Prospects of Mediterranean gas for the region’s stability and EU´s energy security

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The world is moving towards a decarbonized energy system. Renewable energy is expanding dramatically and so is the demand for natural gas. The International Energy Agency (IEA) expects the global gas demand to rise until 2040.1 In light of the growing energy demand worldwide, natural gas as the cleanest-burning hydrocarbon can represent a bridging fuel in the transition to decarbonised energy markets given its environmental advantages and the role of gas in backing up the intermittent renewable power generation. The conference “Middle East Energy & Geopolitics” organised by Maison du Futur and the Konrad-Adenauer-Foundation discussed future opportunities and challenges of the energy transformation in the region. This summary report covers the key topics discussed during the sessions and includes additional insights to complement the issues on energy security for Europe and geopolitical changes.
Introduction

The Mediterranean gas field is the largest gas basin ever discovered on Europe's doorstep and was first explored by Israel, then by Cyprus and Egypt. With the recent discoveries, market dynamics have shifted and both Egypt and Israel are aiming to become a major player in the regional and international market. Lebanon also sits on the Levant Basin in the Eastern Mediterranean. Beirut tried to launch its first offshore exploration in 2013, but domestic political problems delayed it until 2017. Offshore energy development has been a central ambition for successive governments in Lebanon, but political paralysis has caused years of delays. Furthermore, the country is in dispute with Israel over the maritime border along some exploration blocks. Lebanon awarded a first license for offshore gas exploration and production last year to a consortium comprising France's Total, Italy's Eni and Russia's Novatek. One of the blocks awarded in the first licensing round was located on the maritime border with Israel, but the consortium assured it would not drill near the disputed waters. Bids for the second licensing round are due on January 31st 2020.2 The East Mediterranean gas discoveries have the potential to offer two things of value to the European Union: energy security and an improvement in regional cooperation between Middle Eastern countries.

Geo-economic changes

The geo-economy of the production and consumption of energy has changed in the past five years. Natural gas will be a more dominant source of energy in terms of both supply and demand. According to IEA, the overall growth of energy demand is brought about by developing countries, led by India. As recently as 2000, Europe and North America accounted for more than 40% of the global energy demand and developing economies in Asia for around 20%. By 2024, these numbers will be completely reversed.3 The second biggest increase of natural gas consumption will occur in the Middle East.
North America has become a net exporter of energy on a permanent basis with its “shale boom” as of 2018, which also changes the world’s geo-economy. The USA is likely to become the world’s third largest LNG exporter this year. The flow of crude oil will keep on growing over the next few years with major consequences for the oil industry, global politics and even whole economies. OPEC, for example, will face challenges keeping oil prices high, while Washington is in possession of a new and potent diplomatic weapon.

Furthermore, Russia is intensively developing its pipeline network to become a major supplier to China, which is expected to become the biggest importer of natural gas. As a competitive pipeline to the EastMed pipeline, Russia and Turkey are building the so-called TurkStream. TurkStream is another export gas pipeline stretching from Russia to Turkey across the Black Sea. The first string of the pipeline is intended for Turkish consumers, while the second string will deliver gas from Russia to Southern and Southeastern Europe.

Another pipeline that is intended to supply Europe and especially Germany with gas until end of this year is the Nord Stream 2. The resulting increased dependence on imports from Russia faced much resistance from other EU countries like France and even criticism within Chancellor Angela Merkel’s own CDU party. More than 50% of Germany’s natural gas imports came from Russia in 2017, a number that will increase further once Nord Stream 2 is operating.

LNG (Liquified Natural Gas) is also changing the energy markets of the future. In May this year, Peter Altmaier, Germany’s Minister for Economic Affairs and Energy, introduced a policy paper on German foreign trade. This paper advises that the EU and USA should cooperate more closely regarding common strategic challenges in trade policy, including the construction of two private LNG terminals in Germany. As a diversification strategy to Nord Stream 2 and in order to ease tensions with the USA in this matter, Altmaier announced that liquefied natural gas (LNG) will also be imported from the US in the future next to the cheaper Russian gas. In line with the natural gas demand worldwide, LNG exports will also increase. As of now, Qatar, Australia and the USA are globally the biggest LNG exporter.

East Mediterranean basin
The recent large discoveries of gas in the East Mediterranean basin could represent a game changer. Egypt and Israel have already started the exploitation in their economic zones. Cyprus has set its own economic zone in negotiations with Lebanon, Egypt and Israel. US energy giant ExxonMobil has recently discovered a huge natural gas reserve off the coast of Cyprus, which raised tensions with neighbouring Turkey.

The new discovery is the biggest find within the island's Exclusive Economic Zone (EEZ) so far, and could not only ensure Cyprus' own security of supply, but also be exploited for export. This could enable Cyprus to pay off its debt, which has grown significantly during the Euro crisis, and to invest more money in infrastructure. In addition to the US companies Exxon Mobil and Noble Energy, the Italian Eni, French Total, Royal Dutch Shell, Qatar Petroleum, Israeli Delek and Korean Kogas are also involved in the exploration.

**The EastMed Gas Forum**

"Energy has no borders, unlike politics" was underlined several times by Cesar Abi Khalil, former Minister of Energy to Lebanon and Tarek el Molla, Minister of Petroleum and Mineral Resources to Egypt at the Middle East Energy and Geopolitics Forum in Beirut in June. This statement reflects a general tendency of easing tensions between the Arab countries and neighbouring Israel towards economic cooperation, benefitting all countries involved. The first successful step to institutionalise regional energy cooperation took already place this year.

In January 2019, energy ministers from Italy, Cyprus, Greece, Israel, Egypt, Jordan and the Palestinian Authority launched the East Mediterranean Gas Forum (EMGF), which aspires to create a regional gas market and to ensure the security of supply and demand. During the conference the potential of energy for this region was frequently being emphasized, bearing opportunities for economic and diplomatic profit for the region. Indeed, energy can play a central element in the development of the EastMed countries, as it can function as a tool of cooperation (if used wisely and based on mutual gain for all partners). Lebanon and Turkey did not join. Talks on a potential energy cooperation between Turkey and Israel failed over the course of declining diplomatic relations. Subsequently Israel decided to build the EastMed pipeline through Cyprus instead of Turkey while Turkey built jointly with Russia the competitive TurkStream gas pipeline (operated by Gazprom), which is intended to go into full operation by the end of this year.8 Lebanon did not join the EMGF as it does not hold any official diplomatic relations with Israel. However, Beirut might have an interest in settling existing maritime border issues with its neighbour to proceed with its exploration plans.

The recent announcement of the Eastern Mediterranean Gas Forum has caused some confusion in Lebanon as to how to deal with this new regional configuration that left the Cedar nation out. There could be an open door for Lebanon in the future to join. Lebanon and Egypt maintain good diplomatic relations, which was also underlined during the energy conference in Beirut. Lebanon does not have to opt for the isolationist approach. The Lebanese perspective on the EastMed cooperation - "Keeping our options open is our best option" 9- was evident during the conference. Lebanon has options to monetize their resources and to work together with Egypt. One option consists in being linked via the Arab Gas pipeline from the south to Egypt and its LNG plants. Depending on the amount of future findings within Lebanon's exclusive economic zone, the country has to aim for self-sufficiency in the first place, as it always has been dependent on oil and gas imports.
Energy cooperation between Jordan, Egypt and Israel is not a novelty. In September 2016, Jordan signed an agreement to purchase Israeli gas in a 15 years $10 billion agreement. Work has already begun on a planned 65 km pipeline which is supposed to start delivering gas from Israel to Jordan in 2020. According to the Financial Times in February last year, Israel also announced a massive export gas deal with Egypt worth $15 billion over 10 years. Israeli officials called it the most significant deal to emerge since both countries made peace in 1979. The exports will start end of 2019. Despite Egypt’s own resources, the local economy still has to rely on gas imports to cover its own energy demand.

Interdependence also fosters stable alliances: The EMGF is based in Cairo and will be open for other Eastern Mediterranean countries provided they share the Forum’s interests and objectives. The EMGF is strategically supported by the EU and USA. An institutionalised cooperation is necessary in order for the Eastern Mediterranean gas to be competitive, as member states need to discuss energy prospects and preferred infrastructure for the optimal exploitation of natural gas.

**Prospects to become a regional energy hub**

There are two realistic options for a regional export: either to build a pipeline that connects Israel and Cyprus to Southern Europe, or to create a network of pipelines in Egypt, where gas could be liquefied and exported.

**LNG Hub in Egypt**

In December 2017, the production of natural gas began in the Zohr field offshore in the Mediterranean. With this major new gas field, Egypt’s energy market is becoming self-sufficient and furthermore aims to be an exporter in order to build on its strategic role as an important trading hub in the region linking Western and Eastern markets.

The prospect of a large new source of gas on Europe’s doorstep is strategically very attractive for the EU given that North Sea reserves are in decline - Egypt may hold the key to the Eastern Mediterranean’s gas future. An export route already exists via Egypt’s two LNG terminals in Damietta and Idku, from where tankers can carry the resource to Europe. Israel, Cyprus and Lebanon could also feed gas into the Egyptian LNG terminals via much shorter pipelines than the proposed pipelines to Italy (EastMed) and the rejected pipeline from Israel to Turkey. According to the conference’s panellists associated with the Oxford Energy Institute and Schlumberger, the LNG option via Egypt is less costly and risky than the EastMed pipeline. A coordinated development of Cypriot, Israeli, Egyptian and Lebanese fields provide the economies with a sufficient basis to create a competitive regional gas-
export infrastructure. Cyprus already signed an agreement to transport gas from the Aphrodite gas field offshore to an Egyptian LNG facility via pipeline. The already existing LNG infrastructure also presents an opportunity for Europe to import gas. As Egypt aims to become the regional energy player, it widely promotes its energy infrastructure as LNG hub.

**East Med Pipeline**
The construction of a 2100 km pipeline is planned, the longest and deepest underwater fuel pipeline in the world, which will transport natural gas from Israel's offshore gas reservoir via Cyprus, Crete and Greece to the Southeast of Italy.

This $7 billion project will take five years to complete. The official signing took place this March in Tel Aviv. The EastMed pipeline project already received a remarkable amount of funding from the European Commission as a Project of Common Interest (PCI). The project is considered of great importance not only for the energy supply but also for geostrategic reasons. Even though rarely discussed in the media, the UAE has already invested $100 million in the project. The EastMed project was originally introduced at a conference in Abu Dhabi by the Israeli Energy Minister Yuval Steinitz. These developments are indicators for a change of dynamics and alliances within the region. The EastMed pipeline project is also politically backed by the United States. The presence of US Secretary of State Mike Pompeo during the official signing of the EastMed pipeline sent a signal to Turkey and Russia showing Washington's willingness to protect its interests and to strengthen its presence in the region.

Despite the great optimism to stabilize the region and to foster security with energy cooperation, critics of the EastMed pipeline argue that it is merely a political project with little chance of being based on commercial considerations. Despite the feasibility study that analysed the cost-benefit ratio of the project, cost concerns remain in particular with regard to the gas price that needs to be competitive on the international gas market. The German Institute for Economic Research (DIW) considers the project to be too expensive and unrealistic given the geopolitical situation, the high costs and the enormous technical challenges. On the other hand, supporters of the EastMed pipeline view a cooperation of democratic countries like Cyprus, Greece and Israel as an “anchor of stability in the East Mediterranean”, which was also underlined by the Foreign Minister of Cyprus, Nikos Christodoulides, at the conference “Cyprus – in the East Mediterranean” organized by the Konrad-Adenauer-Foundation last year in Berlin. The EastMed pipeline will clearly not have the capacity to replace Russian gas or Nord Stream 2, but it can contribute to the EU's long term objective in reducing dependency on Russia as Europe's main energy supplier.

**EU security of supply/ diversification strategy and US geopolitical interest**

While European gas consumption is set to remain almost flat in the coming years, domestic production is set to fall at an average rate of 3.5% per year, primarily driven by the Groningen phase-out in the Netherlands and the declining production in the North Sea. The EastMed gas resources bear strategic advantages for the European Union: energy security to prevent potential gas supply disruptions on the one hand, and regional cooperation between Middle Eastern countries fostering political and economic stability in the East Mediterranean on the other. The diversification of Europe's gas supply has long been a priority for the European Union. The “gas wars” that took place between Russia and EU member states in 2006 and 2009, and
a major escalation of diplomatic tensions following Russia’s annexation of Crimea in 2014, pushed the EU further to open up the Southern Gas Corridor. The prospect of reducing the EU’s dependency on Russian gas by securing supplies from within Europe’s geographical vicinity could help the EU to build energy resilience – a stated goal of its Energy Union strategy. A key part of ensuring secure and affordable supplies of energy to Europeans involves diversifying supply routes. To meet this end, the EU aims to create a Mediterranean gas hub in the South of Europe. The European Union is therefore engaged in an active energy dialogue on a political level with North African and East Mediterranean partners. This includes Algeria, Israel and Cyprus as strategic partners. The EU also signed a Memorandum of Understanding in 2018 on a strategic energy partnership with Egypt, eying the LNG terminals infrastructure to supply Europe with liquefied gas by shipping as part of the EU strategy for liquefied natural gas (LNG) and gas storage presented by the European Commission in 2016. The structural decline in domestic production, combined with the expiry of several long term pipeline contracts, opens up opportunities for new sources of supply, including LNG.

Many EU countries view Russia as a threat to their energy sector. The construction of Nord Stream 2, soon supplying Germany with cheap Russian pipeline gas, was also met with much resistance in Germany, Europe and by US officials. A growing energy dependence will increase the vulnerability to supply disruptions, whether due to political, commercial, or technical factors. Russia will presumably remain Europe’s dominant gas supplier in the coming decades as Russian gas is cheaper and more available than other alternatives. First, LNG will not be competitive with Russian gas in the future and second, the EU gas market has enough gas suppliers to meet its natural gas demand, underlined David Hobbs, Senior fellow at the Atlantic Council Global Energy Center. But the price of gas should not be the only denominator for market preferences.

Europe must diversify its energy supply (partly by LNG, pipelines from the Caspian Sea and the Mediterranean) to increase its bargaining power by presenting alternatives to Russian gas. More alternatives mean more options and can de-politicise the Russian gas (and Nordstream 2) discourse in Europe. With the intended construction of LNG terminals in Brunsbüttel and Wilhelmshaven, Germany will be able to buy liquifed gas from the US as part of its diversification strategy. Even if the cost of LNG is higher, it will foster the transatlantic relationship.

**Border disputes**

**Lebanon/ Israel**

Lebanon and Israel have an unresolved maritime border dispute over a triangular area in the Mediterranean that extends for 860 sq. km. This area includes several blocks for exploratory offshore drilling that Lebanon bid for tender two years ago.

The issue grew more relevant and became an open conflict following the natural gas discoveries in the Mediterranean Sea. Lebanon, which wanted to pursue gas drilling off its coast, submitted its demarcation of the maritime borders to the UN ten years ago, making this area part of its Exclusive Economic Zone (EEZ). Israel, which saw this as an infringement of its rights, also submitted its version of the border demarcation to the UN. Beirut claims that Blocks 8 and 9 in the disputed waters are in Lebanon’s Exclusive Economic Zone (EEZ); parts of Block 9 run through waters that Israel claims as its own EEZ.
Negotiations are supposed to begin in July between Israel and Lebanon on the demarcation of their maritime borders. US Assistant Secretary of State, David Satterfield, is expected to mediate. An agreement on forthcoming talks was reached following intensive efforts by Satterfield, and it was decided that negotiations will be held at the UN facility in Naqoura on the Lebanon-Israel border. The two countries have a clear interest in reaching an agreement in particular for economic reasons. According to INSS, there has been a change in Hezbollah's position on the issue, as Lebanon's willingness to negotiate would not have been possible without their approval. With regard to the regional context, if a Lebanese-Israeli agreement is reached, the two countries could jointly examine the possibility of pursuing a regional gas transport system from the Eastern Mediterranean to Europe with the participation of Egypt and Cyprus.

Cyprus/Turkey

The illegal natural gas drilling by Turkish ships within the Exclusive Economic Zone (EEZ) of Cyprus sparked new tensions in the old conflict revolving around the Cyprus dispute. Ankara, which does not have diplomatic relations with Cyprus, claims that certain areas in Cyprus's offshore maritime zone fall under the jurisdiction of Turkey. The island is divided between a Greek majority in the south and Turks in the breakaway north since the 1974 Turkish invasion. Turkey does not accept the EEZ of Cyprus, which has been defined by the "median line" between the island and its neighbors Egypt, Lebanon and Israel.

The borders of the EEZ are geopolitically very important as they mark the maritime limits of the EU. The EU, USA and Egypt sent clear warnings to Ankara in response to this provocation. EU High Representative for Foreign Affairs and Security Policy, Federica Mogherini, condemned the illegal drilling in an open statement and urged Turkey to respect the sovereign rights of Cyprus in its EEZ. She warned that if Turkey did not refrain from any such illegal action, the EU would respond appropriately and in full solidarity with Cyprus. The dispute has escalated in the past months and also risks straining Turkey's relations with its Western allies. In June, Turkey launched a second drilling ship. Cyprus and Greece demanded a clear condemnation of Ankara’s actions by the European Union, although no sanctions have been imposed yet. It seems more likely that the rich gas resources in the Mediterranean will heighten the conflict between Turkey, Cyprus and the EU in the future.
Outlook & recommendations

The Middle East is going through a transformation in the energy sector. In combination with fostering economic growth the region needs a clear path to a sustainable future towards renewable energy. Countries in the region have begun to transition to an energy source that is cheaper and cleaner than oil and coal. The existing gas infrastructure in Germany, Europe and in the Middle East can also be used for gas produced from bio mass, wind and hydrogen, which offers the necessary means to play a sustainable role in an energy system of the future. Although the global gas markets are becoming more interconnected, a global gas price does still not exist. The transportation by pipeline or as LNG constitutes a relative high share of the delivered cost. The geographical proximity for the EU to the resource-rich Mediterranean basin can be an important determining factor for the affordability in the future. The role of policy regulations is critical to shape gas market developments, while the improvement of the cost competitiveness of gas is seen as the key challenge for the years to come. The high cost of either pipeline or LNG infrastructure requires all countries in the Mediterranean to agree to a joint use of transportation facilities in order to justify the investments.

After a decade of US efforts, Israel and Lebanon were supposed to begin talks to determine the disputed maritime border. Even though Lebanese Prime Minister Saad Hariri was pushing for talks to begin, internal Lebanese struggles put the peace talks on hold. The negotiations were apparently stopped on the initiative by Hezbollah. The reason might be related to an Iranian-Syrian intervention, which is linked to the new growing tensions between USA, Israel and Iran. It is still unclear if Senior US Diplomat Satterfield, who became Washington’s envoy to Turkey last Wednesday, will continue to lead the negotiations or if he will be replaced by David Schenker, Assistant Secretary of State for Near Eastern Affairs. The USA will clearly stay engaged to advance diplomatic talks between Lebanon and Israel. For now, the negotiations are postponed, but not cancelled. Both countries still have a clear interest in reaching an agreement on the maritime border between them mainly for economic reasons, but it will also enable Lebanon to increase its energy engagement in the region and to join the Gas Forum in the future.

Beside the regional cooperation, old tensions and hidden agendas might undermine its potential and fuel new economic and political conflicts such as the recent escalation between Turkey and Cyprus. The first steps against Turkey’s illegal drilling were taken by the EU Foreign Ministers last week. The EU agreed to call off high-level political meetings, to suspend negotiations on an aviation deal and to reduce EU funding for Turkey. The European Investment Bank (EIB) was also advised to review its lending activities in Turkey. To what extend those sanctions will truly be implemented remains to be seen. On the one hand the EU has to react and defend its Exclusive Economic Zone, while on the other hand it should not be forgotten that Turkey is an important partner concerning the migration issue. Furthermore the EU has to begin to define its common interests as a starting point for developing a more strategic approach to its own energy security and diversification of energy sources. The European Union should explore regional prospects by strengthening its energy diplomacy, developing more projects of common interest and working to resolve the Turkey-Cyprus conflict.

The EastMed pipeline should not only be evaluated by the project's economic profitability, but also by the political stability that this strategic alliance can bring into the Eastern Mediterranean. The Next East Mediterranean Gas Forum will be held on July 24-25, 2019 in
Cairo. The US Assistant Secretary of State for Energy Resources will join the Energy Ministers from Greece, Cyprus and Israel on July 29, 2019 at the Eastmed Energy Summit in Athen. With conflicts in Syria and Libya and continued concern over the stability in Lebanon and Egypt, the recent developments and international interests in the Mediterranean should not only be understood from an energy perspective. The growing security risks and illegal immigration have led to a competition for influence in the region and enhanced geopolitical interests not only from the European Union or the United States.

Two particular conclusions can be drawn from the conference. First, the EastMed countries understood that mutual interdependence is the path to economic development and peace. Lebanon is taking steps towards a bilateral regional cooperation with its neighbours. The second conclusion, which was underlined several times by Lebanese and Egyptian key representatives, reflects the new diplomatic dynamic: It should be less about the political differences and more about mutual economic interests of the EastMed countries.

1 World Energy Outlook 2018, International Energy Agency (IEA)
2 According to The Lebanese Petroleum Administration
   https://lpa.gov.lb/secondlicensinground.php
7 Brunsbüttel and Wilhelmshaven are in talk as realistic locations
9 https://www.mesp.me/2019/02/06/the-eastern-mediterranean-gas-forum-a-lebanese-perspective/ (Oil & Gas Lebanon) 2019
11 https://www.ft.com/content/724ea59c-1599-11e8-9e9c-25c814761640
13 According to Jerusalem Post https://www.jpost.com/Opinion/Original-Thinking-The-Israel-Europe-pipeline-a-strategic-umbilical-cord-573899
14 In 2015, the EU approved a grant of up to €2,000,000 for the Pre-FEED stage and in 2018 a grant of up to 34.5 million € for the FEED stage. The Pre-FEED studies that were finalized in March 2018, confirmed that the EastMed is technically feasible, economically viable and commercially competitive. https://www.depa.gr/international-infrastructures/?lang=en https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/7.3.1-0025-elcy-s-m-15 (Pre-Feed study)
According to Gas Report 2019 (IEA)

European Council on Foreign Relations
https://www.ecfr.eu/publications/summary/pipelines_and_pipedreams_how_the_eu_can_support_a_regional_gas_hub_in_7276

One pillar is the diversification of gas supply, sources and routes by the European Commission: https://ec.europa.eu/energy/en/topics/energy-security/diversification-of-gas-supply-sources-and-routes


For further information see KAS country report (German) https://www.kas.de/laenderberichte/detail/-/content/gasundezypernfrage