

India - BSR Trade Exchange and Connectivity: A Myth or Reality?

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Antwerp launches daily rail freight service to China

Isabel Lesto | Wed, 11 May 2011

Customs authorities along the 10,000km route plan to share data to speed-up transit time

The first scheduled departure of a new Antwerp-Chongqing rail connection left the Belgian port on Monday, carrying a mixture of bulk cargo and container freight.

The **five-days-a-week service**, operated jointly by Hupac, Russkaya Troyka and Eurasia Good Transport, goes from the port of Antwerp's Combinant terminal through Germany and Poland to Ukraine, Russia, Mongolia and China – more than 10,000km.

Antwerp port spokesman Annik Dirkx said: "By rail, the journey takes between 20-25 days, while the sea route takes up to 35 days."

The type of cargo moving **eastbound** is largely **chemicals**, while **westbound** goods are mostly **automotive and technological goods**.



It was a myth a decade ago, now a reality!

Presentation Outline

- Importance of BSR
 - BSR – India trade pattern
 - Barriers to trade
 - BSR - India transport linkages
 - Challenges and way forward
- 

BSR in EU (2009)

	BSR10*	BSR11
GDP share (%)	55.71	43.34
Population share (%)	0.50	0.93
Area share (%)	0.86	7.47

*Excluding Russia

Source: World Bank

BSR Economy (2009)

	GDP (US\$ trillion, current price)	GDP per capita (US\$, current price)	Population (million)	Area (% of world)
BSR 11	7.57 (PPP: 7.08)	34,815 (PPP: 27,666)	303.63 (5%)*	14.40
India	1.16 (PPP: 3.36)	1,017 (PPP: 2,947)	1,139.96 (17%)*	2.45

*As a percent of world population

Source: World Bank

India – BSR Trade

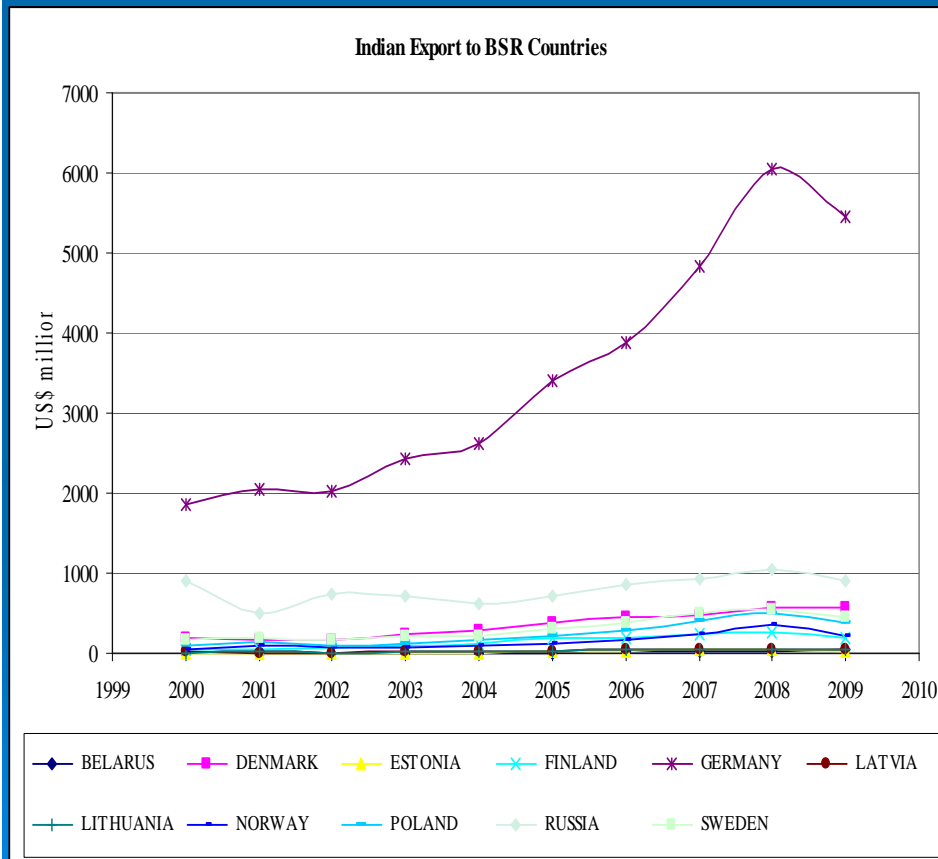


India – EU Trade

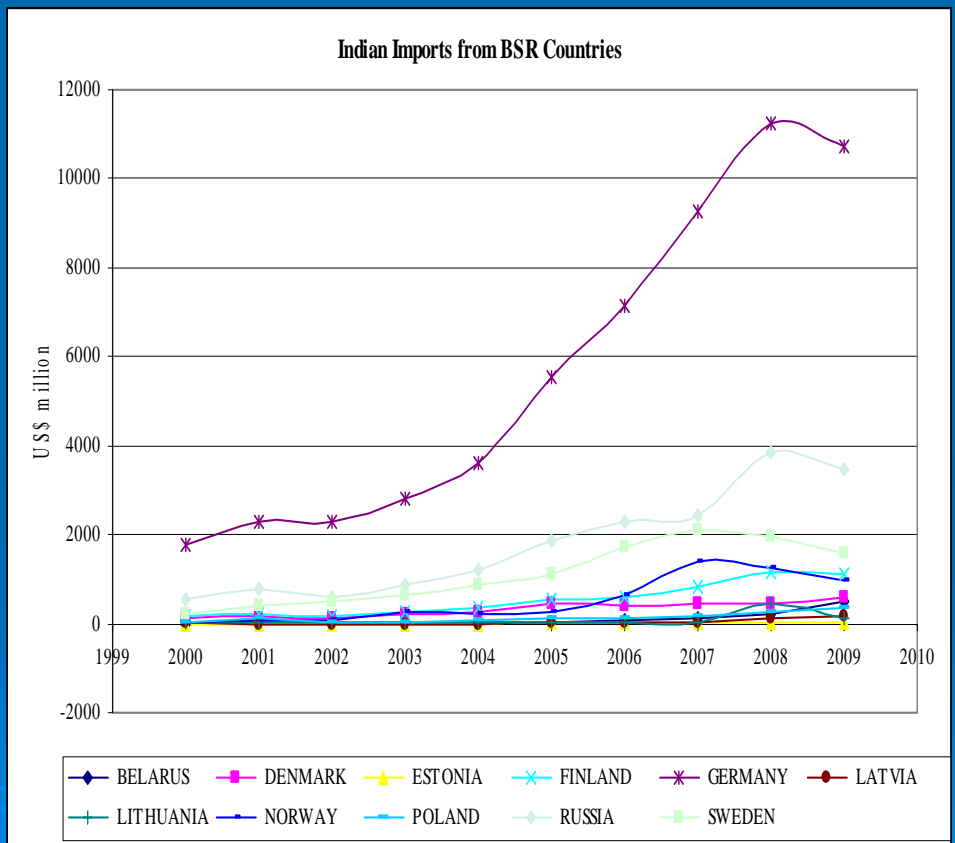
- ❑ EU is India's one of largest trading partners
- ❑ India ranks as the EU's 10th most important trading partner
 - ❑ Two-way trade increased from US\$ 21 billion in 2000 to US\$ 72 billion in 2009
 - ❑ Trade in goods more than doubled over 2000-2008 (EUROSTAT 2011).
- ❑ In 2009, about 25% of total India's exports went to EU and 18% of India's total imports came from EU.
 - ❑ Unfavourable balance of trade (about US\$ 3 billion, avg, 2005-2009)
- ❑ Top export destinations within the EU were Germany (26%), followed by the United Kingdom (16%) and Belgium (13%).
- ❑ Goods exports have grown at an average of 14% per year, particularly commodities and manufacturing goods.
- ❑ **High intra-industry trade potential** between India and EU
- ❑ A large portion of India – EU trade is remained unrealized.
- ❑ India – EU FTA negotiation is in advanced stage of negotiation (expected to be signed next month).

India - BSR Trade: 2000-2009

(a) Export



(b) Import



Source: IMF

Exchange of Products

- ❑ BSR is heavily trade dependent.
 - ❑ Almost 100% of GDP is the trade openness. It even outnumbers Euro area in trade openness.
- ❑ India is relatively less opened in trade.
 - ❑ Export of goods and services contributes 23% of GDP (2009).
- ❑ BSR exports to India increased mainly in **machinery and transport equipment and other manufacturing** goods.
 - ❑ These product groups account for over 70% of the total Indian imports from BSR countries.
- ❑ Indian exports to BSR increased with **textiles and clothing and chemicals accounting** for 80% of exports to BSR.
- ❑ BSR has a **substantial trade deficit with India in agricultural products, energy, and textiles and clothing**, which is not the case in **machinery and transport equipment on which the balance is positive**.
- ❑ Trade integration between India and BSR may depend on trade competitiveness and complementarity.
 - ❑ Stronger complementarity between BSR and India would lead for higher trade exchange, thereby strengthening economic integration.

Trade Complementarity

- India had trade complementarity of 39.50% of its exports to BSR in 2009, increased from 35.57% in 2003.
 - There is relatively **higher trade creation potential** between India and BSR.
 - Changes in trade complementarity over time indicate **trade profiles are becoming more or less compatible**.
 - Trade complementarity indicates that bilateral trade between India and BSR has greater potential to grow since **trade in similar product lines has started growing, leading towards deepening production networks between them**.
 - High degree of complementarity indicates more **favorable prospects for a successful trade arrangement** between India and BSR.

Intra-industry Trade (IIT)

- IIT levels are higher in **manufacturing goods** than primary good, reflecting the greater role of economies of scale in the production.
 - There are **production-sharing opportunities** in **chemical, electrical and electronics, machinery and mechanical appliances, iron and steel industry, etc. products.**
 - **Germany offers highest intra-industry trade potential in 210 products ($IIT > 0.50$), whereas Norway offers IIT potentials in 49 products only.**

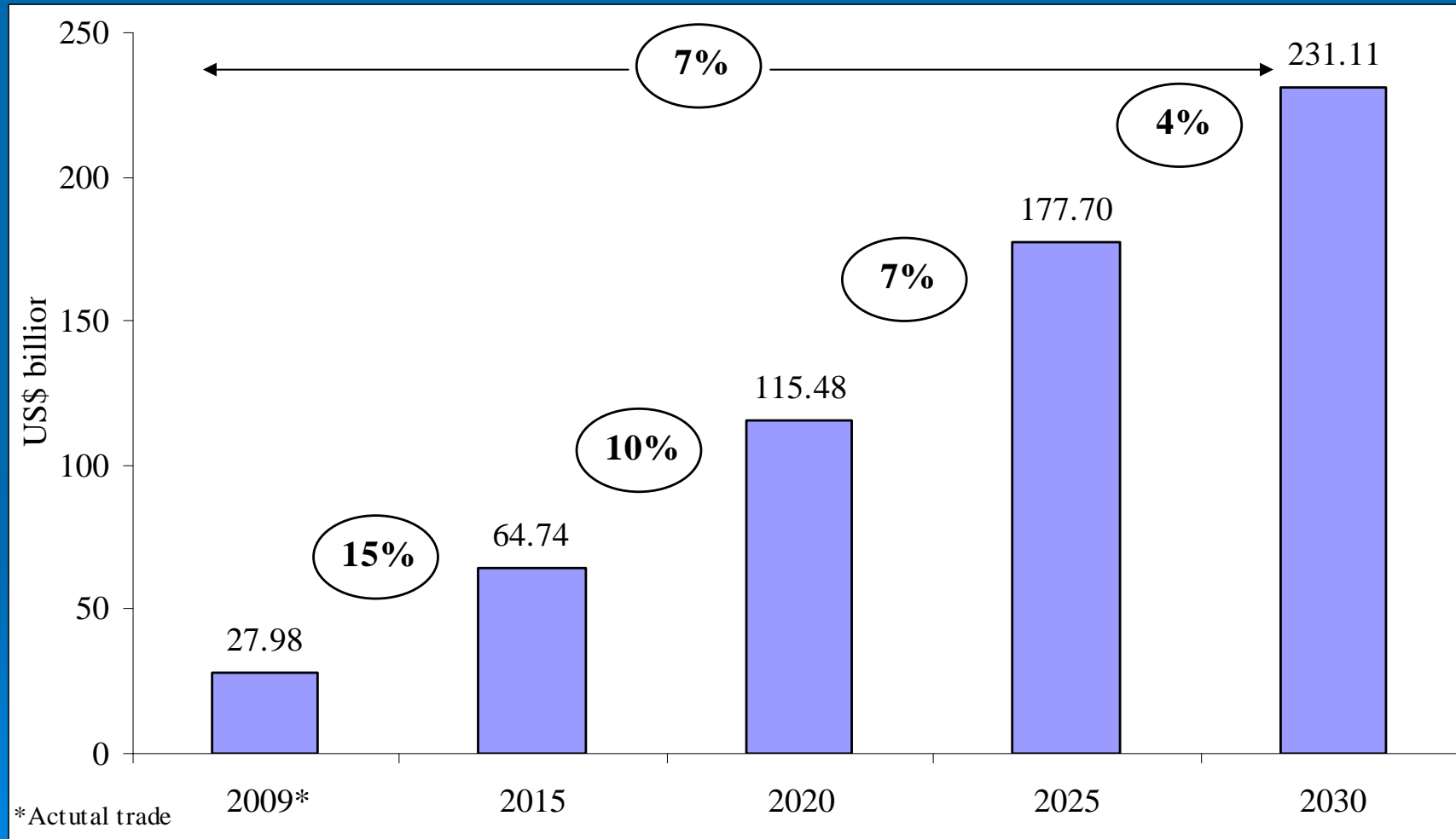
Summing-up

- ❑ Prospects of increasing trade between India and BSR may depend more on the **existence of product complementarities and intra-industry trade**.
- ❑ The success of trade between India and EU may depend crucially on the extent to which the **larger market**, India, given its relative size, becomes **more accessible to EU products and vice versa**.
- ❑ EU being a larger economy, it needs to help India in **achieving a higher degree of complementarity** by committing not only **greater investments** in India but also helping the country to attain higher **trade capacity**.

India – BSR Trade Future Potential



Estimated India – BSR Trade Potential



Source: De (2011)

India's Future Trade with Major BSR*

Year	Denmark	Finland	Germany	Norway	Poland	Russia	Sweden	BSR7	BSR 11	Share of BSR7
	(US\$ billion)									(%)
2009*	1.17	1.31	16.17	1.19	0.73	4.39	2.05	27.01	27.98	96.53
2010	1.30	1.14	15.67	1.58	3.04	12.00	2.08	36.81	37.69	97.65
2011	1.39	1.22	16.45	1.78	3.19	14.80	2.41	41.24	42.33	97.40
2012	1.64	1.37	18.75	1.83	3.39	16.69	2.68	46.34	47.64	97.27
2013	1.88	1.41	19.09	2.06	3.60	17.95	2.81	48.79	50.34	96.91
2014	2.01	1.54	22.41	2.20	3.77	19.45	2.93	54.33	56.21	96.66
2015	2.55	1.68	27.70	2.34	3.96	21.05	3.14	62.43	64.74	96.42
2016	3.00	1.72	32.96	2.49	4.16	22.85	3.23	70.40	73.03	96.41
2017	3.54	1.95	38.32	2.57	4.40	25.58	3.43	79.80	82.84	96.32
2018	3.98	2.29	42.69	2.75	4.65	28.65	3.64	88.66	92.01	96.36
2019	4.23	2.52	49.07	2.94	4.91	32.09	3.87	99.63	103.42	96.33
2020	4.77	2.96	54.46	3.13	5.19	35.93	4.00	110.45	115.48	95.65
2021	5.40	3.58	60.78	3.41	5.53	39.35	4.23	122.28	126.99	96.29
2022	5.83	4.11	67.10	3.69	5.89	43.10	4.46	134.17	139.40	96.25
2023	6.26	4.83	73.42	3.77	6.27	47.20	4.71	146.46	152.17	96.25
2024	6.89	5.26	79.76	3.95	6.68	51.69	5.07	159.30	165.63	96.18
2025	7.42	5.98	84.09	4.24	7.11	56.61	5.35	170.81	177.70	96.12
2026	7.84	6.29	89.35	4.41	7.52	61.09	5.66	182.16	189.60	96.07
2027	8.15	6.61	93.61	4.66	7.95	65.92	5.98	192.88	200.79	96.06
2028	8.37	6.82	96.87	4.73	8.40	71.14	6.10	202.43	210.74	96.06
2029	8.59	7.03	99.13	4.90	8.88	76.77	6.34	211.64	220.36	96.04
2030	8.60	7.18	102.40	5.06	9.38	82.85	6.49	221.97	231.11	96.04

*Estimated Source: De (2011)

Barriers to India-BSR Trade

Dependent variable = Export

Variables	Coefficients
GDP of Reporter (India)	0.912*** (0.141)
GDP of Partner (Importer)	0.383*** (0.141)
Liner Connectivity Index of Reporter	-0.0603 (0.282)
Liner Connectivity Index of Partner	0.421 (0.285)
Tariff	-0.278 (-0.208)
Distance	-1.024** (-0.442)
Adjacency dummy	-1.677* (-0.944)
FTA dummy	1.086 (0.719)
Air connectivity dummy	1.325 (0.859)
Language dummy	-2.602*** (-0.736)
BSR dummy	-0.407 (-0.473)
R-squared	0.932
Observations	231
Country fixed effect	Yes
Hausman test	
Chi2 value, p-value	16.56 (0.0000)

} Market size to drive export

} India needs improvement in liner connectivity#

} Tariff cut still important#

} Transport costs not yet dead

#Usual; disclaimers apply

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. All variables are in log scale.

Source: De (2011)

Transport costs outweigh tariff in EU-Asia trade

Importer: European Union (27)

Exporter	1981-1990	1991	1991-2000	2001	2001-2008	2007#
	Transport cost (%) [*]	Tariff (%) ^{**}	Transport cost (%) [*]	Tariff (%) ^{**}	Transport cost (%) [*]	Tariff (%) ^{**}
China	22.686	13.580	44.131	7.070	27.898	6.360
India	22.715	13.500	19.354	7.070	12.237	6.720
Indonesia	17.613	12.560	17.257	7.760	25.023	7.170
Japan	8.192	12.630	10.541	5.670	7.802	5.030
Malaysia	9.413	14.600	11.483	5.580	18.994	5.280
Thailand	8.864	14.340	5.559	7.600	10.535	6.980

^{*}Ad-valorem (as % of import value), simple average, calculated based on DOTS, IMF

^{**} Simple average tariff, sourced from WITS, World Bank #Averaged over 2003-2007

Source: De (2010)

Summing-up

- ❑ **Germany** will continue to be India's largest trading partner from BSR. The larger BSR economies (**BSR7 countries**) will dominate the trade with India.
- ❑ The India-BSR trade may fall short of a target of US\$ 50 billion in 2013 if we don't facilitate the trade adequately.
- ❑ **Market size** would drive the trade flow. India's rising economic growth would obviously lead to higher trade between India and BSR in coming years.
- ❑ **Improvement is needed in India's liner shipping network** (importance of transport facilitation) with the global network.
- ❑ Further tariff cut (importance of trade liberalization) is important.
- ❑ Transport cost is one of the major barriers to trade.

BSR – India Connectivity



Dominant Modes of Connectivity

❑ Ocean shipping

- ❑ Asia – Europe lines [34 lines serving Chinese coast, 4 lines serving Indian coast]

❑ Air shipping

- ❑ About 64 air cargo operators serving China – Europe, about 16 air cargo operators serving India – Europe
- ❑ Only a few passenger air services between India and BSR [Shanghai and Beijing have direct flights to most of the BSR countries]

Passenger Airlines between India and BSR

Airlines	Indian Cities	BSR Cities
Lufthansa	Delhi, Chennai, Kolkata, Hyderabad, Pune, Mumbai, Bangalore	Munich, Frankfurt
Fin Air	Delhi	Helsinki
Aeroflot	Delhi, Mumbai	Moscow
Air India	Delhi, Mumbai	Frankfurt, Munich, Moscow

Source: De (2011)

Air Freight and Passenger Movement between India and BSR

(a) Freight

Year	Denmark	Finland	Germany	Russia	India Total
Volume ('000 tonnes)					
2007-08	6.67	5.42	106.03	4.25	1025.01
2008-09	7.63	5.50	99.36	2.79	1072.47
2009-10	2.27	6.44	103.26	7.11	1139.07
Share (%)					
2007-08	0.65	0.53	10.34	0.41	
2008-09	0.71	0.51	9.26	0.26	
2009-10	0.20	0.57	9.07	0.62	

(b) Passenger

Passenger	Denmark	Finland	Germany	Russia	India Total
Volume (million numbers)					
2007-08	*	0.12	1.36	0.15	27.17
2008-09	0.00	0.13	1.29	0.19	28.93
2009-10	0.00	0.12	1.26	0.22	32.08
Share (%)					
2007-08	0.00	0.44	5.01	0.54	
2008-09	0.00	0.46	4.45	0.67	
2009-10	0.00	0.38	3.93	0.67	

*Very negligible

Source: De (2011)

Maritime Connectivity: Liner Shipping Connectivity Index (LSCI)

Country	2004	2005	2006	2007	2008	2009	2010
Denmark	11.56	24.25	25.39	22.10	26.49	27.68	26.76
Estonia	7.05	6.52	5.76	5.78	5.48	5.71	5.73
Finland	9.45	10.16	8.58	10.70	9.72	10.15	8.36
Germany	76.59	78.41	80.66	88.95	89.26	84.30	90.88
Latvia	6.37	5.82	5.10	5.87	5.52	5.18	5.98
Lithuania	5.22	5.88	5.66	6.83	7.76	8.11	9.55
Norway	9.23	8.31	7.34	7.80	7.91	7.93	7.93
Poland	7.28	7.53	7.50	7.86	9.32	9.21	26.18
Russia	11.90	12.72	12.81	14.06	15.31	20.64	20.88
Sweden	14.76	26.61	28.17	25.82	30.27	31.34	30.58
BSR10	15.94	18.62	18.70	19.58	20.70	21.03	23.28
India	34.14	36.88	42.90	40.47	42.18	40.97	41.40

Source: UNCTAD

Containerized Trade

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	CAGR*
Country	(million TEUs)										(%)
Denmark	0.57	0.46	0.59	0.89	1.21	0.91	0.68	0.68	0.65	0.64	1.35
Finland	0.93	1.02	1.09	1.16	1.31	1.31	1.42	1.56	1.53	1.06	1.53
Germany	7.70	8.43	9.25	10.94	12.48	13.60	15.01	16.64	17.18	12.77	5.78
Poland	0.25	0.26	0.32	0.35	0.43	0.51	0.64	0.77	0.86	0.81	14.06
Russia	0.32	0.61	0.77	0.96	1.37	1.80	2.27	2.96	3.31	2.18	23.91
Sweden	0.88	0.85	0.81	0.86	1.10	1.25	1.27	1.29	1.30	1.25	3.94
BSR6	10.64	11.62	12.82	15.16	17.90	19.39	21.28	23.91	24.83	18.71	6.47
India	2.45	2.76	3.21	3.92	4.33	4.98	6.14	7.38	7.67	7.89	13.87
World	225	235	264	297	338	376	417	468	491	444	7.85
Share of BSR in world (%)	4.73	4.94	4.87	5.10	5.29	5.15	5.11	5.11	5.06	4.22	
Share of India in world (%)	1.09	1.18	1.22	1.32	1.28	1.32	1.47	1.58	1.56	1.78	

*Compound annual growth rate (CAGR) **Known as Jawaharlal Nehru Port

Source: De (2011) based on Containerisation International

Growth in Container Traffic

Port	Country	2005	2006	2007	2008	2009	CAGR
		(million TEUs)					(%)
Hamburg	Germany	8.095	8.882	9.917	9.737	7.008	-3.54
Bremen/ Bremerhaven	Germany	3.744	4.444	4.892	5.488	4.579	5.16
Nhava Sheva**	India	2.670	3.298	4.060	3.953	4.061	11.06
St. Petersburg	Russia	1.275	1.588	1.856	1.983	1.342	1.28
Gothenburg	Sweden	0.803	0.839	0.854	0.863	0.818	0.44

*Compound annual growth rate (CAGR) **Known as Jawaharlal Nehru Port
Source: De (2011) based on Containerisation International

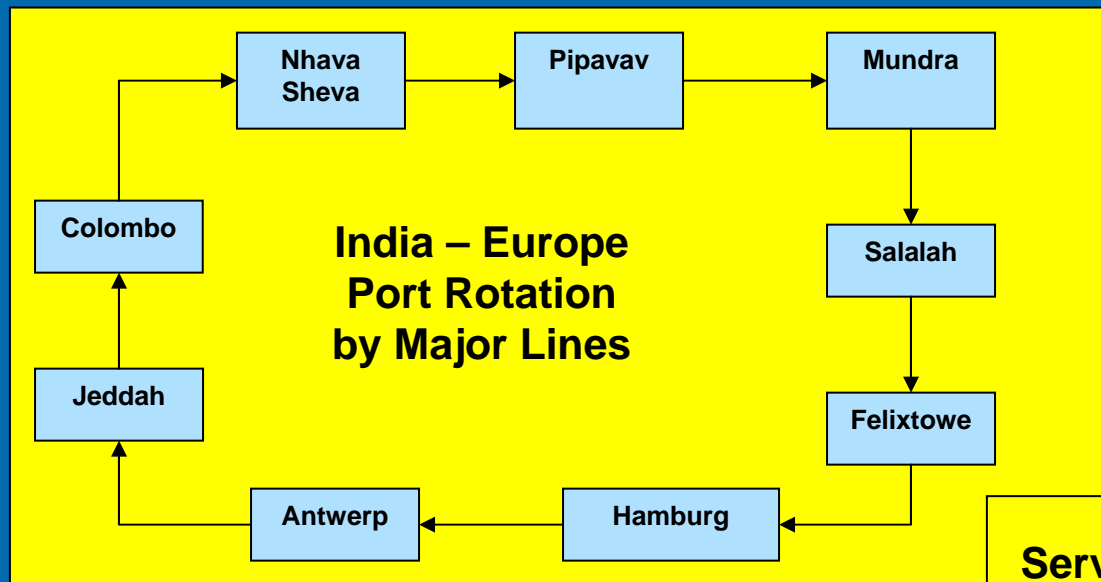
Container Traffic between India and BSR Countries in 2009*

Country	Export	Import	Total
	(TEU)		
Norway	2858	5075	7933
Germany	38953	83189	122142
Denmark	2327	22073	24400
Poland	5512	22629	28140
Sweden	2671	25103	27774
Russia	12471	273748	286219
Finland	1603	11681	13285
BSR 7	66395	443498	509893
India Total**	3372000	3493000	6865000
Share of BSR7 in India Total (%)	1.97	12.70	7.43

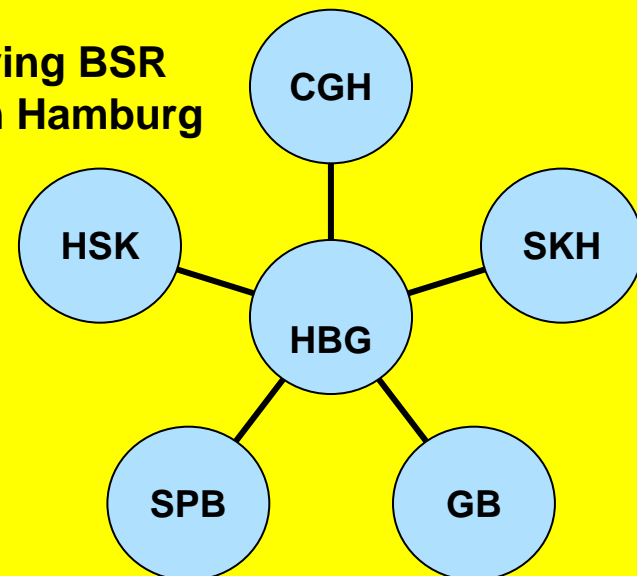
*Estimated based on UNCOMTRADE. **Actual, taken from Ministry of Shipping, Government of India

Source: De (2011)

Liner Shipping Network between India and BSR



Serving BSR from Hamburg



Note: Copenhagen (CGH), Gothenburg (GB), Hamburg (HBG), Helsinki (HSK), St. Petersburg (SPB)

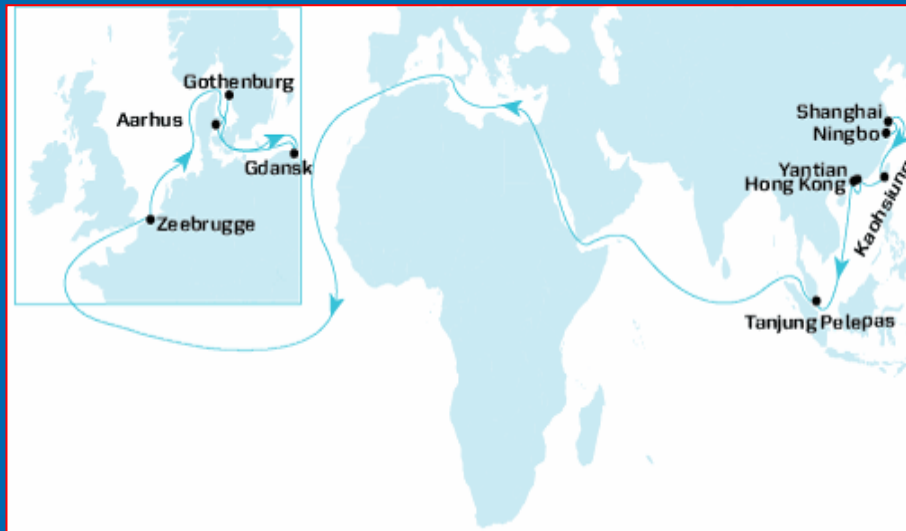
Source: De (2011)

India – Europe Liner Networks



Source: De (2011)

India – Europe Liner Networks



Source: De (2011)

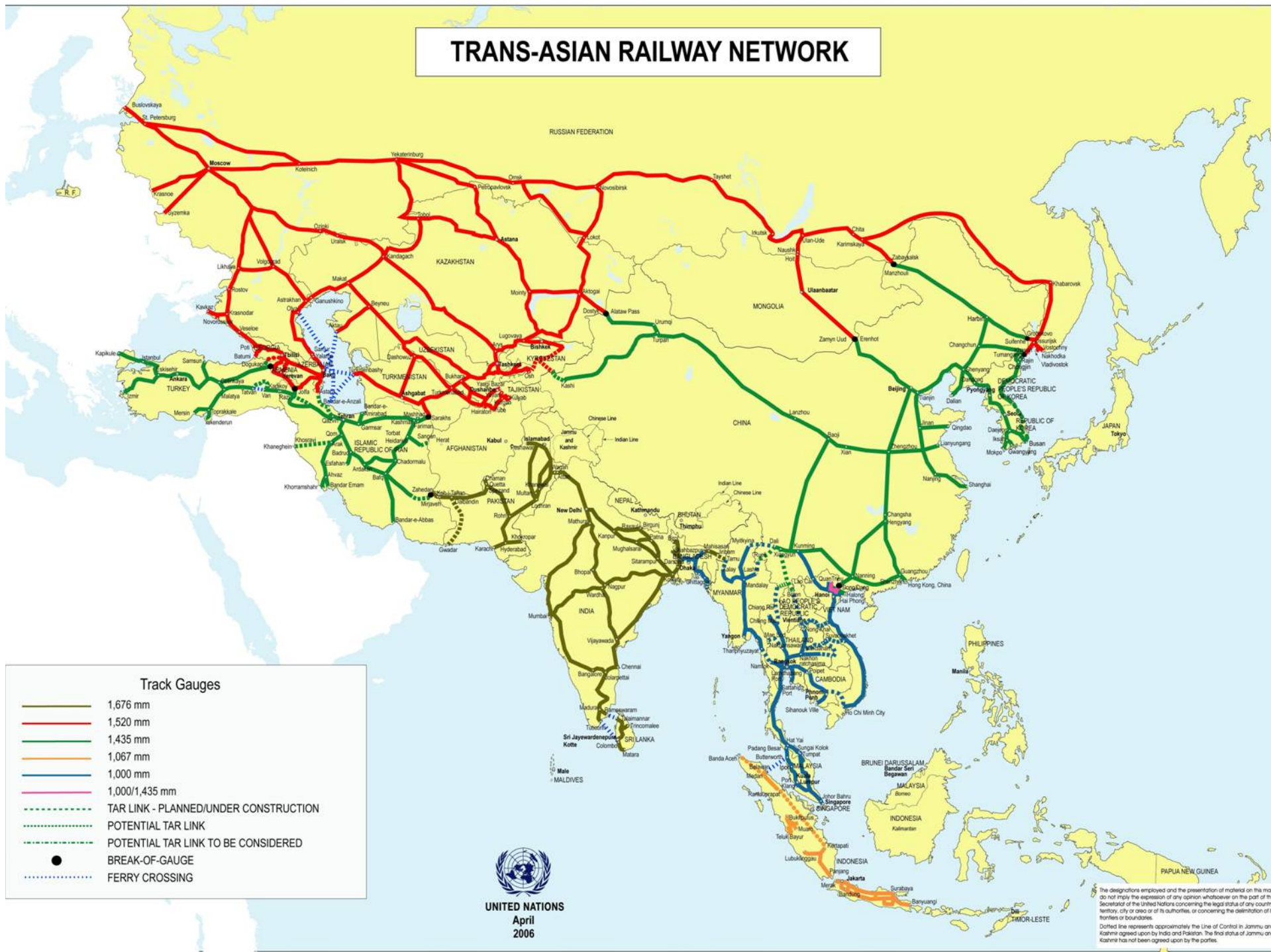
Connectivity Plans



ASIAN HIGHWAY ROUTE MAP



TRANS-ASIAN RAILWAY NETWORK



Euro-Asian Transport Linkages

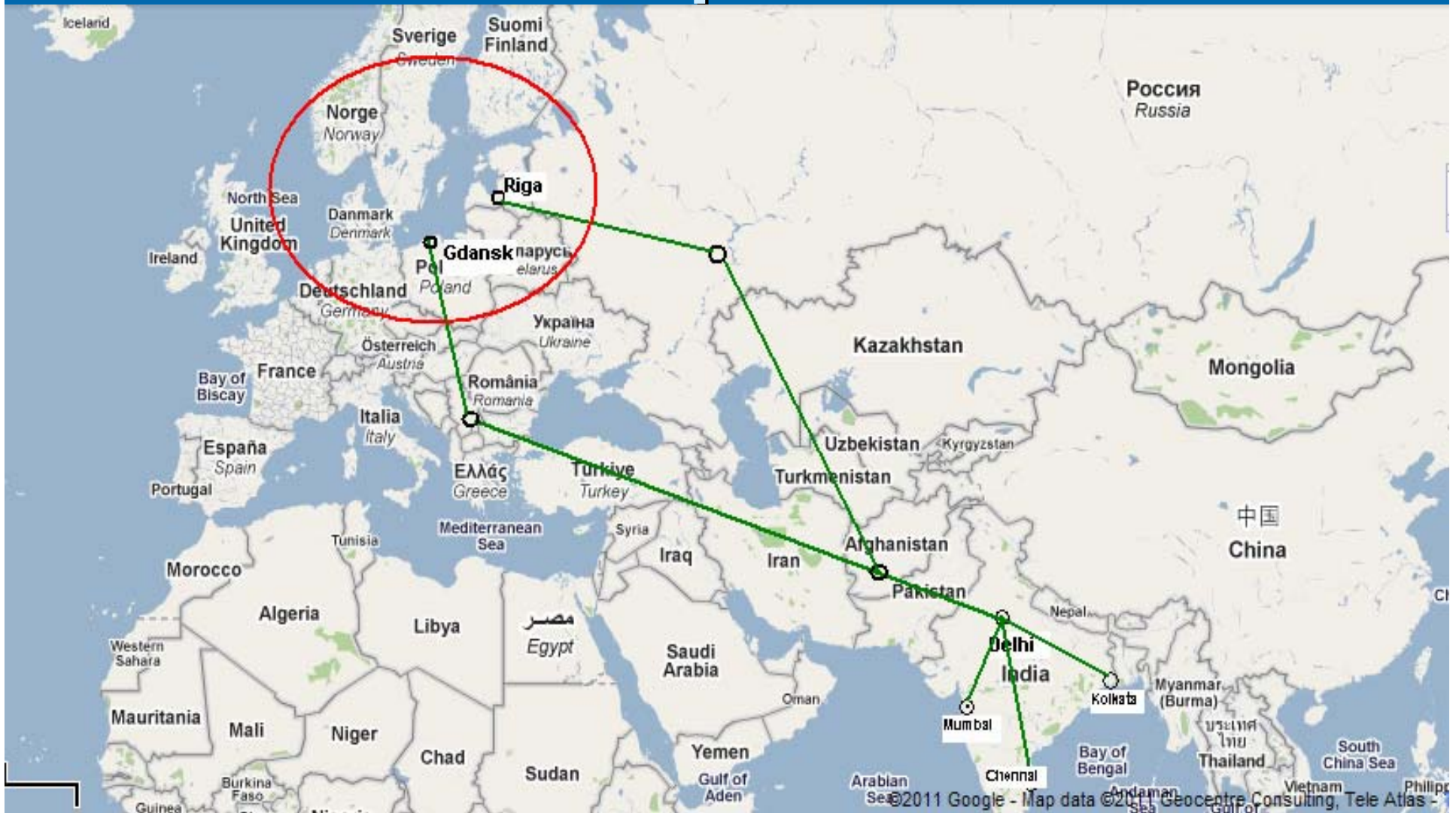
- ❑ Euro–Asia Transport Linkages is a joint project of UNECE and UNESCAP, undertaken in 2001.
 - ❑ Objective is to integrate Europe and Asia through transport corridors.
- ❑ Members - Afghanistan, Armenia, Azerbaijan, Belarus, Bulgaria, China, Georgia, Iran, Kazakhstan, Kyrgyzstan, Moldova, Romania, Russia, Tajikistan, Turkmenistan, Turkey, Ukraine, and Uzbekistan
- ❑ Pan-European Transport Corridors (PETC):
 - Trans-Siberian: Europe (PETCs 2, 3, 9)–the Russian Federation–Japan, with branches from the Russian Federation to:
 - Kazakhstan– China and the Korean peninsula
 - Mongolia– China;
 - Transport Corridor Europe-Caucasus-Asia (TRACECA): Eastern Europe (PETCs 4, 7, 8, 9)–across the Black Sea–Caucasus–across the Caspian Sea–Central Asia;
 - Southern: Southeastern Europe (PETC 4)–Turkey– Iran, with branches from the Iran to:
 - Central Asia–China
 - South Asia–Southeast Asia/Southern China
- ❑ North-South: North Europe (PETC 9)–Russia, with branches to:
 - Caucasus–Persian Gulf
 - Central Asia–Persian Gulf
 - Across the Caspian Sea– Iran–Persian Gulf.

East – West Transport Corridor



Source: East – West Transport Corridor II, available at www.ewtc2.eu

India – BSR Intermodal Link – a Proposal



Source: Author

Fostering India – BSR Connectivity: The Enabling Environment

- ❑ Accession to the International Conventions**
- ❑ Intermodal Transport and Transit**
- ❑ Strengthening and Harmonizing Rules, Regulations, and Standards**
- ❑ Financing Cross-border Transport Projects**
- ❑ Strengthening Coordination among Countries and Stakeholders**
- ❑ Closer Cooperation on Security**
- ❑ Strengthening Regional Cooperation**

India-BSR connectivity ~ myth today.....will be a reality soon

□ The Need for **stronger** India - BSR Regional Cooperation

- A **strategic partnership for policy development and an action plan** to foster regional cooperation and integration between India and BSR.
- To intensify the regional cooperation and integration, one of the essential tasks would be to implement **EU-India Trade Facilitation Initiative (EITFI)**.
- A **structured agenda** is needed to combine the efforts of businesses, policy makers, and governments for stronger economic relations.
- An **association** between India and BSR may be **formalized** which will not only provide a platform for cooperation and action but also take the EU-India partnership ahead.

Thank you

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Fellow

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