

TRIPP — CROSSROADS OF CONTINENTS

NORTHERN TRANS-CASPIAN TRANSPORT AND ENERGY CORRIDOR

A Strategic Infrastructure Development Concept for Armenia and the South Caucasus

2

complementary corridors

1,435 mm

unified railway standard

\$1.12bn

maximum gross annual transit



Artistic impression of Armenia's future transport connectivity; not a proposed TRIPP alignment.

EXECUTIVE SUMMARY

The Project at a Glance

The Crossroads of Peace initiative and TRIPP create a historic opportunity for Armenia to become not merely a territory between economic blocs, but a fully integrated infrastructure hub of Eurasia.

The proposal is to complement the Southern TRIPP with a northern transport and energy axis: Gazakh — Ijevan — Vanadzor — Gyumri — Kars. The central idea is to integrate a new high-capacity railway with energy, digital connectivity and logistics services.

1,435 mm

target unified gauge

2 corridors

South + North

\$1.12bn

upper-bound gross annual transit

01 A Historic Opportunity

For decades, closed borders and severed transport links have constrained Armenia's geographic advantages. Reopening connections with Azerbaijan and Türkiye offers an opportunity to redefine the country's role in international trade.

The Northern Corridor adds an economic dimension to the political vision of peace: transit revenues, long-term joint investment and a shared interest among countries in the uninterrupted operation of common infrastructure.

Guiding principle

Armenia should be a country through which major international flows pass, not a country situated beside them.

The concept is designed for a long-term horizon extending to 2050–2100. It is a proposal for intergovernmental consideration, not a statement that the entire system has already been approved.

REGIONAL ARCHITECTURE

02 Two Corridors — One Integrated System



Figure 1. Indicative geography of the two routes. Lines do not represent final engineering alignments.

Southern TRIPP. A connection between mainland Azerbaijan and Nakhchivan via Syunik; the reopening of regional transport links, confidence-building and support for the peace agenda.

Northern Corridor. Azerbaijan — Gazakh — Ijevan — Vanadzor — Gyumri — Kars; a potential backbone for major Trans-Caspian freight and energy flows.

The Northern Corridor is not proposed as a replacement for the existing political concept of Southern TRIPP, but as an extension of its infrastructure potential. Both corridors could form part of one strategic system while retaining separate investment projects, schedules and operators.

Geographic ambition

Central Asia → Caspian → Azerbaijan → Armenia → Türkiye → Europe, with a potential crossing axis from Iran / Persian Gulf through Armenia to Europe.

A STRATEGIC CHOICE

03 A Unified 1,435 mm Gauge: A Strategy for a New Network

The concept envisages a long-term transition of the railway networks of Armenia and Azerbaijan to the European standard gauge of 1,435 mm. Permanent operation of two incompatible gauges within the proposed integrated network is not the desired end state.

Such an approach could simplify rolling-stock management, depots, traction allocation, traffic control and through services between Baku, Armenia, Türkiye and Europe.



Figure 2. The logic of changing railway standards at the Caspian maritime transshipment point.

The Caspian Sea leg already provides a natural point at which containers are unloaded and reloaded. With a 1,435 mm network west of Baku, a further change of gauge on the route towards Türkiye would no longer be necessary.

End-state objective

A unified 1,435 mm standard across Armenia and Azerbaijan, including key existing lines and the new Northern Corridor; continuity of operations and coordination with neighbours are essential during the transition.

This is a much larger undertaking than changing the gauge of one new main line. Azerbaijan operates more than 2,100 km of railway, so the transition would require a national programme to modernise infrastructure and rolling stock.

RAILWAY TRANSFORMATION

04 Transition Without Bringing the Economy to a Halt

The move to a unified standard is proposed in stages, prioritising major transit lines, domestic hubs and cross-border connections. Temporary technical solutions during the transition should not become a permanent dual-gauge system.

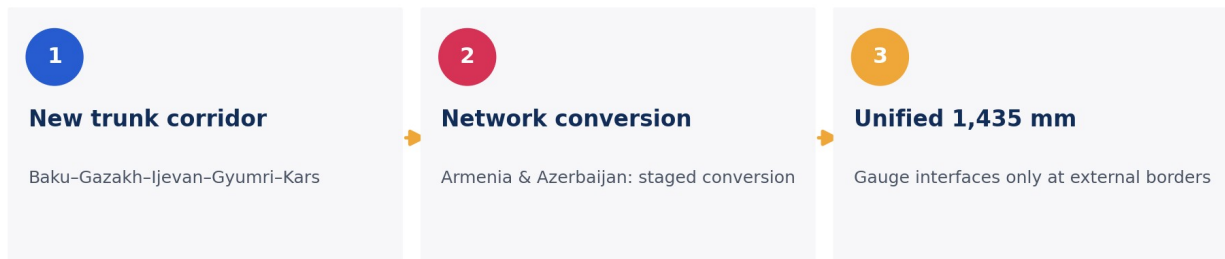


Figure 3. The principle of phased network modernisation; not an agreed construction timetable.

A new trunk network. A priority 1,435 mm corridor from Baku to Kars through northern Armenia, with a connection to Southern TRIPP.

Conversion of national networks. Sequential renewal of track infrastructure, turnouts, signalling and traction systems, together with modernisation of locomotive and wagon fleets.

External interfaces. Links with Georgia and other 1,520 mm networks would require either coordinated modernisation of neighbouring sections or transshipment terminals at the external boundaries of the unified network.

Operational continuity. Section-by-section works, temporary bypasses and suitable transitional technical arrangements must keep transport services operating throughout reconstruction.

Boundary of the proposal

Without Azerbaijan's consent, decisions on freight links through Georgia and a plan for international gauge interfaces, a through 1,435 mm system remains a strategic proposal, not an established fact.

TECHNICAL APPROACH

05 A Twenty-First-Century Railway

The northern axis should be designed not as a simple restoration of the former single-track railway to its old parameters, but as a high-capacity freight main line: double track on the principal sections, 1,435 mm gauge, electrification, modern traffic management and efficient intermodal terminals.

The key missing link. Published transport studies identify an approximately 25–32 km Vanadzor–Fioletovo section as a missing connection on the shortest northern route.

Restoring the eastern section. The Fioletovo–Dilijan–Ijevan–Azerbaijan border line requires assessments of bridges, tunnels, geology, track condition and electrification. The scope of works may be considerably more extensive than reconstruction within an existing right of way.

Core operating requirements. The project should accommodate international-standard freight trains, reliable operations in a mountainous climate, digital dispatching and harmonised operating rules along the entire route.



Figure 4. Proposed target characteristics of the modernised railway.

A railway is more than track

The project also includes ports, terminals, depots, rolling stock, customs and digital processes, maintenance and the capacity of the maritime leg.

06 The Energy Dimension

Diversification of energy routes remains strategically important for Europe. Turkmenistan offers a potential independent source of pipeline gas, while Kazakhstan has a strong interest in improving the resilience of oil exports, a substantial share of which passes through Russian infrastructure.

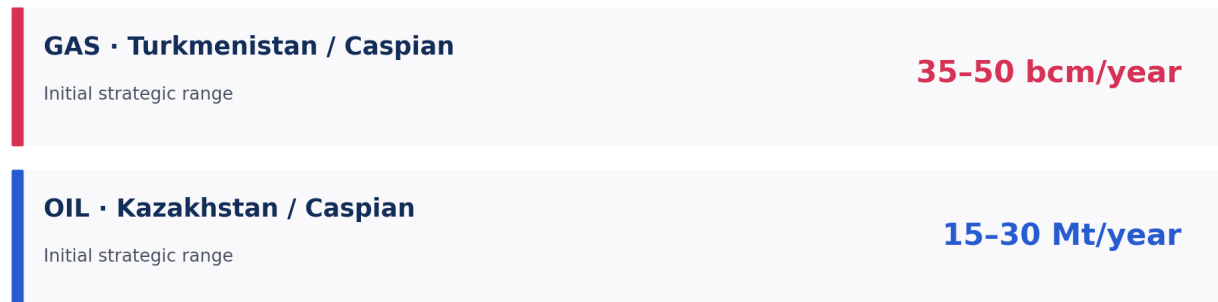


Figure 5. Indicative initial development ranges, not agreed pipeline capacities.

The gas component would require solutions for the Trans-Caspian connection, supply resources, buyer commitments and onward international transit through Azerbaijan, Türkiye and European networks.

The oil component likewise requires an assessment of Aktau/Kuryk and Baku port capacity, shipping, pipeline connections and producer agreements. Not every existing export flow can physically be diverted to a new route.

Upper bound is not a forecast

Historical Russian sales of approximately 150–155 bcm of gas and 100–110 million tonnes of oil annually illustrate the scale of the potential market, not the expected throughput of this corridor.

Combining pipelines, rail, electricity and digital infrastructure would create a broader investment portfolio than developing each asset independently.

UPPER-BOUND SCENARIO

07 Economic Impact for Armenia

For Armenia, the project offers the prospect of durable transit revenues, demand for investment and industrial activity associated with transport and energy infrastructure.

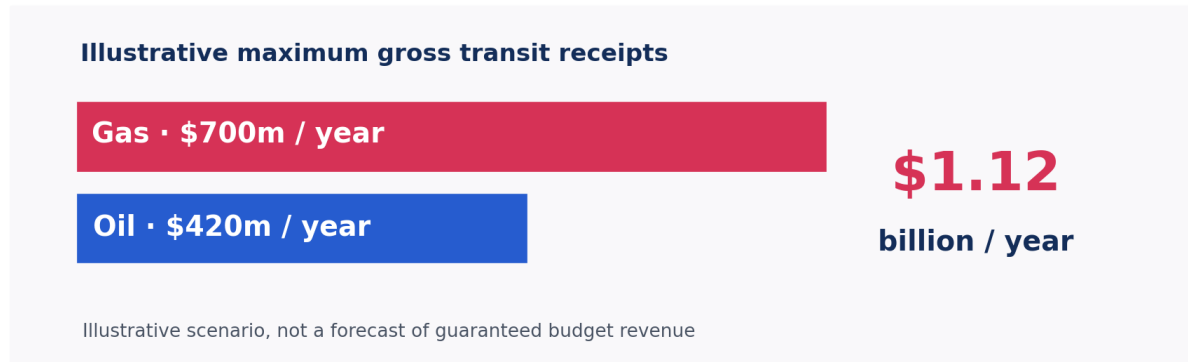


Figure 6. Arithmetic of the upper-bound scenario: \$700 million from gas plus \$420 million from oil annually.

Gas. 155 billion m³ × an illustrative tariff of \$4.5 per 1,000 m³ ≈ \$697.5 million per year.

Oil. 110 million tonnes × an illustrative tariff of \$3.8 per tonne ≈ \$418 million per year.

Combined benchmark. Approximately \$1.12 billion in annual gross transit receipts on the Armenian section if the maximum scenario were fully achieved.

Additional revenue and wider economic benefits could arise from rail transport, logistics terminals, service companies, digital connectivity, energy investment, job creation and processing industries.

An important distinction

These are potential gross transit receipts, not automatically net government revenues. Actual distribution depends on tariffs, costs, taxes, ownership rights and concession arrangements.

SEVEN STAKEHOLDER GROUPS

08 Win-Win-Win: Benefits for All Participants



Figure 7. Economic value of the corridor for its principal stakeholders.

The strength of the proposal is that one country's gains need not come at the expense of another. Long-term transit creates partially aligned interests among states and investors.

Armenia. New revenue streams, investment, infrastructure sovereignty and industrial development.

Azerbaijan and Türkiye. Increased transit and utilisation of existing and new international links, strengthening their role in Eurasian logistics.

Kazakhstan and Turkmenistan. Diversified export routes and reduced reliance on a single major corridor.

Europe. Improved connectivity with Central Asia and more diversified energy supplies.

United States. Long-term investment relationships with Armenia and regional partners, and a commercial presence in Eurasian transport and energy infrastructure.

The underlying logic

Armenia's stability becomes an economic interest of its neighbours and major international partners.

HISTORICAL SIGNIFICANCE

09 The Economic Foundation for Lasting Peace

For more than a century, relations among Armenia, Azerbaijan and Türkiye have, to varying degrees, been marked by conflict, closed borders and limited cooperation. A new infrastructure approach offers a different logic: the security of a neighbour becomes a condition for one's own economic prosperity.

When international freight and energy flows cross Azerbaijan, Armenia and Türkiye, each country benefits directly from the stability of the other two. Shared investment and long-term contracts increase the economic costs of any escalation.

The political idea

Not merely to conclude peace, but to create a system of mutual interests that makes its preservation economically valuable for decades.

Azerbaijan. Reliable transit through Armenia becomes a route to additional western markets.

Armenia. Open borders and a functioning international corridor become enduring sources of development and public revenue.

Türkiye. A stable South Caucasus strengthens long-term connections with the Caspian region and Central Asia.

With Kazakhstan, Turkmenistan, the European Union and the United States participating, the group of parties with a direct stake in regional peace extends well beyond the immediate neighbours.

The project cannot, by itself, eliminate every political risk. It could, however, provide a practical economic basis for gradually moving beyond the period of conflict and developing lasting partnerships between Armenia and Azerbaijan and between Armenia and Türkiye.

LONG-TERM OPTION

10 A Second Axis: Persian Gulf — Europe

The system should be conceived over a 50–100-year horizon rather than defined solely by the region’s present political relationships. A future change in the international environment surrounding Iran could open the prospect of a new overland connection to the Persian Gulf.



Figure 8. Two potential continental axes; the lower one is a longer-term conditional scenario.

The Persian Gulf — Iran — Armenia — Türkiye / Black Sea — Europe axis could facilitate additional trade, electricity flows and, subject to the necessary international agreements, the movement of energy resources.

This connection would not replace maritime transport, but it could offer an additional hedge against disruption at maritime chokepoints such as the Strait of Hormuz, the Red Sea and the Suez Canal.

Armenia's role

The country could evolve from an East–West transit line into an intersection of the Central Asia–Europe and Persian Gulf–Europe axes.

This prospect would require separate political, technical, environmental and commercial decisions. It is not an approved component of TRIPP.

GOVERNANCE AND ECONOMICS

11 International Investment Architecture

A project with so many components would require the gradual establishment of an international coordination framework. Individual infrastructure assets would not necessarily have to share the same owner or operator.

An integrated strategic framework. Intergovernmental arrangements covering transport connectivity, the 1,435 mm standard, spatial planning, customs and digital procedures.

Special-purpose project companies. Separate investment structures for railways, oil, gas, electricity transmission, digital infrastructure and terminals.

International financial institutions. Potential involvement of American, European and regional financiers; actual capital commitments would depend on commercial agreements.

Risk management. Safeguarding the sovereignty of transit states, legal clarity on concessions, environmental safety and continuity of transport services.

TRIPP could provide an important political and institutional starting point, but bringing the Northern Corridor within any existing structure would require separate agreement between the states and investors concerned.

ADKARS principle

Economic leadership arises from investment, infrastructure and services, with full respect for the sovereignty of the countries along the route.

DEVELOPMENT SEQUENCE

12 From Concept to Implementation

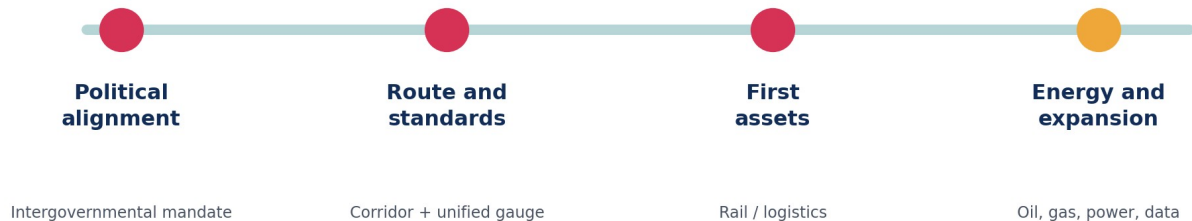


Figure 9. Proposed sequence of development stages, without assuming unverified calendar commitments.

Political alignment. Meetings with TRIPP coordinators and the governments of Armenia, Azerbaijan and Türkiye to determine which extensions they may be willing to support.

Agreement on the railway standard. A political and technical programme to convert the railway systems of Armenia and Azerbaijan to 1,435 mm, including arrangements for interfaces with Georgia and other neighbours.

Restoring connectivity. Surveying the Ijevan–Dilijan–Fioletovo line, preparing the new Fioletovo–Vanadzor link and the Gyumri–Kars connection, and upgrading the Azerbaijani section.

Commercial scale-up. Investment in ports; freight and oil/gas contracts; electricity supply; digital infrastructure and logistics terminals.

Readiness test

Without an intergovernmental decision on 1,435 mm and confirmed freight or energy flows, the infrastructure transition must not be described as an approved project.

CONCLUSION

13 Armenia — An Infrastructure Hub for a New Eurasia

For decades, Armenia's lack of access to the sea and its closed borders have been treated as fundamental limitations on development. Yet its location between the Caspian region, Türkiye, Iran and the Black Sea could become a strategic advantage within a new international infrastructure system.

Southern TRIPP offers an opportunity to restore regional connectivity. The Northern Trans-Caspian Corridor adds a large-scale economic dimension: a through 1,435 mm rail network, oil and gas transit, electricity, digital links, logistics and new industries.

The proposed move to a unified railway standard in Armenia and Azerbaijan is among the most ambitious elements of the concept. It requires an independent governmental decision, but could be a major instrument of transport integration with Türkiye and Europe.

ADKARS vision

To make Armenia's distinctive geographic position a source of economic prosperity, international cooperation and lasting peace for future generations.

This is more than a transport route or an oil and gas project. It is a proposal for a long-term system of shared interests linking Armenia and its neighbours with Central Asia, Europe and the United States.

Principal Sources and Notes

- Government of Armenia — Crossroads of Peace, jurisdiction and connectivity principles: primeminister.am/en/press-release/item/2023/12/14/Nikol-Pashinyan-Speech/
- European Commission — EU-Armenia Connectivity Partnership (2026): enlargement.ec.europa.eu/countries/armenia/eu-armenia-connectivity-partnership_en
- Azerbaijan Transit Council — railway network statistics (2024): transit.gov.az/en/transportation-systems/railways
- OECD — Realising the Potential of the Middle Corridor (gauge changes and transshipment): oecd.org/en/publications/realising-the-potential-of-the-middle-corridor_635ad854-en.html
- Armenian Council — The Middle Corridor and Armenia's Northern Route, 2025: council.am/en/entry/7498/the-middle-corridor-and-armenias-northern-route/
- European Commission — Security of gas supply: energy.ec.europa.eu/topics/energy-security/security-gas-supply_en

Note: Maps illustrate the geographic concept, not approved alignments; volume assumptions and tariffs are modelled scenarios.