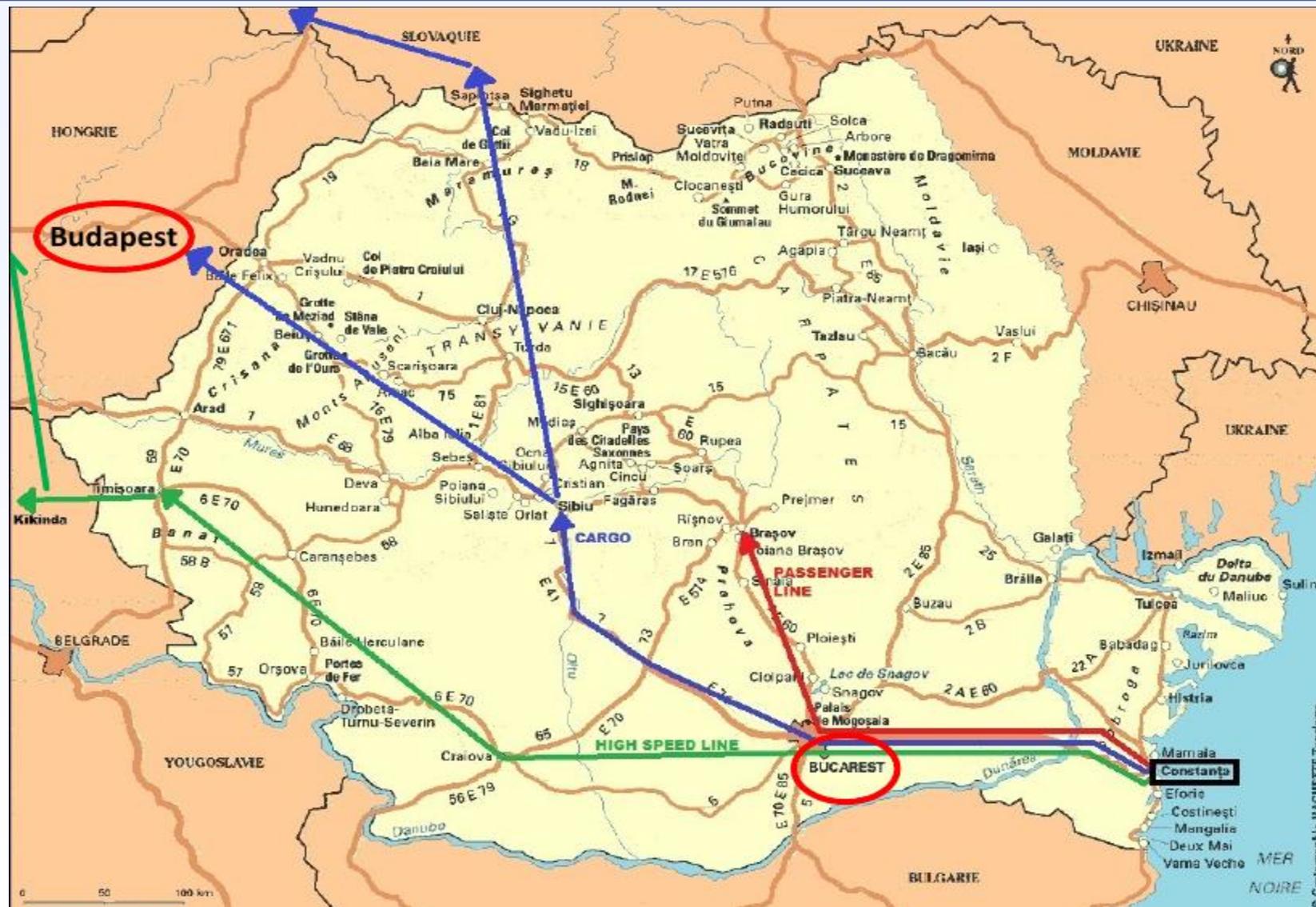
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- Upgrading/Rehabilitation of a 115 km section linking three cities in three countries (HU, SR, RO)
- Part of a general concept of future high speed railway lines in the region
- Summary presentation of project given at UNECE TER Meeting in Timisoara on 12 September 2012
- Numerous institutional, economic and financial risks and challenges
- Promise by some of the concerned railway companies to consider the above option

Summary Map of Project Region – HU, SR



Summary Map of Project Region – RO





Higher Speed Railway Line Szeged-Kikinda-Timisoara

Some population data on the involved cities:

<u>Population</u>	
Kikinda	41 000
Szeged	170 000
Timisoara	319 000
Subotica	141 000
Arad	160 000

<u>Population</u>	
Belgrade	1 660 000
Budapest - City	1 740 000
Budapest - Metro	3 280 000
Bucharest	1 880 000
Vienna - City	1 980 000
Vienna - Metro	2 420 000



Higher Speed Railway Line Szeged-Kikinda-Timisoara

Some (obviously not realistic/up to date) cost data of alternative options:

Változatok	km	Cost of Option M FT at prices of 2000 excl. VAT	M EUR HUF/ EUR 260	M EUR/ km
1. Szeged-Kikinda-Temesvar	114.2	40 229	155	1.35
2. Szeged-Kiszombor-Nagyszentmiklos-Temesvar	115.2	46 903	180	1.57
3. Szeged-Mako-Apatfalva-Nagyszentmiklos-Temesvar	121.5	52 601	202	1.67
4. Szeged-Mako-Nagylak-Arad-Temesvar	167.7	55 338	213	1.27



For the financial period 2014-2020 the following will be especially relevant:

- Macro-economic conditionality should be respected
- Ex-ante conditionality ensuring the possibility of effective investments
- Clear performance framework for programmes and projects including measured indicators



There will be defined for each country:

- A **Common Strategic Framework** – for the transport sector, this generally means a viable longer term transport strategy must be in place; for the railways, this usually covers a needs assessment and an investment strategy
- A **Partnership Contract** comprising objectives and indicators measuring progress towards Europe 2020 targets; the relevance of this pertains to environmentally friendly transport, mitigating climate change, and providing for an ageing population which in turn translates into a mandate for developing sustainable railway transport
- **Operational Programmes** for the grant allocations will be based on effectiveness and efficiency criteria



Higher Speed Railway Line Szeged-Kikinda-Timisoara

- Need for a **well-justified strategic plan** for investment in Higher Speed Railway Lines
- Need for **exemplary cooperation** between the involved countries and entities to ensure consistency
- Need to ensure a robust basis for project decision-making, including a proper **socio-economic justification** (demand analysis)
- Need to ensure a proper basis for effective and efficient project implementation, including proper **cost estimation**, due attention to an **efficient procurement** framework, and a systematic **risk assessment**

Only then need financing details be considered....

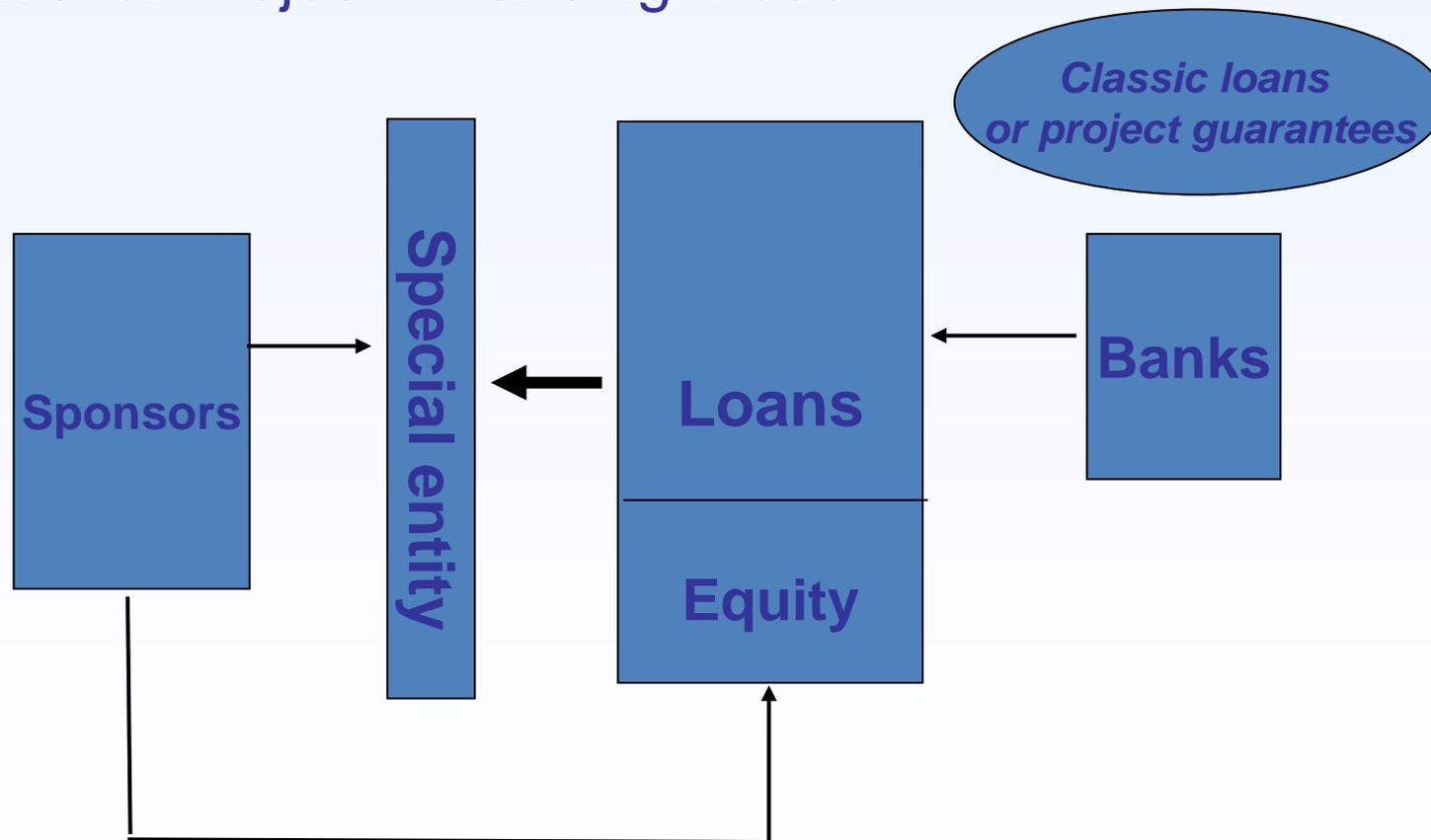


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- Remember earlier points on requirements of various potential financiers
- For projects where a major risk is on a country level, financial constructions will to a large degree depend on full state support in each case
- There is nothing prohibiting the exploration of innovative financial constructions such as project bonds, but.....



Traditional Project Financing Model

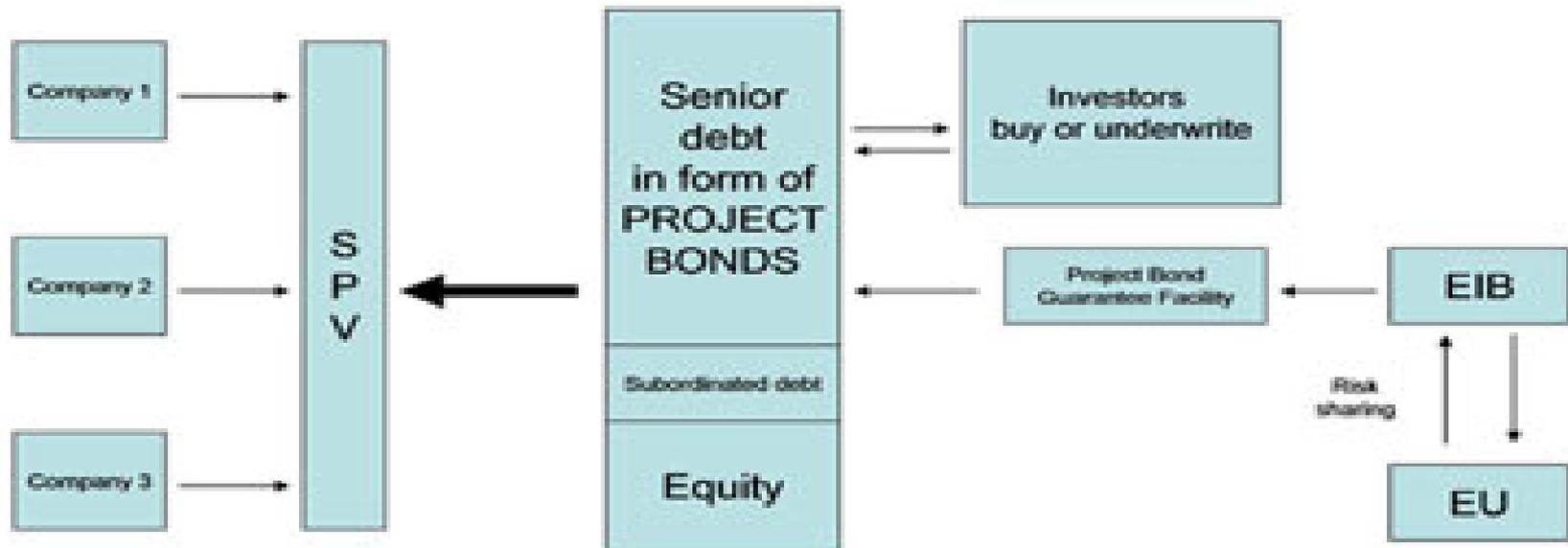


Some key points on experience with project bonds



Model from EC/EIB

Project bond initiative



Project bonds in practice so far.....



- First project, a gas storage facility in Spain, was agreed in July 2013
- A 1.4 bn EUR bond issue for the project was supported by a 200 M EUR liquidity line under the Project Bond Credit Enhancement Facility which allowed the project to receive a credit rating more attractive to investors
- In addition, the EIB purchased 300 M EUR of bonds as an anchor investor, placed with a wide range of institutions across Europe
- Although prime projects might aim for an « A » credit rating, the rating agencies so far believe that projects will remain constrained to the « BBB » category
- The current regulatory climate is biased against indirect security enhancements, thus tending to increase spreads for project bonds
- The Spanish project bonds are rated « BBB+ » outlook negative, because seismic problems have prevented further gas injection

Conclusions



- Remember the pyramid and the need for a solid foundation
- Any project must be grounded on an identified realistic demand, resulting in a strong economic case
- Cost estimates must be realistic and up to date and reflect best technical estimates as well as market conditions
- The first step would be a demonstration that a concerted approach by the key players (the railway infrastructure investment agencies in the three countries concerned) is institutionally possible
- Tangible evidence of this would be the launching of a cross-border concept study on the feasibility of a regional system of high speed railway lines in the medium term



Thank you for your attention !

