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EU ENERGY SUPPLY AND ITS STRATEGIC INTERESTS FOR INTERREGIONAL ENERGY COOPERATION WITH THE EASTERN MEDITERRANEAN RIM

Author: Dr. Frank Umbach

Introduction

Despite the EU's efforts to reduce Europe's gas consumption and its import demand as well as for diversifying its gas imports from various countries, Europe still has to cope with its legacy of high dependence on gas pipeline imports from Russia based on long-term contracts, its oil-price indexation and rigid contract clauses.

In 2010, 13 European countries still relied on Russia for more than 80 percent of their total gas consumption; and a total of 17 countries were dependent on Russia for more than 80 percent of their gas imports. In total, 35 percent of EU-27 gas imports depended on Russia. In addition, most of the Central and East European (CEE) countries had been locked into contracts for overpriced Russian gas. Those contracts have been significantly more expensive than Russian gas supplies for Germany and other western EU-member states - despite the fact of a considerably longer transport distance of the latter. Until the mid-2020s, European gas companies will contractually be obliged to annually import around 115 bcm, which will decline to around 65-100 bcm by 2030.

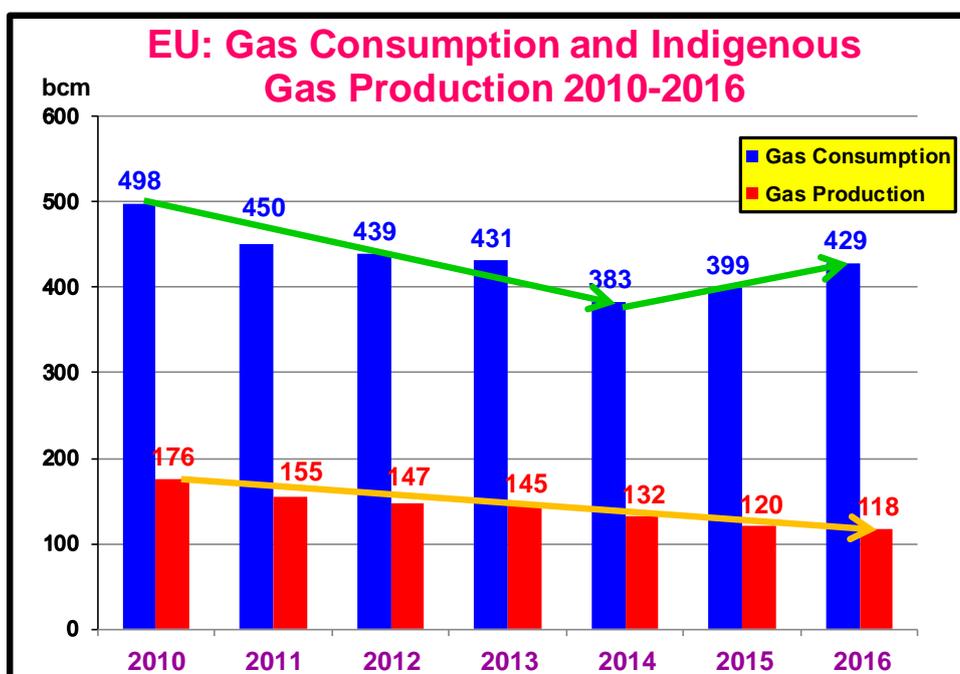
In order to strengthen its future energy security, the European Commission's energy demand management strategy has emphasized the broadest possible energy mix, diversification of energy supply and imports, promotion of renewable energies, enhancing energy efficiency and conservation as well as maintaining a neutral policy towards the nuclear option since 2007. According to some estimates, the EU's new energy security strategy and efficiency as well as energy conservation efforts agreed in 2014 will further lower its gas import demand from Russia by another 12 per cent by 2030.

For any analysis of the future energy cooperation between the EU and the East Mediterranean countries (Israel, Cyprus, Egypt and Lebanon) with their newly discovered oil and gas resources, it is needed at first to analyse the EU's changing energy security conditions, including its future gas (import) demand. In a second step, the analysis will look to the prospects and determining factors of potential gas exports from the East Mediterranean countries to the EU.

The EU's Improving Energy Supply Security and the Implications for its Gas Import Demand

Since 2010, Europe's gas consumption and import demands have dramatically declined. In 2013, Europe's gas consumption had already decreased to a historical record low since 1990. In 2014, gas consumption then declined by another 11.6 percent to 387 bcm, compared with 502 bcm in 2010, and EU net imports by 8 per cent (also 11.6% fall from Russian pipeline gas) compared with 2013. Russia's share of total EU imports only slightly declined from 43 percent in 2013 to 42 percent in 2014. But the EU's import dependency remains a strategic concern as the combined gas production of the EU-28 member states fell by 34.6 percent between 2003 and 2013, and may decline by another 35 percent within the next decade. These concerns have increased during the last two years, as Europe's gas imports from Russia have risen again, whereas its indigenous gas production has equally declined due to the shrinking and capped production of the Groningen gas field (to 24 bcm per year) in the Netherlands (see figure 1). In 2016, Europe's indigenous gas production only accounted for around 30 percent of its gas demand.

Figure 1: EU Gas Consumption and Indigenous Gas Production 2010-2015

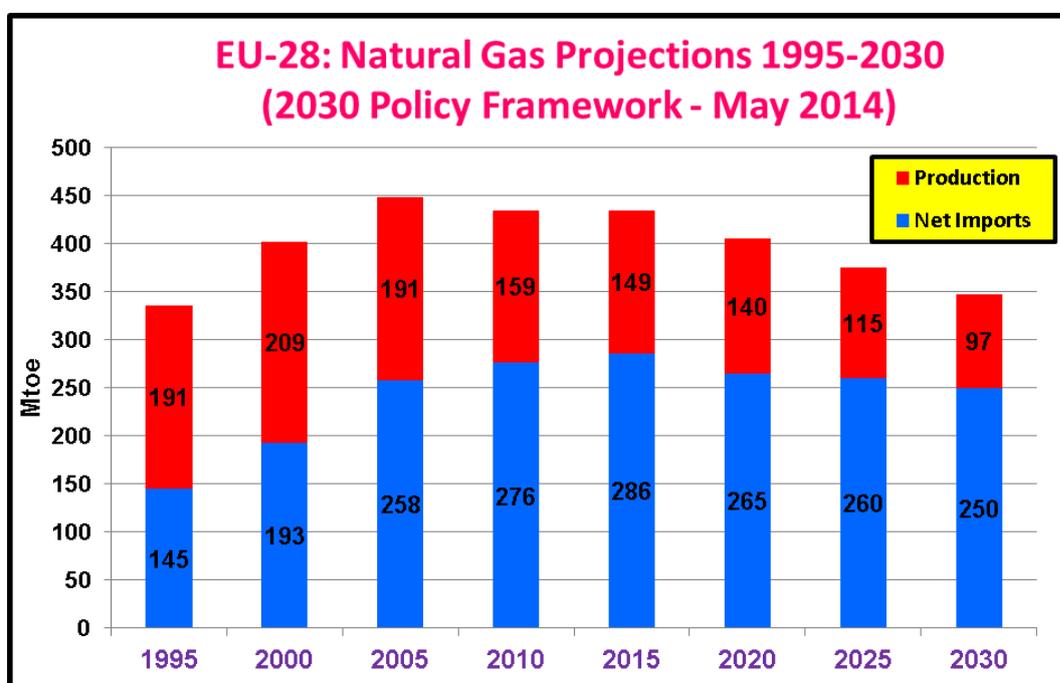


Source: Dr. Frank Umbach based on British Petroleum, 'BP Statistical Review of World Energy' 2017, June 2017.

Nonetheless, Europe’s gas consumption and import demand may still decline by 2040. Instead of a originally projected need of an import rise from around 300 bcm in 2010 to more than 500 bcm in 2030 (as forecasted by the IEA and the European gas industry before 2010), Europe’s gas consumption may not return to the demand level of 2010 – neither by 2020 nor by 2040. Although Europe’s import demand may still rise due to the further shrinking of its indigenous gas production, the rising import demand has been revised downwards during the last few years. The EU’s energy security strategy of 2014, for instance, has envisaged an even lower import demand by 2030 than in 2012 (though in contrast to the IEA and European gas industry, which still anticipate a significant import demand rise by 2035/40 – see figure 2).

A reduced EU gas consumption and import demand would have significant strategic implications for gas exporters as well as for the EU’s gas strategy and its Southern Gas Corridor (SGC) project. In addition, all regional pipeline and LNG-terminal expansion plans are hampered by the drastic decline of oil and gas prices. Furthermore, a smaller European gas market will further intensify the competition between various import projects, supply options and gas exporting countries.

Figure 2: Projected EU Gas Import Dependency (1995-2030)



Source: Dr. Frank Umbach based on European Commission, 'In-Depth Study of European Energy Security. Commission Staff Working Document. Communication from the Commission to the Council and the European Parliament, COM(2014) 330 final, Brussels, 28 May 2014 SWD(2014) 330 final, Part 1/5.

Moreover, the unconventional gas revolution in the US and ensuing gas glut have not just led to the delinking of gas prices from the oil price. They have also destroyed the old European gas market structure, based on bilateral long-term contracts and controversial take-or-pay as well as destination clauses between a limited number of large suppliers and buyers that are required to pay for volumes they may not need. Already in 2011, only around 56 percent of oil-indexed long-term contracts in Europe were still indexed, a share continuously decreasing from 69 percent in 2009 to 59 percent in 2010. At the same time, the share of spot market gas contracts increased from 27 percent in 2009 to 37 percent in 2010, and to more than 40 percent in 2011 and more than 50 percent in 2016.

Even without U.S. LNG-exports to Europe, the EU's gas supply security has significantly improved since 2009. The Russian-Ukrainian conflict of 2014 has helped to fasten the building of gas interconnectors between the member states and stronger support for the SGC-project and the TANAP-TAP pipeline network importing Azerbaijan gas. The expansion of LNG-terminal capacities, new gas regulations and institutions to control as well as overview the EU's reform policies by the Gas Coordination Group and ENTSOG-Gas, have also contributed to create a united internal gas market.

As part of its long-standing gas import diversification strategy, the EU intends to expand its LNG imports. During the last years, the major problem for the EU has not been a lack of LNG import capacities, but rather its related costs. At present, the EU has 29 LNG import terminals with a total capacity of 208 bcm per year. They are mostly large scale, but smaller Floating and Regasification Units (FSRUs) and small scale terminals are playing an increasing important role in LNG regasification. Six additional LNG terminals are under construction with a capacity of another 32 bcm; another 27 are planned. In this light, the EU can import much more LNG from conventional and unconventional gas reserves worldwide as its terminals have not used more than 70 percent of its regasification capacity during the last years.

The IEA has forecasted that European LNG imports might double between 2014 and 2020 and then surpassing 90 bcm – covering 65 percent of Europe's future gas import demand. But from 2013 to 2016, LNG imports have decreased from 90 bcm to 51 bcm in OECD-Europe mainly due to lower European spot market prices compared with those in Asia. The EU's utilization rate of its LNG technical import capacities, which will further increase to 211 bcm by 2019, declined from 53 percent in 2010 to just 24 percent in 2016. In 2015, only 13 percent of Europe's imported gas was LNG, while 87 percent was pipeline gas. But according to the European Commission's LNG strategy of February 2016, the EU seeks further to strengthen its gas import diversification by enhancing its LNG imports.

Until 2016, most U.S. LNG exports had been assumed to be exported to Asia rather than to Europe as Asia's gas prices had been much higher. It had made U.S. LNG exports to Asia more profitable. But given the declining gas prices in Asia since the spring of 2015 by 65 percent since their peak in 2014 to comparative levels to those in Europe, U.S. LNG exports to Europe have become commercially more profitable – beyond geopolitical interests of the U.S. to support the EU's gas import diversification efforts. Under the new conditions, Europe may become the "market of last resort" as the world's only "sink market" for U.S. LNG exports.

Those U.S. LNG exports have not only to compete with other LNG suppliers, but also with Gazprom's pipeline gas and a gas price of probably not more than USD 4-6 per mmBtu. In 2015, almost 90 percent of Russia's natural gas exports went to Europe. For Gazprom and Russia, it will represent a multiple threat to its market share of more than 35 percent today on the European gas market, of its traditional pricing and contract models as well as Russia's geopolitical influence in Europe. But given Australia's high-cost LNG export investment projects, switching off those new plants is not really an economically viable option. Instead, operators are forced to sell their LNG even below production costs by taking irretrievable "sunk costs" (CAPEX and shipping) into account in order to maintain cash flow and assuming a more profitable future. Due to the geographical distance, most of Australia's LNG exports will be sold on the already saturated Asian gas market, leaving only few export options for new U.S. LNG exports. This could ultimately even lead to a gas price war with Russia's pipeline gas in Europe.

Russia's Counterstrategies to the EU's Southern Gas Corridor Project

The global gas glut and the potential U.S. LNG exports to Europe, alongside of the EU's liberalization efforts and steps to create a common integrated gas market, have forced Gazprom to revise its gas price strategy and contracts by accepting a hybrid pricing increasingly based on gas-to-gas competition in 2016 under the new conditions of an already oversupplied gas 'buyers' market' in order to consolidate its market shares. Most recently, the Commission and Gazprom have reached a compromise for the long-standing antitrust dispute without incurring a fine. The Russian company has promised to offer greater flexibility in its long-term contracts with an opportunity to re-negotiate a move towards hub pricing, but it has not given up its ambitions for re-strengthening its energy and geopolitical influence in Southeastern Europe and undermining the EU's diversification efforts.

Whilst the EU is trying to diversify its energy mix and gas imports, Russia has clearly recognized the arising challenges that the EU energy policies will pose for its own future gas exports. The EU's Southern Gas Corridor project and the TANAP-TAP pipeline-network would end Russia's monopoly position of exporting Caspian gas exclusively through Russian-controlled pipelines. Hence, the Kremlin has sought to strengthen its gas footprint in Europe through the originally planned, but then cancelled South Stream Pipeline and its successor project TurkStream (or 'Turkish Stream'). Both have the same planned capacity with four pipes of 63 bcm, though at present only one pipe of TurkStream supplying 15.75 bcm exclusively for Turkey has been contracted.

South Eastern Europe (SEE) and the Balkan countries constitute the region which is still the least diversified and most threatened by a possible gas supply crisis. The new diversification and import options are partly the result of the new EU gas strategy and partly due to new supply options: from the Caspian region, Romanian and Bulgarian offshore gas fields in the Black Sea, the East Mediterranean Sea (Israel, Cyprus, Lebanon, Egypt), and the Adriatic Sea (Croatia).

In February 2015, the European Commission published its strategy for an Energy Union. It proposed a package of gas and electricity infrastructure projects to fasten the completion of an internal energy market, with the original December 2014 deadline having already passed by. At the same time, the European Commission created the Central East-South Europe Gas Connectivity (CESEC) High Level Working Group. It promotes the implementation of the EU's SGC and other gas infrastructure plans, aiming to ensure regional energy cooperation and integration. The technical, regulative and financial support of these projects has been strengthened by the European Commission, through its "Connecting Europe Facility" programme (with 107 gas projects with investment costs of EUR 53 bn), its newly established "European Fund for Strategic Investments", and the implementation of its EU *acquis communautaire* in their energy sectors. Furthermore, the expansion of reverse-flow capacities, allowing much greater flexibility especially during supply disruptions and political crises, has also been increased since 2015.

The EU's 3,500 km SGC-project, a system of interconnecting pipelines running from Azerbaijan through Georgia and Turkey to Europe is at the centre of those diversification plans and discussions, but also the most complex strategic element aimed at expanding the regional liquidity and enhancing Europe's future energy supply security. It can supply at least 20-50 bcm of gas from Azerbaijan, but also from Turkmenistan, Iran and Iraq (Kurdistan).

But TAP and the planned bilateral gas interconnectors in South Eastern Europe have been developed at a much slower pace. Furthermore, the contracted 10 bcm of Shah Deniz II gas supplies to Europe via TANAP and TAP will be exported exclusively to Greece, Bulgaria and Italy, but not to other countries in South Eastern Europe (as envisaged originally with the Nabucco-pipeline), which need to diversify their gas imports.

As part of the SGC, the EU has also designed a sub-regional North-South (Gas) Corridor (NSC) project to enhance the diversification of gas imports by building additional bilateral gas interconnectors between Poland, Lithuania and the planned LNG-terminal (now implemented as a FSRU-project) at the Krk-peninsula in Croatia. The small national gas markets will be transformed into a much larger and more competitive regional gas market with almost the same EU regulations, creating much more attractive investment conditions for the expanding regional gas market in South Eastern Europe and higher gas imports through an expanded TANAP-TAP pipeline network. But not all planned cross-border pipelines are being implemented with the needed political support of governments and energy companies, which still try to balance their EU energy policies with those of Russia and Gazprom. Gazprom and Russia still have an interest in building the other three pipelines in order to supply SEE and to maintain its market as well as geopolitical influence in the region.

Figure 3: The EU’s Southern Gas Corridor and Newly Planned or Proposed Gas Pipelines



Source: Atlantic Council of the U.S. (ACUS) 2015.

With the precedent of the OPAL regulatory exemption of TEP of last October, Russia, Bulgaria, Italy and others are presently pushing for additional Turkish Stream pipelines or a revived South Stream. Most recently, Gazprom has also announced its interest to join the TAP pipeline project, connecting the TANAP-gas pipeline from Azerbaijan via Georgia to Turkey’s border with Greece and Italy. While the European Commission is not preventing a Gazprom share in the consortium and getting access to the pipeline in general due to its Third-party access rule, it would ultimately contradict the pipeline’s overall strategic objective of diversifying Europe’s and particularly SEE’s gas imports away from Russia. Moreover, it would undermine the EU’s and Azerbaijan’s strategic interest to make the TANAP-TAP gas pipeline network more commercially viable by expanding its transport capacity from presently 16 bcm to at least 30 bcm based on Azerbaijan’s newly discovered gas fields after 2020/2025.

Prospects for EU Energy Cooperation with and Gas Imports from East Mediterranean Countries

Israel has more than 900 bcm of proven gas reserves, which has increasingly attracted the interest of the EU, Turkey and other regional gas importers. Despite the Marmara ship confrontation in 2010 (as the Turkish ship tried to break Israel's blockade of Gaza), the pressure has grown on both sides of Israel and Turkey to look for concrete energy cooperation. Israel has faced increasing political and economic problems with Egypt, which discovered itself a supergiant offshore gas field, called Zohr, in August 2015. It may hold as much as 850 bcm of gas and 5.5 bn barrels of oil. The regional oil and gas discoveries may help to overcome regional mistrust and antagonistic foreign and security policies. But given the global oil and gas oversupply on the markets, they could also fuel geopolitical legacies and policies in the region.

Since 2014, discussions and negotiations have been underway for delivering 7-10 bcm of natural gas from Israel's Leviathan gas field via a 550 km-long subsea gas pipeline to Turkey. Its total construction cost is estimated at USD 2.5-3bn. But the hitherto planned gas pipeline has to cross the Cypriot Exclusive Economic Zone (EEZ) and thus is dependent on a Turkish-Greek peace settlement on Cyprus.

As Israel is developing also other new offshore gas fields, it is very much interested to develop its Leviathan gas field within the planned time-frame of 2019-2020. But this has become ever more challenging due to political, economic, financial and regulative controversies between the Israeli government and the gas consortium of the U.S. based Noble Energy and the Israeli Delek companies. On 28 March 2016, the Israeli High Court rejected the "stability clause" of the government's newly enacted natural gas framework, which demands new negotiations with the companies developing the Leviathan gas field in order to provide a stable framework ensuring reasonable rates of return on the investments. While Delek seems to accept the delay, Noble is still considering the option of arbitration in the International Court of Arbitration in Geneva, seeking billions of dollars in damages.

The Israeli government may acquire some short-term benefits by re-defining the terms for gas exploration and production for the involved energy companies. But it risks serious mid- and long-term reputational damages, undermining its future investment climate for other projects and energy companies being interested in Israeli gas and other energy projects. The Leviathan project has already been delayed by the internal conflicts on the Israeli side. Furthermore, the discussions of more security investments due to the regional instabilities may further increase the costs of production as well as exports and complicate the fiscal regime.

While the present delay of the gas field development and additional security costs may not directly prevent future gas exports from the Israeli Leviathan gas field to Turkey, it is dependent on a significant bilateral political rapprochement between both sides and coherent energy policy engagement to overcome the present obstacles. At present, however, the influential Israeli military elite is still skeptical and critical towards Turkey as its governmental Islamist party is still considered as a "problematic factor" and "unreliable partner for a reconciliation agreement", as the deputy chief of staff of Israel Defence Forces stated in March 2016.

While a reconciliation of bilateral ties between Israel and Turkey offers better perspectives for realization of the bilateral gas pipeline project, Russia, reportedly, has also tried to use its great influence over Cypriot politics to block a Turkish-Israeli pipeline and the East Med Gas Pipeline project to Europe. Russia and Israel have also negotiated an agreement, which envisages that Israel is not selling any natural gas to Turkey and in return, Russia won't supply S-300 anti-aircraft missiles and other advanced weapon systems to Iran and other regional enemies of Israel. Russian armed forces are almost on Israel's borders and this security factor could be more important to Netanyahu's government than any gas deals with Turkey.

However, this is not in the U.S. strategic interest as it promotes a bilateral rapprochement between Turkey and Israel as well as Israeli gas exports to Europe and Turkey in order to decrease their gas dependencies from Russia. Thus a closer energy cooperation between Turkey and Israel has still appeared as likely in the near future. However, given the escalating conflict with the EU and the dwindling interest in EU membership, Turkey's geopolitical interests have changed. Furthermore, Turkey itself has re-defined its energy security by increasing its reliance on coal (lignite), renewables, and nuclear – and thus becoming less dependent on gas (imports).

The offshore gas field Aphrodite off Cyprus could potentially join the Leviathan gas field for exporting gas to Turkey of a combined volume of up to 25 bcm and additional gas to Europe. The economic interests of both sides have spurred negotiations between the Greek Cypriots and Turkish Cypriots to resolve the Cyprus problem diplomatically as a pre-condition to export gas from Cyprus to Turkey and Europe. But resolving the Cyprus problem may be no longer a determinant factor in Turkey's foreign and security policies in the months and years ahead.

On the other hand, the EU and Italy in particular have still a strong interest in gas imports from Egypt and Israel. The Italian multinational oil and gas company Eni is a central player in developing Egypt's Zohr gas field and is already importing gas from Algeria and Libya as well as soon from Greece through TAP. The company shows interest and ambitions to create a southeast gas-hub in Europe and is thus interested in the East Med gas pipeline from the offshore gas fields in Israel and Cyprus.

Figure 4:



Source: www.interfaxenergy.com

Strategic Perspectives and Recommendations for the EU Energy Cooperation with East Mediterranean Countries

Cyprus like Greece and Israel have been interested in a subsea gas pipeline from their gas fields to Greece and Europe. But given the present low oil and gas prices, the high investments and the uncertainties of the future European gas consumption and import demand, such a subsea gas pipeline appears at present only realistic in a mid- and longer-term future, when clearer signals for the future European gas consumption and import demand and additionally more gas reserves in the East Mediterranean Sea would become available.

While any new pipeline exports in the present low-price environment are not entirely unlikely, the conditions on the global and European gas market make those exports certainly much more challenging. In this regard, timing has become as important as political will to create adequate investment conditions and to push export projects ahead. Russia has recognized those circumstances better than the EU and is going ahead with new pipeline projects in Europe (Nord Stream 2 and TurkStream) and becoming a project partner in the East Mediterranean countries (like Rosneft in the gas field development of Zohr) to create *fait accompli* on the markets before other export projects to Europe will be realized. If successful, Moscow will have pre-occupied the markets at the expense of the EU's diversification efforts for its gas imports, its future energy supply security and prospects for any higher profits of East Mediterranean gas exports (be it pipeline or LNG), leaving only the option for competing on the already oversupplied non-European LNG markets. Ultimately, East Mediterranean countries risk sitting on vast gas resources, which nobody is interested in to import, as the region has lacked the political will and timing to overcome domestic as well as regional problems. In this context, a stronger political and commercial leadership is needed on both sides – the EU and the East Mediterranean countries – to recognize the rapidly changing commercial and geopolitical conditions of the European, regional and global gas markets.

About the author

Dr. Frank Umbach is Research Director of the European Centre for Energy and Resource Security (EUCERS) at King's College, London and Associate Senior Fellow at the Centre for European Security Strategies (CESS), Munich. He also works as an international consultant for the private sector, governments and international organizations on international energy security. Previously he has worked as a Senior Fellow for the Energy and Environment Program of the Atlantic Council in Washington D.C. and for more than ten years Dr. Umbach was Head of the Program 'International Energy Security' at the German Council on Foreign Relations (DGAP). He has authored more than 400 publications, including '*Global Energy Security: Strategic Challenges for the European and German Foreign Policy*'.



Konrad-Adenauer-Stiftung e. V.

Regional Program Political Dialogue South Mediterranean

Contact person:

Dr. Canan Atilgan

Director

Regional Office South Mediterranean

Phone: +216 70 029 460

E-Mail: canan.atilgan@kas.de

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