

TURNING THE INTERNATIONAL NORTH-SOUTH CORRIDOR INTO A “DIGITAL CORRIDOR”

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<p>Article history:</p> <p><i>Received:</i> 25.06.2018</p> <p><i>Accepted:</i> 15.08.2018</p>	<p>Abstract: At present, the International North-South Transport Corridor (INSTC) is being widely discussed among policy makers and academia as on the ground progress is fast taking shape. The project has primarily remained an initiative of four major participating states – i.e. India, Iran, Azerbaijan and Russia – that are territorially located along the route of the corridor. Private businesses, whether local companies or multinational corporations, have not been very interested to jointly develop the project, mostly out of their concerns for assured returns on investments. The study builds a comprehensive case for the participating states to actively engage the private companies for developing the mega-connectivity project. The latter holds an advantage over advanced digital technologies in the global markets. Hence, public-private partnerships will bring about application of advanced digital technologies, like IoT, Blockchain technology, etc., which will efficiently serve the needs of different activities happening along the entire length of the corridor. This, in turn, will increase the overall strength and utility of the corridor, thereby ensuring its lasting success.</p>
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INSTC: emerging new reality

The International North-South Transportation Corridor (abbreviated as INSTC) is a 7200-kilometer-long multi-modal corridor connecting Mumbai in India to St. Petersburg in Russia, though Azerbaijan and Iran.¹ Other than these four territorially located states to the corridor/international highway, which are also its major developer states, seven more states have become members to the INSTC agreement. These are: Armenia, Kazakhstan, Kyrgyz Republic, Tajikistan, Turkey, Ukraine, Belarus, Oman, Syria and Bulgaria (as observer).²

¹ INSTC Forum Planned in Feb // *Finance Tribune*, 20 January, 2018. Mode of access: <https://financialtribune.com/articles/economy-domestic-economy/80364/instc-forum-planned-in-feb>

² Membership: Accession Process in International North-South Transport Corridor/INSTC Corridor, Ministry of Roads and Urban Development, Tehran, Iran. Mode of access: <http://instccorridor.com/membership/>

The Economic Times reported that the corridor has become operational starting from mid of January 2018, and would become fully functioning in another few months' time.³ This claim does not fully comply with the prevailing scenario as certain important sections of the corridor still remain to be connected,⁴ while

³ Chaudhury, D.R. INSTC to be Operationalised Mid-Jan 2018; Game Changer for India's Eurasia Policy" // *Economic Times*, 5 December, 2017. Mode of access: <https://economictimes.indiatimes.com/news/economy/foreign-trade/instc-to-be-operationalised-mid-jan-2018-game-changer-for-indias-eurasia-policy/articleshow/61926321.cms>

⁴ The Phase 2 of the Astara (Azerbaijan)-Astara (Iran) railroad, i.e., Astara-Rasht branch, is planned for completion by 2020. Azerbaijan to Build INSTC Railroad in H1 2018 // *Financial Tribune*, November 16, 2017. Mode of access: <https://financialtribune.com/articles/economy-domestic-economy/76256/azerbaijan-to-build-instc-railroad-in-h1-2018>

some other sections need to be upgraded to the level of becoming easily traversable.⁵

Nevertheless, policy level proceedings and implementation measures are well underway in recent years. On December 3, 2017, the Phase 1 of the Shahid Beheshti Port at Chabahar was inaugurated, which was represented by Indian Minister of State (Shipping) Shri Pon Radhakrishnan.⁶ There are plans and high-level deliberations underway to link it up to the INSTC by building a new railway line between Chabahar north and Zahedan. This was agreed between India and Iran during Prime Minister Narendra Modi's trip to the country in May 2016.⁷ Two dry runs have been conducted along the INSTC: first one was successfully conducted by Federation of Freight Forwarders Association in India (FFFAI) during August 2014,⁸ and second reportedly done in April 2017. The report of the first dry run states, *"The proposed INSTC route via Bandar Abbas in Iran to Russia and CIS Destination in transit through IRAN, could be the best route with optimal transit/cost for the Indian Exporters/Importers."*⁹ The second dry run, conducted to spruce up all obstacles to the operationalization

of the project, is yet to be published. However, it was reported to be a success when the author contacted relevant sources.¹⁰ Hence, a sense of optimism prevails among the developer and member states as the corridor now inches closer towards becoming a reality.

The corridor will reduce shipment cost of cargo trade from India to Europe by 2500 USD per 15 tons of cargo, meaning a price improvement of USD 166 per ton,¹¹ compared to the existing price of sea transport through Rotterdam Port in the Netherlands. It will provide India with an alternative access to Afghanistan and Central Asia states, thereby completely bypassing the land route through Pakistan which has been a bottleneck for India to trade with its northern neighbours. Its commencement will open a window of opportunity for India to engage with regional trading blocs, such as Eurasian Economic Union, Central Asian Union and the European Union (EU) for that matter. The trading of goods between different places along the corridor and between the end destinations will gradually harmonize national laws, generate economic prosperity and create a uniform legal climate between countries in Eurasia.¹²

In sum, the corridor will be a 'game changer' for India to get positioned as a prominent player on the strategically important Eurasian space, where India has historically, and especially in the Modern Era (1750 CE-1900CE),¹³ remained a marginal player.

⁵ There are very less traffic lights on the roads in Tehran, drivers speed drive, and many times traffic congestion happen over the narrow roads, which makes transportation of freight carriage difficult. Naghme, K. Tehran Traffic Nears Obscenity // *Financial Tribune*, 19 December, 2016. Mode of access: <https://financialtribune.com/articles/people/55644/tehran-traffic-nears-obscenity>

⁶ Inauguration ceremony of Shahid Beheshti Port at Chabahar, Iran, Ministry of External Affairs, Government of India, 3 December, 2017, available at <http://www.mea.gov.in/press-releases.htm?dtl/29146/Inauguration+ceremony+of+Shahid+Beheshti+Port+at+Chabahar+Iran>

⁷ Ibid.

⁸ INSTC Conference-India 2015 Report: Exploring opportunities on the INSTC, Indian Ministry of Commerce & Industry and Federation of Freight Forwarders' Association in India, p. 90. Mode of access: http://commerce.gov.in/writereaddata/uploadedfile/MOC_635986655921421162_INSTC_Conference_Report_Final.pdf

⁹ International North South Transport Corridor (INSTC) Dry Run Report 2014, Government of India and Federation of Freight Forwarders' Association in India. Mode of access: http://commerce.nic.in/publications/INSTC_Dry_run_report_Final.pdf

¹⁰ The author contacted Federation of Freight Forwarders Association office and inquired with office bearers about the status of the second dry report. They unofficially have conveyed that it is an overall success.

¹¹ Ibid. P. 10.

¹² According to Hann, the word Eurasia has contingent origins and that it has not been used in a consistent way by scholars. He examines Eurasia through a collective perspective of spatial, temporal, and sociocultural categorizations. He says the broad landmass is primarily composed of Asia and Europe, which is conventionally divided as two different continents, but also includes the northern zones of the present-day continent of Africa. Chriss, H. A Concept of Eurasia // *Current Anthropology*, 2016, Vol.57, No. 1, February.

¹³ The Modern Era is marked with Industrialization & Global Integration. This period witnessed European countries becoming colonial powers around the world, which created a profound dependency

INSTC: big challenge

Despite recent advances, the INSTC has not become fully operational from the time of its conceptualisation, i.e. 2002.¹⁴ Over the years, it has faced wide-ranging challenges, including economic disinterests from project developers (both private investors and government agencies),¹⁵ national security threat (particularly economic security aspect of that) to the developer states,¹⁶ and so on. During the 2000s decade and continuing into the early years of 2010 decade,¹⁷ these challenges thwarted any

relationship between colonizer and colonized nations.

Zucker, J. (ed.) *Cliffs Notes AP World History Cram Plan*. Boston: Houghton Mifflin Harcourt, 2017. P. 7.

¹⁴ Tembarai Krishnamachari, R. Entente Tri-parti: Triangular Alliances Involving India // *South Asia Analysis Group*, 2013, Paper 829, November.

¹⁵ Hassan Hakimian says that Iran's free trade industrial zones (FTZs), including the one in Chahbahar, failed to bring in foreign investments for the liberal policies pursued in these pockets stood at odds with the country's attitude towards integration into the international economy. Iran's Free Trade Zones: Back Doors to the International Economy? / in Alizadeh, Parvin and Hakimian, Hassan (eds.). *Iran and the Global Economy: Petro Populism, Islam and Economic Sanctions*, London: Routledge, 2014.

¹⁶ In 2009, the Indian consortium led by ONGC Videsh Ltd (OVL), which previously secured the development of Farzad B offshore oil field, quitted due to the to the overwhelming pressure of the US sanctions against Iran, and for the fact that the US administration had named OVL among the firms worldwide having energy ties with Iran. Iran Replaces OVL in Offshore Oil Block // *Times of India*, 27 March, 2013. Mode of access: <https://timesofindia.indiatimes.com/business/india-business/Iran-replaces-OVL-in-offshore-oil-block/articleshow/19233189.cms>; US Names 5 Indian Firms Doing Business with Iran // *Times of India*, May 14, 2010. Mode of access: <https://timesofindia.indiatimes.com/india/US-names-5-Indian-firms-doing-business-with-Iran/articleshow/5930680.cms>

¹⁷ The INSTC got a renewed spark for picking up among the member countries after a meeting was held in New Delhi on January 18, 2012; the spark increased with the 4th Coordination Council of the INSTC project held from May 28-May 30 in New Delhi.

Singh Roy, M. "International North-South Transport Corridor: Re-energising India's

practical progress of the project. Even today some of them exist, which are putting brakes on course towards its full realization. Therefore, the national governments of the developer states need to take urgent remedial actions, not to let the project fail midway or under-perform after getting fully developed, which would otherwise mean billions in investments getting sunk.

Further, it is being seen that the multinational companies (MNCs) and private companies have continually remained at the backseat for developing the INSTC. Their concerns for involvement were multifaceted, ranging from coming under the US sanctions against Iran,¹⁸ facing difficulty to freely conduct business within any national territory due to government excesses,¹⁹ getting

Gateway to Eurasia" / Institute for Defence Studies and Analyses, 18 August, 2015. Mode of access: https://idsa.in/system/files/issuebrief/IB_msroy_180815.pdf

On June 24-25, 2013, the 5th Coordination Council meeting held in Baku gave a real impetus as it was there proposed that the Federation of Freight Forwarders' Associations in India (FFFAI) will conduct the dry run on the route, which it subsequently did. Sarma, H. Ch.; Jafarova, V. *International North-South Transportation Corridor: Azerbaijan at Crossroads // Azerbaijanian Journal of Economics and Social Studies*, 2017, Vol. 4, No. 1/II 4.

¹⁸ In 2012, Ashok Leyland Project Services (ALPS) in partnership with Hinduja Group inked and agreement with the Ports and Shipping Organization of Iran to develop the Chahbahar port. However, they backed out due to the US's pressure on India to limit ties with Iran. Taneja, K. India's Missed Iran Opportunity // *The Diplomat*, 21 May, 2015. Mode of access: <https://thediplomat.com/2015/05/indias-missed-iran-opportunity/>

¹⁹ In 2012, India barred five companies (namely Singapore Technologies (ST) Kinetics, Israel Military Industries (IMI), Zurich-based Rheinmetall Air Defense, Russia's Corporation Defense, New Delhi's TS Kisan and Co. and Ludhiana, India's RK Machine Tools) from conducting any further business dealings with the Ordnance Factory Board (OFB) or the defence ministry. The suspension order was declared without giving an opportunity to the companies to be heard. Shukla, A. Foreign Arms Vendors Contest Unexplained Blacklists // *Business Standard*, January 20, 2013. Mode of access: https://www.business-standard.com/article/economy-policy/foreign-arms-vendors-contest-unexplained-blacklists-112032600091_1.html

entangled in local bureaucratic imbroglio²⁰ and so on. This, however, can be zeroed in to one major determining criterion of risks to returns on investments- i.e., profits. Therefore, they have made way for the territorial states to build their respective portions of the corridor through self-finances and through procured loans.²¹ This is, however, not the case with large-scale development projects in the present context.

The big private companies mostly take up a lead role and share investment risks to build infrastructures, wherever they have major business stakes.²² For instance, BP, under a production sharing agreement for the development of the Khazzan Project (a huge, remote, greenfield project) with Government of the Sultanate of Oman, has built a reverse osmosis plant to make saline water drinkable, a water treatment plant to deal with wastewater, one of the largest fibre optic networks existing in any of its asset, and so on.²³ Chevron, through its principal subsidiary in Nigeria- Chevron Nigeria Limited (CNL), signed a Global Memorandum of Understanding (GMOU) with Regional Development Councils (RDCs) and their state governments in Nigeria in 2005. Under the agreement, the company has spent more than \$100 million on roughly 600 programs in the Niger Delta, where it has major

ownership stakes in onshore and offshore oil fields.²⁴

The paper builds an economic case to shape the INSTC in a way that meets the opportunities and imperatives in the digital age.²⁵ It emphasizes the need for the developer states to urgently engage the private sector, both MNCs and local companies, as equal stakeholders in developing the corridor to secure advanced digital technologies over which the latter mostly has an advantage in the real markets. It contends that the application of advanced digital technologies will generate shared benefits for all parties along the entire length of the corridor; thereby creating an integrated 'business ecosystem'²⁶ surrounding it. The paper is written from an India-centric standpoint; it recommends India should take a lead towards working in the said direction to entrench its position within Eurasia and at the world-stage.

Private sector in INSTC participating states

Before a case is made in favour of bringing in advanced digital technologies to scale up performance level of the INSTC, it is essential to understand how the private sector is comprised and how it operates in the four main developer states. Following a brief snapshot of the private

²⁰ Foreign retailers pointed out various beauracratic barriers to working in India, including issuance and renwal of work permits of overseas employees that are granted for three months; as a result employees have to keep visiting the inefficient authorities to get extensions. Goyal, T.M. Here is the Market, Where is FDI? The Retail Sector in India and Oppurtunities for the EU / In Mukherjee, Arpita, Rupa Chanda and Tanu M. Goyal (eds). Trade in Services and Trade Agreements: Perspectives from India and European Union, New Delhi: SAGE, 2016.

²¹ Ritika, P. Money Matters: Discussing the Economics of the INSTC // *Observer Research Foundation*, April 20, 2017. Mode of access: <http://www.orfonline.org/research/money-matters-discussing-the-economics-of-the-instc/>

²² Smith, A.J. Infrastructure, Politics and Economics / In Privatized Infrastructure: The Role of Government, London: Thomas Telford, 1999.

²³ A desert and a Deadline: Marking First Gas in Oman // BP, 8 November, 2017. Mode of access: <https://www.bp.com/en/global/corporate/bp-magazine/locations/khazzan-gas-major-project-start-up-oman.html>

²⁴ Nigeria / Chevron. Mode of access: <https://www.chevron.com/worldwide/nigeria>

²⁵ Digital Age, also known as Information Age, is the current time we are living in where new technologies are benefiting all walks of life. This era started from around 1970s when computers first became commonplace. It is characterized by digital networking technologies, which has powered social and organizational networks for achieving endless expansion and reconfiguration, while also overcoming the traditional limitations of networking forms of organization to manage complexity beyond a certain size of the network. Torr, J.D. (ed) The Information Age, San Diego, CA: Greenhaven Press, 2003.

²⁶ A business ecosystem is a network of interlinked companies, such as suppliers and distributors, who interact with each other, primarily complementing or supplying key components of the value propositions (benefits for customers) within their products or services. Definition of Business Ecosystem // *Financial Times*. Mode of access: <http://lexicon.ft.com/Term?term=business-ecosystem>

sector, with focus on the domestic private companies, in each of these states is presented.

The private sector in India is formidable, and performing considerably well over the last two decades. It is pervasive and spread out across all sectors of the economy, save nuclear energy and handful other areas that are considered sensitive to its highest national interest. Indian private companies like, Tata Group, Birla Group, Wipro, Infosys, Videocon, Reliance Industries, and a host of others, have emerged as globally reputed multinational companies. Its contribution to the country's gross domestic product (GDP) growth stands at more than 80 percent in the 2000s, leapfrogging from around 66 percent in the 1980s and 1990s.²⁷ It has significantly contributed to employment generation, income increases and bringing in foreign investments through collaboration. The services sector, mainstay of India's economy that is mostly controlled by private companies (both domestic companies and international companies with India subsidiaries), has been attracting the highest amount of Foreign Direct Investment (FDI) inflows in recent years.²⁸ On June 16, 2017, India's Minister of Electronics & IT, Ravi Shankar Prasad, acknowledged the private sector as most instrumental for the country to become US\$ 1 Trillion Digital Economy by 2022.²⁹ However, majority of Indian private companies are still small, fall short by international standards and are yet to incorporate digitisation in their functioning.³⁰ This is why Indian products and

the country brand has failed to gain respect among consumers in the international markets.

Today the private sector in Iran is no-more it used to be under the rule of Ayatollah Khomeini, who after coming to power with the Islamic Revolution of 1979 transferred considerable private sector assets to the state.³¹ Dr. Mohsen Jalalpour, President of the Iran Chamber of Commerce (ICC), Industries, Mines and Agriculture, explains in an interview to Worldfolio, an online business magazine, that a new paradigm is fast catching up in Iran's economy as the country comes out of the international sections region. He further adds, "*the private sector is attempting to create a competitive environment in a free market economy, which is why the upcoming years will be great years for the private sector players in the country.*"³² However, the private sector there is still struggling and does not play a pivotal role in steering the economy's direction.³³ Private players are majorly involved in small-scale workshops, farming, some manufacturing, and services, besides medium-scale construction, cement production, mining, and metal working.³⁴ Mir-Hossein Mousavi led current reformist government in a dedicated push towards revamping the country's nimble private

²⁷ Private Sector Assessment (Summary) / Asian Development Bank, Country Partnership Strategy: IND, 2013-2017. Mode of access: <https://www.adb.org/sites/default/files/linked-documents/cps-ind-2013-2017-psa.pdf>

²⁸ Singh, M.M. The Rise Of The Services Sector Is Redefining India's Growth Narrative // *HuffPost*. Mode of access: https://www.huffingtonpost.in/malvinder-mohan-singh/the-rise-of-the-services-sector-is-redefining-india-s-growth-nar_a_21445764/

²⁹ Press Information Bureau, Sh. Ravi Shankar Prasad Meets the Industry Leaders to Develop a Roadmap for US\$1 Trillion Digital Economy / Ministry of Electronics & IT, Government of India. Mode of access: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=165697>

³⁰ Zainulbhai, A. Looking beyond Chaltahai, Jugaad // *Business Today*, 4 January, 2015. Mode of access:

<https://www.businesstoday.in/magazine/cover-story/business-ideas-india-focus-on-quality-products-for-growth/story/213468.html>; Also see: Press Trust of India Indian Pharmaceutical Firms Lagging In Digital Adoption, Says Report // *NDTV*, 27 September, 2017. Mode of access: <https://www.ndtv.com/business/indian-pharmaceutical-firms-lagging-in-digital-adoption-says-report-1755999>; Indo-Asian News Service. Indian Insurance Firms Lag Globally in Digitisation: Report // *Business Standard*, 13 August, 2017. Mode of access: http://www.business-standard.com/article/economy-policy/indian-insurance-firms-lag-globally-in-digitisation-report-117081300545_1.html

³¹ Basmenji, K. "Liberals and Angry Young Men" / in Tehran blues: Youth Culture in Iran, London: SAQI, 2005.

³² Private Sector Creates a New Paradigm in Iran's Economy // *World Folio*, 10 May, 2016. Mode of access: <http://www.theworldfolio.com/interviews/private-sector-creates-new-paradigm-in-irans-economy/4016/>

³³ Iran's 20Year Economic Perspective: Promises and Pitfalls // *Middle East Policy*, 2009, Vol. 1, No. 6(3), pp. 41-57.

³⁴ Iran / The World Factbook, Central Intelligence Agency. Mode of access: <https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html>

sector is opening up the public companies to the private sector ownership.³⁵ This includes scheduled transfer of share of six major public companies – Iran Aluminum Company, Esfahan Steel Company, Ahwaz Rolling and Pipe Mills Company, Amin Reinsurance, Alborz and Asia insurance companies.³⁶ Also, the new Iranian Petroleum Contract, which allows foreign companies to partner with local entities to jointly pursue exploration and development of its oil and gas resources, is a bold step towards achieving privatisation in the country's hugely potential oil and gas sector,³⁷ which previously remained under complete control of the state. Hence, Iran's private sector will now be able to harmonise its business activities in array of sectors with counterparts in different countries worldwide.

At present, the Russian economy is a hybrid of the market economy, with private ownership, modern and sound budgetary rules, and WTO accession, on the one hand, and old Soviet heritage and state control, on the one hand.³⁸ Contrary to as being depicted by

Western media, private sector in the country is agile, adaptable and significantly contributes to the national growth by producing things at home for imported goods. Some of the new private companies, which emerged post market liberalisation in 1992 as small and medium-sized enterprises (SMEs), have even grown into big corporations, such as Kaspersky Lab, Lukoil, Yandex, etc. The private sector there is mostly referred as the 'new private sector', symbolizing the SMEs that function under changing market rules in the country. This new private sector was growing alongside the Russian economy, which was experiencing high growth rates for several years until the global oil prices glut starting mid-2014 and United States and European Union *arbitrarily* imposed sanctions against Russia due its defensive military action in Crimea almost around the same time.³⁹ This impacted the Russian economy and the new private sector to a great extent. From 2017 onwards, the Russian economy has started recovering and is witnessing rise in wages, lowering of interest rates, low inflation and market diversification; thus, creating a strong macroeconomic foundation for future economic growth.⁴⁰ Sergey Gorkov, Chairman, Vnesheconombank, Russian Federation, said at the recently concluded 48th World Economic Forum Annual Meeting in Davos, Switzerland, "*It's (Russia's) quite stable in terms of GDP growth, inflation rate*".⁴¹ Majority SMEs, which

³⁵ Privatization of 5 Trillion Shares Planned by March // *Financial Tribune*, 1 February, 2018. Mode of access: <https://financialtribune.com/articles/economy-business-and-markets/81180/privatization-of-5-trillion-shares-planned-by-march>

³⁶ 6 Major Iranian Public Firms to Be Privatized // *Financial Tribune*, 21 February, 2018. <https://financialtribune.com/articles/economy-business-and-markets/82248/6-major-iranian-public-firms-to-be-privatized>

³⁷ Under the Iranian Petroleum Contract, a foreign company in partnership agreement with Iranian entity can pursue exploration and development of the country's oil and gas deposits for a maximum period 20 years from the start of development operations, and with another further 5 years in the case of IOR (Improved Oil Recovery) and EOR (Enhanced Oil Recovery) projects The Iran Question. Derrick, J. et al. The Iran Question: Where Do We Stand Seven Months on? // *Energy Source*, 2016, Iss. 17. Mode of access: <https://www.ashurst.com/en/news-and-insights/insights/energysource---issue-17---4---the-iran-question/>; The New Iranian Petroleum Contract—Government Approval. Freehills, H.S. 09 August, 2016. Mode of access: <https://www.herbertsmithfreehills.com/latest-thinking/the-new-iranian-petroleum-contract—government-approval>

³⁸ Oxenstierna, S. The Russian Economy: Can Growth be Restored within the Economic System? / Swedish Defence Research Agency (FOI), 2014.

³⁹ Roberts, D.; Traynor, I. US and EU Impose Sanctions and Warn Russia to Relent in Ukraine Standoff // *The Guardian*, 2014. Mode of access: <https://www.theguardian.com/world/2014/mar/06/us-eu-sanctions-obama-russia-ukraine-crimea>; Also refer: Molokhov, A. et al. Concerning Legitimacy of the Crimean Referendum, 2014 / Government of the Republic of Crimea, 2017. Mode of access: https://rk.gov.ru/file/dok_en.pdf

⁴⁰ Russian Economy Seen Growing from 2017 onwards: World Bank // *Reuters*, 23 May, 2016. Mode of access: <https://www.reuters.com/article/us-russia-worldbank/russian-economy-seen-growing-from-2017-onwards-world-bank-idUSKBN18J1DK>; Aris, B. The Fall in Russian Interest Rates is Snowballing // *Business New Europe*, 24 January, 2018. <http://www.intellinews.com/the-fall-in-russian-interest-rates-is-snowballing-135622/>

⁴¹ Stable Recovery Sets Russia on Path for Growth / World Economic Forum, 24 January, 2018. Mode of access: <https://www.weforum.org/press/2018/01/stable-recovery-sets-russia-on-path-for-growth/>

contributes to around 20-25 percent of Russia's GDP, are strategizing to expand geography of their business relations, as concluded by a nationwide survey by Deloitte Consulting.⁴²

At present, the private sector accounts for 80 percent of GDP of Azerbaijan, and contributes 72.4 percent of its national tax revenues.⁴³ In recent years, the Azerbaijani government has been endeavouring to increase the private sector participation in wide-ranging sectors of the economy; while developing some of them being held as highest national priority, like information and communication technologies, logistic infrastructure, transportation, etc.⁴⁴ According to the World Economic Forum's Global Competitiveness Report 2016-2017, Azerbaijan has been continually ranked number 1 in the Commonwealth of Independent States (CIS) for nine consecutive years. It has large private holding companies (PASHA Holding and Gilan Holding – the two most prominent among them) that are active in different sectors of the economy, such as agricultural processing, banking, real estates, associated services to oil and gas sector, etc. In recent years, many new companies, especially SMEs, have emerged due to improved business environment and policy reforms, which are driving up innovations, executing best management practices and endeavouring to achieve internationally accepted standards of produced goods and services.⁴⁵ The state, which still dominates

the oil and gas sector that contributes major portion of the national budget,⁴⁶ is attempting to eliminate its dependence on (global) oil prices,⁴⁷ and not its oil dependency completely. It has initiated all-round diversification of its economy, ranging from diversification of oil and gas supply routes to international markets to transforming economy into a regional transportation hub and diversification to non-oil sectors and so on.⁴⁸ In 2017, it attracted a total foreign investment capital of 14.6 billion dollars in various projects with local partnerships⁴⁹; while also hosted more than 8000 foreign companies in operation.⁵⁰ This indicates success with its diversification pursuits, as the macroeconomic situation stabilizes following the 2014-2016 global oil crisis.

It gets clear that the private sector in each of these states is very different from one another. Each of them is performing modestly well; but, each has its own set of drawbacks. While, one may rank highly in any particular sector/ area, the other may fare better in other sector/ area. However, one factor they not only have in

Social Development, Baku, 2017. Mode of access: http://cesd.az/new/wp-content/uploads/2017/11/CESD_SME_Paper_2017.pdf

⁴⁶ “Azerbaijan 2020: Look Into The Future” Concept of Development / President of Azerbaijan, 2015. Mode of access: http://www.president.az/files/future_en.pdf

⁴⁷ Azerbaijan's Main Goal to Eliminate Oil Dependence, Says President // *Azerbaijan Press Agency*, 1 June, 2016. Mode of access: http://en.apa.az/azerbaijan_energy_and_industry/azerbaijan-s-main-goal-to-eliminate-oil-dependence-says-president.html

⁴⁸ President Ilham Aliyev: Diversification of Economy is Azerbaijan's Main Objective // *Trend*, 23 January, 2018. Mode of access: <https://en.trend.az/azerbaijan/business/2851416.html>

⁴⁹ \$14.6 Billion Invested in Azerbaijan's Economy in 2017 // *Azerbaijan State News Agency* (AZERTAC), 11 January, 2018. Mode of access: https://azertag.az/en/xeber/146_billion_invested_in_Azerbaijans_economy_in_2017-1127408

⁵⁰ There are more than 8,000 Foreign Companies in Azerbaijan // *Azerbaijan State News Agency* (AZERTAC), 24 October, 2017. Mode of access: https://azertag.az/en/xeber/There_are_more_than_8000_foreign_companies_in_Azerbaijan_deputy_minister-1105692

⁴² Russia through a Lens / Deloitte Research Centre, 2016, Iss. 5. Mode of access: https://www2.deloitte.com/content/dam/Deloitte/ru/Documents/research-center/russia-through-a-lens_q4-2016.pdf

⁴³ Private Sector Assessment (Summary) / Asian Development Bank, Country Partnership Strategy: Azerbaijan, 2014-2018. Mode of access: <https://www.adb.org/sites/default/files/linked-documents/cps-aze-2014-2018-psa.pdf>

⁴⁴ Strategic Roadmap for development of logistics and trade in the Republic of Azerbaijan / Centre for Analysis of Economic Reforms and Communication (CAERC), 2017. Mode of access: http://ereforms.org/store//media/ekspert_yazilari/islakat%20icmali/oktyabr/SYX_en.pdf

⁴⁵ Bayramov, V., et al. A Comparative Study on Development of Small and Medium Enterprises (SMEs) in Azerbaijan / Center for Economic and

common, but essentially binds them together is the presence of major MNCs,⁵¹ such as Samsung, Johnson & Johnson, Toyota, Philips, Microsoft and many more. These MNCs, with their subsidiary/ affiliate companies, have high-stake businesses in all four states, thereby forming an integral part their respective economies. They are also the ones among the most digitally innovative companies in the world.⁵² Thus, the local private companies while attempting to expand their business within their respective national territories and globally follow the former's footsteps regarding application of new digital technologies in their business activities.

INSTC necessitates advanced digital technologies

The INSTC is designed as an assembly of short-distance and long-distance roads, railway routes and shipping lanes, bound into a tightly coupled formation. It represents the first major joint attempt by India, Iran, Azerbaijan and Russia to implement an inter-regional mercantile strategy that stimulates their respective domestic production and demand. Not all of these countries specialise in production of all necessary goods and services; hence depend on import from other countries. E.g., Russia has a huge natural resource base of minerals, such as iron ore, silver, gold, platinum, copper, nickel, aluminium, tin, diamond, as well as energy resources, like oil, natural gas, coal and uranium ore, which it exports to countries worldwide.⁵³ However, it also buys computers,

cars, smart phones and packaged medicines to meet its growing domestic demand for these products.⁵⁴ On the other hand, India has shortage of natural resources, including fuel resources⁵⁵; however, the country has a strong service sector economy that clocks the fastest growing in the world (7.7 percent in 2016-17).⁵⁶ The Indian Information Technology (IT) sector out of its overall services sector is the most prominent, and has a large global presence, spanning 200 cities across 86 countries in the world.⁵⁷

Such divergences in the economies of the developer states can enable them to derive mutual benefits on getting physically connected. However, the question remains: what would be a cost-effective and high performing medium to continually balance the nature of business engagements between these states? A definite answer to this question is the application of advanced digital technologies.

In recent years, the pace of digitisation is fast catching up in all work sectors, ranging from logistics management to transport planning and maintenance of infrastructure security and so on. Emerging technologies are being put into application in the mainstream market, not just to check their potential efficiency but to actually scale up profits. The demand-side forces are driving up new breakthrough digital technologies, where the interests of consumers and producers evenly align. All intermediary organisations, whether the commercial banks, stockbrokers, stock exchanges and others of the like, are transitioning from their traditional role of providing scheduled services to providing

⁵¹ Despite Sanctions, a Constellation of Business Seen in Iran // *Wall Street Journal*, 2018. Mode of access: <http://graphics.wsj.com/iran-sanctions/>; Bozadzhieva, M. Why Multinationals Are Doubling Down on Russia // *Harvard Business Review*, 4 April, 2016. Mode of access: <https://hbr.org/2016/04/why-multinationals-are-doubling-down-on-russia/>; Over 100 Companies with Foreign Investments Operate in Azerbaijan // *Azer News*, 17 March, 2016. Mode of access: <https://www.azernews.az/business/94109.html>

⁵² The Most Innovative Companies 2018 / *Boston Consulting Group*, 17 January, 2018. Mode of access: <https://www.bcg.com/publications/collections/most-innovative-companies-2018.aspx>

⁵³ Turner, B. (ed.) *The Statesman's Yearbook 2014: The Politics, Cultures and Economies of the World*. Basingstoke: Palgrave MacMillan, 2015. P. 1034.

⁵⁴ Workman, Daniel. Russia's Top 10 Imports // *World's Top Exports*, 1 March, 2018. Mode of access: <http://www.worldstopexports.com/russias-top-10-imports/>

⁵⁵ Kotwal, Amol. Fuel Resource Crunch: A Reality // *Live Mint*, 21 February, 2013. Mode of access: <http://www.livemint.com/Politics/xdd7oOsH8eRnZH9ZvYYusJ/Fuel-resource-crunch-A-reality.html>

⁵⁶ "Services Sector" in Union Budget of India 2015-2017 / Ministry of Finance, Government of India. Mode of access: http://www.indiabudget.gov.in/es2016-17/echap09_vol2.pdf

⁵⁷ India Services Sector A Multi-trillion Dollar Opportunity for Global Symbiotic Growth. Global Exhibition on Services, April, 2017. Mode of access: <http://www.gesdelhi.in/images/pdf/deloitte-cii-ges-2017-interactive.pdf>

client-acceptor scheduled services. Even the INSTC developer states are trying to innovate, accelerate and collaborate with third parties on new digital technologies that best serve the interests of their respective populace (who are also the consumers).⁵⁸ This is, however, mostly happening at their national level, not as dedicated cross-border cooperation between them until now.

The present architectural design of the INSTC, including its digitisation, is not foolproof; hence, there exists scope to scale up its overall robustness. The Dry Run Report 2014 puts forth certain propositions to the INSTC Coordination Council, one among which is the creation of an Information Platform that would act as an information exchange system between the member states. India voluntarily proposed to take the lead in executing and operating the platform.⁵⁹ However, as of now no full-fledged information exchange platform has been created, despite all member countries have agreed to it. The Iranian Ministry of Roads & Urban Development has developed a static webportal exclusively on INSTC⁶⁰ that can be roughly qualified as one of the sort.⁶¹ It currently enlists official documents, reports, news and other information relating to the project, and not just from the Iranian side, but is still dreary content wise. Thus, Iranian authorities can connect with India, considering the latter's expertise in IT domain, seeking support to develop it to its optimum; alternately Indian authorities can make a friendly overture to Iran in this regard. This webportal, if enhanced, can become a subsidiary to the main information exchange

platform, when it gets created.

Information sharing on a continuing basis over a single dynamic platform will provide number of benefits to all members, making work easy, efficient and fast. Regulatory authorities will be able to facilitate clearance of cargo, while instantly verifying security and background checks. The public will be able to access real-time information about travel times and incidents, also get latest alerts about traffics (both sea and road), accidents, etc. If users receive real-time route guidance, overall travel times will get considerably shortened. This will give a boost to trade conducted in (stock) exchanges and over the counter (popularly known as OTC). Thus, enabling traders and brokers to substantially increase profits and commissions through better market insights, and empowering producers and end-consumers to speedily react to externalities effecting contracts between parties whether or not they are directly involved.

The private companies functioning in the developer states can play a crucial role in the information sharing process. They can feed-in information pertaining to the market sector(s)/ area(s), where they are involved with, in the centralised digital platform (if there exist scope for that); otherwise, share information with public authorities maintaining the INSTC digital network. This would enable them to strengthen their respective value chains in terms of procurement, supply operations and contract management; which, in turn, would enable the INSTC to ensure optimal traffic flows at all times and progressively contribute in building a business ecosystem surrounding it.

Advanced Digital Technologies in the pipeline

Today the INSTC developer states need to urgently explore the best of advanced digital technologies to enhance its performance level vis-à-vis China's emerging 'Digital Silk Road' – i.e., OBOR.⁶² The application of such technologies needs to be done on a case by case cost-benefit analysis and depending on the real

⁵⁸ New Survey Examines Iranian Attitudes Towards Foreign Investment, Multinational Companies / Bourse & Bazaar, 19 September, 2017. Mode of access: <https://www.bourseandbazaar.com/articles/2017/9/17/new-survey-examines-iranian-attitudes-towards-foreign-investment-multinational-companies>; Also see: Russia's Middle Class Opens Door to Private Healthcare Providers // *Financial Times*, 21 February, 2018. Mode of access: <https://www.ft.com/content/672684ea-1649-11e8-9376-4a6390addb44>

⁵⁹ Ibid. P. 13.

⁶⁰ Available at: <http://instcorridor.com/>

⁶¹ International North-South Transport Corridor / Ministry of Roads & Urban Development, Government of Iran. Mode of access: http://www.instc-org.ir/Pages/Home_Page.aspx

⁶² Fishwic, O. China in the Fast Lane on Digital Silk Road // *China Daily*, 4 December, 2017. Mode of access: http://www.chinadaily.com.cn/business/4thwic/2017-12/04/content_35201648.htm

necessity for that. The basic objective should be to make a compelling business case for all stakeholders, including prospective private investors, to create lasting success for the project.

Following some advanced digital technologies are listed that stakeholder parties need to pay heed for bringing into operation.

– **Internet of Things (IoT)** – The Internet of Things (IoT) is a network of dedicated physical objects (things) that contain embedded technology to communicate and sense or interact with their internal states or the external environment.⁶³ In simple words, it means connecting any device to the internet and establishing interconnection between them. This may include an array of simple devices used in daily life, such as cellphones, watches, personal computers, etc.; to advanced devices used in scientific activities, such as super-fast trains, deep sea drillers, etc. IoT – which also includes people within its grand network – brings up working relationships between people-people, people-things, and things-things. Gartner Inc., a research and advisory company, estimates 20 billion internet-connected things by 2020.⁶⁴ Also, it says that driverless or autonomous vehicles sector is set to rapidly grow in coming years as automobile manufacturers, large technology providers, chip companies and even national governments (foremost among them U.S. government) are pouring massive investments into the new technologies to secure first movers advantage in the global market. India and the other developer states should adopt IoT technologies, which would serve different needs of the corridor, such as monitoring cargo traffic volumes data, ensuring transit system's security, etc., as well as substantiate the business ecosystem surrounding the corridor.

– **Blockchain technology** – The blockchain is distributed database of records, or public ledger of all transactions or digital events that have been

executed and shared among participating parties.⁶⁵ It is essentially a shared data structure that enables peer-to-peer transactions in a particular way, based on network protocols and application rules. It acts as the underlying technology for all cryptocurrencies; therefore, is getting acclaimed as the 'Next Big Thing' in technology. No denying of the fact that proliferation of new cryptocurrencies pose serious security concerns, both in terms of national security breach and private data theft⁶⁶; however, Blockchains are still far better than current, centralised data security solutions, offering transparency, enhanced security and usability. A Harvard Business Review article asserts that private blockchain, which is about the network architecture of the system, could ultimately give business operators a greater degree of control, and public blockchain, which allows anyone in the world to read, send transactions and see updates and participate in the consensus process, will make third-party verification flourish.⁶⁷ India, at this juncture, should attempt to catch up with countries that are openly embracing the Blockchain technology, like Russia and Azerbaijan (also China for that matter),⁶⁸ in order not to fall behind in the unfolding digital technology race.

– **Smart Energy** – The renewable energy industry is gaining maturity in different parts of the world,⁶⁹ although fossil fuels still

⁶⁵ Crosby, M., et al. BlockChain Technology: Beyond Bitcoin, Sutardja Center for Entrepreneurship & Technology Technical Report, Berkeley: University of California. Mode of access: <http://scet.berkeley.edu/wp-content/uploads/BlockchainPaper.pdf>

⁶⁶ Akhtar, A. The \$70 Million Bitcoin Hack Was the 4th Largest Breach in Cryptocurrency History // *Time*, 8 December, 2017. Mode of access: <http://time.com/money/5056652/the-70million-bitcoin-hack-was-the-4th-largest-breach-in-cryptocurrency-history/>

⁶⁷ Berke, A. How Safe Are Blockchains? It Depends // *Harvard Business Review*, 7 March, 2017. Mode of access: <https://hbr.org/2017/03/how-safe-are-blockchains-it-depends>

⁶⁸ Evia. Summary of Government Documents Supporting Blockchain Development in China, 8BTC, 1 December, 2017. Mode of access: <http://news.8btc.com/summary-of-government-documents-supporting-blockchain-development-in-china2017>

⁶⁹ World Energy Markets Observatory / *Capgemini*, Edition, 19 November, 2017. Mode of access: <https://>

⁶³ Internet of Things / Gartner. Mode of access: <https://www.gartner.com/it-glossary/internet-of-things/>

⁶⁴ Hung, M. (ed.). Leading the IoT: Gartner Insights on How to Lead in a Connected World / Gartner, 2017. Mode of access: https://www.gartner.com/imagesrv/books/iot/iotEbook_digital.pdf

remain the energy mainstay of the world.⁷⁰ The ongoing transition from fossil fuels to renewables is changing the defining traits of the global energy system, which now reflects accommodation and mutual reinforcement between the two categories of fuels than collusion that had prevailed in recent past. Amid the ongoing transition process, the energy storage technologies, energy services management and energy grid multipurpose functions are gaining traction among energy utilities and end-consumers, thereby pushing up their overall efficiency and sales. Smart Hydro and Smart Wind, both of which include enhanced features of continual energy supply, are becoming the new smart versions of clean energy. For energy would be the key to moving cargo along the INSTC, thus Smart Energy⁷¹ – which includes a balanced mix of various energy sources, use of advanced digital technologies to support activities in the global and regional supply chains – should be the economically preferred choice for all project stakeholders. This would then ensure unceasing movement of cargo transport along the corridor.

– **Humanised Big Data** – Big data analytics examines voluminous and complex data sets to uncover market insights and trends, such as customer preferences, hidden patterns, etc., to help organisations make more-informed business decisions. The concept has been around for years, and businesses worldwide have been using traditional analytical tools, like spreadsheet, SQL, etc., to examine historical data. Even today big data continues to face many technical and non-technical challenges, like storage and retrieval at a desirable time lag, security, integration of disparate data sources

and social-legal implications (ownership, liability, social interactions, etc.).⁷² *Humanising* big data means infusing the ‘human’ element to the analytics process to generate concrete action plans and actionable meaning from the data. The humanising improves data quality by adding relevant context and offering easy tools, instead of highly specialised programming and statistics, to build analytical applications. This renders big data into information that is easily accessible and highly relevant. This, in turn, enables SMEs to efficiently engage in business transactions, even at the cross-border level.

Artificially Intelligent Robots: Robotics and artificial intelligence are two separate fields with different purposes, but are increasingly getting bound together. Artificially Intelligent Robots, which combines the two fields, endeavour to emulate human faculties such as creativity, self-improvement, and language use while performing complex tasks. They have high capability to visualize the consequences of their future actions and accordingly determine ways to execute assigned tasks. A new study from Redwood Software and the Centre for Economic and Business Research (CEBR) quotes David Whitaker, Managing Economist at Cebr, – “*There is clear evidence that points towards robotic automation in many cases being a complement for human labour, rather than a direct substitute. As more mundane tasks are automated, human effort becomes more valuable as it is focused on higher-level tasks, creativity, know-how and thinking.*”⁷³ The report also says investment in robotics has a higher positive effect on the economy than more established sectors such as construction, real estate and information technology.⁷⁴ Hence, self-driving cars and trucks, operational agility software (like Blue Prism V4.0) and

www.capgemini.com/wp-content/uploads/2017/10/wemo-report-2017.pdf

⁷⁰ Ritchie, H.; Roser, M. (n.d.) Fossil Fuels, Our World in data. Mode of access: <https://ourworldindata.org/fossil-fuels>

⁷¹ Jonas Mortensen, et al. (2014) ascribes four characteristic features of Smart Energy, namely multi-purpose power grid, smart storage for grid synergies, ICT for balance between energy supply and demand and consumer empowerment. Mortensen, J. (Ed.), et al. The Smart Energy System: Asset mapping of Danish competencies across the value chain, Copenhagen Cleantech Cluster, 2014.

⁷² Challenges and Opportunities with Big Data: A white paper prepared for the Computing Community / Consortium committee of the Computing Research Association, February, 2012. Mode of access: <https://cra.org/cra/wp-content/uploads/sites/2/2015/05/bigdatawhitepaper.pdf>

⁷³ Will Post-Brexit Britain Hinder a Robo-Revolution? / Centre for Economics and Business Research (Cebr), March, 2017. Mode of access: <https://cebr.com/reports/new-study-shows-u-s-is-world-leader-in-robotics-automation/>

⁷⁴ Ibid.

other of this kind if prudently applied along the INSTC will increase ecological resilience and economic productivity of the business ecosystem surrounding it.

Venn Diagram

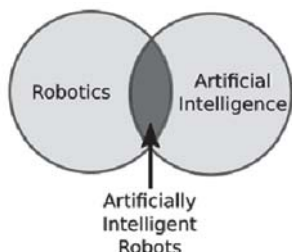


diagram courtesy: www.blog.robotiq.com

Achievable proposition for INSTC

The INSTC is an ambitious project that would place India at the centre-stage of Eurasian trade – trade coming from east to west and west to east. Therefore, India needs to take a lead to mould the corridor in a way that not only serves its strategic purposes, but equally caters to its national economic interests. While in process, it needs to keep into consideration the economic interests of other member states of the INSTC and the international community at large.

As discussed above, an obvious way to enhance overall strength and economic viability of the corridor is to turn it into a fully digitised corridor. This would require building digital nodes along the corridor that would cross-connect sectors and territories, binding them into an integrated functioning system. The framework would act as a multi-purpose platform for endless applications, including the monitoring, evaluation, measurement, and forecasting of market events and processes happening along the business ecosystem of the corridor. It would intricately connect both public and private institutions, including national oil companies, private companies, decision-makers, academicians, and others, not only from the member states, but also from across the world that either have business interest or real stakes in the project.

For the said to happen, the developer states should keep an open mind to incorporate

necessary architectural re-designing and restructuring. This would, of course, not mean a far-reaching deviation from the current project development plan; rather this would be a way to include tools, techniques and approaches that would give a boost to the activities under the existing development plan. One such approach could be to stretch the corridor up north, i.e., enroute Latvia to Finland, which is already being discussed.⁷⁵ Both Finland and Latvia are among the globally best in digital competitiveness;⁷⁶ hence they will automatically become functioning digital nodes in the INSTC business ecosystem when they get connected. Building physical infrastructures that would connect as far as Finland will take a long time to happen, and no-one knows how long. However, Finland and Latvia can soon become a party to the INSTC if establishing digital connectivity precedes building physical infrastructure connectivity. This would require planned and coordinated endeavours from both sides, i.e. INSTC developer states and Finland and Latvia.

On a similar line, the INSTC needs to be stretched down south, meaning digitally connecting the prominent hi-tech innovation centres in India, such as Bangalore and Hyderabad, to the Mumbai port- i.e., the inception point of the INSTC. Both Bangalore and Hyderabad are among the top ranking IT centres in India.⁷⁷ They both have major technology townships and host many reputed advanced Indian and international IT research institutions and companies, such as Tata Consultancy Services, Infosys, Google, Yahoo, and so on.

⁷⁵ Coordination Committee For Int’L North-South Transport Corridor. *Panorama Internazionale*, 15 June, 2016. Mode of access: <http://mefite.ice.it/CENWeb/ICE/News/ICENews.aspx?cod=77239&Paese=78&idPaese=78>

⁷⁶ IMD World Digital Competitiveness Ranking 2017 / International Institute for Management Development. Mode of access: <https://www.imd.org/wcc/world-competitiveness-center-rankings/world-digital-competitiveness-rankings-2017/>

⁷⁷ India’s Top 12 Tech Cities: Digital Indian Cities Survey // *CEO World Magazine*, 2 December, 2016. Mode of access: <http://ceoworld.biz/2016/12/02/indias-top-12-tech-cities-digital-indian-cities-survey-2016/>

As a next step, the INSTC can easily be extended to Singapore – the most advanced digital economy in entire Asia-Pacific.⁷⁸ This tiny island nation also ranks top among all countries in the world in terms of digital competitiveness and digital savviness – i.e., generating economic impact from investments in information and communications technologies (ICT).⁷⁹ Hence, Singapore can offer its resources, including technical guidance (through workshops, master classes, competitions, etc.) and manpower expertise to uplift the overall digitisation quality of the corridor and its business ecosystem. This would greatly benefit all participating countries to the project in their attempts to establish greater collaborations, scale up innovations and revamp their existing project development approach.

Conclusion

The INSTC is on course of becoming a new reality in Eurasia. This grand project once starts functioning will lead towards profound changes not only in the territories and countries that it will cross, but across Eurasia in terms of social and economic prosperity. At present, national governments developing the project – i.e., India, Iran, Azerbaijan and Russia – are endeavouring to shape it as a reliable transport corridor for smooth transportation and transit of goods. However, they are as yet unable to generate overwhelming private sector investments to this inter-continental corridor which, in fact, is an essential component for any large-scale utility project to function optimally. For the project is still in its construction phase, and yet to enter into commission phase; hence, its architectural design can be refashioned in a way to bring about private sector interest and voluntary participation. This would enable private companies to apply advanced digital

technologies, which they generally use in their business activities, in new sectors and across broader territories.

Advanced digital technologies could be an effective way to build a tightly-knit business ecosystem surrounding the INSTC. Hence, the national governments party to the project, including Narendra Modi led Indian government, should be open to embracing new such technologies and promoting their application in way that the private sector could offer their expertise to scale up overall performance of the trade corridor. Last but not least, these states need to urgently get rid of the notion that the INSTC is an exclusive strategic corridor for substantiating their respective national security interests. Beholding this notion would shunt the fundamental purpose of building the corridor.

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⁷⁸ Reodique, A.M. Singapore Has the Most Advanced Digital Economy in Asia Pacific – Computerworld Singapore / Computer World. Mode of access: <https://www.computerworld.com.sg/print-article/112043/>

⁷⁹ Global Information Technology Report 2016 / World Economic Forum. Mode of access: http://reports.weforum.org/global-information-technology-report-2016/?doing_wp_cron=1519044262.2781820297241210937500

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ТРАНСФОРМАЦИЯ МЕЖДУНАРОДНОГО ТРАНСПОРТНОГО КОРИДОРА СЕВЕР-ЮГ В «ЦИФРОВОЙ КОРИДОР»

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<p>Информация о статье: <i>Поступила в редакцию:</i> 25 июля 2018 <i>Принята к печати:</i> 15 августа 2018</p>	<p>Аннотация: В настоящее время Международный транспортный коридор Север-Юг широко обсуждается в среде политиков и экспертов, поскольку уже сегодня замечен значительный прогресс в реализации инициативы. Проект остается инициативой, прежде всего, четырех государств – Индии, Ирана, Азербайджана и России, расположенных вдоль маршрута коридора. Негосударственные акторы, будь то локальные компании или транснациональные корпорации, не проявили большой заинтересованности в разработке проекта, в основном из-за опасений относительно гарантированной прибыли от инвестиций. В статье анализируется сценарий, благодаря которому участвующие в проекте государства могли бы привлечь частные компании для разработки масштабного проекта, в том числе и в цифровой сфере. Партнерские отношения между государственным и частным секторами приведут к эффективному применению передовых цифровых технологий, таких как технология IoT (Интернет вещей), Blockchain (блокчейн) и т., которые обладают потенциалом эффективно обслуживать потребности различных мероприятий, работающих на всем протяжении коридора. Это, в свою очередь, увеличит эффективность и выгодность коридора, тем самым обеспечив его устойчивый успех.</p>
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<p>Ключевые слова: Международный транспортный коридор Север-Юг; Цифровые технологии; Индия; Россия; Азербайджан; Иран</p>	

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