

Zooming in

Briefing note on the outcomes of the “EU’s energy cooperation with Central Asia and South Caucasus: stronger partnership through new avenues?” event

How to keep the momentum going?

December 2024

Background

In times of global uncertainty and geopolitical shifts, Central Asia and the South Caucasus region is gaining ground. The geopolitical turns, the fierce trade and technology competition between the US and China, and the acceleration of energy transition and access to critical raw materials have made Europe to step up its commitment to the region. How are the partners on the ground evaluating this ambition to cooperate more? How attractive is Europe’s offer, compared to the one coming from China, for example? And ultimately, how to ensure partnerships on equal terms with benefits for both sides? These are the key discussion points of this briefing.

A new geostrategic dynamic

The political dialogue with Central Asia and the South Caucasus countries has been stimulated over the past two years through the signing of several Memorandum of Understanding (MoUs) and high-level meetings between the leaders of the region and the EU. In 2022, European Council President Charles Michel [called](#) the first-ever meeting with Central Asian leaders “a powerful symbol of our reinforced cooperation and a strong signal of the EU’s commitment to this region”. Simultaneously, the EU is also seeking to strengthen ties with the South Caucasus via the [signing](#) of a Memorandum of Understanding (MoU) with Azerbaijan in July 2022, as it aims to expand the [Southern Gas Corridor](#) (a complex gas infrastructure project designed to transport natural gas from the Caspian region to Europe) in order to diversify the gas supply sources and routes to Europe and ultimately enhance its energy security. In January 2024, the European Parliament adopted its [Resolution](#) on “EU Strategy on Central Asia: New Opportunities for a Stronger Partnership”, which calls on the EU to intensify its engagement with Central Asia and to enhance its political and economic cooperation. Furthermore, currently the preparation is ongoing for a further joint roadmap for deepening ties between the EU and Central Asia while the Commission’s President Ursula von der Leyen announced the intention to hold the first-ever EU–Central Asia leaders’ summit in [Uzbekistan](#) next year.

This intensification of high-level contacts shows the region’s growing geostrategic importance due to its potential in renewable energy generation, hydrogen deployment and supply of the critical raw materials. **Political commitments have been set.** But how can these be materialised in light of the ongoing geopolitical labyrinth and what are the risks and trade-offs in this sense?

New avenues in hydrogen and critical raw materials cooperation

The EU aims to [import](#) 10 million tonnes of renewable hydrogen by 2030. This means that the EU will have to conclude several political agreements and investment deals in order to pave the way to meet this goal. Central Asia and the South Caucasus region has a significant potential in renewable energy production, which positions the region as one of the most promising locations for the production and export of green hydrogen. The [UNECE Renewable Energy Status Report 2022](#) highlights that Central Asian countries have seen unprecedented growth in renewable power capacity, driven mainly by solar photovoltaic and wind power additions: Kazakhstan had a total of 3.7 GW installed between 2017 and 2021, while in Kyrgyzstan and Tajikistan over 90% of electricity is generated from hydropower. Georgia also shows interest in developing green hydrogen, as it has potential for renewable energy projects, particularly hydropower.

In this sense, a series of political initiatives have already been put in place. In November 2022, the EU [signed](#) a Memorandum of Understanding with Kazakhstan which establishes “industrial integration” in renewable hydrogen through joint projects, and the alignment of environmental and social standards. At the same time, Kazakhstan has also confirmed its intention to become a leading producer and exporter of renewable hydrogen through the [establishment](#) of one of the world’s five largest green hydrogen production facilities. The project is called [Hyrasia One](#) and is located in the Mangystau Region. This \$50 billion project aims to produce up to 2 million tonnes of green hydrogen annually by 2032, utilizing 40 GW of wind and solar power capacity. In terms of concrete investment deals, the European Bank for Reconstruction and Development (EBRD) has announced its investment in a pilot renewable hydrogen facility in [Uzbekistan](#), which will consist of a 20 MW electrolyser and a greenfield 52 MW wind power plant. It is a €58 million financial package dedicated to the development, design, construction and operation of the hydrogen facility. Furthermore, a Memorandum of Understanding on development of the green hydrogen project was signed between [Georgia](#) and the German investment and development bank Kreditanstalt für Wiederaufbau (KfW), which will provide 1.3 million euros for the project. Meanwhile, Central Asian countries are also set to play a role when it comes to the critical raw materials (CRMs). The region holds substantial [reserves](#) of many CRMs, including: 38.6% of global manganese ore reserves, 30.07% of chromium, 8.7% of titanium, 5.3% of copper, and 5.3% of cobalt among other minerals. In terms of political frameworks, Uzbekistan and the EU signed a memorandum of understanding to create sustainable value chains for CRM, specifically to provide the European Union with minerals like copper. In the following [step](#), the parties concluded to develop an operating strategy. Valdis Dombrovskis, Executive Vice-President and European Commissioner for Trade [underlined](#) this year that “the EU and Kazakhstan have considerable potential to build a win-win partnership.” Nevertheless, there are several practical concerns.

Where there is opportunity, there is challenge

When it comes to investments in hydrogen and CRMs in Central Asia and the South Caucasus region, **infrastructure and connectivity are key**. Central Asia is landlocked, which makes long-distance land transportation infrastructure crucial for these countries, unlike nations with sea access. In this sense, the EU, together with Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) have paved the way to enhance the so-called “Middle Corridor” or the Trans-Caspian Transport Corridor that will link Europe and

Central Asia. It would start from Southeast Asia and China, and run through Kazakhstan, the Caspian Sea, Azerbaijan, Georgia and further to European countries. The EU sees the Middle Corridor as a **strategic alternative** for diversifying trade and connectivity with Central Asia, especially in light of current geopolitical tensions. An investment of [€18.5 billion](#) is required to enhance the infrastructure of the Middle Corridor, according to the European Bank for Reconstruction and Development (EBRD). The EU is coordinating its work in this area through its [Global Gateway](#) programme, which aims to invest in infrastructure projects worldwide, including in Central Asia. It already [announced](#) an overall commitment to invest €10 billion in sustainable transport connectivity in Central Asia. If realised, this will become the fastest route that will connect Europe and Central Asia in less than 15 days. To achieve this, several infrastructure and skills needs will have to be met, in order to tackle the challenges that are hindering the realisation of this project, such as: the lack of adequate multimodal infrastructure, electrification of railway infrastructure, unharmonised regulatory procedures, etc.

When it comes to the production and export of hydrogen, some practical [impediments](#) have also been highlighted. Specifically, for **Kazakhstan** the initiation of the green hydrogen economy will inevitably lead to:

- a) an increase in water consumption. Water scarcity is a major concern – especially in the southern and western regions, where the population heavily relies on irrigation for agriculture. Consequently, the development of hydrogen must be carefully assessed by considering the water security element.
- b) political challenges, as Kazakhstan's pipeline infrastructure for oil and gas exports is significantly intertwined with Russian ownership and control. Therefore, this shared infrastructure governance creates complex geopolitical dynamics, especially in light of international sanctions on Russia.
- c) regulatory complexity, as to this date, there are no common set of standards and regulations for hydrogen production and export

Considering these, **Kazakhstan remains cautious** when it comes to its production and export potential. That is why in its recently adopted [national hydrogen strategy](#), it is expected to achieve the production of only 10.000 tons of hydrogen by 2027, and 25.000 tons of hydrogen by 2030, with a share of green hydrogen of at least 50%. As for the other countries in the region, **challenges for Georgia** include the current high cost of hydrogen production, lack of R&I and skills at the local level, and significant seasonal imbalances in its energy production and consumption. **Armenia** also considers green hydrogen production projects. In this sense, it has already signed a Memorandum of Understanding with the French Solges Energy Group CJSC to [build](#) the first demonstration hydrogen station in the country. Nevertheless, some experts state that the potential remains quite limited as long as the industrial players do not project more demand for hydrogen particularly produced by Armenia. Moreover, some consideration should also be given to the question if whether there is a higher feasibility for direct electricity export through Georgia for the EU as the main market, rather than producing and then exporting green hydrogen.

Industry's views

The industry views both - hydrogen and CRM - as key elements in the transition to a low-carbon economy, recognising their potential to decarbonise hard-to-abate sectors. For

instance, the European chemical industry is a major consumer and producer of hydrogen, as it needs hydrogen to meet its decarbonisation efforts. [Cefic](#) (the European Chemical Industry Council) supports the development of a hydrogen economy in Europe, including imports of hydrogen. In their view, it is crucial to have a proper infrastructure for export/import operations and short transportation routes in order to minimise risks. Equally important is also having a consistent set of production criteria to create a level playing field between the producer and importer to sustain competitiveness. In terms of concrete private investments in Central Asia and South Caucasus countries, experts highlight an increased interest. However, there is no public data available in this sense. As for other private company players in the hydrogen sector, it is important to highlight that just as countries engage in hedging strategies to mitigate risks and uncertainties in their respective environments, the same way the companies do. At this stage, it is crucial for private investors to see a significant renewables deployment and a stable political framework in order to deploy significant finances in the direction of hydrogen development.

When it comes the critical raw materials, despite its potential, the region also faces several challenges:

- a) it remains mainly engaged in exploration and mining processes and it lacks capacity for processing and recycling.
- b) ageing mining infrastructure
- c) lack of skills to deal with modern technologies
- d) outdated legislation that does not address modern challenges related to climate and environmental principles, workers protection and heightening labour standards.

It should also be noted that CRMs have also become a geopolitical factor. In this sense, China has increased its role in Central Asian infrastructure, business, and employment through [projects](#) such as the Belt and Road Initiative (BRI), and consequently, its footprint in the region has been steadily growing. [Chinese](#) companies already dominate critical materials extraction in Kyrgyzstan (nine companies) and Tajikistan (eight companies) where they own the majority of licenses. Moreover, China is also the main export destination of most of Kazakhstan's critical materials output. This puts the EU in a tight position, as access to the CRM is vital for sustaining its own industrial prosperity. The EU hopes to distinguish itself from the Chinese approach by basing its offer on sustainability and mutual benefits criteria. It argues that existing initiatives paved the way for the integration of sustainable CRM value chains in the region – something that other trade partners did not offer - through the joint development of projects, promotion and facilitation of trade, and investment linkages along the whole value chain. It remains to be seen in the next years if such an approach will lead to successful projects and increased exports of CRMs to the EU.

Recommendations for partner countries

➤ Enhance the regional connectivity

Water scarcity proves that there is need for more efficient and enhanced regional cooperation. Transboundary water management is crucial, and this could be successfully done through the creation of a cross-border water-energy consortium. At the state level, the feasibility of creating an [International Water-Energy Consortium \(IWEC\)](#) which would allow for the consideration of the interests and needs, costs and benefits of all the countries in the region was discussed.

However, no clear outcomes have been noticed so far. In this sense, while the EU promotes regional cooperation, Central Asian states have been so far reluctant to fully embrace this concept, often prioritising their individual sovereignty. This issue remains to be addressed.

➤ **Establish a digitalised border management and harmonise customs regulations**

Trade with Europe in this region of the world happens through the crossings of multiple borders, therefore implying different sets of national regulations and rules. In this sense, there is a need for more efficient border-crossing practices to lower transaction costs, development of an electronic exchange of regulatory certificates and full implementation of laws/regulations for electronic transactions. In this sense, the EU started already to assist the countries in this area through its Border Management Programme in Central Asia ([BOMCA](#)), which aims to foster sustainable economic development through integrated border management (IBM). A continuation of such approach is needed to complement also the infrastructure developments of the Middle Corridor project.

➤ **Continue investments in renewable energy deployment**

The demand for renewable hydrogen must be met with sufficient renewable electricity, and investments in renewable energy installations are crucial to guarantee this supply. Equally important are also investments in grid infrastructure to support the integration of large-scale renewable energy installations. Therefore, national governments must focus on this area and provide sufficient incentives to guarantee a comprehensive approach towards both – renewables supply and grid integration.

Recommendations for EU action

➤ **Risk reduction**

Stability and risk reduction are key for the expansion of cooperation with Europe and securing stable investment flow and project developments in the region. Ensuring independent critical infrastructure in Central Asia and the Caucasus is one potential solution in this sense. This could be done through continuing the EU's financial support for infrastructure projects and helping promote regional cooperation.

➤ **Improve policy coherence**

Assist partner countries in addressing bureaucratic divisions and governance gaps that limit the progress on hydrogen development (such as the production criteria legislation), and the critical raw materials exploration and export (such as lack of comprehensive and up-to-date regulations for sustainable mining and processing of CRMs, insufficient social safeguards in existing regulations, and weak mechanisms for accountability).

➤ **Focus on skills**

Skills gaps for clean energy in Central Asia are among the largest worldwide due to the [fact](#) that universities still focus on and produce more graduates for the fossil fuel industries than for the renewable energy sector. This is an area where the EU can concretely offer educational

exchange programmes, capacity building and technical knowledge transfer, considering that the EU is already leading such projects for years now in other parts of the world.

➤ **Sharpen strategic communications**

The EU is investing significantly in Central Asia and the South Caucasus, but there appears to be a gap in effectively communicating these efforts. Despite investments and strategic partnerships, there seems to be a lack of effective communication about the EU's activities specifically in the region. This issue must be addressed in order to increase the EU's visibility and influence. In this sense, enhancing coordination between EU-level initiatives and those of individual member states must also be done in order to maximise impact.

Conclusion

It is clear that the current geopolitical environment and other above-mentioned factors have brought a new dynamic into the EU-Central Asia and South Caucasus relationship. Looking ahead, there are several uncertainties in the coming years that will have a significant impact on this relationship, such as: decrease in democracy around the world, reshoring of supply chains, and the unknowns of the abrupt intensification of competition between the United States and China. What is crucial is that the EU remains consistent and versatile in its approach while bearing in mind the multipolarity of the global environment and the interests of national governments in the region.

Reghina Dimitrisina

Policy Advisor

FES Just Climate Competence Centre

reghina.dimitrisina@fes.de