



## **Mongolia: building a sustainable economic growth through downstream industries and rail infrastructure**

Ulaanbaatar • June 2011

**Ministry of Road, Transportation,  
Construction and Urban Development of Mongolia**

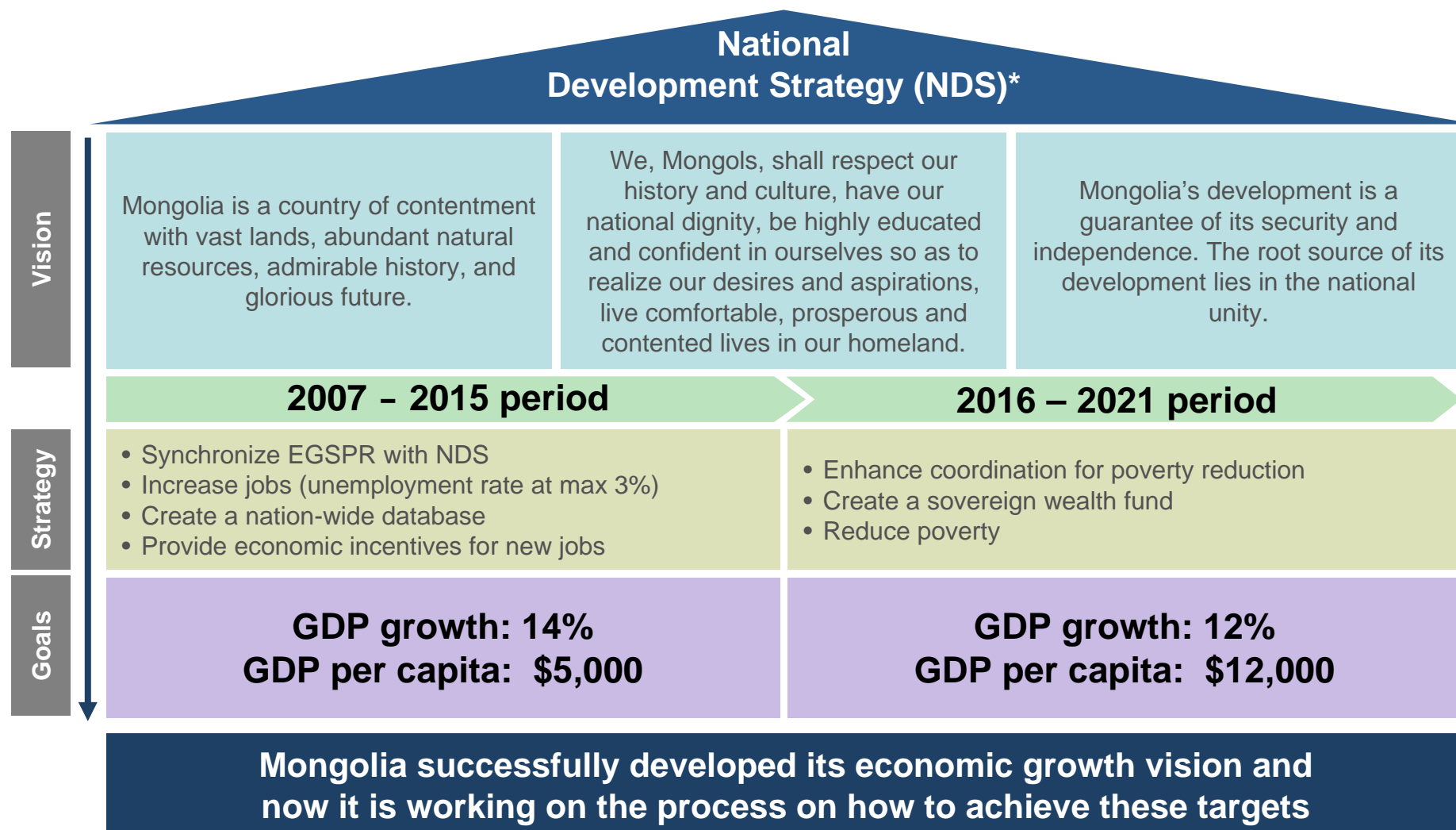
# Agenda

Executive summary	3
Country's macro-economic goals	4
Industrialization plans	8
Railway strategy	10
Execution timetable	19

## Executive Summary

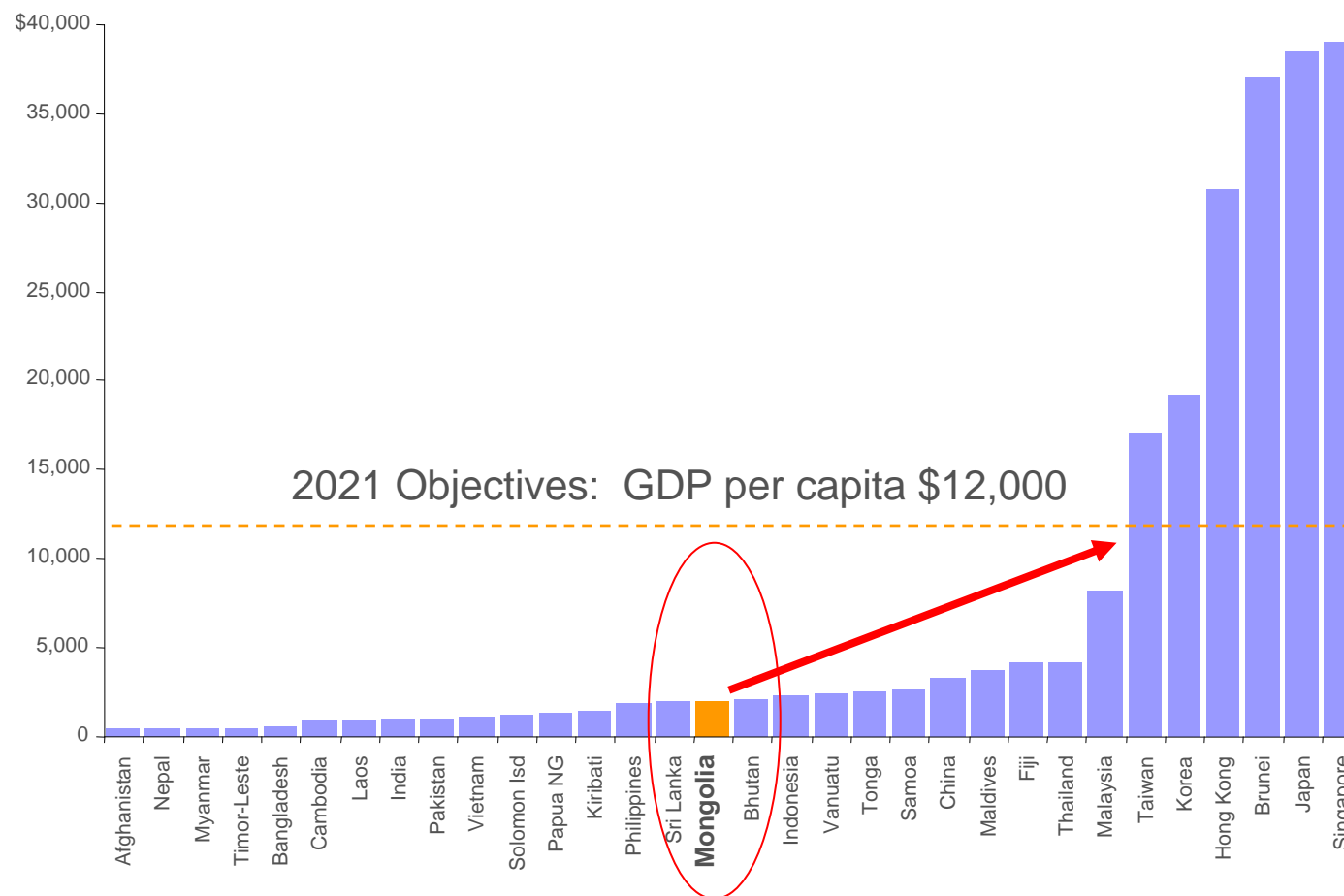
- Mongolia has huge, untapped resource reserves
- It is a back-door to #1 commodity consumer nation in the world
- Miniscule GDP compared to market valuation of reserves
- The Parliament and the Government of Mongolia resolved all necessary decision for implementation of infrastructure and industrial projects
- Railway infrastructure development requires Russian participation
- Long-term and sustainable offtake of Mongolian commodities could increase seaport investments in Russia

# Millennium Development Goals based Comprehensive National Development Strategy of Mongolia



\* Parliament of Mongolia resolution 12 dated Jan. 31, 2008 endorsing National Development Strategy of Mongolia

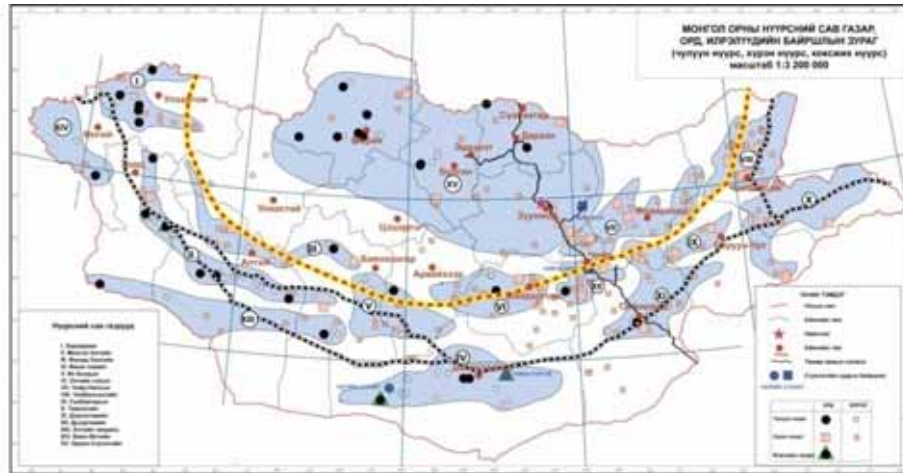
## Mongolia's National Development Strategy objectives in perspective with other Asian advanced and developing countries



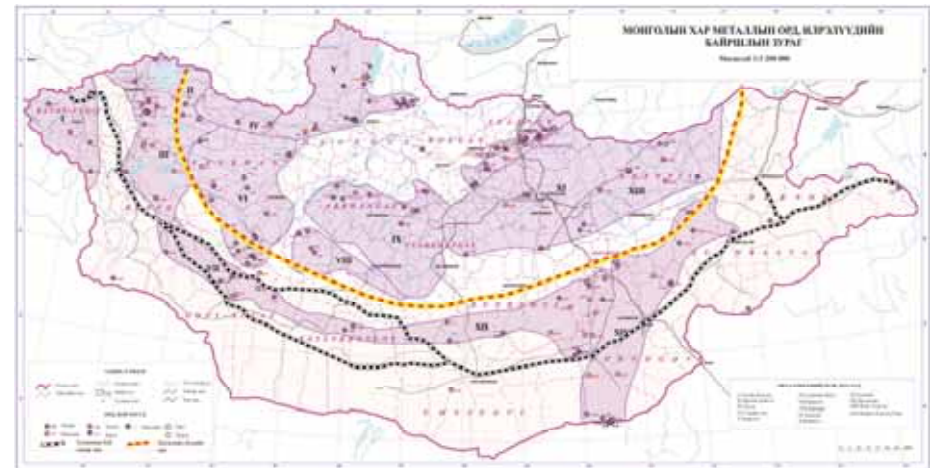
**Achievement of the National Development Strategy would catapult Mongolia into one of the top economies in the regions**

# A new railway infrastructure planning should consider linking all mineral deposits of Mongolia<sup>(1)</sup>

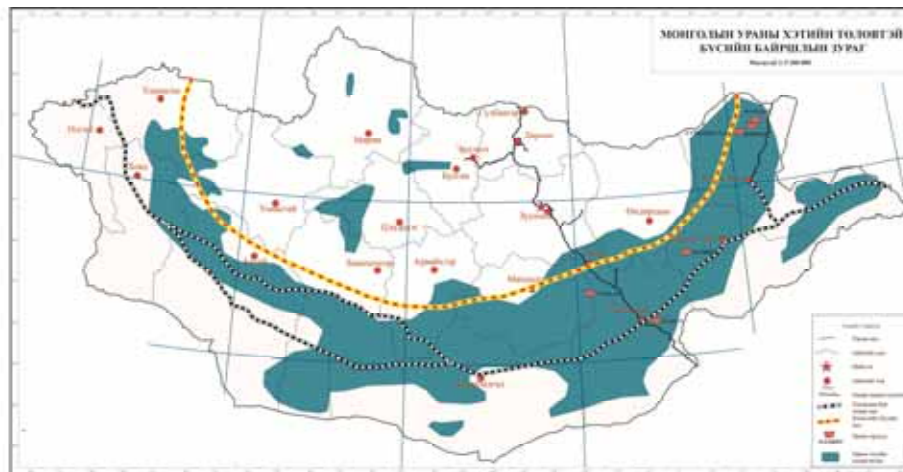
Coal Deposits



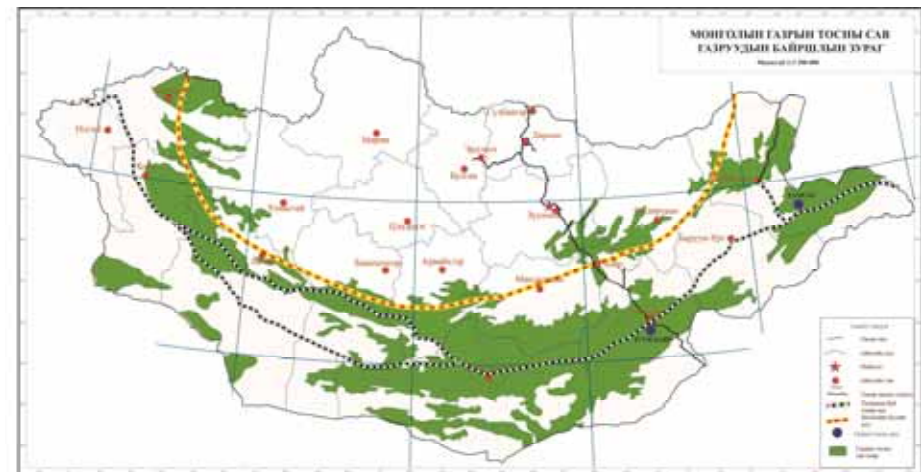
Iron Ore Deposits



Uranium Deposits



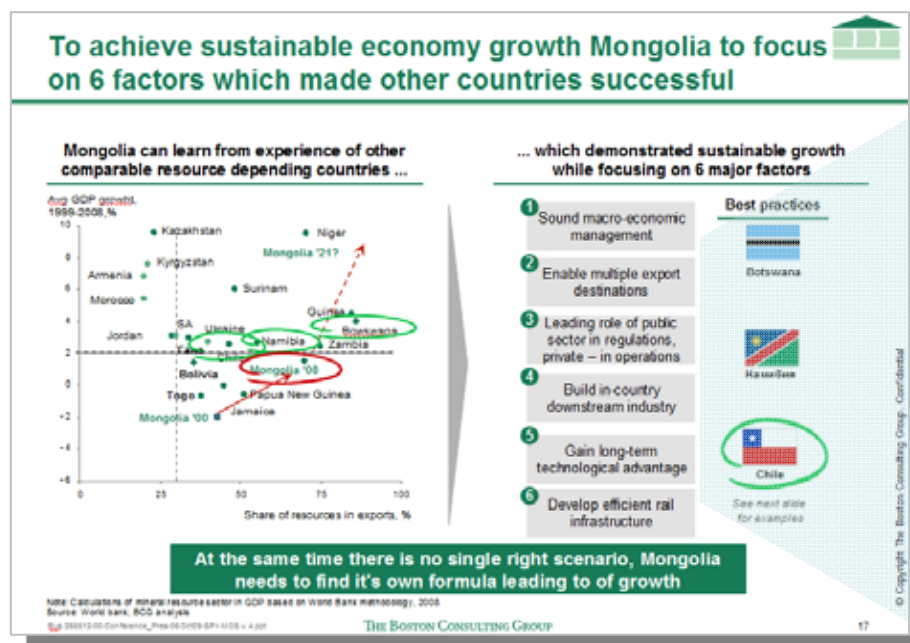
Oil Deposits



1) Source: Geosan LLC, Mongolia.

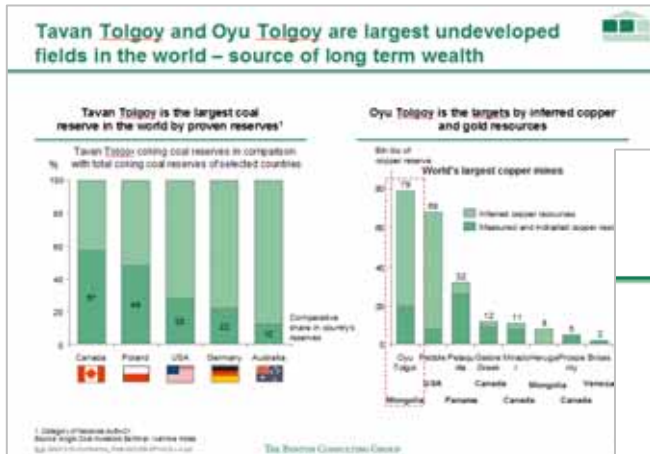


# According to the Boston Consulting Group study, Mongolia needs to create following to achieve a sustainable growth<sup>(1)</sup>...

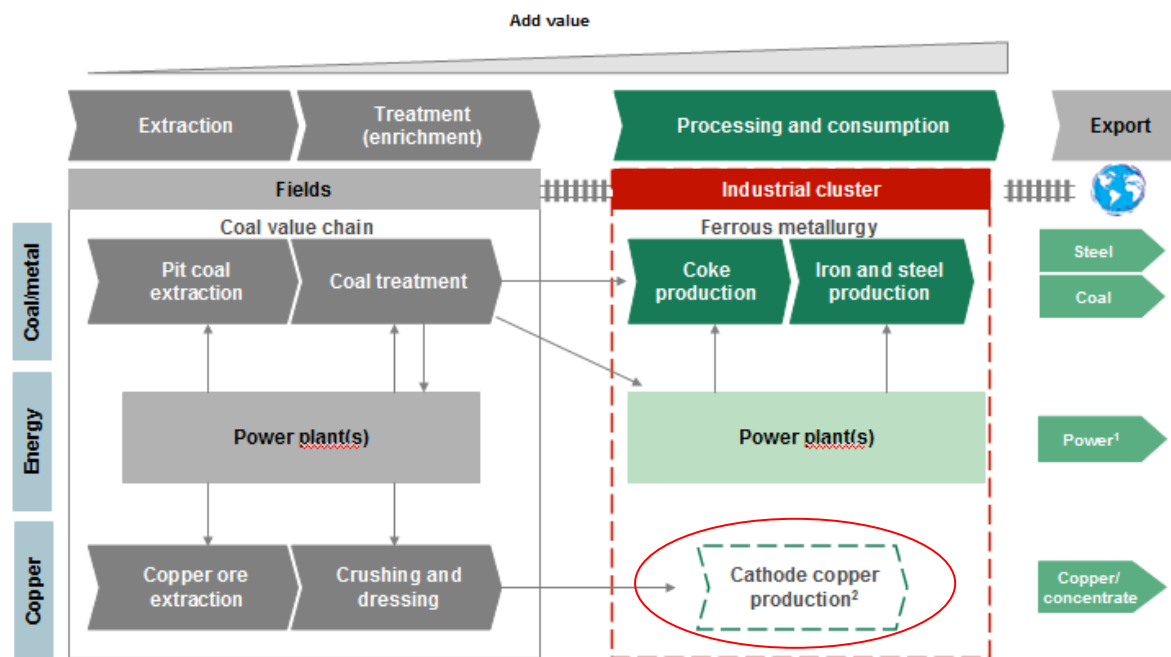


- 1 Sound macro-economic management
- 2 Enable multiple export destinations
- 3 Leading role of public sector in regulations, private – in operations
- 4 **Build in-country downstream industry**
- 5 Gain long-term technological advantage
- 6 **Develop efficient rail infrastructure**

# The Government resolved to build an industrial cluster in Sainshand for GDP diversification<sup>(1)</sup>



## Industrialization of the South of Mongolia is to be based on metallurgy



1. Power export depends on thermal coal surplus and requires individual feasibility study.  
2. Currently is not economically justified but additional research is required for future feasibility assessment.  
Source: BCG analysis

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THE BOSTON CONSULTING GROUP

51

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1) Government of Mongolia, Resolution 118 dated May 12, 2010

2) Boston Consulting Group, Railway Infrastructure Development Strategy for Mongolia, October 2009



# If the Government of Mongolia plans for construction of a Copper Smelter then...

INVESTMENT AGREEMENT

BETWEEN

THE GOVERNMENT OF MONGOLIA

AND

IVANHOE MINES MONGOLIA INC LLC

AND

IVANHOE MINES LTD

AND

RIO TINTO INTERNATIONAL HOLDINGS LIMITED

- The Investor will provide Rio Tinto's (or its Affiliates) **Proprietary Technologies** held in joint venture **with Outokumpu**, for the operation of the Smelter<sup>(1)</sup>;
- The Investor shall in **priority supply** (by sale or tolling) mineral concentrate to any third party operated copper smelters located in Mongolia on the following basis<sup>(2)</sup>:
  - it is entitled to first satisfy the mineral concentrate needs of such smelter<sup>(3)</sup>; and
  - the copper smelter needs meet all technical criteria and specifications for effectively accepting and smelting copper concentrate from the OT Project<sup>(4)</sup>.

1) Investment Agreement dated October 6, 2009, article 3.20

2) Investment Agreement dated October 6, 2009, article 3.21

3) Investment Agreement dated October 6, 2009, article 3.21.1

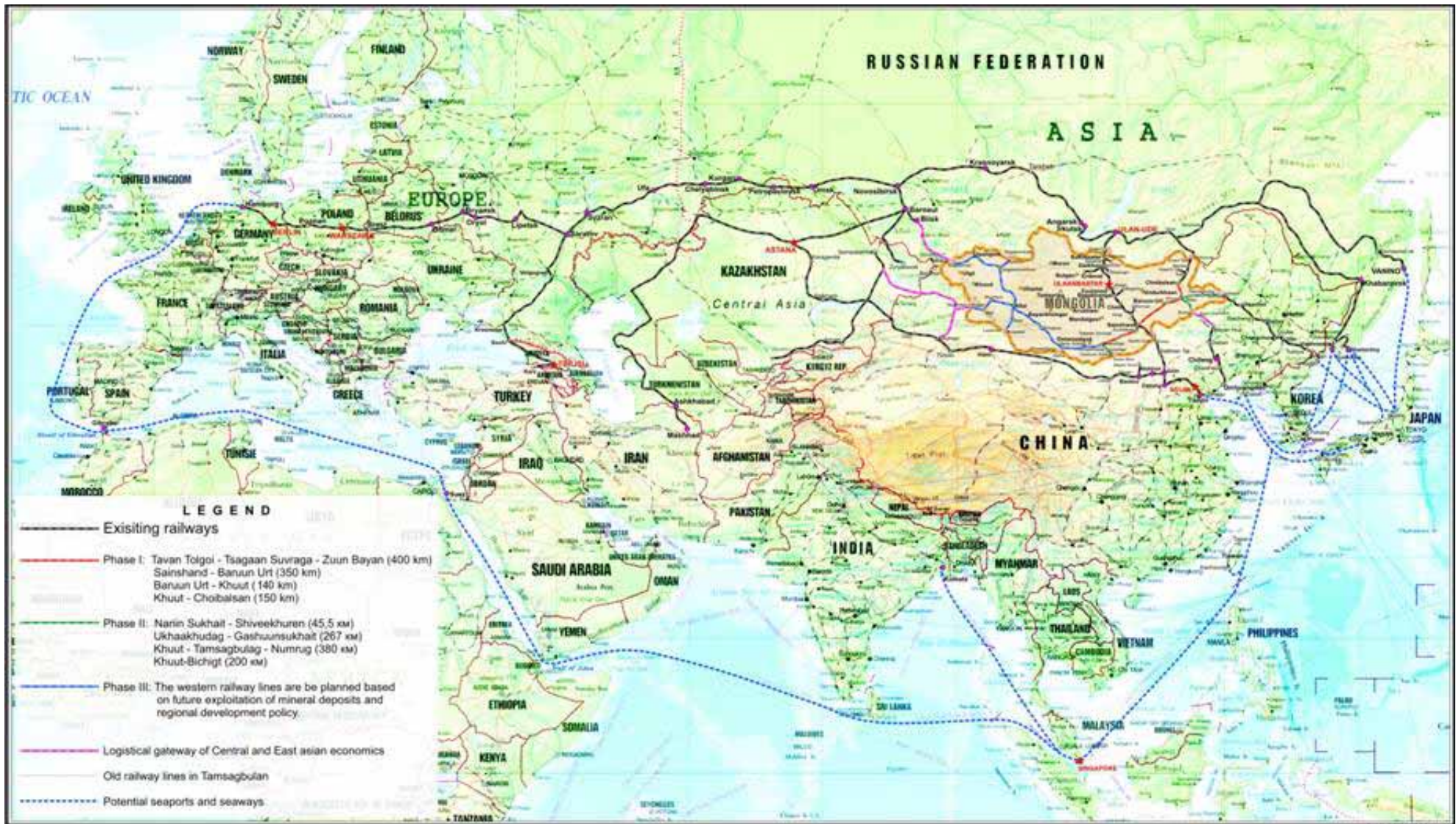
4) Investment Agreement dated October 6, 2009, article 3.21.2

# Government of Mongolia (GOM) is to start with Phase 1 of the recently ratified State Policy on Railway Transportation





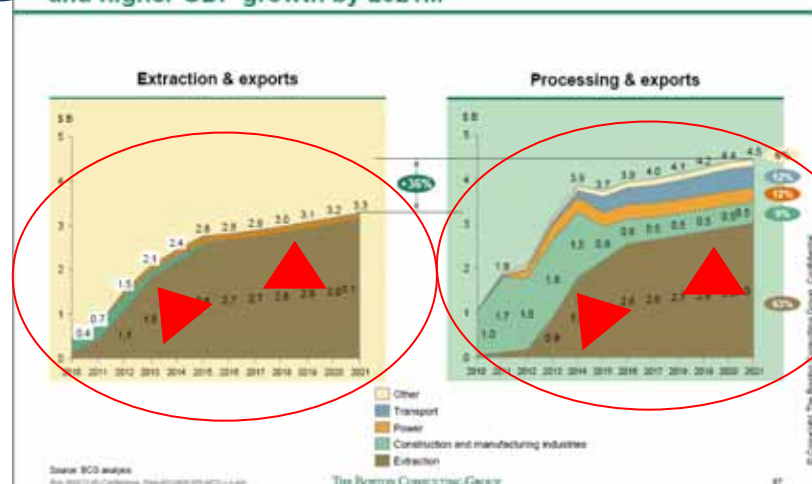
# Modernization and new railway infrastructure in Mongolia would enable transit freight capacity between Asia and Europe



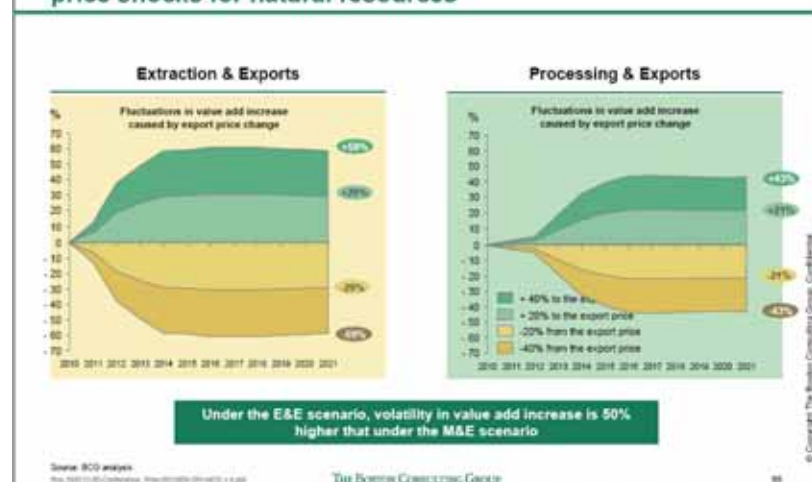


## According to BCG's socioeconomic impact for building railways and Sainshand industrial park...

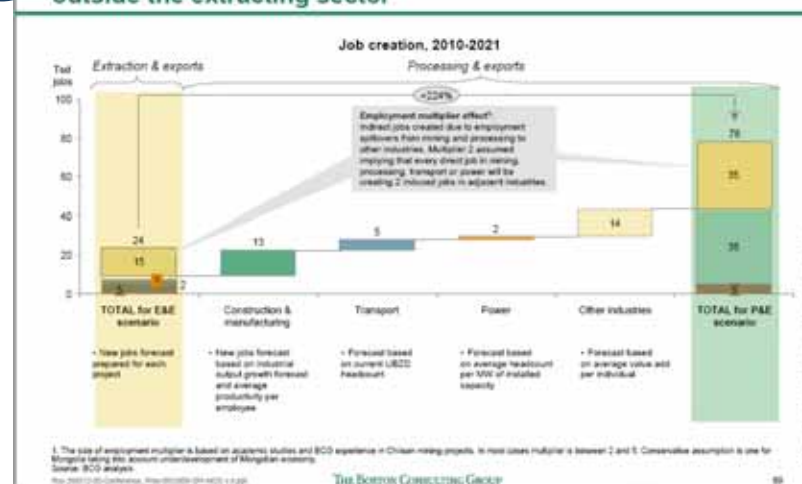
**1** Processing & Exports scenario enables both diversification and higher GDP growth by 2021...



2 <sup>GDP</sup> ... and makes the economy less vulnerable to external price shocks for natural resources



**3** *Employment* Most jobs under the P&E scenario would be created outside the extracting sector



#### 4 P&E scenario provides better attainment of the goals set by the national development strategy

Quantitative and qualitative study of contribution of scenarios vs. the goals of the national development strategy				
		Target 2021 <sup>1</sup>	E&E scenario	P&E scenario
GDP	GDP growth (%)	12-14%	9% <sup>2</sup>	10% <sup>2</sup>
	Share of processing in GDP (%)	x4	-2pp	+4pp
Employment and people	Unemployment (%)	significant reduction	+10-25 th. p.	+40-80 th. p.
	Below the poverty line (%)	regional center with ~100k population	slow development	development of the South Gobi and Sainshand
Infrastructure	Technoparks and technological develop-t	technology & industrial parks are established	unchanged	Sainshand industrial cluster is established
	Road and rail network density	density growth	unchanged	railway length increased by 30%
	Energy production	domestic power demand satisfied	0.6GWt capacity at the mine	1.6GWt capacity, self sustainability
	Railway construction	double track TMR, Eastern and 2 <sup>nd</sup> railway in use	one-track TMR, disintegrated railway system	double track TMR, integrated line at TT, Eastern line to be constructed in the future

<sup>1</sup> As defined by the strategy of national development and goals of reformers development

<sup>2</sup> GDP growth in comparison

Source: ECE macroeconomic model

does not contribute to strategy's goals attainment  
 goal attained  
 Low contribution to goal attainment  
 High contribution to goal attainment

The Bottom-Up Strategy

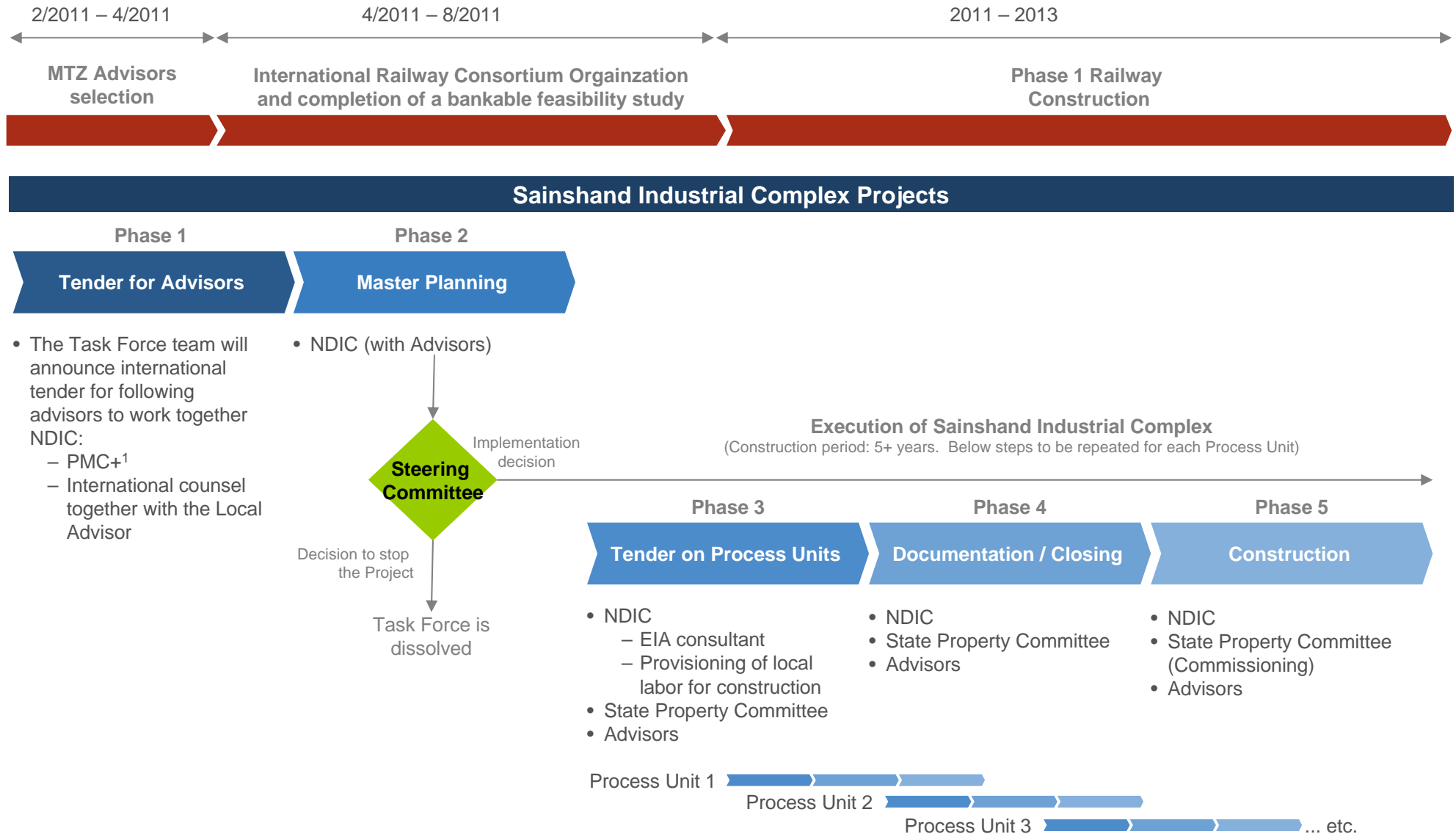
## The Railway Policy of Mongolia calls for following minimum technical requirements<sup>(1)</sup>:

- New **railway gauge** track shall be **1,520 mm** and shall for freight transportation from mines to process units, to export markets.
- New railway infrastructure is to be constructed on a **BOT basis** by private financing and to be transferred fully to the Government after certain utilization period.
- Railway investors need to perform **technical and technological reforms**.
- The new throughput capacity needs to **increase 3.5 times** from existing one and transport **50 mtpa on average**

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1) State Policy on Railway Transportation of Mongolia, Parliament of Mongolia, June 24, 2010, articles 4.1.2, 6.3, 6.4, 3.1.6, 3.2.3.1.

# Execution timetable



1) Project Management Consultant Plus