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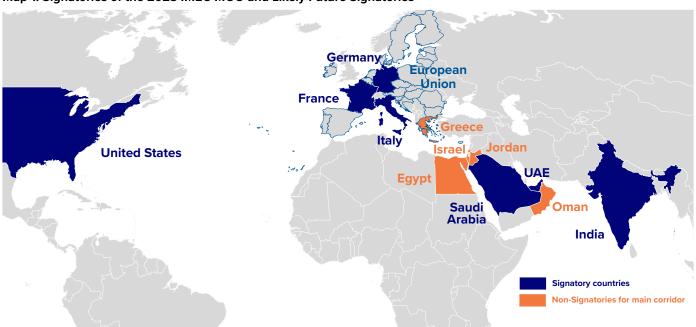
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Executive summary

- Launched at the 2023 Group of Twenty (G20) summit in New Delhi, the India-Middle East-Europe Economic Corridor (IMEC) features three pillars that integrate existing and future infrastructure: a transportation pillar—the corridor's backbone—integrating rail and maritime networks, an energy pillar with interconnected energy and electricity infrastructure across continents, and a digital pillar providing new fiber-optic cables and cross-border digital infrastructure.
- The IMEC is well placed to be a consequential regional integration and infrastructure initiative in the coming decades, reinforcing supply chain security and aligning Eurasian policy around open, rules-based connectivity, supported by market-driven, locally funded investment from a diverse set of countries. IMEC also provides an alternative to existing corridors dominated by a single government, particularly the Belt and Road Initiative.
- The transportation corridor plan has a financing gap of approximately \$5 billion to become minimally operational, linking Gulf ports to Haifa, Israel. Most of the unmet costs are in Jordan and Israel, or in logistics hubs likely to be constructed at several sites including Haradh in Saudi Arabia; al-Haditha in Saudi Arabia; Mafrag; and near Beit She'an in Israel.

- The corridor would have the capacity to move about forty-six trains daily carrying 1.5 million storage containers (TEUs) annually on single-stack cargo rail, with the ability to scale up to 3 million TEUs in the future, with both double-stack cargo rail and the additional integration of Ashdod Port enabling greater throughput into the Eastern Mediterranean. The upper ceiling of trade volume carried on IMEC could reach even higher, as it is only constrained by the laying of additional rail lines and port capacity, which could be expanded both by additional rail investments and integrating additional countries into IMEC.
- Transshipment times via the transportation corridor could be reduced by about 40 percent (to twelve-plus days), generating approximately \$5.4 billion in annual savings on Asia-Europe trade traveling the route relative to maritime routes. The corridor also would provide stronger access to international markets for countries along the route and increase export competitiveness. For India alone, IMEC could generate an overall increase of between 5 percent and 8 percent in Indian export valuation, returning \$21.85 billion of additional Indian exports annually.



Map 1. Signatories of the 2023 IMEC MOU and Likely Future Signatories

- The energy and digital pillars of the corridor will likely reinforce energy security and global data transmission. High-potential projects include deeper electricity grid integration among portions of the corridor and new subsea and terrestrial fiber-optic cables linking emerging data centers in the Middle East with Europe and India. The economic potential and feasibility of other components identified in the 2023 IMEC statement, namely a trans-Arabian gas pipeline linking Saudi Arabia to the Eastern Mediterranean and leveraging green hydrogen along the IMEC, remains unclear. The corridor has the potential to provide an effective platform for critical mineral refining and supply chains, advanced manufacturing zones, Al-data centers, and other strategic components.
- The IMEC offers strategic and economic opportunity for the United States and its partners. Washington should leverage its convening power and risk-mitigation tools to renew momentum on IMEC in 2025; and leverage US leadership in the 2026 G20 process to establish and shape an IMEC coordinating structure. IMEC's completion would demonstrate the staying power of US diplomacy in the Middle East; provide a clear alternative to China's Belt and Road Initiative; create additional incentives for states to normalize relations with Israel; open new markets for US companies; shape regional coordination in strategic sectors; and deepen US-Gulf alignment. To ensure IMEC's success, the initiative needs senior US engagement and a central coordinating mechanism.
- While IMEC represents an opportunity to reshape Eurasia's economic and political landscape, success is not guaranteed. Regulatory uncertainty and political risk make small but critical components of the IMEC a difficult proposition for private capital absent risk-mitigation measures from governments. Further, realizing the full potential of IMEC requires additional steps from IMEC signatory governments to ensure full corridor interoperability, develop common digital platforms, remove nontariff barriers, harmonize trade and customs standards, and sustain public investments in transportation, energy, and digital systems.
- An IMEC central coordinating body is essential to overcoming these challenges and maximizing the corridor's potential. This body should include a ministerial-level component to secure the necessary political support, a secretariat to manage day-to-day coordination, and technical working groups that incorporate private-sector stakeholders and experts. Further, the coordinating body should embrace IMEC not as a single corridor, but a web of interconnected routes uniting regional policies on open, transparent, and free trade.
- To advance IMEC this year, the United States should consider launching a high-level public meeting in 2025 before assuming the G20 chairmanship on December 1. The French, Italians, and Germans should consider pushing for IMEC as a deliverable in the G7, particularly through the Partnership for Global Infrastructure and Investment. Key deliverables could include a communiqué that outlines a road map for IMEC through 2026; announces intent to form a coordinating body through the G20/G7 sherpa processes; and includes formal entry of regional partners in the IMEC as well as nonsignatory observer countries.

Introduction: Origins and progress on IMEC (2023-25)

The India-Middle East-Europe Economic Corridor (IMEC) is a proposed multimodal transportation corridor that aims to enhance trade and collective prosperity between India, the Middle East, and Europe. Announced in September 2023 at the Group of Twenty (G20) summit in New Delhi, the IMEC has already started to reinforce existing bilateral relationships by proposing a new twenty-first-century rail, maritime, and infrastructure corridor that could transform the trade, energy, and digital landscape from the Indian Ocean to the Mediterranean. The decentralized nature of the initiative, spanning multiple continents, has created practical challenges to realizing IMEC's full potential. Political and financing challenges have also impeded IMEC's development.

The 6,400 kilometer (3,977 mile) corridor from Mumbai to Northern Mediterranean ports would integrate existing and future infrastructure projects to connect India, the Middle East, and Europe. The corridor's transportation component would split into three distinct segments, including the following links:

- Maritime connection linking West Indian ports to the Gulf.
- Multimodal rail linking Gulf ports to the Mediterranean via Jordan and Israel.
- Maritime connection linking Eastern Mediterranean ports to Southern Europe.

Built on the backbone of a multimodal transportation corridor, the IMEC envisions expanded energy and digital connectivity by integrating capabilities across renewable energy, energy-market integration, and fiber-optic cables.

Origins of IMEC

The corridor was conceived in joint diplomatic engagements between the United States, the KSA, the United Arab Emirates (UAE), and India to cultivate a more secure, prosperous, and stable Middle East region interconnected with India and the rest of the world. These engagements led to the 2023 IMEC announcement signed in New Delhi on the margins of the G20 summit, which laid out its initial priorities across three interconnected pillars of trade, energy, and technology.² The initial signatories to the 2023 memorandum of understanding (MOU) included the leaders of India, the United States, the UAE, KSA, Italy, France, Germany, and the European Commission.³ Although not signatories, Israel and Jordan are implicitly included in the initiative given the proposed route, and Greece also has been a primary advocate for the corridor. Other key regional players that could potentially integrate into the IMEC or have key interests impacted by the initiative include the Palestinian Authority, Egypt, Syria, Lebanon, Turkey, Cyprus, Qatar, Bahrain, Kuwait, Oman, and Iraq.





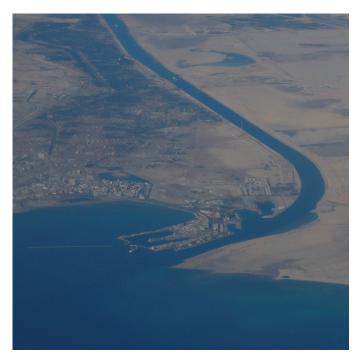
Rationale for IMEC

A convergence of geopolitical and regional developments over the past decade has accelerated momentum for the corridor.

The lingering instability and threat of disruption at crucial choke points—particularly in the Bab el Mandeb and Strait of Hormuz—have exposed the fragility of existing maritime trade and energy routes, while underscoring the need for more diversified supply chains with integrated redundancies. Persistent Houthi threats to commercial shipping since 2023 have reduced container crossings through the Suez Canal by 90 percent, with total vessel transits at least 60 percent lower compared with pre-October 2023 levels.⁴ As one of the most important arteries for global trade, the Suez Canal annually moves around 12 percent to 15 percent of global trade, comprising 30 percent of global containerized traffic and around 40 percent of all European trade. 5 The IMEC is poised to play a supporting role as part of this trade, providing an important redundancy option for cost-effective transshipment of certain goods while deepening intraregional trade among emerging economic partners.

Energy security is a priority for all IMEC signatories, especially as Europe seeks to diversify energy supply in the wake of Russia's full-scale invasion of Ukraine. India is now the third-largest importer and domestic consumer of oil, has rapidly rising domestic energy demand, and already sources 59 percent of its fossil-fuel imports from Arab Gulf states.⁷ The impact of rerouting around the Cape of Good Hope due to Red Sea threats has a particularly pronounced impact on the energy trade, with approximately 12 percent of all global oil shipments facing disruptions.8 Prior to the Houthis' campaign on international shipping in the Red Sea, 7.9 million barrels per day (bpd) of oil passed through the Suez Canal, a number which has since halved to around 3.4 million bpd. This disruption has increased overall costs paid by importers and energy consumers, primarily in Europe. 9 European energy demand is expected to increase annually by approximately 2 percent, and to reach pre-2022 levels by 2027. By diversifying supply chains, the IMEC could provide an opportunity for energy supply security through natural gas or transshipped oil, while leveraging regional momentum toward grid integration to better balance intermittent renewable sources like wind and solar.¹⁰

Meanwhile, the Abraham Accords opened unprecedented channels of cooperation between Israel and key Arab states, especially the UAE and Bahrain, with profound implications for regional economic integration. Regional integration initiatives then extended to India in 2022 through creation of the Israel-India-UAE-United States (I2U2) group to deepen cooperation in trade, science, technology, and food security. Expansion of the Abraham Accords, to include Saudi Arabia and other key Arab and Muslim partners, will fully enable the IMEC's realization. But post-October 7 instability has stymied the region's ability to further integrate and fully leverage its strategic location at the intersection of Asia and Europe. While the events of October 7 knocked regional connectivity initiatives like IMEC

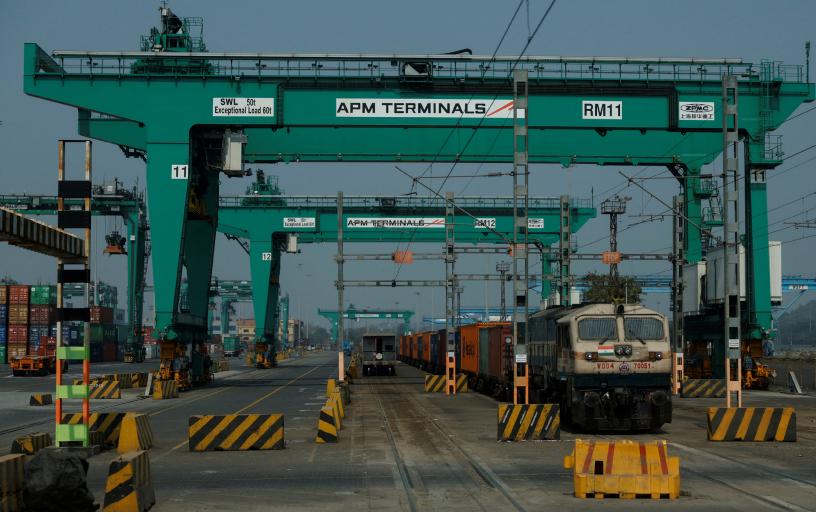


An aerial view of container ships in the Gulf of Suez. REUTERS/Amr Abdallah Dalsh.

down the priority list and produced substantial headwinds, the political, economic, security, and technological incentives that built momentum behind the original intention are likely to persist in the medium to long term.¹¹

A region-spanning initiative like the IMEC builds upon the strong regional leadership and development initiatives within the Gulf, including Saudi Vision 2030 and UAE Vision 2031. Saudi political support for IMEC was particularly important to launching the initiative and is an essential driver in IMEC's continued feasibility. Launched in 2016 by Crown Prince Mohammed bin Salman, Vision 2030 aims to diversify Saudi Arabia's economy away from oil dependency and modernize various aspects of society, and has set ambitious investment targets of \$3 trillion by 2030 and with over \$800 billion earmarked for infrastructure development.¹² Almost all of the necessary rail and port infrastructure required for IMEC are already incorporated into Vision 2030, and Saudi Arabia has designated private-sector "champions"—including ACWA Power, with prominent Italian energy executive Marco Arcelli serving as CEO—to advance foundational projects across infrastructure, energy, and technology sectors that align both with Saudi national development goals and the political vision for the IMEC.¹³ Saudi Arabia remains committed to the objective of deeper regional integration and remains supportive of the IMEC as an ideal policy harmonization and investment platform that supports regional alignment.¹⁴

The UAE has also made substantial investments in economic connectivity, consistent with its national development plans and increasingly multipolar, commerce-first foreign policy approach.¹⁵ India's rise as a global economic power—with a



A freight train is parked at APM Terminals, in Navi Mumbai, India, February 28, 2025. REUTERS/Francis Mascarenhas.

growing appetite for Middle East energy and investment, trade access to Europe, and the desire to reduce overreliance on Chinese-controlled supply chains—has positioned New Delhi as one of the most proactive champions of IMEC; the corridor aligns closely with India's "Act West" strategy, and the Bharatiya Janata Party (BJP) actively integrated IMEC into its 2024 election manifesto. European countries are eager to advance IMEC not only as an economic opportunity but also as a strategic response to diversify away from dependency on Russian energy and invest more in India as a hedge against exposure to Chinese supply chains. 17

The corridor is also closely aligned with the national development priorities of Jordan, which is poised to become one of the most important regional logistical hubs both for eastwest trade via IMEC and emerging north-south routes that could incorporate Syria, Iraq, and Lebanon in the future. The Jordanian government has long aspired to develop a national railway system to promote regional interconnections, and early assessments show that improved transportation efficiencies and decreased costs can lead to measurable gains in food availability and economic welfare, with gross domestic product (GDP) rising between 0.6 and 0.7 percent and household welfare increasing by 0.3 percent of the base income.¹⁸

Under the right political and security conditions, Jordan can also become an important regional hub supporting broader economic integration across the Levant, particularly for the Palestinian territories, which could become a key beneficiary from the corridor with intentional planning and sufficient investments. To realize the maximum potential value from the initiative, both Israel and the Palestinian territories should be incorporated as key beneficiaries and partners so that the project can provide an enduring framework for regional prosperity.

Finally, IMEC is consistent with US goals for a free and open Eurasia. It provides an alternative to the Belt and Road Initiative (BRI) of the People's Republic of China (PRC), which creates openings for reasserting US economic leadership in the region, while also advancing the Abraham Accords. The IMEC provides an important framework for regional economic alignment and integration across transportation, energy, and technology sectors that additionally supports regional political priorities.

Status of IMEC

There has been no formal meeting of all the IMEC signatories since 2023, but a variety of national and bilateral projects associated with the IMEC have continued to progress, driven by strong market demand or complementary political initiatives.¹⁸

This initial progress will continue to build momentum behind the initiative both within the public and private sectors.

The most active segment of the IMEC has been the connection from India to UAE, which has seen strong investments by both governments through a March 2024 Intergovernmental Framework Agreement, the launch of a UAE-India Virtual Trade Corridor in September 2024, and with the development of the Master Application for International Trade & Regulatory Interface (MAITRI) that could operationalize a single interoperable and harmonized trade portal.¹⁹ There has also been progress on Saudi components of IMEC, particularly port and rail developments associated with KSA's Vision 2030 along the Red Sea and strengthening connectivity with India. On a state visit by Prime Minister Narendra Modi in April 2025, Saudi Arabia and India issued a joint statement recalling the 2023 IMEC MOU and reaffirmed their support in infrastructure developments, data connections, and electrical grid interconnectivity.²⁰

The European Union has also rapidly deepened its relationship with India while remaining committed to IMEC, with European Commission President Ursula von der Leyen committing to "undertake concrete steps for the realization of the IMEC" as recently as February 2025. France was the first to appoint a special envoy to IMEC in February 2024, followed by Italy in April 2025, and EU countries have continued to drive forward on IMEC in 2025. The most likely European beneficiaries of IMEC are vying to make the case for their own competitive advantages, including Italy with the Port of Trieste, Greece with the ports of Piraeus and Thessaloniki, and France with the Port of Marseilles. Germany, alongside others, is slowly building momentum behind IMEC by linking it to the Three Seas Initiative (3SI), focused on multimodal infrastructure, energy, and digital investments in Central and Eastern Europe. 23

With the start of the second Trump administration, the IMEC has experienced a resurgence in both partner interest and momentum. In February 2025, President Donald Trump and Modi identified the IMEC as a strategic priority for both the United States and India, with Trump early in his administration heralding the initiative "as one of the greatest trade routes in all of history" and issuing a public commitment to hold a summit in 2025 both to announce new initiatives and determine a formal institutional structure to advance IMEC.²⁴

Despite progress on significant segments of the corridor in recent years, key components of IMEC's transportation corridor have stalled due to political and financial challenges, namely the rail corridor linking Saudi Arabia and Israel via Jordan. Saudi leadership and financing is particularly important to com-

plete the missing links both in a transit hub on the Saudi-Jordanian border and to complete the east-west rail corridor across Jordan. Riyadh continues to quietly support the IMEC as an important framework for regional economic development and regional integration, with both an explicit focus on the energy pillar as well as phased implementation first in Jordan and eventually then into the Eastern Mediterranean by 2027.²⁵

There are alternative routes the corridor could take to connect India, the Middle East, and Europe: Saudi Arabia has recently announced support for a route via Egypt and the Strait of Tiran, and political developments in Lebanon and Syria could create opportunities for a northern route.²⁶ Oman can provide an important auxiliary point of access to the Arabian Sea that bypasses the Strait of Hormuz, a crucial global choke point for the global energy trade.²⁷ The IMEC could—with the right conditions—provide an enduring logistical and economic engine for prosperity in post-reconstruction Gaza, which would likely cost more than \$53 billion in the next decade (with \$20 billion needed in the next three years).²⁸ Once a stable ceasefire is achieved and a viable political process is underway, IMEC-integrated railways and special economic zones could stimulate economic growth in the West Bank while providing secure pathways for trade—especially foodstuffs, medicines, and other perishables—to Gaza.²⁹

While alternative routes are consistent with a "weblike" approach to IMEC that embraces multiple routes and redundancies, there are strong strategic and economic incentives for initial progress along the Saudi-Jordan-Israel backbone of the transportation corridor. As negotiations on an end to the war in Gaza progress and Saudi Arabia and its partners seek to advance a path to an enduring resolution to the Palestinian issue, the IMEC can provide an effective tool for both incentivizing and cementing regional integration and—depending how political negotiations progress—provide a mechanism for weaving the Palestinians into the Middle East's future.

The political will of IMEC countries and progress on segments of the IMEC transportation, energy, and digital components—whether under IMEC, national development plans, or complementary bilateral and multilateral projects—will help maintain momentum on the corridor in the near term. But absent high-level attention and a central coordinating body to monitor progress on all components, ensure interoperability, promote a conducive political and regulatory environment across all signatories, and identify solutions to challenges facing critical components of the corridor, the initiative will likely fall short of realizing its full economic and strategic potential.

The backbone of IMEC: Trade and transportation linkages

The IMEC's backbone is a proposed multimodal transportation corridor linking ports of western India to Southern Europe through infrastructure in the Middle East. The countries currently part of the proposed initiative have a combined GDP of approximately \$58 trillion, nearly half of the world's total, and represent a growing consumer market of approximately 2.4 billion people including some of the most dynamic and innovative global economies: the United States, Europe, India, Saudi Arabia, the UAE, and Israel. This makes the project a massive growth opportunity for both the global economy and the regions involved.

This section provides estimates of various economic savings and benefits associated with the IMEC, with a few assumptions.30 At full operation, IMEC is anticipated to minimally cut the cost of shipping by 30 percent and transit time by 40 percent compared to the Suez Canal route.31 According to analysis based on benchmarks with comparable transportation corridors, a fully realized single-stack freight railway system from Gulf Cooperation Council (GCC) ports to the Haifa Port via Jordan would initially sustain around forty-six trains a day, equivalent to about 1.5 million twenty feet equivalent units (TEUs) annually, with an average transport time of approximately two to three days.³² This could expand to 3 million TEUs by upgrading to double-stack rail, continued upgrades at Haifa Port, and the additional connection to Ashdod Port.³³ Future IMEC volume could potentially reach a ceiling constrained only by the throughput capacity of Eastern Mediterranean ports, depending on major rail investments to lay additional freight rail tracks. This is highly expensive and unlikely to be completed in the near or medium term or return sufficient value. Overland trucking can also be combined with rail links to support flexible final-mile delivery and faster implementation of overland transshipment that can also improve the overall TEU volume.34

Egypt could also play a major role in future transshipment via Saudi Arabia Railways' planned "Landbridge" project and then across the Strait of Tiran to terminate at the Ports of Said (6.237 million TEUs including the Suez Canal Container Terminal) and Damietta (about 1.2 million TEUs), which would be able to handle an additional 3 million TEUs capacity along IMEC.³⁵ In April 2025, Saudi Arabia launched a Landbridge design tender for a roughly \$7 billion project for more than 1,500 km of new track.³⁶ Further expansions of the IMEC to additional Eastern Mediterranean ports might not yield direct increases in trade volume through the network given limitations of rail capacity, but would improve redundancies providing shippers more transit options based on their needs and support regional economic integration.³⁷

Map 3. Core IMEC Transportation Corridor



Time and cost savings

When acute crises or blockages of the Suez occur, either by targeted attack or human error—such as when the *Ever Given* ran aground in 2021, which held up an estimated \$9.6 billion of trade each day—the only available alternative is to go around the Cape of Good Hope, a lengthy detour of 3,500 nautical miles (6,482 km).³⁸ This longer route takes about 12 percent of the global shipping container stock out of commission while increasing transit time by fourteen to sixteen days and expanding fuel costs by approximately 30 tons of fuel per day. This route lowers overall additional cargo weight and increases costs by approximately one million dollars per vessel.

During the Red Sea crisis, rerouting increased westbound freight rates from Asia to Northern Europe by as much as 256 percent and from Asia to the Mediterranean by 122 percent.³⁹ Increased costs are passed to exporters and consumers, leading to reduced consumer demand, greater inflation, and weaker export competitiveness.⁴⁰ In addition to the direct cost of time and money, longer travel distances around the Cape of Good Hope also have a dramatic environmental impact: Estimates suggest that a ship going around the southern tip of Africa will produce close to 70 percent more greenhouse gas emissions than if it had gone through the Suez Canal.⁴¹ According to Atlantic Council modeling, overland transshipment through the IMEC would save 47.5 percent of fuel consumption relative to the amount consumed traversing the Suez Canal.⁴²

While the IMEC would not be able to fully replace the Suez Canal's trade volume, the faster transit times compared with the Suez Canal and the Cape of Good Hope would mean that transshipped products would reach their destinations faster, improving the supply chain for perishable goods (i.e., agricultural products, temperature-controlled vaccines, etc.), and reducing requisite inventory volume and storage capacity required for manufacturers and traders.

Table 1: Ports will bring a range of additional capacity and potential to the project

Port	Current transit capacity (in TEUs)	Projected future transit capacity (in TEUs)	Status
Haifa	1.5 million	2.3 million	Currently planned.
Ashdod	1.5 million	2 million	Currently planned.
Said (including Suez Canal Container Terminal)	6.237 million	7.437 million	The Suez Canal Container Terminal, which is the flagship for Egypt, is currently undergoing substantial investment (\$6.6 billion) to increase freight capacity, digitize operations, and build a new expanded transit zone. The zone, a collection of six ports and four industrial areas, has been given special legal and tax advantages to increase the facility's attractiveness and capacity.
Damietta	1.2 million	3.3 million	The Damietta Alliance Container Terminals, which will expand capacity to 3.3 million TEUs annually, are on track to be operational in late 2025.
Tripoli	0.4 million	0.6 to 0.75 million	Pending political developments in Lebanon and completion of port modernization upgrades.
Beirut	0.8 million	2.1 million	Pending political developments in Lebanon, the opening of a planned second terminal at Beirut Port, and full recovery from the 2020 explosion there.
Tartus	0.05 million	Uncertain	Pending political developments and reconstruction in Syria. In May 2025, DP World announced a \$800 million investment in the port to expand capacity and improve efficiency.
Latakia	2.9 million (in 2017)	Uncertain	Pending political developments and reconstruction in Syria. In May 2025, French shipping conglomerate CMA CGM signed a thirty-year management and modernization lease.
Gaza	0	Uncertain	Hypothetical involvement, pending political developments and future port construction.

Sources: Zahra Ahmed, "The Biggest and Busiest Port in Israel," *Marine Insight*, June 2025, https://www.marineinsight.com/know-more/the-biggest-busiest-port-of-israel/; Isra-Tech, "Haifa Port Gears Up to Become the Region's Leading Hub—under the Ownership of Adani Ports," 2024, https://www.isra-tech.net/haifa-port-under-the-ownership-of-adani-ports/; Galia Lavi, "Three Years of the Bay Port: A Status Report," Institute for National Security Studies, Tel Aviv University, September 2024, https://www.inss.org.il/publication/port-haifa-3-years/; Staff Writers, "Ashdod Port Hits All-time Record for Unloaded Containers," Port Technology International, May 2021, https://www.porttechnology.org/news/ashdod-port-hits-all-time-record-for-unloaded-containers/; Staff Writers, "Welcome to a New Member Port from Israel: Ashdod," International Association of Ports and Harbors, October 2020,

APM Terminals, https://www.apmterminals.com/en/scct/about/scct; General Authority for Suez Canal Economic Zone, "West Port Said Port," https://sczone.eg/services/west-portsaid-port/;

Eldin Ganic, "East Port Said Expansion Set for Trial Operation in April," Dredging Today, January 2025, https://www.dredgingtoday.com/2025/01/30/east-port-said-expansion-set-for-trial-operation-in-april/; Afaq Hussein, Independent Analysis and Industry Conversations, September 2024—July 2025; Staff Writers, "Eastern Mediterranean Ports Face Challenges due to Red Sea Disruptions," Container News, September 2024, https://container-news.com/eastern-mediterranean-ports-face-challenges-due-to-red-sea-disruptions/; United Nations Conference on Trade and Development, Review of Maritime Transport: Navigating Maritime Chokepoints, 2024, https://unctad.org/system/files/official-document/rmt2024_en.pdf;

Staff Writers, "Two More STS Cranes Arrive at Damietta," World Cargo News, March 2025, https://www.worldcargonews.com/news/2025/03/two-more-sts-cranes-arrive-at-damietta/:

Hapag-Lloyd, "Damietta Alliance Container Terminal: Final Financing Contract Signed," December 2023, https://www.hapag-lloyd.com/en/company/press/releases/2023/12/damietta-alliance-container-terminal-financing-contract-s.html; Zahra Ahmed, "Major Ports in Lebanon," *Marine Insight*, March 2024, https://www.marineinsight.com/know-more/major-ports-in-lebanon/; Kareem Chehayeb, "French Firm Gets Contract to Run Beirut Port Container Terminal," *Al Jazeera*, February 2022, https://www.aljazeera.com/news/2022/2/17/french-firm-gets-contract-to-run-beirut-port-container-terminal; Credit Libanais, "Beirut Port Freight 2023," March 2024, https://economics.creditlibanais.com/Article/212079: Syrian Chamber of Shipping, "Container Logistics: Terminals in Syria," 2025, https://www.arabhellenicchamber.gr/wp-content/uploads/2018/12/TahsinShehadeh.pdf; Staff Writers, "Syria Signs 30-year Port Deal with French Shipping Giant," *Le Monde*, May 2025, https://www.lemonde.fr/en/economy/article/2025/05/01/syria-signs-30-year-port-deal-with-shipping-giant_6740807_19.html; and Forensic Architecture, "Israel's Destruction of the Port of Gaza," February 2025, https://forensic-architecture.org/investigation/port-of-gaza.

Table 2: How the India-Europe routes stack up (from Mumbai to European ports)

Route	Transit capacity	Transshipment time (days)
Suez Canal	1.5 billion tons of cargo	>20
Cape of Good Hope	Open lines	>30
IMEC	 1.5 million TEUs minimum (presuming single-track rail and single exit at Haifa) 3 million TEUs potential (via railway upgrades like double-stack rail and port capacity enhancements at Haifa and Ashdod) 6 million TEUs potential (via full double-track rail and expansion of IMEC to include the Saudi-Egypt link via the planned East-West Saudi Landbridge) 	>12

Note: Of the ships passing through the Suez Canal, only 13 percent are container ships, while 38 percent are tankers and 31 percent are bulk carriers. This makes it difficult to convert the Suez transit volume into TEUs accurately, as this data point is not as useful as a direct comparison.

Approximately 90 percent of EU-India trade is containerized.⁴³ The transportation corridor would therefore directly contribute to both time and cost efficiencies. In addition to the derived savings due to the lower cost of trade, more efficient routes would increase the number of available empty steel containers, a market China currently dominates by providing 95 percent of global supply.⁴⁴

One of the biggest challenges for time and cost savings is likely to be seamless border crossings, particularly at Jordan and Israel, as well as constraints on port calls and time delays when shipping from land to boat. There is substantial variability in average port call time (two to ten days, with an average of six), which could reduce efficiencies gained if not reliably resolved.⁴⁵ This challenge can also be mitigated if shipping lines are involved with on-land logistics, or if there is a central logistics hub that enables seamless communication and smooth interorganizational interoperability.

Presuming full efficiency and alignment with projected time and cost savings, a direct benefit of IMEC would be accrued savings on transportation costs. The current average cost of shipping one TEU through the Suez Canal between India and Northern Europe is approximately \$6,000.⁴⁶ The estimated cost of the same cargo via the IMEC at 30 percent lower cost would yield approximately \$4,200 per TEU and provide a direct savings of almost \$1,800 per TEU.⁴⁷

Applying the savings of diverting from the Suez Canal to IMEC with a conservatively expected minimum trade volume of 1.5 million TEUs annually, the total annual savings would be approximately \$2.7 billion, with an expansion to \$5.4 billion or higher if and when further infrastructure upgrades occur (such as double-stack rail and port integrations into the network in the coming decades). Further cost savings and operational efficiencies could be accrued through harmonized digital trade portals that enable seamless trade among the participating countries, reducing transit times and costs and delivering savings proportionate to bilateral trade volumes.

These projected savings related to reduced transit time and cost are also likely to be particularly impactful on specific types of goods where the time value of money is particularly high,⁴⁹ including:

- High-value goods like electronics, pharmaceuticals, and luxury items that would otherwise be airfreighted due to their high value per kilogram.
- Time-sensitive or refrigerated goods requiring specialized transportation, particularly where there is a coldchain requirement or time-sensitive delivery window (i.e., food products, vaccines).
- 3. **General bulk consumer goods** like textiles, furniture, and consumer electronics.
- 4. **Specialized industrial goods** like advanced machinery, auto parts, or renewable technology components.

Exports and new market access

The IMEC, once operational, is expected to enhance export market volumes of corridor countries by helping them access new markets. As in other transportation corridors like the China-Europe Freight Rail and the Baku-Tibilisi-Kars Railway, the logistics efficiency and trade facilitation of this corridor is likely to improve trade conditions and the ease of moving goods as all the parties align shipping standards, customs rules, and transshipment fee rates to remove friction and support the easy flow of goods. As efficiency gains in transport increase, it would allow countries to better leverage their competitive advantages, which is anticipated to expand export markets. This benefit is likely to be most pronounced for IMEC partners with lower domestic production costs like India, Jordan, and Israel, although it would benefit all exporters along the corridor including the Gulf states. It would also provide greater access for European and other Mediterranean exporters to Asian import markets. About 16 percent of the GCC's imports come from the EU and the GCC is the EU's sixth-biggest trading partner and export destination. Israeli exports to India—its sixth-largest

trading partner globally and second-largest in Asia—were valued at about \$2.3 billion in 2024.⁵⁰ Indian trade with Europe is also rising substantially, currently valued at more than €120 billion (11.5 percent of Indian total trade) with an annual predicted growth rate of more than 6 percent in the coming years.⁵¹

For example, a 10 percent to 15 percent decrease in anticipated international freight costs associated with IMEC would result in a 5 percent to 8 percent increase in overall Indian export valuation, thus stimulating overall demand for Indian goods within the import markets along the corridor (i.e., Europe, GCC, Israel, etc.).⁵² In value terms, it translates into a likely potential increase of \$21.85 billion of Indian exports (a 5 percent increase upon the total export value of \$437 billion) every year.⁵³ This is particularly prominent for India's trade with the Gulf states, the largest trading block for India valued at \$160 billion; the UAE sources the majority of its agricultural imports from India, and strengthening IMEC's role as a food corridor (particularly with its advantages for perishable goods due to faster transit times and reduced spoilage) could create significant potential for producing countries like India, while also helping address Gulf food-security concerns.54

The expanded export potential associated with IMEC is a fruitful area for future research, given the demonstrated relationship between market connectivity and infrastructure investments and local economic growth, particularly within export industries. ⁵⁵ In the US context, every \$1 invested in rail transportation drives \$2.50 in economic activity, and a World Bank assessment of forty-seven corridor projects across sixteen countries demonstrated that projects with careful design, a clear theory of change, and inclusive stakeholder planning—particularly with the private sector—are particularly powerful contributors to export industry growth. ⁵⁶

Employment generation

In addition to export-oriented market growth, the IMEC would stimulate local employment opportunities and create jobs within the corridor countries. As with labor market growth in other contexts resulting from transit-related infrastructure or megaprojects, most of the jobs created as part of IMEC would be either in direct construction and infrastructure contracts or across the logistics sector in verticals like warehousing, supply chain management, and cargo handling and distribution. Additional limited indirect employment is also expected to be generated along local supply chains (i.e., cement, steel, logistics) and services.

While the benefits are likely to be unevenly distributed among the corridor countries, low-cost labor economies like India, inner Saudi Arabia, and Jordan are poised to benefit the most from expected employment boosts from greater competitiveness. The amplified economic activities within these regions along the transit lines will likely create jobs and encourage more workers to move from other regions to benefit from increased connectivity with global markets. Making predictions of the impact on the labor market is difficult to do with precision; yet if the IMEC were to eventually include special econo-

mic zones (SEZs), industrial parks, or dedicated manufacturing zones, then the direct employment rates would become clearer. The most likely areas of highest value include the Saudi-UAE, Saudi-Jordan, and Jordan-Israel land-border crossings where SEZs can be established to help attract industry and promote potential employment opportunities.

Capital inflows and industrial growth

IMEC's development will eventually attract major investments to construct the requisite infrastructure (e.g., railway lines, port upgrades, and multimodal logistics hubs) and future integrations (energy and digital upgrades). The initial stages of capital investment will most likely come from each participating country, which would build its own segment as IMEC infrastructure is consistent with most countries' independent development plans. As the corridor becomes operational and the risk profile for capital investment improves, demand from private capital markets should increase, attracting investors seeking to benefit from enhanced export competitiveness, shared trade platforms, and regional economic growth.

As IMEC scales operations and increases trade volume, additional financing—primarily foreign direct investment (FDI) and strategic capital—will be required at key junctures, further amplifying long-term economic development across the corridor. The combination of cost-competitive exports, removal of nontariff barriers, and substantial capital investment will support additional industrial growth among participating countries. The new transit architecture will provide an opportunity for corridor countries to develop industries that cater to specific needs to markets within the supply chain. This will likely create opportunities for critical sectors, including agriculture, logistics, energy, telecommunications, advanced manufacturing, AgriTech, and construction, and potentially tourism if freight-enabled infrastructure also incorporates passenger capabilities along the route.

Transit revenues

Transit revenue would accrue in the form of transit fees and handling charges along the IMEC route, although final levied fees will remain uncertain until there is more clarity on broader IMEC coordination structures and cross-border agreements. For example, the average transit fee levied on cargo passing through the Suez Canal is around \$40 to \$50 per TEU.⁵⁷ If this transit fee rate is supported by the market and incorporated into the price structure for major shipping and insurance companies, the corridor has the potential to generate transit revenue of between \$60 million and \$120 million within the initial years of its operation, levied on the 1.5 million to 3 million TEUs annually split between core IMEC countries of Israel, Jordan, Saudi Arabia, and the UAE.⁵⁸ This transit revenue is expected to fluctuate with the cargo volumes that the corridor can manage, particularly as requisite infrastructure investments are made that include double-stack railway lines, container depots, and expanded cargo-handling terminals at Eastern Mediterranean ports.

Mapping corridor costs and financing gaps

The costs associated with the IMEC transportation corridor derive from addressing infrastructure gaps, technical upgrades, and port modernization. In addition to filling physical infrastructure and capability gaps to manage multimodal transport at high trade volumes, the corridor also requires harmonized digital systems to standardize operation and interoperability among participating nations. Key transit ports along the route, particularly in the Middle East and India, require substantial modernization investments to handle increased cargo volumes and multimodal handling capacity. Accurately assessing the financing needs to make IMEC minimally operational is critical, as incomplete rail, road, or port links, particularly the Gulf to Mediterranean overland route, threaten the economic viability of the entire project; feasibility studies and cost-estimates should be a priority deliverable coming out of an anticipated ministerial process.

As much of the projected costs related to building a functional corridor are already covered by national infrastructure investment, the *financing gap for a minimally functional single-stack transportation corridor* from the UAE to Haifa Port is expected to be around \$4.86 to \$5.18 billion, with the largest gap being in Jordan, which has (about \$2 billion) limited national modernization plans for freight-enabled infrastructure, prominent capital constraints, and challenging risk profiles that impede the flow of private capital. Based on the benchmarks for cost per kilometer in the Israeli national rail system and the Jezreel Valley railway project, the cost of establishing an additional coastal rail link between the ports of Haifa and Ashdod would cost around \$2.57 billion at a cost of \$19.46 million per kilometer.

Meanwhile, the *total cost* of filling all the current infrastructure gaps and missing links, connecting existing nodes, and modernizing infrastructure *to reach the full potential of the transportation corridor* will be substantially higher, likely around \$20 billion, spread unevenly among the corridor countries.⁵⁹ This sum is primarily derived from laying new freight-enabled rail across the Middle East, with the cost of upgrading both existing railway lines and port infrastructure along the corridor largely covered by currently planned or already obligated investments, to accommodate expanded cargo volumes and full integration.

For a full description of the methodology used in the above analyses and those pertaining to Saudi Arabia, Jordan, and the Israeli ports in table 3, see Annex 1.

There is strong existing support for many of the above infrastructure requirements among IMEC signatories. Saudi Arabia and the UAE have already started making transformational infrastructure investments. India has already committed \$10 billion as part of its national port modernization strategy, which will have a positive impact on cargo movement for ports linked to the corridor such as Mundra, Vadhavan, and



Freight train is seen on a railway station in Riyadh that links Riyadh and the port of Dammam in Saudi Arabia. REUTERS/Fahad Shadeed.

Jawaharlal Nehru Port.⁶⁰ France, Italy, Greece, and the European Union are largely able to finance their own port and rail modernization projects as required to support the final step of the corridor connecting into European markets, and as part of their respective national (or EU) development initiatives. Israel plans to double the kilometers of its national rail system by 2040, while also pursuing capacity and efficiency upgrades at Haifa Port as well as new regulation frameworks supporting privatization and operational efficiency; according to data from Israel's Ministry of Transport and Road Safety, container handling across all Israeli ports is projected to grow from 2.8 million TEUs in 2023 to approximately 4.9 million TEUs by 2035.⁶¹

It is largely presumed that both Saudi Arabia and the UAE—as well as potential future Gulf participants in the corridor like Oman, Bahrain, Kuwait, and Qatar—will absorb any additional IMEC-related expenditures through both their national development strategies and the Gulf Railway Project, a \$250 billion initiative to connect all six GCC countries and enable freight rail across the Gulf.⁶² While progress on the Gulf Railway has been uneven, both Saudi Arabia and the UAE have advanced their national rail systems the furthest, with the UAE's Etihad Rail recently opening the first operable connection with another GCC state on the Saudi border and a UAE-Oman link set to open by mid-2027.⁶³ Saudi Arabia has developed extensive domestic rail infrastructure, including freight-capable lines such as the north-south line toward al-Haditha, and it is antici-

pated that all domestic Saudi rail investments will be covered as part of the Saudi Vision 2030.⁶⁴ The biggest challenge for the Gulf Railway initiative is not financing but rather aligning policies, customs, regulations, and technical standards.⁶⁵

The railway infrastructure in Jordan is a crucial bottleneck for the entire trade network, as there is currently no national Jordanian railway network for either passengers or freight and the national government is unable to finance investments. The anticipated minimum cost of work related to IMEC in Jordan will be around \$2.4 billion to \$2.6 billion, including \$2.09 billion to build standard-gauge, freight-capable rail linking al-Ha-

ditha to a Jordanian logistics hub in Mafraq (about 150 kilometers in length) before continuing westward into the Israeli railway system at Beit She'an (about 75 kilometers). 66 Beyond that bare minimum, it is likely that Amman would seek to use the IMEC investments to advance its broader domestic development agenda including a north-south corridor (Mafraq-Amman-Aqaba) and perhaps additional future connectivity into Lebanon and Syria.

In addition to political sensitivities, the Jordan-Israel connection imposes unique technical challenges that are likely to lead to higher costs within this segment. At the moment, there are

Table 3: Rail projects for the corridor total approximately \$7.5 billion (by type and nation)

Country/port	Estimated cost (in billions of dollars)	Projects
Saudi Arabia*	2	Rail links between al-Ghuwaifat (UAE) and Haradh, covering 269 km.
Jordan*	2.09	Rail links between al-Haditha and Sheikh Hussein border (between Jordan and Israel), covering 225 km. Jordan does not currently have a standard-gauge train network; initial plans for a national standard-gauge rail line remains largely stalled, with the exception of a recent \$2.3 billion investment package by the UAE to build a north-south rail link between Aqaba and the mining regions at al-Sheidiya and Ghor es-Safi.
Israel*	0.29	Rail links between Beit She'an and the Sheikh Hussein border crossing in Jordan, covering 15 km.
Israel**	2.57	Rail links between the Port of Ashdod and the Port of Haifa, covering 132 km.
Saudi/Jordan/Israel*	0.48 to 0.8	Cargo-handling terminal and supporting infrastructure required for multimodal transportation in three to five locations to support border transfer and logistics. These sites will most likely be located at al-Haradh (UAE-KSA), al-Haditha (KSA-Jordan), Mafraq (Jordan), and Beit She'an, near the Sheikh Hussein Crossing (Jordan-Israel).

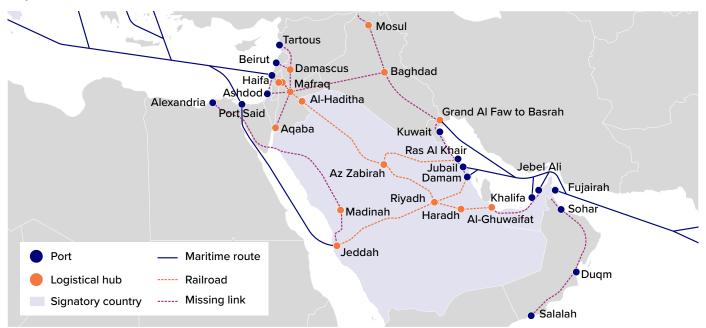
The estimated costs are based on anticipated projects necessary to fully link into the corridor and represent the known gaps not already covered by existing national investment strategies. These costs are projections based on available information, and real costs would likely fluctuate based on technical specificities.

Sources: Government of Jordan, "Jordan, UAE Ink \$2.3 Billion Railway Investment Project," Ministry of Investment, 2024, https://www.moin.gov.jo/En/NewsDetails/Jordan_UAE_ink_23_billion_railway_investment_project; Strategiecs Team, "Rail Network Strategy: Jordanian Hopes and Search for Regional Integration," Strategiecs, September 2021, https://strategiecs.com/en/analyses/rail-network-strategy-jordanian-hopes-and-search-for-regional-integration; Hussein, independent analysis and industry conversations; Libin Chacko Kurian, "Multimodal Logistics Parks: India's Opportunity to Hack its Logistics," *Indian Transport & Logistics News*, January 2023, https://www.itln.in/warehousing/multimodal-logistics-parks-indias-opportunity-to-hack-its-logistics-1347596?utm_source=; Mathiew Grosch, "Orient East Med: Fifth Work Plan of the European Coordinator," European Commission, July 2022, https://transport.ec.europa.eu/system/files/2022-09/oem_wp_v.pdf; Theo Burman, "Map Shows High-Speed Rail Plan for Major Middle East Cities," *Newsweek*, June 2025, https://www.newsweek.com/map-shows-high-speed-rail-middle-east-2084469; Staff Writer, "Adani Group Completed \$1.15 Billion Purchase of Haifa Port Company," *Maritime Executive*, Jan 2023, https://maritime-executive.com/article/adani-group-completes-1-15b-purchase-of-haifa-port-company; Deloitte, "Developing KSA's Railway Sector: Saudi Arabia Railways," 2023, https://www.deloitte.com/uk/en/about/story/impact/ksa-railway.html; Samriddhi Vij, "The Gulf Railway Project: Bridging the Gaps between Vision and Reality," Observer Research Foundation, ORF Middle East, April 2025, https://www.orfonline.org/research/the-gulf-railway-project-bridging-the-gaps-between-vision-and-reality; and Railway Pro, "Israel Inaugurates Jezreel Valley Railway," September 2016, https://www.railwaypro.com/wp/israel-inaugurates-jezreel-valley-railway/?utm.

^{*} Projects required to establish minimally functional transportation corridor from the UAE to Israel capable of handling 1.5 million TEUs annually.

^{**} Projects required to establish a fully enabled transportation corridor from the UAE to Israel capable of handling 3 million TEUs annually.

Map 4. Potential Future IMEC Routes



no existing cross-border rail connections, and the networks will have to be linked at Beit She'an and through the Jezreel Valley. It is important that the new Jordanian rail be built along the same standards as both Israel and Saudi Arabia, which jointly operate their national railways on the 1,435 millimeter (mm) standard gauge.⁶⁷ This route will require new rail bridges or tunnels to traverse the Jordan River, while navigating notoriously difficult, steep terrain. The bulk of investments for this section will be focused on rail modernization for high-volume freight traffic and customs facilities, as well as disaster-proofing given the significant elevation changes along the route and the fact that it will traverse the earthquake-prone Syrian-African tectonic rift.⁶⁸ These technical challenges could substantially raise anticipated costs.

The next segment of the IMEC, after crossing the Jordan into Israel, would be the final overland section, terminating at Haifa Port: Majority-owned and operated by the Adani Group, with the former Israeli ambassador to India, Ron Malka, serving as executive chair, this port has preexisting rail links to Beit She'an and is home to one of the largest deepwater facilities required for large container ships—in the Eastern Mediterranean.⁶⁹ The inclusion of Ashdod Port in central Israel would increase the overall trade volume capacity to a total of 3 million TEUs annually, substantially improving IMEC's trade capacity. However, this would require an additional internal rail line either via a transit hub and coastal freight rail from Haifa (132 km at a cost of around \$2.57 billion) or via a forked route that would cut south sharply from Beit She'an to reach Ashdod via the West Bank (159 kilometers and \$3 billion in cost).70 While similar in estimated cost given the standard price per kilometer, the real cost is likely to vary substantially between the two routes given the different landscapes: Haifa—Ashdod is primarily flat, urban, and coastal, whereas the Beit She'an—Ashdod route via the West Bank has substantial hills and traverses rural and urban areas. A coastal route and other efficiency and freight upgrades to the Israeli national rail system are already underway, with Israel Railways aiming to double the amount of tracks to more than 2,600 kilometers of Israeli rail by 2040.71

These estimates do not include potential costs associated with route additions or redundancies that some are advocating to be included within IMEC or are likely to be integrated into the initiative in the future. These include:

- Connecting IMEC to Fujairah Port in the UAE and ports in Oman.
- Investing in the Jordanian north-south line connecting Agaba to the Mafrag hub.
- Linking the Persian Gulf to Jeddah via the Saudi Landbridge.
- Establishing a Saudi-Egyptian link across the Strait of Tiran
- Connecting to the Iraq Development Road.
- Integrating Lebanese and Syrian ports.
- Aligning with the European Three Seas Initiative.
- Adding a potential fork in the corridor from Jordan to connect with the West Bank on the way to Ashdod that could also one day include Gaza.

Energy and digital integration

While multimodal transportation links are the corridor's backbone, the likely enduring and transformative contributions from IMEC—and where many participating countries hope to play the biggest structural role—are in the energy and technology pillars. Initial IMEC plans were projected to include fossil-fuel integration, green hydrogen networks, integrated electricity grids, and new fiber-optic cables. Analysis shows that the two most promising areas of additional IMEC integration are electricity grids and fiber-optic cables; the prospects for other forms of energy are mixed and uncertain, including with regard to the cost competitiveness and technical feasibility of an integrated gas pipeline, liquefied natural gas, and green hydrogen. Further analysis should explore integrating critical mineral supply chains into the corridor and leveraging IMEC to build both data-center and Al infrastructure.

Integrated energy grids and renewables

IMEC signatories have expressed interest in the potential for the corridor to strengthen the integration of electricity grids across the Middle East, Europe, and South Asia's energy markets. Interconnection would allow for balancing across the power sector and make corridor countries less vulnerable to external coercion or supply shocks—a challenge with renewable sources like solar and wind. A shared grid enables countries to compensate for local shortages or surpluses in

real time, reducing the risk of blackouts or disruptions caused by natural disasters or cyberattacks. It would also untap opportunity from solar and wind integration, which are more reliable and cost-effective when connected directly into a consumption grid, while also making green hydrogen more competitive along the corridor by blending it with existing electricity flows.

While linking electricity grids across the entirety of the corridor faces technical and political constraints, there is significant potential for grid interconnection between portions of the corridor. The IMEC can build upon ongoing regional grid-integration initiatives within Europe, between Europe and the Middle East, across the Gulf, and between the Gulf and India to deliver substantial cost and efficiency savings.⁷² Europe is already a leader in grid integration through its European Network of Transmission System Operators for Electricity (ENTSO-E), and there is already significant feasibility research exploring the potential for a shared electricity grid linking Europe to the Middle East.⁷³ Egypt also is quickly emerging as a primary hub for regional energy integration, including through the EuroAfrica interconnector to link Cyprus and Egypt.⁷⁴

Launched in 2009, the **GCC Interconnector (GCC-I)**—a network of high-voltage transmission lines—has improved reliability and allowed limited power sharing during emergencies among the GCC countries, although **commercial**

Table 4: Sizing up feasibility, value ranges of other tech and energy pillars of the corridor

Core pillar	Project (from 2023 IMEC MOU)	Current feasibility	Anticipated value
Technology	Fiber-optic cables	High	High —clear private-sector incentives for expanded fiber-optic cables to meet expanded data-center activity and rising data needs for both India and the Gulf; open questions as per routes and urgency relative to other trade and energy aspects.
Energy	Integrated electricity grids	Medium	High —strong momentum on the GCC Interconnector and other regional interconnections; high strategic value and economic rationale supporting grid integration, particularly for balancing intermittent renewable sources like solar and wind.
Energy	Integrated gas pipeline	Medium	Low —primarily regional benefit from initial Saudi-Jordan pipeline which could connect to Egypt, Syria, and Lebanon in the future; likely limited role in meeting EU demand but would provide supply chain redundancy.
Energy	Green hydrogen	Low/medium	Low/medium—technical challenges related to green hydrogen production and transport means there is substantial uncertainty on the economics of the hydrogen trade; regional green hydrogen production is expected to fit into national energy mixes rather than for transport across far distances. Technological innovation and shifts in global market demand, particularly for green ammonia, could improve both feasibility and value over time.
Energy	Liquefied natural gas (LNG)	Low	Low —most energy experts expect LNG will flow east toward India and other Asian markets, with European LNG demand being met by US exports.

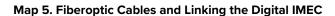
Sources: Compiled by authors.

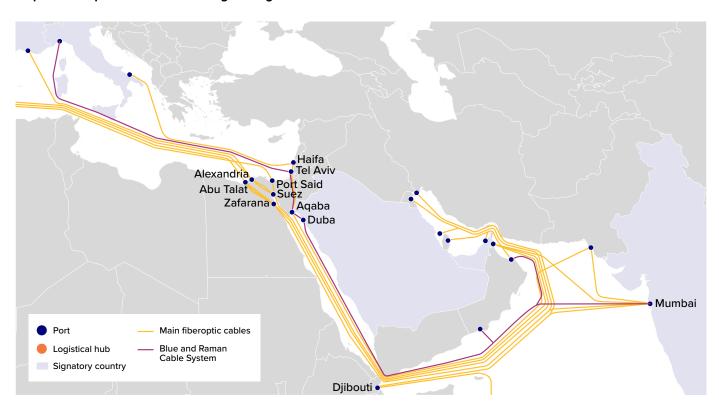
trade remains minimal and artificially expensive, hindered by subsidy regimes and regulatory fragmentation.⁷⁵ The Gulf Cooperation Council Interconnector Authority, which oversees the GCC-I, is currently making substantial investments (\$1.3 billion) to expand its reach and efficiencies. International credit agencies predict investment to remain stable and successfully deliver a UAE-Kuwait-Saudi interconnection boost, an Oman direct link, and an Iraq interconnection by 2027; the GCC-I received an A+ rating from Fitch Ratings in September 2024, an outlook which was reaffirmed in August 2025.⁷⁶ The push toward regional grid integration in the Eastern Mediterranean and within the Gulf indicates that existing initiatives, including the GCC-I, can serve as the core of a more integrated regional market for the IMEC to expand on.

Another major benefit of grid interconnection is that it will amplify the benefits of already-strong renewable energy markets along the corridor. The Gulf states and India are already leaders in low-cost solar. The geographic spread of IMEC helps solve the challenge of intermittency, i.e., when peak sun or wind times do not align with demand. The UAE currently boasts the world's largest single-site solar power plant, and Saudi Arabia is making major investments through the Public Investment Fund to deliver high-wattage solar capabilities, including the 2.6 gigawatts (GW) expected from the al-Shuaibah solar plant.⁷⁷ The One Sun One World One Grid (OSOWOG) initiative spearheaded by India—which could feasibly connect into the GCC-I in the future—aims to connect regional power

grids with long-distance transmission so that "the sun never sets" on the shared grid, with daylight solar surplus in one area flowing via high-voltage lines to meet evening peaks elsewhere. Renewable generation is increasingly cost-competitive (often less than \$0.03 to 0.05 per kilowatt-hour), but integrating capacity at scale will demand new grid investments including long-distance transmission lines, grid-stabilization technology, and storage; the International Solar Alliance estimates that OSOWOG will need tens of billions of dollars for transregional power lines, with India playing a critical role as the central hub. Page 19.

Integrating renewables over a larger geographic market helps smooth out surplus and scarcity (i.e., when it is night in India, the Middle East and Europe may still have solar generation, and wind patterns differ by region) and therefore large-scale solar farms in India and the Arabian Peninsula and wind projects (onshore and offshore) in the Middle East and Europe could generate vast clean electricity and balance demand across the grid. While there is significant potential to build on existing grid interconnection efforts within the Middle East and between the Middle East and Europe, expanding grid connections along IMEC will face some regulatory and political challenges.⁸⁰ This component would thus benefit from an official IMEC coordinating body, which could establish mechanisms to address these concerns and mitigate shared risk associated with grid integration.





Fiber-optic cables

Cables are the digital arteries pumping blood to the heart of the twenty-first century economy; they carry more than 95 percent of the world's voice and data transmissions.⁸¹ As demand for high-speed data transfer, cloud services, and digital infrastructure surges globally, fiber-optic cables have become a critical component of national and regional competitiveness. In Saudi Arabia alone, the fiber-optic market is expected to double by 2033 to more than \$1.39 billion.⁸²

For IMEC, the deployment of fiber-optic cables along its multimodal transport and energy routes offers a foundational opportunity to build a resilient, interconnected digital backbone and cost-competitive and redundant "data superhighway" for Eurasia, mitigating single-point-of-failure concerns.83 Modern fiber-optic cables, terrestrial or subsea, offer enormous data capacity. Integrating fiber-optic cables into IMEC's physical infrastructure—likely alongside rail corridors and undersea shipping lanes—helps improve security and lower cost, while reducing latency and expanding data flow capacity between corridor hubs to enable the transmission of commercial, governmental, and consumer data with minimal lag.84 Just as container shipping revolutionized goods transport, a dedicated, secure fiber network embedded into IMEC would transform cross-border digital trade, fintech, e-governance, and cloud computing along the corridor.

Several countries along the corridor already have major ambitions to become digital hubs and have aggressive national investment strategies for fiber optics. The UAE and Saudi Arabia are both investing heavily in data-center infrastructure and Al and cloud capabilities.85 Israel also is a regional leader in cybersecurity and cloud innovation. Google has long positioned itself as a major proponent and forward investor for an overland fiber-optic table linking India to Europe via a Saudi Arabia-Israel connection including through their flagship Blue and Raman Submarine Cable Systems.86 Launched in 2021, following the Abraham Accords, the plan is for the Blue cable to connect Europe to the Middle East via Tel Aviv and Agaba, and the Raman cable to link Jordan, Saudi Arabia, Oman, and India.87 While the Blue and Raman systems have not been implemented fully in the Middle East, given security dynamics, Google and Meta have plans to invest billions in Indian submarine fiber-optic infrastructure. There continues to be strong market interest in substantial investments in regional fiber-optic cables around the Gulf as well as in growing compute capacity and Al-related investments.88

Across the region, cable infrastructure between the corridor countries remains fragmented and bottlenecked, often relying on older links or routes that remain vulnerable to geopolitical tensions or potential sabotage. ⁸⁹ A substantial portion of internet traffic between Asia and Europe currently transits through Egypt's Red Sea—a bottleneck that would make an additional terrestrial cable a valuable geopolitical and technological redundancy and value proposition. ⁹⁰ Nearly 90 percent of all internet traffic (225 Terabits per second, or Tbps) between Europe and Asia transits through Egypt: a single point of fai-

lure that can be targeted for attacks or disrupted in natural disasters. ⁹¹ Telecom Egypt also leverages its effective monopoly to charge some of the highest transit fees in the world for fiber-optic passage, and lack of competitive alternatives and redundancies minimizes investment across regional digital infrastructure and reduces quality of service (i.e., higher latency rates, increased costs, etc.). ⁹²

By embedding fiber-optic cables within IMEC's planned rail and port infrastructure, corridor countries can diversify away from vulnerable choke points while building resiliency into global internet architecture, allowing data to move either through the Red Sea or via overland cables. Such integration would also enable secure, sovereign data routing for strategic sectors including finance, defense, and health systems that can reduce single-point vulnerability to surveillance and cyberattacks. Building their own cables is a priority for Google and other companies operating across the region, as it allows them to secure their routes to their cloud data centers while also connecting with new emerging hubs across Saudi Arabia, the UAE, and India. Deeper cable density also allows for new bandwidth to meet with growing data demands in the age of massive compute and Al-driven economies, thus making fiber-optic integration into IMEC both foundational for economic growth and network resilience, as all the corridor countries invest in frontier technologies and substantially increase the role of technology in their economies. A key benefit from IMEC would be in aligning public- and private-sector investments in fiber-optic cables across geographies, ensuring that the digital corridor supports economic integration, resolves ownership challenges, and addresses cybersecurity concerns.

Integrated gas pipelines and LNG

A proposition for IMEC is the construction of a gas pipeline connecting the Middle East and Europe, with additional expanded export via eventual future LNG93 terminals within the Eastern Mediterranean (particularly Egypt). Analysis shows that the predicted cost of building a gas pipeline across the Middle East from Saudi Arabia to Israel to be between \$2 billion and 4 billion, split primarily between Saudi Arabia (\$1.6 billion to \$3 billion), Jordan (\$400 million to \$700 million), and Israel (\$100 million to \$200 million).94 While an IMEC gas pipeline would have challenges meeting European demand and could compete with growing Israeli natural gas exports, a pipeline could potentially improve energy security among IMEC partners by lowering the overall cost of transportation for traditional fossil fuels and supporting supply redundancy, especially in the face of continued threats to liquid fuel shipments via the Red Sea and Suez and the Strait of Hormuz.95 The overall feasibility and impact from a gas pipeline for gas exports to Europe are expected to be low relative to its cost and required investment, particularly given shifting European demand away from gas toward renewables as well as increased American exports.

There are a few examples of regional transnational pipelines in the Middle East with moderate success, including the Arab Gas Pipeline, Dolphin Pipeline, and East Mediterranean Gas



General view of the Natural Gas Liquids facility in Saudi Aramco's Shaybah oilfield at the Empty Quarter in Saudi Arabia May 22, 2018. REUTERS/Ahmed Jadallah.

Pipeline (EMG). Despite its early momentum and importance within the context of the Israeli-Egyptian relationship, and a recent Israeli-Greek push to make progress, the EMG has currently stalled and is not expected to progress for the near or medium term absent US support and in the face of Turkish resistance and the current war in Gaza. While no trans-Arabian natural gas pipeline exists in Saudi Arabia, the Trans-Arabian Pipeline Company operated a pipeline from 1950 to 1976 that connected Qaisumah, Saudi Arabia, to Sidon, Lebanon, proving both technical and economic viability under the right political and security conditions.

Saudi Arabia is rapidly expanding its natural oil and gas transportation network, adding 4,000 km of internal pipelines by 2030 that could eventually move beyond Saudi borders. 98 This expansion could feed into a Saudi-Jordan-Israel link as part of IMEC, as well as a direct line connecting the production hub at Jubail to the Red Sea (i.e., Jeddah, or the planned Saudi city called NEOM). Gas integration initiatives within IMEC could include establishing a Jordan-Israel pipeline; reopening the EMG, which would further integrate Egypt; and ensuring that Eastern Mediterranean ports have the docking capacity for large fuel carriers. The only Eastern Mediterranean ports capable of handling liquid fuels are Haifa, Ashdod, Tripoli (Libya), and the Egyptian ports of Alexandria, Damietta, and Port Said. 99

The United States is leading the way on global LNG investments, with a surging supply of American LNG that Washington hopes will meet both European and global energy demand.¹⁰⁰ Gulf states, India, and Europe are investing heavily in maritime LNG capabilities, with both Saudi Arabia and the UAE announcing investments in the US LNG market while expanding their own capacities.¹⁰¹ There are limited nodes for LNG shipping capabilities across Eastern Mediterranean ports, and only two are currently operational: Alexandria, via the Idku Terminal and a floating storage and regasification unit (FSRU); and Damietta, at the Spanish Egyptian Gas Company LNG facility. 102 Israel retired the FSRU in Haifa based on a determination that it no longer improved energy security given offshore gas development; thus, there are no capabilities to process or ship LNG there at this time and early estimates suggest an FSRU plant in Haifa would cost at least \$2 billion and likely more given security needs at the site. 103 LNG is likely to remain predominantly a complementary option for IMEC that will play a substantial role in the maritime trade and is set to expand regardless of additional investments by IMEC signatories. Meanwhile, pipelines remain an option for more seamless, reliable, and cost-effective integration for Middle Eastern countries along the transport corridor.

Green hydrogen

Emerging renewable energy technologies were at the heart of the 2023 IMEC announcement, with a particular emphasis on green hydrogen.¹⁰⁴

Expert opinions vary widely on the technical feasibility of clean hydrogen becoming cost-competitive for transshipment when compared with other traditional fossil fuels, particularly when transported over long distances through, for example, the proposed terrestrial Trans-Arabian pipeline.¹⁰⁵ Green hydrogen must be in a cold-secured supply chain to remain in the liquid form required for export, making it less cost-effective to transport over long distances.¹⁰⁶ While other technical transport vectors like ammonia, methanol, and liquid organic hydrogen carriers are under development and could eventually provide competitive offerings to transport green hydrogen, it would directly compete with natural gas and LNG and need cost-competitive deployments across limited infrastructure space, while also competing with other energy sources on the open market like natural gas, oil, and renewables including solar, wind, and hydropower.¹⁰⁷

While the economic viability of long-distance green hydrogen capabilities within IMEC remains uncertain, it is likely that technological advancements in the coming years—particularly in improved electrolysis technology—will lead to increased efficiency and reduced costs that will improve the economics of green hydrogen integration into national energy mixes, particularly when deployed at scale in local markets along the corridor.¹⁰⁸ However, the limited supply of fresh water will likely constrain green hydrogen production in the Gulf; in the UAE for example, projected potential target hydrogen production of 15 million metric tons would consume up to 350 percent of its current freshwater reserves by 2050.109 While solutions for solar intermittency or technical advancements in hydropower could increase the capacity to use desalinated, brackish, or treated wastewater electrolysis technology and hydrogen production, this remains technically uncertain and a serious constraint on domestic supply that also poses substantial trade-offs (including the environmental impact from brine produced by desalination and the cost competitiveness of wastewater green hydrogen with additional treatment requirements).

Saudi Arabia is moving forward on green hydrogen plans as part of IMEC. In July 2025, ACWA Power signed a multiparty MOU with leading European energy companies to export electricity generated from renewable energy sources— particularly green hydrogen—to Europe. These plans are centered around the Yanbu Green Hydrogen Hub, which is planned to be a fully integrated facility with its own captive electricity generation from renewable sources, desalination plants to feed its hydrogen electrolysis and ammonia conversion facilities, and a dedicated export terminal via the Red Sea and Suez Canal. The planned green hydrogen production and export facility is expected to be commercially viable and active by 2030, but how planned green hydrogen exports in western Saudi Arabia fit into IMEC—and particularly the northern transshipment route via Jordan—remains to be seen. NEOM



Electricity generation turbines partially fuelled by green hydrogen in Sharm El-Sheikh, Egypt, October 20, 2022. REUTERS/Sayed Sheasha.

is already operating at about 8 percent of its total capacity; its 2.2 GW production capacity for green hydrogen and green ammonia is more than 80 percent complete, corresponding to a ceiling of around 900,000 tons of production annually that is already available for export.¹¹²

Presuming these technical and resource constraints are addressed through technical innovation in the coming years, IMEC's multimodal design (including rail, port, and pipeline infrastructure) supports the use of green hydrogen in powering the corridor. Green hydrogen is anticipated to eventually have a competitive advantage (particularly when converted from green ammonia) for industrial power and transportation fuel for long-haul trucking, aviation, railways, and shipping. 113 By the mid-2030s, hydrogen refueling hubs along IMEC (e.g., NEOM and Yanbu) could emerge, with facilities in the UAE, Saudi Arabia, or Israel providing ammonia or methanol for ships and hydrogen fueling stations for freight trains or trucks on new rail links. Hydrogen is especially attractive for powering long-distance transport capabilities where battery storage is less practical, and integrating hydrogen supply along the corridor would accelerate the greening of freight movement between Asia, the Middle East, and Europe. 114

Given that green hydrogen has not proven to be cost-effective when shipped across long distances, it is difficult at this stage to quantify the precise projected value gained from integrating green hydrogen transportation and production into the IMEC relative to the cost of building those capabilities. It also is highly likely that transit countries that produce competing energy sources (i.e., Saudi Arabia, UAE) will either add levies or seek to artificially manipulate fossil-fuel markets to offset lost

Table 5: Potential future value of integrating other components in the corridor

Component	Benefits and alignment with other elements of the corridor	Challenges	Anticipated value
Smart logistics (ports, rail hubs)	Optimizes cargo flow with AI and automation; improves capacity utilization and reduces dwell times.	Upfront tech costs; labor disruption; integration of legacy systems across countries.	High
Cybersecurity cooperation	Protects infrastructure, digital trade, and critical data; increases investor confidence in corridor digital systems.	Requires high trust among states; risk of intelligence conflicts and lack of shared standards.	High
Digital customs harmonization	Streamlines cross-border trade along transport corridor and reduces friction at checkpoints; lowers costs and delays.	Requires regulatory alignment, data- sharing agreements, and major IT system upgrades across jurisdictions.	High
Data centers	Supports cloud services, digital trade, and local data sovereignty; reduces latency and supports Al applications.	High energy demands and cooling needs; jurisdictional concerns over data privacy and control.	Medium-high
Al and emerging tech hubs	Stimulates regional innovation in automation, supply chain analytics, and smart manufacturing; attracts tech investment.	Requires skilled labor, enabling regulation, and secure data environments.	Medium-high
Digital payment system	Facilitates seamless business-to-government and business-to-business transactions; supports real-time customs, tax, and fee settlements.	Needs interoperability, central bank coordination, and cybersecurity safeguards against fraud and abuse.	Medium
Critical mineral refineries	Enables regional value-addition to key inputs for batteries, EVs, and clean energy; could reduce dependency on China for global refining capacity; leverage transport corridor for moving inputs/outputs.	Requires high capital investment; environmental regulation alignment; reliable supply chain and export infrastructure.	Medium
Advanced manufacturing zones	Catalyzes regional industrial development and job creation; boosts export competitiveness.	Requires reliable power, stable regulation, and investment incentives; regional disparities may limit attractiveness.	Medium

Source: Analysis by authors.

revenue, likely meaning that the real cost savings for consumer markets along the corridor remain uncertain and that green hydrogen will most likely be deployed, at least in the near or medium term, as part of national renewable strategies to help power the transportation route and support expanded industrial activity in hubs along the corridor.

Additional sectoral components

Beyond the core energy and digital pillars from IMEC's launch, there is strong potential for integrating additional components (see table 5). An IMEC central coordinating body could oversee further analysis of these components.

Making IMEC a reality: Establishing a road map for implementation

Not all connectivity projects and sweeping economic initiatives are created equal. While competing connectivity routes like the BRI are dominated by just one country, the IMEC concept offers a different path that is guided by several distinct principles:

- 1. Flexible and modular structure of linked nodes, adapting the corridor to local contexts.
- Market-driven investments that respond to actual demand signals from each participant.
- 3. Embedded norms of economic sovereignty, contrasting sharply with debt-heavy or opaque financing mechanisms within other initiatives.
- 4. Ties to major political and geopolitical trends or deals, including Israeli-Gulf normalization and the rising economic power of India.
- Status as the only major regional connectivity initiative directly endorsed by the United States and the European Union.

The IMEC, as envisioned, is uniquely positioned to be the first large-scale, multimodal connectivity initiative led by a multipolar coalition of countries that is primarily driven by market interest. While China, through its BRI, is likely to remain involved in the region, IMEC would push for deeper diversification of routes and ports that can reinforce alternative options. Whereas BRI's credibility relies on Chinese top-down financing and political backing, the IMEC's credibility would hinge on a clear coordinating body and the mobilization of capital to fill critical financing gaps—particularly at strategic bottlenecks like the Saudi-Jordan-Israel land bridge and port-rail integration zones. The decentralized, proliferating nature of the IMEC vision is the bedrock of its strength and attractiveness for participating countries, but also its fundamental weakness. Without a clear process and coordinating architecture, the IMEC risks becoming a fragmented patchwork of bilateral projects and half-finished visions instead of a comprehensive and transformative regional corridor.

The coordination structure for IMEC should primarily rest upon the principle of mutual cooperation and national investment, with each signatory spearheading the development and maintenance of their respective sections of the route while aligning policy and standards across the network. It is imperative that the IMEC signatories continue to signal their commitment at the leader level (both bilaterally and multilaterally at forums such as the G7 and G20 summits) and convene a high-level ministerial meeting to reassert its relevance and decide on a definitive path forward for the initiative. At that meeting, the signatories should seek to achieve the following:

- Reaffirm the text, values, and vision of the 2023 joint statement and issue a 2025 statement signaling new priorities to align political intent, review project status, announce investments, and identify priority areas for future announcements at the 2026 G20 and G7 processes hosted by the United States and France, respectively.
- Commit to a clear, transparent, and defined coordinating body for the initiative, including formal leadership positions and processes to maintain momentum:
 - Establish standards for joining the IMEC as a signatory and establish a category for nonmember observer status.
 - Identify an initial IMEC chair that 1) sets a schedule for rotational leadership, 2) oversees a sherpa process coordinating the other special envoys, and 3) hosts an annual IMEC Summit.
 - Establish joint-working groups dedicated to sector-specific activations across the corridor including but not limited to port, rail, and logistics integration; trade and customs policy alignment; cybersecurity and digital infrastructure; renewable energy; and risk assurance and investment coordination standards.
- 3. Establish an IMEC risk assurance facility spearheaded by relevant development finance institutions, including but not limited to the US International Development Finance Corporation (DFC), EU Global Gateway, Indian Maritime Development Fund, and Gulf partners, to provide both concessional finance and political risk insurance.
- 4. Launch a formal track-two think tank process that centralizes policy and political dialogue related to IMEC, which can facilitate connections between the public and private sectors and provide targeted analysis for policymakers.
- Make clear and time-limited commitments to filling well-established and known financing gaps for the corridor, particularly at crucial bottlenecks such as Jordan.

Strong coordination structures that align policy, remove barriers, and create new free and open spaces are important both to renew momentum behind the initiative and reassert its continuing relevance in the current landscape, especially ahead of anticipated global milestone events like the 2026 G20 and G7 summits. Clear actions by the public sector to support the initiative, align conflicting policies, and empower

Table 6: The features and design to make the IMEC coordinating body impactful

Component	Function	Membership	Model inspiration	
IMEC ministerial forum	Political alignment and high-level decision-making.	Ministers from all signatories and observer states.	G20 ministerial model.	
IMEC secretariat	Day-to-day coordination, project monitoring, and stakeholder convening.	Staffed by seconded officials from signatories; hosted by rotating presidency.	International North-South Transport Corridor, Asian Infrastructure Investment Bank Secretariat.	
Technical working groups (TWGs)	Sectoral focus (rail, energy, digital, customs, and logistics).	Public sector, private-sector firms.	Clean energy ministerial, Asia- Pacific Economic Cooperation TWGs.	
Private-sector council	Feedback loop with investors, finance institutions, and contractors.	Representatives from infrastructure, technology, and logistics companies.	US-India CEO Forum; I2U2 Business Forum (i.e., India, Israel, UAE, and the United States).	
Think tank track-two	Policy expertise and in-depth knowledge for policymakers and private-sector leaders.	Independent think tanks, universities.	Think20, T7 (i.e., think tanks involved in the engagement groups of the G20, G7).	

their private sectors to champion the corridor will help fill the financing gaps for IMEC, likely through a mix of intensive private capital allocation and limited public-sector concessional financing or risk insurance.

Most of the IMEC transportation infrastructure is already integrated into currently existing or expected modernization initiatives. This has improved both the private sector's view of the corridor's risk profile and its confidence in the value to be gained through the initiative. Establishing a clear coordinating body would further reduce risk by increasing the prospect of efficient wielding of impactful government-affiliated financial instruments from, for example, the US DFC, European development finance institutions, the EU Global Gateway, the Indian National Maritime Fund, and Gulf sovereign wealth funds.

To convert political intent into operational success, IMEC requires a structured, flexible, and transparent harmonization and assurance mechanism that fosters investor confidence and regional coordination. Absent a clear reaffirmation of IMEC's value in the current moment and commitment from the signatories to addressing key missing links in the corridor, the initiative could languish and be overtaken by competing grand connectivity projects like the BRI.

An IMEC coordinating body should be carefully constructed to avoid cumbersome bureaucratic procedures that undermine the market-driven nature of the initiative, while providing the high-level support necessary to overcome political and regulatory challenges, unlock access to useful government tools, and arbitrate differences between the diverse countries associated with IMEC. The following table outlines the essential elements of such a structure.

The case for American value

Continued momentum in IMEC's development, such as investments along the India-UAE section of the corridor and strong political momentum in European capitals, indicate that the corridor countries will make incremental progress absent the United States. If the US government and private sector do not take a more prominent role in IMEC coordination and project development, the United States could lose the opportunity to assert continued US economic leadership in IMEC countries. It also is possible that, absent US involvement, Russia and China could advance competing Eurasian connectivity corridors across the Middle East that cement their regional dominance in strategic sectors. Additionally, China and other US competitors could seek to assert their own influence along the IMEC routes in ways that undermine US interests such as expanding Chinese ownership over IMEC-affiliated ports or Chinese companies dominating new digital systems associated with IMEC.¹¹⁵

The United States can secure significant geostrategic benefits from IMEC, in addition to some economic benefits. In an increasingly multipolar world of competitive offers, the countries comprising IMEC are on the front line of a new Eurasian geopolitics where middle powers are hedging their relationships, seeking autonomy, and balancing the United States with both China and Russia. The IMEC could serve as an important mechanism for improving American economic influence in setting regional standards for shared economic, energy, and tech platforms, while also directly benefiting major American businesses in strategic areas like energy and digital infrastructure.

The United States can leverage IMEC to promote numerous US foreign policy priorities by:

- Supporting a free and open Eurasia, reducing opportunities for exploitation by adversarial actors, particularly China and Russia.
- Deepening bilateral and strategic relationships with India and Gulf capitals.
- 3. Reinforcing the US digital standards-setting approach, with American technology embedded within leading emerging economies like Saudi Arabia and India.
- 4. Fostering a more stable Red Sea and Eastern Mediterranean via the establishment of more diversified trade routes that align with maritime security goals.
- Leveraging IMEC to create the bedrock for a potential future special economic zone that aligns tariff policy with shared trade standards and can support market entry for US companies in strategic sectors in IMEC countries.
- 6. Strengthening coordination between key US partners in ways that also reinforce the role of the United States as the partner of choice.

- Investing in Jordan as a central logistics hub and bridge that can support growing US economic priorities across the region, including the Abraham Accords and economic reconstruction in Syria and Iraq.
- 8. Improving US and European ties with India as it increases its global economic and security presence, as well as facilitating its expanded role in the Middle East as a long-term counter to Chinese economic influence.

A formal IMEC secretariat would greatly enhance the United States' ability to advance these priorities via IMEC by providing a platform for standards setting and project oversight. An effective coordinating body could also develop mechanisms to decrease the influence of US adversaries— particularly China—along the corridor. For example, a defined architecture could:

- Establish investment screening protocols coordinated across IMEC member states to vet infrastructure proposals for strategic vulnerabilities and prevent adversarial control over critical assets like ports, fiber-optic nodes, or logistics hubs.
- Develop unified digital infrastructure standards such as 5G security baselines, fiber cable ownership rules, and data-protection frameworks —that ensure interoperability and exclude untrusted vendors, particularly in telecom and cloud infrastructure.
- Mandate transparency requirements for supply chain ownership and capital flows within IMEC-related projects, helping to expose and limit covert influence or state-backed acquisitions from adversarial actors.
- Facilitate US-backed risk insurance and export finance mechanisms—such as via the DFC—that offer alternatives to PRC financing, thereby deterring corridor partners from relying on Chinese state-backed capital.
- Support bilateral and sector-specific procurement platforms within IMEC for critical infrastructure materials and technology that favors vendors aligned with G7+ standards, decreasing dependency on Chinese-dominated supply chains.

Among the IMEC signatories, the United States is best positioned to align the diverse partners and interests associated with IMEC, leveraging both its diplomatic capital and the fact that its geographic distance from the corridor makes it a more neutral arbiter. The United States is one of the few countries that enjoys the strong relationships and convening power among the diverse set of countries along the corridor, and the United States can also bring powerful risk-assurance tools to key IMEC projects such as through the DFC and its prominent role in leading multilateral development banks.

The United States should leverage its convening power and risk mitigation tools to both renew momentum on IMEC in 2025 and to establish and shape an IMEC coordinating body. Looking ahead to 2026, the United States could ensure continued momentum on IMEC by integrating it into the 2026 G20 process. Integrating IMEC into the US-hosted process and aligning deliverables with the French-led G7 process can ensure multitrack deliverables supporting the initiative. This approach can also strengthen the transatlantic relationship and allow the United States to shape the direction of the overall initiative while encouraging European allies to invest in it.

The market-first financing approach of IMEC aligns closely with American values and global economic diplomacy. While it is unlikely that US prime contractors would be able to win the infrastructure contracts for transportation projects along the corridor given the competitiveness of other national champions, US companies are highly competitive across both the energy and technology sectors. It is likely that American private-sector champions could make competitive bids on projects especially in "sticky" technology areas that could be integrated into the corridor plans like fiber-optic cables, energy grids, data centers, critical mineral supply chains, automation and smart logistics, cybersecurity, and advanced manufacturing hubs. The United States should prioritize providing business intelligence and early market signals to leading US companies that can prepare to competitively compete on tenders related to IMEC infrastructure and future integration, helping private-sector leaders to leverage areas of competitive advantage.

American businesses and industries could benefit from IMEC projects (see table 7).

Without a clear, direct return on investment for taxpayers, the United States should not allocate significant public-sector capital directly into the IMEC—except when strategic projects ad-

vance other US priorities. For example, the DFC could contribute to financing or risk mitigation for the missing rail corridor in Jordan, which would connect Saudi Arabia and Israel, thereby ensuring that the United States is part of the conversation on regional development initiatives and retains economic leverage.³² The United States should advocate for immediate action on high-feasibility and low-cost projects that both validate and support the corridor, while also supporting a ministerial focused on mobilizing political capital to make progress in known gaps in the Middle East, with a particular focus on Jordanian infrastructure modernization, Saudi-Jordan rail, and UAE-Saudi policy alignment. The United States should also engage at the bilateral level with Israel, Jordan, Greece, Egypt, and other important nonsignatories to the 2023 MOU.

The reality for Washington is that an increasingly multipolar Eurasia is likely to seek to maximize value in an increasingly transactional world. IMEC would enjoy rare bipartisan relevance by advancing strategic US goals that transcend political divisions in Washington and could serve as an instrumental project demonstrating a new positive-sum approach to global development partnerships that reinforces American leadership, empowers allies, and facilitates inclusive growth. It should remain a core US interest to stay at the forefront of regional efforts tying American partners together through infrastructure, policy alignment, and standards setting.

An IMEC without America means that the rules of the game will be set by others, potentially against the interests of the United States. By missing an opportunity of this scale, the United States will unnecessarily impede its ability to secure its foreign policy priorities in one of the most important geopolitical regions of the world as well as its ability to shape the future direction of economies that are already and will increasingly be the drivers for diversified digital and energy ecosystems.

Table 7: Potential strategic roles for US companies in key areas of the initiative

Sector	Value proposition and rationale		
Infrastructure (rail, ports, energy)	US companies offer proven expertise in delivering megaprojects in the Middle East and many are trusted by Gulf governments for complex logistics and energy infrastructure.		
Energy (grid, renewables, hydrogen)	US companies offer supply grid solutions, turbines, and hydrogen-ready power tech, which are critical for IMEC's clean energy spine; there is a particularly likely value proposition from grid interconnections and ammonia/hydrogen splitters.		
Smart logistics, Industrial Internet of Things, trade facilitation	US companies offer integrated systems for automation, logistics hubs, pipeline control, and smart customs that can provide ease of operations for IMEC; can provide global logistics support including digital tracking and integrated customs and smart routing systems that are aligned with IMEC's cargo flows.		
Digital infrastructure (fiber, cloud)	Google already owns and operates Blue and Raman Submarine Cable Systems; many US companies provide scalable cloud computing, digital customs platforms, and secure data centers across high-demand growth markets in IMEC and can provide platforms for secure cross-border data flows, e-government, and smart city infrastructure across IMEC nodes.		
Fintech and digital payments	US companies offer interoperable digital payment systems for business-to-business trade, customs, and digital ID systems that can supports corridor integration and financial flows.		
Heavy equipment and construction	US companies can supply essential machinery for corridor construction (rail, ports, energy) that relay on their strong distribution and service networks.		
Capital investment	Strong US capital markets can invest across renewable energy, logistics, and digital infrastructure in the region.		

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Source: Compiled by authors.

Policymaker recommendations

Signatory recommendations

- Appoint a national IMEC special envoy or official of corresponding rank within each government to align domestic ministries, streamline decision-making, and engage directly with other corridor stakeholders and the eventual IMEC secretariat.
- Convene an annual rotating ministerial summit beginning in 2025, hosted by one of the IMEC signatories, to review progress, standardize evaluation metrics, and advance consensus on shared financing and regulator alignment goals.
- Establish a shared implementation road map by mid-2026 that outlines admission standards for new members, the role of nonsignatory observer states, and high-level commitments to transparency and accountability mechanisms for IMEC projects.
- Form a cross-national IMEC secretariat by the end of 2026, with initial staff seconded from member governments; empower it to coordinate sectoral working groups, manage knowledge sharing, and facilitate dispute resolution.
- Commit seed funding toward alleviating corridor infrastructure bottlenecks including the Jordanian rail system and GCC-wide logistics harmonization and freight interconnectivity.
- 6. Create a jointly capitalized IMEC Infrastructure Investment and Risk Assurance Facility with contributions from all the signatories; focus on low-risk, high-leverage investments and private-sector cofinancing opportunities.
- 7. Form technical working groups by sector, co-led by different anchor institutions among the IMEC members to distribute responsibility and specialization, focusing on areas like port, rail, and logistics; trade and customs policy alignment; cybersecurity and digital infrastructure; and energy.
- Prioritize delivery-first approaches to IMEC and do not support membership expansion until there is a clear road map and coordinating body for the initiative, including robust standards and requirements for new member admission.
- Integrate IMEC branding into national development and foreign investment strategies, signaling political commitment to global partners and enhancing alignment with strategic investors and sovereign wealth funds.
- Launch an IMEC Private Sector Advisory Council, composed of leading regional and international firms across logistics, energy, Al, shipping, and infrastruc-

- ture, and integrate the council into the deliberative and agenda-setting process.
- Establish a joint scenario-planning and risk-mitigation team to monitor geopolitical tensions, market shifts, and project implementation delays, ensuring adaptive and coordinated response capacity and easy flow of information.

US recommendations

- Designate an IMEC special envoy and establish an IMEC Task Force at the National Security Council to coordinate across the State, Treasury, Commerce, and Defense departments as well as the DFC and Office of the US Trade Representative.
- 2. Hold a ministerial in Washington by the end of 2025 convening the original IMEC signatories to take stock of independent progress on IMEC to date, discuss capital finance gaps and obstacles, and align strategic intent for the initiative. Deliverables could include a communiqué that outlines a road map for IMEC that leverages the 2026 G20 chairmanship and announces the intent to create a coordinating body.
- Advocate for IMEC partners to invest actively in lowrisk, high-reward corridor bottlenecks like Jordanian Rail, Inter-GCC policy alignment, and India-GCC port modernization.
- Explore the feasibility of DFC financing for rail modernization and logistics infrastructure in Jordan, including potentially through joint-funding mechanisms with the UAE on its announced investments or a multilateral fund.
- Brand current projects and new bilateral investments with IMEC signatories as a part of IMEC, thus endorsing its larger strategic vision; prioritize projects that effectively remove corridor bottlenecks and deepen regional connectivity.
- Ensure that the United States drives the agenda in the technology-related working groups within an IMEC secretariat including on undersea cables, data governance, port and logistics digitization, cybersecurity, and digital services.
- Link US-GCC technology negotiations, particularly on AI diffusion rules and export chips, to the digital corridor and investments by US companies in the hard infrastructure supporting it.
- Consult with US private-sector champions, particularly in energy and technology, to identify their ongoing roadblocks in the IMEC markets and their priority areas of strategic growth.

Conclusion

The India–Middle East–Europe Economic Corridor presents a distinct and timely opportunity to build a more integrated, resilient, and forward-leaning connectivity architecture across Eurasia. It is the first major infrastructure initiative jointly backed by the United States, India, Europe, and key Gulf partners and one that offers a credible, market-driven alternative to more centralized and opaque connectivity models.

The initiative now faces a clear choice in 2025: Organize and deliver or drift and fragment. As 2026 fast approaches and regional tensions hit new heights, it is crucial that the United States not give in to strategic drift and fall behind on a generational economic, energy, and technological opportunity. This report finds that the foundational components of IMEC are in place and, if implemented to a minimal operational scale, the initiative could yield annual cost savings on trade exceeding \$5 billion, reduce shipping time by over 40 percent compared to the Suez route, substantially expand export valuations (i.e., more than \$21 billion in Indian exports), and support the movement of at least 1.5 million to 6 million TEUs annually through upgraded rail-port corridors while deepening the prospects of new strategic value from deeper energy and technological integration. Over time, the corridor could scale into a strategic platform with far greater value than the sum of its parts and lay the groundwork for new heights of regional cooperation. IMEC's modular structure allows for phased implementation, enabling early wins in subregions along the corridor to prove its value and increase awareness while leaving fertile ground for future integrations. However, without sufficient political and institutional scaffolding to improve the risk environment, IMEC risks becoming a fragmented collection of projects rather than a coherent strategic corridor.

With the United States hosting the G20 and France chairing the G7, IMEC's key backers are well-positioned to reassert collective leadership and advance an actionable road map for implementation. At a minimum, IMEC signatories should:

- Convene a high-level ministerial in 2025 to reaffirm political intent, issue a shared declaration of priorities, and set the stage for high-impact announcements.
- Establish a light-touch coordinating body—including an IMEC secretariat and rotating special envoy mechanism—and issue-specific working groups on trade, energy, digital infrastructure, and investment facilitation.
- Launch a Corridor Risk Assurance Facility to fill known financing gaps in strategic bottlenecks and to mobilize blended capital for critical rail, port, and digital projects.
- Support a track-two platform to sustain think tank and private-sector engagement and coordinate technical input across sectors and jurisdictions.

With focused leadership, partners can decisively align policies, reduce friction, and demonstrate that large-scale, multilateral infrastructure can deliver real and shared value in an era both of America First and friends together. If the signatories act now, IMEC can become more than just a talking point and lay the relational and economic framework for a new Eurasian geoeconomic and geopolitical order rooted in transparency, mutual interest, and aligned strategic direction.

Annex 1. Methodologies and benchmarks for calculations

Page number	Calculation	Methodology and assumptions
12	Shipping via the corridor would be 30 percent cheaper and 40 percent faster compared with the Suez Canal.	These figures have been used by the government of India in various communications and documents. They have been used and referenced by multiple governments in public statements since the signing of the 2023 IMEC MOU.
12	According to Atlantic Council modeling, a fully realized single-stack freight railway system from GCC ports to the Haifa Port via Jordan would initially sustain around forty-six trains a day, equivalent to about 1.5 million twenty feet equivalent units annually, with an average transport time of approximately two to three days.	There are two primary factors constraining throughput volume on the transportation corridor: railway line capacity and container handling capacity at ports. The throughput for the corridor is determined by the least-capable section of the corridor, which means that the most likely constraint limiting initial volume capacity on the corridor will be rail capacity, presuming that it is initially a single line. In 2023, 1.9 million TEUs were moved between China and Europe through the China-Europe Railway Express. This major freight transport route spans over 11,000 kilometers and is a good equivalent to the IMEC when modeling throughput limitations via rail. From this, we arrive at the conservative figure of 1.5 million TEUs per annum to account for the specific complexities of the route. That figure is equivalent to 4,110 TEUs per day. Therefore, assuming one train carries ninety containers, according to global benchmarks, this leads to an equivalent of around forty-six trains per day (4,110/90). This is the prediction for a single-stack train.
12	This could expand to 3 million TEUs by upgrading to double-stack rail and the additional connection to Ashdod Port.	Using the same information and sources, we looked at upgrading the rail network to allow for double-stack rail. If Haifa Port handling capacity is increased and Ashdod is linked into the network, then the likely carrying capacity for the corridor would be 3 million TEUs annual throughput. To expand beyond that level would likely require additional rail lines running along the initial rail line in parallel.
15	According to Atlantic Council modeling, overland transshipment through the IMEC would save 47 percent of fuel consumption relative to the amount consumed traversing the Suez Canal.	Suez Canal calculation: JNPT (India) to Antwerp Distance: 7,080 nautical miles Average vessel speed: 20 knots (nautical miles per hour) Transit time: 7,080 nautical miles ÷ 20 knots = 354 hours = 14.75 days Average fuel consumption by a vessel: 200 metric tons per day Total fuel used: 14.75 days × 200 metric tons/day = 2,950 metric tons IMEC calculation: JNPT to Antwerp Distance (JNPT to Jebel Ali): 1,200 nautical miles Transit time: 1,200 ÷ 20 knots = 60 hours = 2.5 days Fuel consumption: 2.5 days × 200 metric tons/day = 500 metric tons Railway distance (Jebel Ali to Haifa): 2,500 km Fuel efficiency: Freight trains can move one ton of cargo approximately 500 miles (805 km) on one gallon (3,785 liters) of diesel fuel Total fuel for 10,000 tons: 11.77 liters/ton × 10,000 tons = 117,700 liters, which is equal to 88.275 metric tons Distance (Haifa Port to Antwerp): ~2,300 nautical miles Transit time: 2,300 ÷ 20 knots = 115 hours = 4.8 days Fuel consumption: 4.8 days × 200 metric tons/day = 960 metric tons Total IMEC fuel consumption: 500 + 960 + 41.56= 1,548.21 metric tons Total fuel consumption calculation: Suez Canal: 2,950 metric tons IMEC: 1,548.21 metric tons Savings: 1,401.79 metric tons (47.5 percent)

The same cargo should be able to move via the corridor at a 30 percent reduced cost, i.e., approximately \$4,200 per TEU instead of \$6,000 via the Suez Canal, which would deliver direct savings of almost \$1,800 per TEU.

The costs (\$6,000) have been confirmed by traders (Mumbai to European port like Antwerp, etc.) and then the anticipated 30 percent deduction calculation is applied to reach the savings estimate of \$1,800 per TEU.

Applying the savings of diverting from the Suez Canel to IMEC with a conservatively expected minimum trade volume of 1.5 million TEUs annually, the total yearly savings will amount to approximately \$2.7 billion, with an expansion to \$5.4 billion or higher depending on further infrastructure upgrades like doublestack rail and port integrations into the network in the coming decades.

Saving per TEU: \$1,800

TEUs carried per year: 1.5 million

Total savings: (1.5 million) x (\$1,800) = \$2.7 billion

Projected savings: (3 million TEUs) x (\$1,800) = \$5.4 billion

17 For example, a 10 to 15 percent decrease in international freight costs associated with the corridor could result in a 5 to 8 percent increase in overall Indian export valuation, thus stimulating overall demand for Indian goods within the import markets along the corridor (e.g., Europe, GCC, Israel). In value terms, it translates into a potential increase of \$21.85 billion of Indian exports (a 5 percent increase upon the total export value of \$437 billion) every year.

There is empirical evidence of this effect. In a targeted approach, the government of India reduced the logistics costs for specific commodities exported to South America and the results were promising. The government was able to reduce the costs by 14 percent, which increased demand by almost 18 percent.

If, for example, logistics costs decline 10 percent, Indian exports could increase by 5 to 8 percent. We have used the 5 percent mark and calculated it based on Indian merchandise exports for the year 2023, which totaled \$437 billion, to arrive at an estimate of \$21.85 billion.

For example, the average transit fee 18 levied on cargo passing through the Suez Canal is around \$40 to \$50 per TEU. If this transit fee rate is supported by the market and incorporated into the price structure for major shipping and insurance companies, the corridor has the potential to generate, within the initial years of its operation, annual transit revenue of around \$60 million to \$120 million, levied on the 1.5 million to 3 million TEUs, split between the core IMEC countries of Israel, Jordan, Saudi Arabia, and the UAE.

This calculation is based on discussions with some industry contacts in the UAE and India. The Suez Canal Authority charges a passage fee for the vessel (see the toll table that is available at the authority website). Based on the toll table calculations for a vessel carrying 10,000 TEUs (containers), the passage fee would be around \$450,000. When we translate this to the per-container cost, it comes to \$450,000/10,000 containers = \$45 per container. The charges by the Suez Canal Authority are per vessel, which the shipping lines incorporate into the fee they charge to importers and exporters. In our case, this cost advantage is limited to 1.5 million TEUs, which is the initial carrying capacity of the corridor. Of course, the Suez Canal handles much more than that—including bulk cargo, oil tankers, and special cargo vessels.

The financing gaps for a minimally functional single-stack transportation corridor from the UAE to Haifa Port are expected to total around \$4.86 billion to \$5.18 billion, with the largest gap (more than \$2 billion) being in Jordan, which has limited national modernization plans for freightenabled infrastructure, prominent capital constraints, and challenging risk profiles that impede the flow of private capital.

The estimated costs of the missing links for a minimally functional multimodal transportation corridor with single-stack rail include:

\$2 billion: Cost to be incurred in placing the missing rail links between al-Ghuwaifat to Haradh, covering 269 km. We extrapolate using a cost calculation for Saudi rail: The cost of placing railway in Saudi Arabia is \$7 billion for 950 km, with a per km cost is \$7.37 million. Using the same unit price for 270 km, the cost is $^{\circ}$ \$2 billion.

\$2.09 billion: Cost to be incurred in placing the missing rail links in Jordan between al-Haditha to Sheikh Hussein border, covering approximately 225 km. The same benchmark is used for the cost (as above) of the railway from the Saudi border to the start of the challenging terrain near Irbid (~170 km), given terrain similarity between eastern Jordan and Saudi Arabia. But given the technical difficulties in western Jordan approaching Israel, this rate is doubled to \$15 million/km for the distance from the start of the area near Irbid to Sheikh Hussein (~56 km) to approximate those challenges.

\$0.29 billion: Rail links between Beit She'an and the Sheikh Hussein border crossing in Jordan, covering 15 km at cost of \$19.46 million/km benchmark for the Israeli rail system.

\$0.48 billion to \$0.8 billion: Cargo-handling terminal and supporting infrastructure required for multimodal transportation at three to five locations to support border transfer and logistics. Benchmark set to \$160 million per unit, as informed by both industry conversations and comparative investments in India.

20 Based on the benchmarks for cost per kilometer in the Israeli national rail system, the cost of establishing a coastal rail link between the ports of Haifa and Ashdod would cost around \$2.57 billion.

The proposed rail links between the two ports would span 132 km. The average cost/km for the Israeli system was calculated by dividing the cost of the Jezreel Valley Line linking Haifa to Beit She'an by the kilometers covered (ILS 4 billion = \$1.16 billion; \$1.16 billion/60 km = \$19.46 million/km). Currency conversions made in August 2025.

For the Israeli railway upgrade from Ashdod to Haifa, the calculation is: 132 km at \$19.46 million per km, equaling \$2.57 billion.

The anticipated minimum cost of work related to IMEC in Jordan will be around \$2.4 billion to \$2.6 billion, focused primarily on building standard-gauge, freight-capable rail linking al-Haditha to a Jordanian logistics hub in Mafraq (about 150 kilometers in length) before continuing westward into the Israeli railway system at Beit She'an (about 75 kilometers).

These costs include \$2.09 billion to create the missing rail links between al-Haditha and the Sheikh Hussein border, covering 225 km and other costs including building two to three multimodal logistics terminals, based on the prior benchmarks of a cost of \$160 million/unit, likely at the Jordan-Israel border, Saudi-Jordan border, and potentially at Mafraq.

Sources: Hussein, independent analysis and industry conversations, June 2025; Alberto Garcia-Alvarez et al., "Energy Consumption and Carbon Dioxide Emissions in Rail and Road Freight Transport in Spain: A Case Study of Car Carriers and Bulk Petrochemicals," Journal of Intelligent Transportation Systems Technology Planning and Operations 17, no. 3 (January 2012), DOI:10.1080/1547245 0.2012.719456; Government of India, "India Poised to Become a Trusted Bridge of Global Connectivity through India-Middle East-Europe Economic Corridor (IMEC)," Ministry of Commerce and Industry, April 2025, https://www.pib.gov.in/PressReleaselframePage. aspx?PRID=2122299; Government of India, "National Logistics Policy Will Be Released Soon Policy to Create a Single Window e-logistics Market Will Generate Employment and Make MSMEs Competitive-Nirmala Sitharaman," Ministry of Commerce and Industry, 2020, https://www.commerce.gov.in/press-releases/national-logistics-policy-will-be-released-soon-policy-to-create-asingle-window-e-logistics-market-will-generate-employment-and-make-msmes-competitive-nirmala-sitharaman/; Rhett Allain, "How Efficient Is a Freight Train," Wired, May 2011, https://www.wired.com/2011/05/how-efficient-is-a-freight-train/; Suez Canal Authority, "Tolls Table," 2024, https://www.suezcanal.gov.eg/English/Navigation/Tolls/Pages/TollsTable.aspx; Edward James, "Saudi Arabia Launches Landbridge Design Tender," Middle East Business Intelligence, April 2025, https://www.meed.com/saudi-arabia-launcheslandbridge-design-tender; Staff Writer, "Saudi Arabia Gives Go-ahead for \$7bn Landbridge," Gulf Construction, November 2011, https:// gulfconstructiononline.com/Article/13372#; Ofer Petersburg, "NIS 15 Million Allocated for 'Peace Train' to Jordan Border," Ynet News, January 2018, https://www.ynetnews.com/article/5071237; Jean-Paul Rodrigue, "Fuel Consumption by Containership Size and Speed," Geography of Transport Systems (New York: Routledge, 2024), DOI: 10.4324/9781003343196; V. K. Yadav. "Reduction of Logistics Cost Is a Big Macro Turnaround for India," Business Standard, January 2024, https://www.business-standard.com/economy/news/reductionof-logistics-cost-is-a-big-macro-turnaround-for-india-124011000467_1.html; and Libin Chacko Kurian, "Multimodal Logistics Parks: India's Opportunity to Hack Its Logistics," Indian Transport & Logistics News, January 2023, https://www.itln.in/warehousing/multimodallogistics-parks-indias-opportunity-to-hack-its-logistics-1347596?utm_source.

Annex 2. Signatory status, early activities, and core interests

Name	Status	Activity supporting IMEC	Core interests
India	Signatory (2023)	Signed 2023 IMEC MOU. Hosted an August 2025 IMEC convening in New Delhi. Implementing UAE-India Comprehensive Economic Partnership (CEPA). Signed India-UAE Intergovernmental Framework Agreement and established of the Virtual Trade Corridor in March 2024. Started beta-testing of MAITRI united customs system and expecting its release in UAE-India corridor by 2026. Launched \$2.9 billion maritime development fund for Indian port modernization Continuing to modernize ports. Prioritizing US-India Free Trade Agreement by end of 2025; progress on an India-EU Free Trade Agreement and India-Saudi Free Trade Agreements.	Deepen connectivity with Gulf states while expanding market access to Europe, improving Indian export competitiveness and role in global manufacturing chains. Reduce dependency on Chinese supply chains and counterbalance Chinese strategic inroads in Pakistan, Iran, and Central Asia. Attract Gulf and European capital to support Indian economic development and role within both Middle Eastern and European economies. Improve strategic inroads and alignment with the United States, EU, and Gulf leaders and win their support for Indian developmental, strategic, and political priorities. Expand Indian multimodal logistics infrastructure capacity while stimulating domestic industrial growth and manufacturing capabilities. Build upon the Abraham Accords framework to improve regional stability and broader regional integration. Signal leadership of the Global South and generally support geopolitical realignment around the principle of multipolarity. Promote Indian infrastructure and logistics companies, particularly the Adani Group and other national champions.
Saudi Arabia	Signatory (2023)	Signed 2023 IMEC MOU. Continuing Vision 2030 projects (e.g., railway investments, energy) aligned with corridor; completing port modernizations and positioning. Deepening strategic relationship with United States, EU countries, and India across technology, energy, and trade. Investing heavily across energy and digital pillars of IMEC. Advancing plans through May 2025 MOU signing with Egypt to integrate railways and build a bridge across the Strait of Tiran. Expressing openness to multiple route options beyond Jordan-Israel, including via Egypt and Syria.	Diversify Saudi economy beyond oil (Vision 2030). Leverage geographic position to become a Eurasian logistics hub while balancing Saudi position between global powers; build upon diversified partnerships. Enhance trade connectivity with India and Europe while maintaining global leadership in energy sector. Invest in cutting-edge Al and the foundational technologies of a twenty-first century economy. Support western Red Sea developments and leverage geographic position to become a Eurasian logistics hub, particularly via Damam and Ras al-Khair. Provide a competitive alternative to UAE and Qatar logistical dominance that improves Saudi trade, compared with them. Cement Saudi Arabia as key regional partner in transition states across the region, including Syria. Pause normalization with Israel until conditions change yet remain open in the future.
United Arab Emirates	Signatory (2023)	Signed 2023 IMEC MOU. Continuing Vision 2031 projects (railway investments, energy) aligned with the corridor. Implementing UAE-India CEPA. Signed India-UAE Framework and establishment of the Virtual Trade Corridor in March 2024. Beta-testing MAITRI united customs system and expecting a release in UAE-India corridor by 2026. Supporting a north-south rail line connecting Aqaba to a mining area in Jordan's interior via \$2.3 billion in investments announced in fall 2024. Continuing to modernize ports.	Continue to diversify UAE economy (UAE Vision 2031). Cement the UAE's role as the key strategic gateway linking Europe, India, and Asia. Maintain status as leader in regional and global trade, logistics, energy, and data hub for the Middle East and North Africa. Secure a land bridge via Saudi Arabia to connecting the UAE to the Red Sea. Invest in cutting-edge Al and the foundational technologies of a twenty-first century economy. Expand and reinforce economic linkages with India, Israel, and Europe as part of its broader foreign policy of multipolar nonalignment, threading the needle between the United States, China, and Russia. Quietly support regional integration under the framework of the Abraham Accords.

Italy	Signatory (2023)	Signed 2023 IMEC MOU. 2025 appointment of IMEC special envoy, Francesco Talò. Continuing to modernize Port of Trieste.	Position Trieste as IMEC's EU gateway and cement Italy as a strategic player within Mediterranean sphere of influence. Reinforce Italy's geopolitical role in Europe and in regional integration initiatives, including the Three Seas Initiative. Deepen access to Gulf and Indian markets. Shift Europe's economic center of gravity toward Southern and Eastern Europe, boosting Italy's export-intensive industrial north. Counter instability in the Red Sea and Eastern Mediterranean by establishing more diversified trade routes that align with maritime security goals. Secure energy security via port linkages and establish Italy as a regional energy hub. Leverage corridor to reinforce the US-Europe transatlantic relationship and as an area for growing collaboration. Promote Italian infrastructure and logistics companies.
France	Signatory (2023)	Signed 2023 IMEC MOU. 2024 appointment of IMEC special envoy, Gerard Mestrallet. Hosted June 2025 IMEC summit in Marseilles. Continuing to modernize Port of Marseille.	Reinforce France's geopolitical role in Europe and in regional integration initiatives, including as a global gateway. Position Marseille as one of the key corridor gateways into Europe while cementing France as a strategic player within Mediterranean sphere of influence. Reassert collective EU global leadership in trade, infrastructure, green energy, and technology corridors. Integrate IMEC into the 2026 G7 Process under French leadership. Deepen access to Gulf and Indian markets. Enhance EU strategic autonomy from China and define a comprehensive European offering that can be a counterweight to the BRI. Counter instability in the Red Sea and Eastern Mediterranean by establishing more diversified trade routes that align with maritime security goals. Promote French infrastructure and logistics companies, particularly by mobilizing French industrial champions like Engie, Alstom, and CMA CGM.
Germany	Signatory (2023)	Signed 2023 IMEC MOU.	Diversify energy import routes from Russia. Strengthen strategic autonomy within the EU by reducing dependency on Russia and China via European access both to the Middle East and India. Enhance the EU-India partnership across the pillars of trade, technology, and security. Reinforce Germany's geopolitical role in European regional integration initiatives that can benefit from additional IMEC integration, especially the Three Seas Initiative. Promote German companies and industrial exports along the corridor, particularly engineering and energy firms. Counter instability in the Red Sea and Eastern Mediterranean by establishing more diversified trade routes that align with maritime security goals.

European Commission	Signatory (2023)	Signed 2023 IMEC MOU. Commission's von der Leyen reaffirmed IMEC commitment (February 2025).	Strengthen strategic autonomy within the EU by reducing dependency on Russia and China via European access both to the Middle East and India. Promote alignment with Global Gateway financing mechanisms (€300 billion in public-private capital). Diversify European trade routes within the European single market, supporting internal market integration and supply chain redundancies to lower costs. Reassert collective EU global leadership in trade, infrastructure, green energy, and technology corridors. Build upon the Abraham Accords framework to improve regional stability and broader regional integration. Counter instability in the Red Sea and Eastern Mediterranean by establishing more diversified trade routes that align with maritime security goals.
United States	Signatory (2023)	Signed 2023 IMEC MOU. Trump recommitted to IMEC and a ministerial meeting within six months (February 2025).	Provide a market-based alternative to BRI that counters regional Chinese influence. Strengthen US alliances via economic statecraft, supporting policy priorities across Europe, the Middle East, and Indo-Pacific region. Build upon the Abraham Accords framework to improve regional stability and broader regional integration. Create opportunities for US business along the corridor, particularly in energy and digital sectors. Expand regional LNG capacity to support US exports along the corridor (particularly Europe and India).
Israel	Anticipated future signatory	Implied future signatory based on core IMEC route. Continuing to modernize Port of Haifa.	Formally join the IMEC MOU and ensure that Israel plays a role in shaping the future developments along the corridor. Cement Israel as a critical transit hub for the Eastern Mediterranean, particularly around Haifa Port. Expand regional integration via the Abraham Accords, as the corridor would solidify normalization efforts with Saudi Arabia. Increase trade volume with India, the EU, and the Gulf states. Position Israel as a regional energy transit node, leveraging its existing gas fields to expand LNG capabilities to support regional energy flows. Seize opportunity to shape regional cybersecurity and technological standards along the corridor. Increase FDI and bilateral investment to help the Israeli economy recover from increased costs from war. Counter instability in the Red Sea and Eastern Mediterranean by establishing more diversified trade routes that align with maritime security goals.
Jordan	Anticipated future signatory	Implied future signatory based on core IMEC route. Developing Jordanian north-south rail line (funded by Etihad Rail) and investing in logistics capacity at Aqaba.	Formally join the IMEC MOU and ensure that Jordan plays a role in shaping the future developments along the corridor. Establish Jordan as a strategic transit and logistics hub, both at Aqaba and Mafraq, which can serve as a gateway both for a Saudi-Jordan-Israel link as well as future expansions into Syria, Lebanon, and Iraq. Attract FDI and capital investments into Jordan to build national rail and road infrastructure, spurring domestic employment and economic growth. Reinforce peace and normalization dividends from Israel, particularly through cross-border infrastructure. Build Jordanian capacity to serve as an electricity interconnection and energy transit country. Leverage IMEC to improve geopolitical balancing among regional partners, lowering the risk of future conflict.

	Greece	Anticipated future signatory	Implied future signatory based on core IMEC route.	Formally join the IMEC MOU and ensure that Greece plays a role in shaping the future developments along the corridor.
			Continuing to modernize ports of Piraeus and Thessaloniki.	Leverage IMEC to cement Greek leadership within Mediterranean shipping logistics and as a key port-of-entry into Southern Europe, competing directly with Trieste and Marseilles and boosting Greek maritime influence.
				Improve Greek position in geopolitical tensions of the Eastern Mediterranean, particularly relative to Turkey.
				Strengthen strategic autonomy within the EU via redundant supply chains and more reliable access to the Middle East and India.
				Reassert Greek leadership, particularly at the Port of Piraeus, in energy and gas imports into the EU.
				Counter instability in the Red Sea and Eastern Mediterranean by establishing more diversified trade routes that align with maritime security goals.
	Egypt	Nonsigna- tory	Likely future signatory based on overlap between IMEC and other regional initiatives. Advancing plans through May 2025 MOU signing with Saudi Arabia to integrate railways and build a bridge across the Strait of Tiran. Continuing port modernization in Alexandria, Damietta, and Port Said (Suez Canal Container Terminal).	Formally join the IMEC MOU and ensure that Egypt plays a role in shaping the future developments along the corridor.
				Preserve the centrality of the Suez Canal for Europe-Asia trade, with IMEC remaining just a complementary route that maintains Egyptian dominance in transshipment and as a source of state revenue.
				Reinforce Egyptian leadership as a Mediterranean logistics and energy hub, particularly by deepening strategic investments with Saudi Arabia and via a potential link across the Strait of Tiran.
				Attract FDI inflows to support Egyptian rail, port, energy, and digital infrastructure, creating jobs and stimulating economic growth.
				Position Egypt as a continental connector to Africa, linking IMEC to other European connectivity initiatives like Global Gateway and the Mattei Plan.
	Oman	Nonsigna- tory	Likely future signatory based on alignment of ongoing GCC integration projects (e.g., railways, electricity grids) with IMEC.	Formally join the IMEC MOU and ensure that Oman plays a role in shaping the future developments along the corridor.
				Integrate into regional transit and trade systems, enhancing its role in both inter-GCC and Asia-EU trade that transits through Omani ports like Duqm, Sohar, and Salalah.
				Attract investment to SEZs and support Omani industrial capabilities and overall economic growth.
				Cement Omani ports as a redundancy alternative to the Strait of Hormuz that can ensure the corridor's continuity of operations amid any future instability.

About the authors



Nicholas Shafer is a project lead with the Atlantic Council's N7 Initiative where he leads the program's work related to India and the Middle East, particularly on IMEC and the I2U2 Group. He has worked closely on IMEC since the initiative launched in September 2023, and has been working on both Middle Eastern international relations and emerging India-Middle East relations since 2020, when he worked in the US government during the Abraham Accords.

A policy researcher with over a decade of experience living in and working across the Middle East and South Asia, Shafer's expertise cuts across international development, foreign policy, geoeconomics, and emerging technologies. He previously worked at the US-India Business Council as a Fulbright Policy Fellow with a joint appointment at researcher in the Department of Political Science at Ashoka University, as a program officer at the Meridian International Center, and at USAID as a Yemen & Gulf Affairs Desk Officer. He is a recognized expert in both US foreign policy and regional affairs in the Middle East and India and has published widely, including with the Atlantic Council, Lawfare, the Carnegie Endowment, Chatham House, Konrad-Adenauer-Stiftung, and the Oxford Middle East Review.

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He was a member of a working group on infrastructure and connectivity at NITI Aayog, an agency of the Indian government, for the India at 75 initiative. He is also a US State Department International Visitors Leadership Program fellow on smart ports. He is a regular commentator on trade and connectivity infrastructure issues in national and international newspapers and journals.

Endnotes

- White House, "Readout of National Security Advisor Jake Sullivan's Meeting on Regional Integration," 2023, https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2023/05/07/readout-of-national-security-advisor-jake-sullivans-meeting-on-regional-integration/.
- White House, "Memorandum of Understanding on the Principles of an India-Middle East-Europe Economic Corridor, 2023, https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2023/09/09/memorandum-of-understanding-on-the-principles-of-an-india-middle-east-europe-economic-corridor/.
- 3 For a comprehensive summary of signatory status, bilateral IMEC progress, and core signatory interests, see Annex 2.
- 4 J.P. Morgan, "Global Supply Chains: Introducing Our Global Trade Chokepoint Monitor," May 12, 2025, https://markets.jpmorgan.com/research/email/scx/um6r6qvr/GPS-4887380-0/a48fb9ba-7db1-48cc-b04c-d8454c248d5c.
- Racha Helwa and Perrihan Al-Riffai, "A Lifeline under Threat: Why the Suez Canal's Security Matters for the World," Atlantic Council, March 2025, https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/a-lifeline-under-threat-why-the-suez-canals-security-matters-for-the-world/.
- 6 European Commission, "EU Action to Address the Energy Crisis," February 2025, https://commission.europa.eu/topics/energy/eu-action-address-energy-crisis_en.
- 7 US Energy Information Administration, "India Country Profile," February 2025, https://www.eia.gov/international/analysis/country/IND.
- 8 Maria Grazia Attinasi et al., "Sailing through Storms: The Fallout of Red Sea Disruptions for Global Trade and Inflation," Centre for Economic Polic Research, April 2024, https://cepr.org/voxeu/columns/sailing-through-storms-fallout-red-sea-disruptions-global-trade-and-inflation.
- 9 Helwa and Al-Riffai, "A Lifeline under Threat."
- Alexander Weiss et al., "Electricity Demand in Europe: Growing or Going," McKinsey & Company, October 2024, https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/electricity-demand-in-europe-growing-or-going; and International Energy Agency, "Growth in Global Electricity Demand Is Set to Accelerate in the Coming Years as Power-hungry Sectors Expand," February 2025, https://www.iea.org/news/growth-in-global-electricity-demand-is-set-to-accelerate-in-the-coming-years-as-power-hungry-sectors-expand.
- 11 Joseph Epstein, "Five Years On, the Abraham Accords Need a Multilateral Mission," Atlantic Council, July 2025, https://www.atlanticcouncil.org/blogs/menasource/abraham-accords-future-after-israel-gaza/.
- 12 Government of Saudi Arabia, "Overview: Saudi Vision 2030," https://www.vision2030.gov.sa/en/overview.
- ACWA Power, "In the Presence of the Minister of Energy, Saudi Arabia Solidified International Partnerships to Export Renewable Energy and Green Hydrogen to Europe, Leveraging Its Leadership in IMEC," July 2025, https://www.acwapower.com/news/in-the-presence-of-the-minister-of-energy-saudi-arabia-solidifies-international-partnerships-to-export-renewable-energy-and-green-hydrogen-to-europe-leveraging-its-leadership-in-imec/.
- Dan Rothem, "Saudi-Israeli Normalization Is Still Possible—if the United States Plays it Smart," Atlantic Council, May 2025, https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/saudi-israeli-normalization-is-still-possible-if-the-united-states-plays-it-smart/.
- Alexandre Kateb, "The GCC's Multipolar Pivot: From Shifting Trade Patterns to New Financial and Diplomatic Alliances," Carnegie Endowment for International Peace, May 2024, https://carnegieendowment.org/research/2024/05/the-gccs-multipolar-pivot-from-shifting-trade-patterns-to-new-financial-and-diplomatic-alliances?lang=en.
- 16 Bharatiya Janata Party, "Modi ki Guarantee 2024," 2024, https://www.bjp.org/bjp-manifesto-2024.
- 17 Atlantic Council Experts, "The European Commission Is Headed to India. Here's What to Know About the Landmark Visit," Atlantic Council, February 2025, https://www.atlanticcouncil.org/blogs/new-atlanticist/the-european-commission-is-headed-to-india-heres-what-to-know-about-the-landmark-visit/.
- 18 For a comprehensive review of signatory status, limited progress, and core interests of the stakeholders in IMEC, see Annex 2.
- 19 Venu Rajamony, "New Milestones and Many Firsts: India-UAE Relations Poised for Even Greater Heights," *India's World*, May 2025, https://indiasworld.in/new-milestones-and-many-firsts-india-uae-relations-poised-for-even-greater-heights/.
- Online Bureau, "RITES Hosts Strategic MAITRI Workshops to Strengthen India-UAE Digital Trade Corridor," *Economic Times*, Government vertical, June 2025, https://government.economictimes.indiatimes.com/news/psu/strengthening-india-uae-digital-trade-rites-maitri-workshops/122058735; and Government of India, "Joint Statement at the Conclusion of the State Visit of Prime Minister to the Kingdom of Saudi Arabia," Ministry of External Affairs, April 2025, https://www.mea.gov.in/bilateral-documents. htm?dtl/39440/Joint_Statement_at_the_conclusion_of_the_State_Visit_of_Prime_Minister_to_the_Kingdom_of_Saudi_Arabia_April_22_2025.
- 21 European Commission, "Leaders' Statement Following the Visit of President of the European Commission Ursula von der Leyen and College of Commissioners to India, 27-28 February 2025," February 2025, https://ec.europa.eu/commission/presscorner/detail/pl/statement_25_647.

- Reuters, "Macron Names Former Engie Chief as Envoy for Future Asia-EU Corridor," Reuters, February 2024, https://www.reuters.com/world/macron-names-former-engie-chief-envoy-future-asia-eu-corridor-2024-02-12/; Emanuele Rossi, "Italy Names IMEC Envoy Ahead of Foreign Minister Tajani's India Trip," *Decode 39*, April 2025, https://decode39.com/10345/italy-names-imec-envoy-ahead-of-fm-tajani-s-india-trip/; Emanuele Rossi, "IMEC, Italy's Special Envoy Talo: It's Time for Concrete Action," *Decode 39*, July 2025, https://decode39.com/11321/imec-italys-special-envoy-talo-its-time-for-concrete-action/; and ACWA Power, "In the Presence."
- Adam Krzymowski, "India-Middle East-Europe Economic Corridor in Strategic Connection with the Abraham Accords and the Three Seas Initiative," *Journal of International Studies 17*, no. 4 (2024): 178–194, https://www.jois.eu/files/11_1470_Krzymowski.pdf.
- White House, "United States-India Joint Leaders' Statement," February 2025, https://www.whitehouse.gov/briefings-statements/2025/02/united-states-india-joint-leaders-statement/.
- Saudi Press Agency, "Saudi Arabia Solidifies Global Renewable Energy Leadership, Signs Agreements for Green Hydrogen and Power Exports to Europe under IMEC Initiative," July 2025, https://www.spa.gov.sa/en/N2364007.
- Amr Emam, "Economics Trumps Politics: Egypt and Saudi Arabia Plan to Build First High-speed Rail Link," New Arab, June 2025, https://www.newarab.com/news/egypt-and-saudi-construct-first-high-speed-rail-link; and Daily Sabah, "Reestablishing Road, Rail Connections 'Strategic Priority' for Syria," May 2025, https://www.dailysabah.com/business/transportation/reestablishing-road-rail-connections-strategic-priority-for-syria.
- 27 US Energy Information Administration, "Amid Regional Conflict, the Strait of Hormuz Remains Critical Oil Chokepoint," June 2025, https://www.eia.gov/todayinenergy/detail.php?id=65504.
- 28 United Nations, "Gaza and West Bank Interim Rapid Damage and Needs Assessment February 2025," February 2025.
- 29 Giulia Giodano and Lorena Stella Martini, "Prospects for Peace in the Middle East via the India-Middle East-Europe Economic Corridor," ECCO (think tank), April 2025, https://eccoclimate.org/prospects-for-peace-in-the-middle-east-via-the-india-middle-east-europe-economic-corridor/.
- In addition to presuming a stable tariff environment with negligible additional duties placed on trade through the corridor that aren't already factored into current trade and pricing, estimates in this section rely on calculations based on multiple statements from the Indian government that the corridor would be capable of reducing the transit time of shipping goods by 40 percent and the overall cost of shipping goods by 30 percent. This assertion was most recently made in April 2025 remarks by the Indian minister of trade, Shri Piyush Goyal, to an audience in New Delhi. For a full description, see Government of India, "India Poised to Become a Trusted Bridge of Global Connectivity through India-Middle East-Europe Economic Corridor (IMEC)," Ministry of Commerce and Industry, April 2025, https://www.pib.gov.in/PressReleaselframePage.aspx?PRID=2122299.
- 31 Government of India, "India Poised."
- The anticipated minimum trade capacity is constrained both by the carrying capacity of cargo trains (single or double stack) and the proven capacity of Israeli ports to handle volume. Assuming IMEC signatories initially build the network with full end-to-end, double-stack capabilities, then it would only be able to reach the upward estimate of trade volume by both adding parallel rail lines to expand Middle Eastern rail capacity and connecting the route to other ports including in Egypt, Lebanon, Syria, and Gaza. For a full description of the methodology used in the analysis, see the methodology table in the Annex 1.
- Based on the best current benchmarks for comparable rail corridors, the maximum volume being handled conservatively on single-track rail would be around forty-six trains per day and 1.5 million TEUs annually. The two biggest ceilings to trade volume on IMEC are anticipated rail capacity and handling capacity within Eastern Mediterranean ports. For a full description of the methodology used in the analysis, see Annex 1.
- Trucknet Enterprise, an Israeli smart transportation company, announced a four-day overland UAE-Israel trucking route in December 2023 as a bypass to the Red Sea. Trucking remains a cost-effective option for small-scale good transfer and to maintain trade levels in an uncertain security environment, like the current context of the war in Gaza, but it is unlikely to provide scalable capacity as desired by IMEC signatories. For more context, see Sharon Wrobel, "Israel Logistics Startup Forges Overland Trade Route to Bypass Houthi Red Sea Crisis," *Times of Israel*, December 27, 2023, https://www.timesofisrael.com/israel-logistics-startup-forges-overland-trade-route-to-bypass-houthi-red-sea-crisis/.
- 35 The calculation presumes the same limitations for double-stack rail capacity as in the north-south line and could be improved based on additional freight rail lines across Saudi Arabia.
- 36 Edward James, "Saudi Arabia Launches Landbridge Design Tender," *Middle East Business Intelligence*, April 2025, https://www.meed.com/saudi-arabia-launches-landbridge-design-tender.
- 37 These potential route additions—except perhaps a Saudi-Egyptian connection at the Strait of Tiran—would likely hub within a Jordanian logistics hub before connecting into the broader network. They would provide an important increase in maximum trade volume and additional network redundancies. These estimates are contingent upon sufficient freight rail enablement, port upgrades, and a secure and reliable operating environment for shipping and logistics companies.
- 38 Mary-Ann Russon, "The Cost of the Suez Canal Blockage," BBC, March 2021, https://www.bbc.com/news/business-56559073.
- 39 Rong Wei Neo and Aaron Tay, "Cape of Good Hope Reroutes Likely to Persist Well into 2025 as Industry Adapts," S&P Global, September 2024, https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/oil/092524-cape-of-good-hope-reroutes-likely-to-persist-well-into-2025-as-industry-adapts-one-ceo.
- While Trump declared a bilateral truce with the Houthis in spring 2025, large containership operators are continuing to avoid the Red Sea route and are unlikely to return to more regular operations until there are stronger political guarantees.

- United Nations Conference on Trade and Development, "Navigating Troubled Waters: Impact to Global Trade of Disruption of Shipping Routes in the Red Sea, Black Sea, and Panama Canal," UNCTAD Rapid Assessment, February 2024, https://unctad.org/publication/navigating-troubled-waters-impact-global-trade-disruption-shipping-routes-red-sea-black#:":text=Vessel%20 speed%20and%20carbon%20emissions%20increase&text=As%20a%20result%2C%20the%20longer,from%20Singapore%20 to%20Northern%20Europe.
- 42 For a full description of the methodology used in the analysis, see Annex 1.
- Asher Fredman and Joseph Rozen, "The India-Middle East-Europe Economic Corridor: A Catalyst for Regional Integration and Global Prosperity," Konrad Adenauer Stiftung and Misgav Institute for National Security, June 2025, https://www.kas.de/documents/263458/263507/IMEC+publication+ENG.pdf/4568ca66-aaa4-3961-d59f-c9d7d23b8191?version=1.0&t=1751282626770.
- 44 Stuart Chirls, "US Says China Pressed Unfair Advantages to Dominate Shipping, Shipbuilding," *Freight Waves*, January 2025, https://www.freightwaves.com/news/us-says-china-pressed-unfair-advantages-to-dominate-shipping-shipbuilding.
- 45 World Bank Group, "The Container Port Performance Index 2023," 2024, https://documents1.worldbank.org/curated/en/099060324114539683/pdf/P17583313892300871be641a5ea7b90e0e6.pdf.
- 46 Afag Hussein, conversations with industry, 2025.
- 47 For a full description of the methodology used in the analysis, see Annex 1.
- 48 See the methodology in Annex 1.
- 49 Air freight costs are much more expensive than ocean shipping, meaning that overland transport via the corridor could be particularly cost-competitive for goods that are either high cost per unit, urgent in their delivery, or require specialized transport (i.e., via a stable cold chain).
- 50 Staff, "Which Countries Trade the Most with Israel and What Do They Buy and Sell," *Al Jazeera*, May 2025, https://www.aljazeera.com/news/2025/5/22/which-countries-trade-the-most-with-israel-and-what-do-they-buy-and-sell.
- 51 European Commission, "Trade and Economic Security Country Profile: India," 2025, https://policy.trade.ec.europa.eu/eu-trade-re-lationships-country-and-region/countries-and-regions/india_en.
- For a full description of the methodology used in the analysis, see Annex 1.
- 53 See the methodology in Annex 1.
- Hadi Fathallah, "Ensuring the UAE's Food Security in an Unstable Region," Atlantic Council, August 2024, https://www.atlanticcouncil.org/blogs/menasource/uae-food-security/.
- Yesim Elhan-Kayalar et al., Assessing the Impact of Infrastructure Investments Using Customs Data: The Case of the Greater Mekong Subregion Corridor and the People's Republic of China, Asian Development Bank, ADB Economics Working Paper Series, no. 810, https://www.econstor.eu/bitstream/10419/298156/1/ewp-710.pdf; Mathilde Lebrand, "How Does Infrastructure Support International Trade," World Bank blog, May 2022, https://blogs.worldbank.org/en/transport/how-does-infrastructure-support-international-trade; and C. Nitunga et al., "The Competitiveness of Transport Corridors as One of the Tools for the Growth of Economic Development of Countries," Scholars Journal of Economics, Business, and Management 12, no. 3 (2025): 93–97, https://www.saspublishers.com/article/21902/.
- Association of American Railroads, "Rail Transportation and the U.S. Economy: Fueling Growth, Trade, and Opportunity," February 2025, https://www.aar.org/wp-content/uploads/2025/02/AAR-PE-Economic-Impact-Report-2025-FINAL.pdf; and Alam Muneeza et al., "Wider Economic Benefits of Transport Corridors," World Bank Group, November 2019, https://openknowledge.worldbank.org/server/api/core/bitstreams/4aadbc34-5bc3-5738-b3b7-ced43dd01b65/content.
- 57 "Tolls Table," Suez Canal Authority, 2024, https://www.suezcanal.gov.eg/English/Navigation/Tolls/Pages/TollsTable.aspx.
- For a full description of the methodology used in the analysis, see Annex 1.
- The authors' general estimate is based on a survey of announced investments, ongoing projects, and planned projects already incorporated into national budgets. This number is highly variable because it is based on factors such as future IMEC integrations, the balance between national "must-haves" and "want-to-haves," and technical specifications within the final route.
- The Vadhavan port, due to be completed by 2034, will be among the top ten ports of the world and can be a game changer for India, with projected capacity to handle 23.2 million TEUs of containers per annum. The JNPT port is also boosting its capacity and will handle 10 million TEUs of containers per annum.
- Yuval Nisani, "Israel Railways CEO: We Aim for 300m Passengers by 2040," *Globes*, February 2025, https://en.globes.co.il/en/article-israel-railways-ceo-we-aim-for-300m-passengers-by-2040-1001501207; Jacky Bitton, "Israel's Port Reforms 2025: New Operators, Capacity Expansion, and the Future of Regional Trade," Freyt Consol, June 2025, https://freytconsol.com/news/israels-port-reforms-2025-new-operators-capacity-expansion-and-the-future-of-regional-trade/; and Asaf Zagrizak, "New Regulation for Israel's Ports Underway," *Jerusalem Post*, March 2025, https://www.jpost.com/business-and-innovation/article-844578.
- 62 Samriddhi Vij, "The Gulf Railway Project: Bridging the Gaps between Vision and Reality," ORF Middle East, April 2025, https://www.orfonline.org/research/the-gulf-railway-project-bridging-the-gaps-between-vision-and-reality.
- AECOM, "Etihad Rail State 1," AECOM Project List, https://aecom.com/projects/Etihad-rail-stage-1; and Zainab Husain, "UAE's Etihad Rail to Launch in 2026: Station Locations, Timings, Speed and Future Oman Link Explained," *Gulf News*, May 2025, https://gulfnews.com/living-in-uae/transport/uaes-etihad-rail-to-lauch-in-2026-station-locations-timings-speed-and-future-oman-link-explained-1.500130408.

- 64 Krishtina D'Silva, "Saudi Arabia to Expand Rail Network to Over 8000 km as Part of Saudi Vision 2030," *Urban Transport News*, December 2024, https://urbantransportnews.com/news/saudi-arabia-to-expand-rail-network-to-over-8000-km-as-part-of-saudi-vision-2030.
- 65 Samriddhi Vij, "The Gulf Railway Project: Bridging the Gaps between Vision and Reality," ORF Middle East, April 2025, https://www.orfonline.org/research/the-gulf-railway-project-bridging-the-gaps-between-vision-and-reality.
- Initial cost estimates to build a national rail network in Jordan at more than \$4 billion, inclusive of around \$2 billion for the north-south line and around \$2.5 billion for freight-capable East-West rail link and supporting logistics hubs. For details on Jordanian national rail costs, see Strategiecs Team, "Rail Network Strategy: Jordanian Hopes and Search for Regional Integration," Strategiecs, September 2021, https://strategiecs.com/en/analyses/rail-network-strategy-jordanian-hopes-and-search-for-regional-integration.
- 67 ChartsBin, "Railway Track Gauge by Country," accessed June 2025, http://chartsbin.com/view/38573.
- 68 Strategiecs Team, "Rail Network Strategy."
- 69 Staff Writers, "Why Adani's \$1.2 Billion Stake in Haifa Port Is More Than Just Business," *Economic Times*, June 2025, https://economictimes.indiatimes.com/industry/transportation/shipping-/-transport/iran-israel-conflict-adani-haifa-port-missile-strike-stake-importance/articleshow/121900351.cms?from=mdr.
- Calculated at a rate of \$19.46 million/km for the 132 km distance between Haifa and Ashdod and 159 km from Beit She'an to Ashdod via the West Bank; see Ofer Petersburg, "NIS 15 Million Allocated for 'Peace Train' to Jordan Border," *Ynet News*, January 2018, https://www.ynetnews.com/article/5071237.
- 71 Nisani, "Israel Railways CEO."
- Jagjeet Singh Sareen, "India-Middle East-Europe Economic Corridor: Powering Energy Transition through Electricity Interconnection," India Foundation, March 2025, https://indiafoundation.in/articles-and-commentaries/india-middle-east-europe-economic-corridor-powering-energy-transition-through-electricity-interconnection/.
- 73 Staff Writers, "Cyprus-Israel Grid Link Gains Momentum as Part of IMEC," *Energy Press*, June 2025, https://energypress.eu/cyprus-israel-grid-link-gains-momentum-as-part-of-imec-corridor/.
- 74 Karim Elgendy, "Great Sea Connections: Financing the Eastern Mediterranean's Energy Transition," Atlantic Council, June 2025, https://www.atlanticcouncil.org/in-depth-research-reports/report/great-sea-connections-financing-the-eastern-mediterraneans-energy-transition/.
- 75 Fitch Ratings, "Gulf Cooperation Council Interconnection Authority," September 2024, https://www.fitchratings.com/research/international-public-finance/gulf-cooperation-council-interconnection-authority-19-09-2024.
- S&P Global, "Gulf Cooperation Council Interconnector Authority (GCCIA) Rated 'A'; Outlook Stable," March 2025, https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/type/HTML/id/3344355; and Fitch Ratings, "Fitch Affirms Gulf Cooperation Council Interconnection Authority 'A+'; Outlook Stable," August 2025, https://www.fitchratings.com/research/international-public-finance/fitch-affirms-gulf-cooperation-council-interconnection-authority-a-outlook-stable-06-08-2025.
- 77 Jennifer Gnana, "Saudi Arabia Moves Ahead with Its Largest Solar Power Project," S&P Global, August 2023, https://www.spglobal.com/commodity-insights/en/news-research/latest-news/energy-transition/082023-saudi-arabia-moves-ahead-with-its-largest-so-lar-power-project?utm.
- Yagyavalk Bhatt and Jitendra Roychoudhury, "India-Middle East-Europe Economic Corridor: Bridging Economic and Digital Aspirations," King Abdullah Petroleum Studies and Research Center, October 2023, https://www.kapsarc.org/wp-content/uploads/2023/10/KS-2023-II11-India-Middle-East-Europe-Economic-Corridor-IMEC-Bridging-Economic-and-Digital-Aspirations.pdf#:∵:text=Clean%20Energy%20Pathways%20IMEC%20member,transfer%20renewable%20electricity%20across%20regions.
- Nicolas Chamollet, "Road Map for Implementing 'ONE SUN ONE WORLD ONE GRID': An Intercontinental Power Grid from Europe to South-East Asia," *Electra* (magazine), International Council on Large Electric Systems (known as CIGRE, a French abbreviation), June 2024, https://electra.cigre.org/334-june-2024/global-connections/road-map-for-implementing-one-sun-one-world-one-grid-an-intercontinental-power-grid-from-europe-to-south-east-asia.html; and Bhatt and Roychoudhury, "India-Middle East-Europe Economic Corridor: Bridging."
- Nir Levitan, Arie Reich, and Jonathan Rynhold, "IMEC: A Corridor for Peace and Regional Stability," Begin-Sadat Center for Strategic Studies at Bar-Illan University, May 2025, https://besacenter.org/imec-a-corridor-for-peace-and-regional-stability.
- Paul Cochrane, "How Saudi Arabia Is Redrawing the Map of the Future with Fibre-optic Cables," *Middle East Eye*, April 2023, www. middleeasteye.net/news/Saudi-arabia-fibre-optic-cables-internet-future-map-redrawing.
- 82 IMARC, "Saudi Arabia Fiber Optics Market Report by Cable Type," 2024, www.imarcgroup.com/saudi-arabia-fiber-optics-market.
- Laying undersea cables is generally more expensive per kilometer than terrestrial fiber, sometimes by half or more. In open deserts or along railroads, as is the case with this corridor, trenching costs tend to be even lower given the ease of moving sand rather than hard soil. Submarine cable projects typically cost on the order of \$30,000 to \$50,000 per km and overland terrestrial fiber costs range between \$11 and \$24 per foot (about \$36,000 to \$79,000 per km) in urban settings, while aerial fiber (hung on utility poles) can be as low as \$4 to \$9 per foot (about \$13,000 to \$30,000 per km). These assessments are based on cost estimates in works by: Daniel F. Runde, Erin L. Murphy, and Thomas Bryja, "Safeguarding Subsea Cables: Protecting Cyber Infrastructure amid Great Power Competition," Center for Strategic and International Studies, August 2024, https://www.csis.org/analysis/safeguarding-subsea-cables-protecting-cyber-infrastructure-amid-great-power-competition#:":text=host%20countries%20 and%20help%20U,its%20rivals%2C%20which%20could%20help; and Fiber Broadband Association, "Fiber Deployment Annual

- Report 2023," 2023, https://www.fiberbroadband.org/wp-content/uploads/2024/01/Fiber-Deployment-Annual-Report-2023_FBA-and-Cartesian.pdf#:^:text=,cost%20of%20deploying%20fiber.
- Both land and undersea routes can deliver high capacity, with the key difference being that terrestrial routes can potentially better accommodate more parallel fibers (with conceivably virtually limitless capacity) if rights-of-way and security allow, whereas submarine cables are manufactured with a set fiber count for their lifespan. Both undersea and terrestrial cables use bundles of glass fibers and dense wavelength division multiplexing (DWDM) technology. New long-haul cables commonly contain eight to sixteen fiber pairs. For example, Google's planned Blue and Raman subsea cables each carry sixteen fiber pairs, and Saudi Arabia's new "Saudi Vision" domestic subsea cable has sixteen pairs designed for 18 Tbps per pair ("288 Tbps total).
- Alan Weissberger, "Middle East to Be Next Center of Al Infrastructure Boom," *IEEE ComSoc Technology Blog*, Institute of Electrical and Electronics Engineers, May 2025, https://techblog.comsoc.org/2025/05/19/wedbush-middle-east-saudi-arabia-and-uae-to-be-next-center-of-ai-infrastructure-boom/.
- Bikash Koley, "Announcing the Blue and Raman Subsea Cable Systems," Google, July 29, 2021, https://cloud.google.com/blog/products/infrastructure/announcing-the-blue-and-raman-subsea-cable-systems; and *Middle East Monitor*, "Israel and Gulf States to Be Connected by Fibre-optic Cable," April 2023, https://www.middleeastmonitor.com/20230404-israel-and-gulf-states-to-be-connected-by-fibre-optic-cable/.
- 87 Middle East Monitor, "Israel and Gulf States.
- 88 MyIndMakers, "Google, Meta Invest Billions in India's Submarine Optic Fibre Infrastructure, Spurs Data Competition with Jio, Airtel," Submarine Telecoms Forum, December 2024, www.subtelforum.com/google-meta-invest-in-indias-submarine-fiber/; and Fiber-Connect Council MENA, "Market Trends Shaping the Fiber Optics Industry in the Middle East and North Africa (MENA) Region," 2025.
- 89 Runde, Murphy, and Bryja, "Safeguarding Subsea Cables."
- 90 Bill Yates, "Eight Future Middle East Submarine Cable Projects," Capacity Media, October 2023, https://www.capacitymedia.com/article/2cb1q4ff523t0hnkp3wg0/news/8-future-middle-east-submarine-cable-projects#:":text=The%20Blue%20submarine%20cable%20is,a%20severe%20point%20of%20failure.
- 91 Sebastian Moss, "Egypt's Submarine Cable Stranglehold," Data Center Dynamics, September 2022, www.datacenterdynamics. com/en/analyisis/egypts-submarine-cable-stranglehold/.
- 92 Moss, "Egypt's Submarine Cable Stranglehold."
- Gas pipelines are the most efficient overland energy option for the corridor because they eliminate the need for the costly liquefaction, regasification, and specialized shipping required for LNG. Unlike oil, which is already efficiently transported via global maritime routes, gas pipelines offer strategic value by directly linking Gulf producers to regional consumers and European markets through uninterrupted, high-volume flows.
- 94 The estimated benchmark cost is \$1.5 million to \$2 million per kilometer of gas pipeline, presuming onshore standard terrain. The actual cost is likely to be higher given variable terrain difficulty and security investments. For more information, see Interstate Natural Gas Association of America, "A Review of the Natural Gas Notice of Proposed Rulemaking (NPRM) and Preliminary Regulatory Impact Analysis (PRIA)," 2016, www.ingaa.org/wp-content/uploads/2016/07/29873.pdf.
- A pressurized industry-standard pipeline would facilitate between 15 and 20 bcm per year (equivalent to 95 to 125.8 million barrels per year), which is sufficient to support both domestic energy consumption in energy importers like Jordan and Israel. Both nations have a consumption rate of oil and natural gas of roughly 13 bcm/year and 9.3 bcm/year, although Israel is also an increasing net exporter of gas to both Egypt and Jordan, which would open up surplus volume for export to Europe. For more information, see Enerdata, "Country Profile—Jordan," www.energdata.net/estore/country-profiles/jordan.html; and Enerdata, "Israel's Gas Exports to Egypt and Jordan Increased by Over 13% in 2024," March 2025, www.enerdata.net/publications/daily-energy-news/israels-gas-exports-egypt-and-jordan-increased-over-13-2024. If we presume moderate consumption of transit fuel in Jordan (about 4 bcm/year) and Israel does not regularly consume transshipped oil as part of its national energy mix, then we could anticipate that between 11 and 16 bcm/year would reach East Mediterranean ports for export to Europe (between 3.3 percent and 4.8 percent of annual EU consumption of 332 bcm/year, based on consumption rates contained in "Energy Prices and Costs in Europe," European Commission, February 2025, https://energy.ec.europa.eu/data-and-analysis/energy-prices-and-costs-europe_en.
- 96 Ferid Belhaj, "The Ebbs and Flows of Eastern Mediterranean Gas Politics in 2025," Policy Center for the New South, February 2025, https://www.policycenter.ma/publications/ebbs-and-flows-eastern-mediterranean-gas-politics-2025.
- 97 Normal Gray, "The Tapline: A Legacy of Triumph," Aramco LIFE, May 2021, https://www.aramcolife.com/en/publications/elements/en/articles/2021/5/the-tapline-a-legacy-of-triumph.
- 98 Reuters, "Aramco Signs Over \$25 billion of Deals for Main Gas Network and Jafurah Gas Field," June 2024, https://www.reuters.com/business/energy/aramco-signs-over-25-bln-deals-main-gas-network-jafurah-gas-field-2024-06-30/.
- 99 Mona Sukkarieh, "Will Rapprochement Unlock the Full Potential of the Eastern Mediterranean's Natural Gas Wealth," Atlantic Council, January 2025, https://www.atlanticcouncil.org/in-depth-research-reports/report/will-rapprochement-unlock-the-full-potential-of-the-eastern-mediterraneans-natural-gas-wealth/; and US Energy Information Administration, "Eastern Mediterranean Energy," November 2022, https://www.eia.gov/international/content/analysis/regions_of_interest/Eastern_Mediterranean/pdf/eastern-mediterranean.pdf.
- Daniel Yergin and Madeline Jowdy, "The Importance of US LNG for Economic Growth and the Global Energy Transition," Atlantic Council, February 2025.

- 101 Ira Joseph, "Saudi Arabia Pivots into Global LNG Market," Columbia Center on Global Energy Policy, May 2025, https://www.energypolicy.columbia.edu/saudi-arabia-pivots-into-global-Ing-market/; Ajsa Habibic, "AD Ports Hosts Its First Ship-to-ship LNG Bunkering at Khalifa Port," Offshore Energy Magazine, April 2025, https://www.offshore-energy.biz/ad-ports-hosts-its-first-ship-to-ship-Ing-bunkering-at-khalifa-port/.
- Marwa Rashad, "Egypt Agrees to Buy Up to 160 LNG Cargoes through 2026, Sources Say," Reuters, June 2025, https://www.reuters.com/sustainability/boards-policy-regulation/egypt-agrees-buy-up-160-lng-cargoes-through-2026-sources-say-2025-06-12/.
- Dean Shmuel Elmas, "Israel's Energy Ministry Mulls Construction of LNG Facility," *Globes*, March 2024, https://en.globes.co.il/en/article-israels-energy-ministry-mulls-construction-of-Ing-facility-1001475094; and Curtis Williams, "Rising LNG Terminal Costs to Make New US Projects Less Competitive, Says Analyst," Reuters, December 2024, https://www.reuters.com/business/energy/rising-Ing-terminal-costs-make-new-us-projects-less-competitive-says-analyst-2024-12-03/.
- Green hydrogen is produced by using renewable electricity like solar or wind to split water into hydrogen and oxygen through a process called electrolysis, emitting no greenhouse gases, which can then be stored, transported, and used as a clean fuel for industry, power generation, or transportation. Many of the IMEC signatories and corridor countries are betting big on clean hydrogen as a foundational technology of the future energy mix both for national consumption and exports, with a market capitalization forecasted to grow from nearly zero today to between 150 million and 500 million metric tons annually by 2050 and the potential to achieve cost parity with traditional fuels in some contexts by the mid-2030s. For a technical summary of green hydrogen, see PwC, "The Green Hydrogen Economy: Predicting the Decarbonisation Agenda of Tomorrow," 2025, https://www.pwc.com/qx/en/industries/energy-utilities-resources/future-energy/green-hydrogen-cost.html.
- 105 EPCM Holdings, "Challenges in Hydrogen Pipeline Design," 2024, https://epcmholdings.com/challenges-in-hydrogen-pipeline-design/.
- Joseph Webster, "Transporting Hydrogen: A Global Outlook on Cross-border Trade," Atlantic Council, July 2025, https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/transporting-hydrogen-a-global-outlook-on-cross-border-trade/.
- 107 Rahul Anantharaman et al., "On the Cost Competitiveness of Blue and Green Hydrogen, January 2024, *Joule 8*, no. 11, https://www.sciencedirect.com/science/article/pii/S2542435123004968.
- 108 Adrian Odenweller et al., "Probabilistic Feasibility Space of Scaling Up Green Hydrogen Supply," *Nature Energy*, 2022, https://www.nature.com/articles/s41560-022-01097-4.
- Aiman Albatayneh et al., "Water-Energy Nexus Dilemma for Hydrogen Production in Water-Scarce Regions," *Energy Nexus* 19 (2025), https://www.sciencedirect.com/science/article/pii/S2772427125001044.
- 110 Saudi Press Agency, "Saudi Arabia Solidifies."
- Jake Martin, "Green Hydrogen Production Accelerates: ACWA Power and EnBW Launch Yanbu Hub," Hydrogen Fuel News, July 2025, https://www.hydrogenfuelnews.com/green-hydrogen-production-accelerates-acwa-power-and-enbw-launch-yanbu-hub/8571916/.
- 112 Geofrey Njovu, "Neom Green Hydrogen: Construction 80% Complete for Saudi-based Renewable Ammonia Facility," Ammonia Energy Association, June 13, 2025, https://ammoniaenergy.org/articles/neom-green-hydrogen-construction-80-complete-for-saudi-based-renewable-ammonia-facility/.
- lan Shine, "Hydrogen Pipelines Are Making Progress Around the World. These Countries Are Leading the Way," World Economic Forum, December 13, 2023, https://www.weforum.org/stories/2023/12/hydrogen-pipelines-countries-fastest/#:~:text=,Energy%20 Transition%202023%20report%20says.
- 114 Webster, "Transporting Hydrogen."
- The Chinese have adopted a systematic investment strategy across the Eastern Mediterranean that includes a current or potential future role in critical corridor-related ports such as a majority ownership stake in the Port of Piraeus and recently winning an expansion contract at the Port of Haifa. For information about those examples, see Giulia Interesse, "China-Greece Economic Relations: Trade and Investment Highlights," *China Briefing*, Dezan Shira & Associates, October 4, 2024, https://www.china-briefing.com/news/china-greece-economic-relations-trade-and-investment-highlights/; and Gordon G. Chang, "China Expanding Haifa Port, Endangering Israeli and American Security," Opinion, Newsweek, May 19, 2025, https://www.newsweek.com/china-expanding-haifa-port-endangering-israeli-american-security-opinion-2073370. For a systematic review of China's Eastern Mediterranean ambitions, see Alicia Garcia-Herrero, "China's Eastern Mediterranean Ambitions: A Challenge to Europe's Strategic Autonomy," Bruegel newsletter, June 2, 2025, https://www.bruegel.org/newsletter/chinas-eastern-mediterranean-ambitions-challenge-europes-strate-gic-autonomy.