THE EU AND NORTH AFRICA: TOWARDS A JUST TWIN TRANSITION?
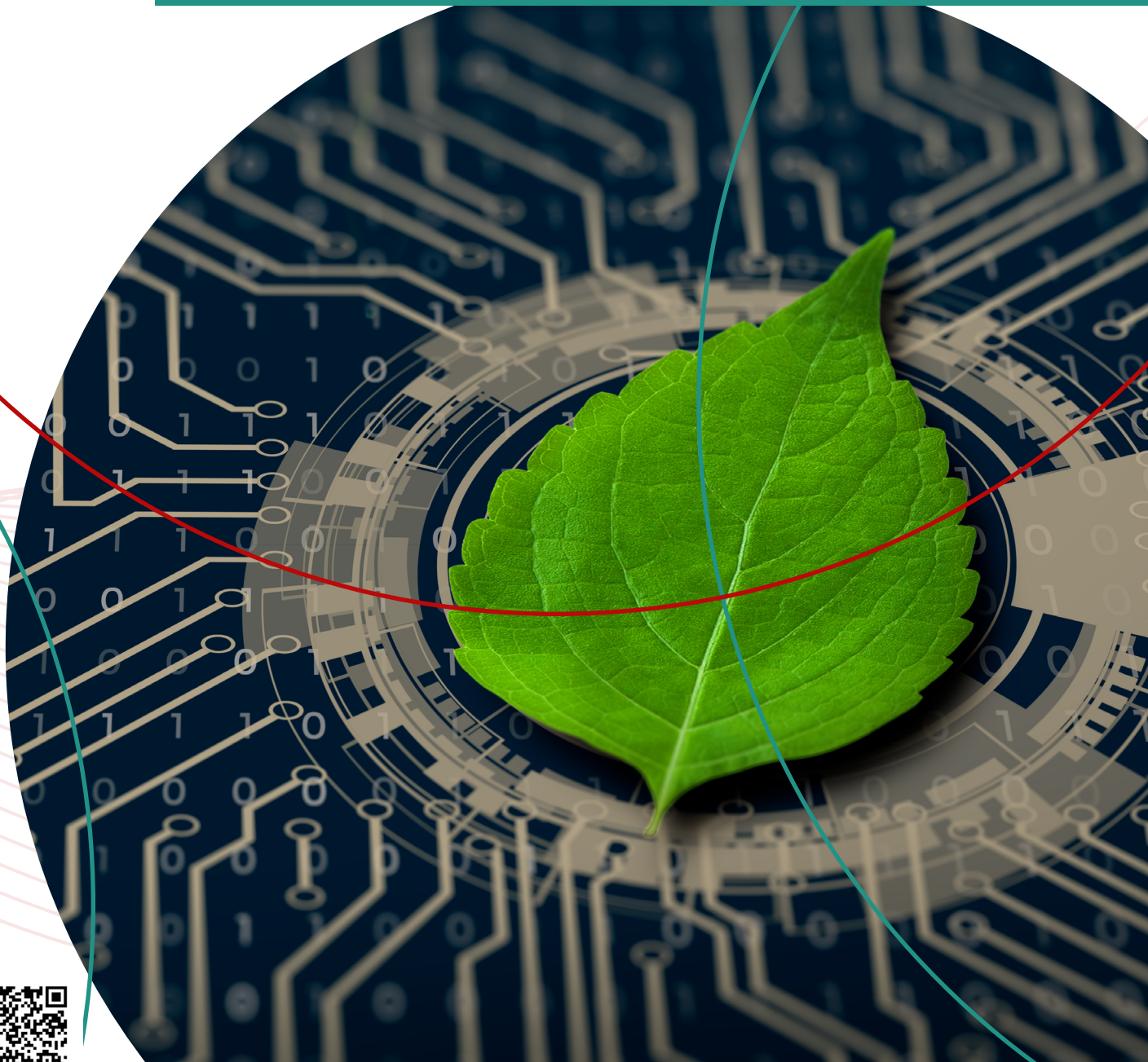
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In an era marked by a deficiency in sustainable growth and a profusion of novel digital tools, the implementation of mutually-reinforcing green and digital policies comes about as a promising avenue to address the climate emergency. The European Union has therefore developed a twin green and digital transition agenda that seeks to harmonize its previously autonomous policy areas. It is noteworthy that this new strategy is both inwards and outwards looking, as it bears a geopolitical dimension. This can be exemplified by the 2021 New Agenda for the Mediterranean which extends the geographical scope of the project to the EU's Southern neighborhood.

This research focuses on the Euro-Mediterranean dimension of the twin transition. It estimates the extent of the twin transition, its potential implications on EU-North Africa relations, and its relevance for both parties. To this end, it first presents a historical overview of the evolution of the EU's digital and energy policies towards its Southern neighbors starting from the 2004 ENP until the twining of the two transitions. It also examines the reception of the EU's digital and energy policies by North African countries. It then proceeds by assessing the applicability of the twin transition project to the North African context and reflects on the EU counterparts' perceptions of this externalisation.

The following findings emerge:

- Extending the EU's twin transition project to its Southern neighborhood constitutes an opportunity to relaunch cooperation. Yet, despite the potential that the twin transition project holds, it is still hampered by certain limitations most notably conflicting priorities for the EU and its partners.

- The rationale for cooperation appears to be predominantly rooted in a securitization stance. The relevance of North Africa stems from the perception of the region as strategic with a potentially major impact on stability in the EU. Besides, within the context of the war in Ukraine, securing energy provisions and addressing cybersecurity threats have become issues of the utmost importance for the EU.

- The twin transition project bears a geopolitical dimension that epitomizes the EU's aspirations to set itself as a transformative power in pursuance of establishing itself as a global player.

- From a North African standpoint, the twin transition project might be perceived as EU-centric due to the limited ownership of partner countries. This impression could be further exacerbated by the discrepancies between the goals set by the project and the actual needs and priorities of North African countries.

Based on these findings, this research formulates policy recommendations revolving around the main consideration that comprehensive cooperation is a prerequisite for the successful implementation of the twin transition. The EU should engage more with its partners to strengthen the twin transition as a shared agenda between the EU and North Africa. EU institutions should also adapt their goals and strategies in line with the realities and needs of their counterparts. It is imperative to consider the socio-economic and political limitations inherent to the North African context. The EU should also be wary of adopting an approach to cooperation that is mainly anchored in securitization and geopolitical considerations. In light of the ambitious scope of the twin transition, it is essential to develop a sustainable and inclusive strategy.

INTRODUCTION

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"The twin transition is an ambitious and large-scale project that aims at transforming contemporary societies, economies and states by strategically twinning the digital and the green transitions."

When the Von der Leyen Commission took office, it embraced this project and embedded it within a clear geopolitical framework, both internally and externally. Internally, the 2020 New Industrial Strategy for Europe is the Commission's first strategic document to explicitly set the objective of twin digital and green policies. In the new strategy, the twin transition is represented as an inescapable and pervading process that "will take place in a time of moving geopolitical plates which affect the nature of competition".[1] Furthermore, the twinning of the two transitions is conceived of as being "about Europe's sovereignty".[2] Externally, the EU's twin transition grand project is set forth by the 2021 New Agenda for the Mediterranean, which aims at "strengthening Mediterranean partnerships", drawing for the first time on "the ground-breaking opportunities of the twin green and digital transitions, to relaunch our cooperation and realise the untapped potential of our shared region".[3]

As our analysis shows, the EU green energy and digital policies that had been developed autonomously for almost fifteen years, only started to be harmonised and planned in close connection in the early 2020s. The rationale for the strategic twinning of these policy sectors was twofold. On the one hand, digital technologies could increase the efficiency of energy production and distribution, may provide solutions for green urbanisation, decarbonisation and fossil fuel reduction, and could generally serve as enablers for reaching sustainable development goals. On the other hand, digital technologies would be reshaped according to green principles, with

devices redesigned to fit in a circular economy with low-emission telecommunications infrastructures, and low-energy data centres powered by non-fossil sources of energy.

Our analysis also shows that the twinning process has not consisted of simply intertwining the potential of the two transitions, but it has been a deep process of reformulation of the two policy sectors, which affected their respective objectives, scope, approaches and orientation. Alongside the previously mentioned 'geopoliticisation' of both the energy and digital policies, other relevant changes occurred during the twinning process.[4] The first one is the increased attention paid to security issues. These were gradually prioritised both in terms of the substantive content of the two policies and their contextualisation. As for the former, the path towards the twin transition is dotted with policy initiatives aimed at securing energy provision from partner countries to the EU, and with an increasing salience of cybersecurity initiatives in EU neighbourhood policies. As for the context, the twin transition is seen as a stabiliser in those areas that play a geostrategic role for the EU, and as a platform to address security concerns related to political turmoil, illegal migration, terrorism and radicalisation. The second policy change that comes together with the twin transition project is the increased attention to infrastructural and structural issues, such as the availability and resilience of pipelines, telecommunication and electricity networks, EU standards, raw materials and critical components. The third change relates to a structural linkage that has been advanced between the EU's geopolitical aspirations and its values and principles, which underpin the legitimation of the EU's role as a global player. Finally, the formulation of the twin transition project comes with an increasing strategic importance of Africa, and especially North Africa, within the EU neighbourhood policies. This reconsideration of North Africa is testified both by the growing amount of policy efforts

directed towards this area and by the emergence of a more consensual approach that replaced the unidirectional posture of the early EU initiatives with a more balanced partnership in terms of policy co-design, ownership and evaluation.

Given the increasing relevance of green energy and digital policies within the overall global strategy of the EU, as well as the strategic role assigned to the Mediterranean area by recent EU foreign policies, this policy study focuses on the process through which the relationships between the EU and North Africa are affected, and to some extent reshaped, by the twin transition project. Indeed, many aspects of this project emphasise that the Mediterranean is a key strategic region for Europe's prosperity and global peace, and that both climate change and the spread of new technologies such as artificial intelligence, supercomputing, and the Internet of Things will have dramatic societal effects on both shores of the Mediterranean.

The policy study is structured in three sections. The first reconstructs the historical evolution of the EU southern neighbourhood policy in the energy and digital sectors, from the 2004 European Neighbourhood Policy up to the recent twinning of the two transitions. It identifies two phases that preceded the twin transition project and highlights how green energy and digital policies developed autonomously, even if they shared a common approach: market-oriented in the first phase (2003-2014), and security-oriented in the second phase (2014-2019). In parallel, Section 1 discusses how North African countries perceived and responded to the EU approach and orientation before and after the Arab Spring, a defining moment for the region.

The second section digs into the twin transition project as formulated by EU institutions, and highlights tensions and contradictions between this project and North African needs and aims, especially in the context of a new normal shaped by COVID-19 giving rise to global nationalism, externalisation of EU policies and geopolitical shifts brought about by the ongoing war in Ukraine. In particular, the analysis shows that the twin transition project is meant as a geopolitical project by the EU, implying more attention

to infrastructural issues, critical raw materials availability, and global supply chains compared with previous EU energy and digital policies. On the other hand, North African governments may perceive this project as EU-centric, as they have limited if no ownership of it, and detached from their current needs and aims since they are still struggling with older objectives and are still encountering problems in assuring the availability of twin transition's enablers in their countries.

The third section provides some conclusions and a set of recommendations to enhance the twin transition as a common project between the EU and North Africa.

SECTION 1: BUILDING UP TOWARDS THE TWIN TRANSITION

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This section presents a longitudinal analysis of the EU southern neighbourhood policy in the digital and energy sectors, from the 2004 European Neighbourhood Policy up to 2019, thus outlining the "prehistory" of the twin transition project. In parallel, the section discusses how North African countries perceived and responded to the EU approach and orientation. The analysis identifies two main phases in the development of EU energy and digital policies and explains how the attitude of North African countries towards these policies has developed in the context of the Arab Spring.

Phase 1 (2003–2014): The market integration approach

Between 2003 and 2014, both the EU's energy and digital cooperation with Africa were informed by a market-oriented and one-way approach. The two policies differed only in the marginality of digital issues vis-à-vis the strategic role already assigned to energy in EU plans, and the process of securitization (i.e. the framing of a policy issue as a security problem) that occurred only for energy cooperation policies.

As for green energy policies, at the beginning of the 2000s, the EU Commission stressed the need for an external energy security and internal decarbonisation strategy. Both of these goals were to be reached through market integration. The Commission could use this competence to reach these objectives as the external energy policy competence remained with the member states.[5] This was apparent in its first communication towards its neighbours in which it focused on energy security via the integration of these countries in the internal market, the modernisation of energy systems of the partners, and the realisation of major new energy infrastructure projects, including investment in new gas fields in Algeria and initial investments

in solar photovoltaic (PV) market development projects in Morocco.[6] **From the North African perspective, at the beginning of phase 1 (2003-2014), Europe presented itself as an attractive potential customer, providing these countries with an economic opportunity to export excess amounts of energy.** The potential of renewables to not only meet North Africa's energy needs but also generate export earnings sounded promising. North African governments also welcomed the EU's realisation that "ensuring secure and sustainable energy supplies will call for additional, vast investments in the Mediterranean".[7] This realisation aligned in principle with some of these governments' agendas for trade and investment promotion, technology transfer, and economic development.

Following a market-oriented approach, an over-optimistic Trans-Mediterranean Renewable Energy Cooperation (TREC) was founded in 2003 by the Club of Rome, the Hamburg Climate Protection Foundation, and the National Energy Research Center of Jordan, with the aim of developing a common market and an interconnected infrastructure for renewable energies among the countries bordering the Mediterranean sea. TREC was politically backed by the EU and had support from some EU companies and banks. Following a win-win rather than a one-way approach, TREC framed clean energy production in North African countries for both local and European markets as an engine of industrial and socio-economic development in the region.

The 2004 European Neighbourhood Policy (ENP) built further on this. Its approach was to ensure energy security **via a so-called "common regulatory space around Europe", including with the Southern Mediterranean. A** fundamental pillar of the EU's energy policy in the neighbourhood was to promote the uptake of EU energy policy principles, specifically liberalisation, and EU energy legislation. ENP action

plans laid the foundation for gradual convergence towards EU rules.

The same market integration approach was adopted for digital technologies. The 2004 ENP recognized Information and Communication Technologies (ICTs) as a tool for "the development of modern economies and societies".[8] However, it envisaged a very **marginal role for digital policies, being addressed on just one main policy objective, namely the liberalisation of the telecommunications sector and the commodification of incumbent operators in the telephony market. T**he US acted as a closer partner to some North African countries (e.g. Egypt) than the EU; however, for energy cooperation, geographic proximity placed the EU in an advantageous position. In a document from the European Commission's Directorate-General on the Information Society and Media[9] (DG INFSO)[10] on its international perspective for a global information society, the EU had as its aim the acceleration of sustainable growth through development aid to the modernisation of the most strategic information society sectors in North Africa.[11] Following a bottom-up approach, a specific activity is the Euro-Mediterranean Information Society (EUMEDIS) programme which supported the development of an information society in the Mediterranean partner countries by promoting information and communication technologies.[12] In a European Parliament study[13] on "Developing Countries and the ICT Revolution", **the equal importance of the EU's top-down[14] and bottom-up[15] approaches was emphasised, whilst it was acknowledged that it was at the "bottom-up" level where the EU could really improve the effectiveness of its actions.** In contrast, the US was more proactive in the top-down (political) approach, which was praised by North African policymakers at the time. The USAID collaborated closely with some North African governments to develop their telecommunication master plans (e.g. Egypt)[16], e-commerce development plans (e.g. Morocco), and national cyber security capability (e.g. Algeria).

The ENP was accompanied by a funding instrument of €11.2 billion called the ENPI to implement the actions for the period 2007-2013. However, between 2007 and 2010, 81% of ENP funds went to bilateral cooperation programmes, and only 15% was allocated to regional initiatives. Among the latter, initiatives for economic integration absorbed by far the great majority of funds with 36%, and 39% of contracts were financed through migration and border protection instruments.[17] This testifies to the market-oriented approach of the ENP, as well as its top-down orientation with a focus on the institutional priorities of the EU and its partners rather than on people's needs and aspirations.

By the mid-2000s, the EU proposed the creation of a **vast Euro-Mediterranean green energy market** with the establishment of the Association of Mediterranean Energy Regulators in 2006 followed by the Mediterranean Transmission System Operator.[18] The **Mediterranean Solar Plan presented in 2008 would connect the PV installations in the desert of the Southern Mediterranean to the electricity grid of the Northern Mediterranean.** However, energy efficiency and renewable energy were only seen as part of the solution for the EU, and there was an absence of rhetoric directed towards fossil fuel exporting countries such as Algeria. During those years the steep learning curve of renewable energy including the sharp fall in its cost wasn't anticipated and the **EU's energy insecurity only grew after the gas dispute between Russia and Ukraine in January 2006**. Next to renewable energy and energy efficiency, the EU invested in its Southern Neighbourhood's hydrocarbon sector via the construction of two new submarine pipeline connections linking Algeria directly to Spain and Italy.[19] Like TREC, **the Mediterranean Solar Plan and later DESERTEC communicated a vision of a win-win situation in which both European and North African countries would benefit.** On the one hand, with a flow of clean power and hydrogen from North Africa to Europe, Europe would achieve long-term energy security and European industries would profit from associated investments. In parallel, with a flow of technology, know-how, and capital from Europe to North African countries, additional jobs would be created in these countries and, thus, social stability would be maintained.

The documents of some of these frameworks even went a step further and argued that their impact would be global as any contribution to climate protection and political stabilisation would generate positive spill overs worldwide. But at the end of the 2000s, it became clear that the ambitious plans of the EU to integrate its North African neighbours into its internal market rules were not succeeding, in particular with the fossil fuel-producing countries Algeria, Libya and Egypt.[20] Further, **Southern Mediterranean countries came to see the efforts of the EU more and more as a one-way approach with the EU trying to fulfil its own needs by investing in renewable energy sources as well as hydrocarbons for its own use.**[21] TREC, the Mediterranean Solar Plan, and DESERTEC were largely criticised for a de facto one-way approach and did not succeed due to the lack of realism on both the commercial and geopolitical sides.[22] Further, prices of hydrocarbons were skyrocketing by 2008 and the Russian conflict with Ukraine in 2009 as well as the Arab Spring were influencing the gas security of the EU.[23] The Commission proposed to diversify its energy suppliers and to act together in order to use its market power in its external negotiations. **However, for many of the member states, Russia was still perceived as a reliable partner with energy interdependence having worked well for them for many years. Further, they remained reluctant to transfer the energy competence to a supranational level, as it was seen as a national security issue.**[24]

As for digital policies, in line with the economic frame and with the narrow scope of digital initiatives in the 2004 ENP, the *Africa-EU Strategic Partnership - Joint Africa-EU Strategy*, drafted by the Council of the European Union at the end of 2007, considered **ICTs as enablers of "competitiveness in the global economy" and "essential engines of socio-economic growth and sustainable development in Africa",** where sustainability was meant mainly in economic terms. Two main digital issues were put forward: the digital divide** - that is, the lack of affordable access to information and telecommunications services (ICTs) - **and the liberalisation of telecommunications**. In this context, much emphasis was placed on **political values and principles**, including respect for human rights, freedom, equality, solidarity, justice, the rule of law and democracy - and on consequential political reforms expected in Africa. In this period, the EU foreign digital policies were mainly focused on **inter-institutional cooperation**, postulating a cascade of positive effects descending from the digitalisation of markets and public services towards local economies, societies, and institutions. They consisted of funds and policy transfers towards third-partner countries in exchange for economic and political reforms.

By the late 2000s and up to 2014, two landmark shifts on the digital front of North Africa helped counteract the EU's top-down approach and unidirectional orientation of its policy initiatives, even if partly. First, **North African countries started to develop and expand their own detailed national strategies and action plans** (e.g. Digital Morocco 2013 Strategy launched in 2008, Egypt's ICT Strategy 2007-2010) which reflect their policy priorities, values, and principles. Agendas of North African countries overlapped with the EU agenda in some aspects but diverged in terms of others. For example, although North African agendas highlighted the strategic value of ICT in economic development, the EU's long-advocated political values and principles were rarely mentioned in these agendas. Second, **the dialogue between the EU and North African governments gradually shifted away from the context of development aid**, where the EU pledged to allocate (more) financial resources to ICT development programmes in North Africa, towards a shared understanding of how a rapidly evolving ICT sector in North Africa can achieve cross-border integration and bring benefits to all citizens in both regions.[25] For example, the involvement of EU private operators configuring ICT programmes began to be considered an investment, not a donation, especially in light of the dependence on US operators and EU operators being disadvantaged compared to their US counterparts. In parallel, outsourcing activities from the EU presented an opportunity for North African countries. There were some concerns, however, that EU countries would cause price pressures on ICT exporters to create low-cost, effective ICT outsourcing to their markets.

Phase 2 (2014–2019): Energy and digital security

During the first phase (2003-2014) the EU pursued a clear market approach. In the second phase, security concerns came to the fore. Both the EU foreign energy and digital policies started to focus on addressing infrastructural needs. The general principle disciplining the relationships between the EU and Northern Africa was the so-called "more funds for more reform", implying more financial support and capacity building in exchange for market and political reforms, especially those aiming at democratisation.[26] However, many Northern African governments did not achieve nor commit to this. In this second phase, moreover, EU digital cooperation policies were securitized, with the increasing importance of cybersecurity as a policy issue. Instead, EU energy policies, which were already securitised in the previous phase, underwent a process of 'geopoliticisation'.

After the outbreak of the Arab Spring, the ENP underwent its first revision. Internally, climate change policies were high on the agenda with the adoption of the 2050 Energy Roadmap.[27] Externally, energy security became the priority for the EU member states, with its foreign energy policy focusing on the diversification of fossil fuel supply routes. In 2014, the **EU-Energy Security Strategy** mentioned the importance of East Med Hydrocarbons as a potential supplier of fossil gas. It called for the EU to engage in intensified political and trade dialogue with Northern African and Eastern Mediterranean partners, with a view to **creating a Mediterranean gas hub in the South of Europe**.[28] This seemed to be a move away from the green energy hub proposed in 2008.

With the COP21 coming up in 2015, the Energy Union Communication emphasised the need for companies to deliver **energy efficiency and low-carbon technologies inside and outside Europe and the need to move away from an economy driven by fossil fuels.**[29] Through this, it promoted an **energy transition, also outside the EU and for the first time.** Financial action followed, as can be witnessed in the Annual Action Plans between the EU Commission

and the EU neighbourhood. Also, towards its fossil fuel exporting partner Algeria, where it financially supported renewable energy and energy efficiency investments (c.f. Annual Action Plan for Algeria 2016). However, the Council's conclusions in the Energy Diplomacy Action Plan stated that "the EU will use all its foreign policy instruments to establish strategic energy partnerships with increasingly important producing and transit countries or regions such as Algeria … and other potential suppliers".[30] Renewable energy was only mentioned as the last option and this together with local extraction of fossil fuels.[31] The **annexation of Crimea by Russia in 2014** could have influenced the approach. Further, fossil gas was seen as a transitional fuel, needed for years to come. The reviewed ENP of 2015 also emphasised energy security and energy market reform; only in third place was the promotion of sustainable energy including **sharing research on the phasing out of subsidies for fossil fuels.**

North African governments regarded their countries' role as potential suppliers of fossil gas to the EU as a commercial/strategic opportunity. It was an era when social unrest and political instability swept through North Africa. Although sometimes referred to as a threat, climate change was not actually at the top of the agendas of North African governments, which were struggling to meet the pressing economic, social, and political needs and aspirations of the resentful masses. Besides, discoveries of gas in the Eastern Mediterranean such as the giant Zohr gas field off the Egyptian coast in 2015, the biggest in the Mediterranean, drew the interest of EU actors to Algeria's energy sector, ranging from European gas companies to the European Parliament.[32] Two issues are worth noting for this era. First, **the uncertainty in North Africa aligned with the EU's interest in ensuring a secure energy supply, but not necessarily with the interests of African youth and people**, who needed their policymakers to commit to long-term investments, for example in human capital, rather than achieve quick wins using the revenues from gas exports to the EU or elsewhere. There were also major public concerns and widespread distrust about how African sovereign wealth funds, managing petroleum and fossil gas revenues, were being operated by governments,

for example, Algeria's Revenue Regulation Fund and The Sovereign Fund of Egypt. Second, **the EU prioritised its energy security and turned a blind eye to its support for democratisation or, more broadly, for its long-advocated political values and principles, including the respect for human rights, freedom, equality, solidarity, justice, the rule of law, and democracy.**

In terms of digital policies, the 2015 review of the ENP slightly broadened the scope of application of digital technologies within the EU neighbourhood policy, drawing attention to **three issues: eGovernment, seen as a tool for public administration reform; regulatory convergence in the telecommunications sector; and cybersecurity, considered as a part of a wider strategy aimed at assuring "border protection, tackling terrorism and radicalisation, and crisis management".**[33] The 2016 Global Strategy for the European Union's Foreign And Security Policy also addressed the issue of cybersecurity. However, both the strategy and its implementation plan understood cybersecurity as the protection of European cyber assets, with almost no projection towards neighbouring countries. The Internet was deemed to be in need of more security and protection since it was seen as a facilitator of the global value chain. **There was no mention of the digital supply chain itself, which will become a focal point of the third phase of the EU foreign digital policies**, as we will see. The *Global Strategy* also focused on energy security via the building of infrastructure and diversifying routes, particularly for gas.

National digital agendas in North Africa broadly but unintentionally coincided with the overarching, big goals of the EU. "Egypt Vision 2030",[34] launched in 2016, set the objectives of developing the ICT infrastructure, fostering digital inclusion, achieving the transition to a knowledge-based economy, building capacities and encouraging innovation, fighting corruption, and ensuring cybersecurity. In this vein, the *publicised* vision of **Egypt's ICT Strategy (2012-2017)** was to "move towards digital citizenship and an advanced knowledge-based economy and support the transition to democracy".[35] The Strategy addressed legislative environment challenges. New regulations were formulated and modifications were proposed, where appropriate, to existing regulations in areas including political openness, freedom of expression, freedom of information, cybersecurity, and e-commerce. In this sense, the Strategy aligned with the advertised EU's focus on democratisation during the 2014 -2019 period, and with the digital-specific issues of regulatory convergence and cybersecurity emphasised by the 2015 review of the ENP.

"Maroc Digital 2020", launched in 2016, placed more emphasis on eGovernment.[36] This emphasis matched the EU focus on eGovernment as a tool for public administration reform. In his speech delivered on October 14th, 2016, the King of Morocco stressed the need to use the digital lever as a means to put an effective and efficient administration at the service of the citizen in place. "Maroc Digital 2020" had three pillars which aimed to accelerate the country's digital transformation, strengthen the country's position as a regional digital hub, and address eco-systemic obstacles, by focusing on governance and digital skills. The Strategy also focused on the growth of offshoring (targeting a 5-10% annual growth) and creating jobs in offshoring (targeting 60,000 jobs). There was an assumption that Morocco's physical proximity and developed connectivity to Europe would automatically define Morocco as a nearshoring country for EU markets, but this national ambition was strictly governed by commercial terms. Morocco's off-shoring and outsourcing sector experienced a slowdown in 2003 after many years of double-digit expansion, which was partly caused by the emergence of new lower-cost offshoring destinations.[37] In addition to cost minimisation, regulatory convergence was a priority for Morocco, reflecting an additional alignment between the EU and Morocco's interests. Morocco was eager to bring its legal framework for the protection of personal data closer to the EU General Data Protection Regulation, with the national goal of encouraging foreign investment, including the offshoring and outsourcing of processing activities related to EU residents' personal data.

"Digital Tunisia 2018" had a 2014-2018 vision positioning Tunisia as an "international digital reference" and utilising ICT to enable socioeconomic

development, through moving towards e-Government and offshoring growth, among others.[38] Although "Digital Tunisia 2018" set precise targets for 2018, implementation plans have been slow or delayed. "Digital Tunisia 2018" became "Digital Tunisia 2020", with almost the same strategic orientations and targets, before being once again postponed to 2025.[39] The Tunisian Minister of Technology, Communication, and Digital Transformation, Mohamed Fadhel Kraiem, explicitly indicated[40] in 2020 that about half of the projects of the "Digital Tunisia 2020" strategic plan have not yet seen the light of day, and that they would be scheduled as part of a new National Digital Transformation Strategy for 2021-2025.[41]

Algeria's ICT sector's action plan (2015-2019) aimed to "modernise, adapt, and generalise telecommunications infrastructures to promote ICTs use and to encourage the society's integration into a knowledge-based economy".[42] In 2018, the regulatory framework governing the telecommunications sector in the country was reshaped by the introduction of new EU-advocated concepts, such as opening the landline internet market, infrastructure sharing, and technological neutrality. However, diverging from the EU's vision of eGovernment as a tool for public administration reform, digital transition in Algeria was predominantly linked to reviving the national economy and less to citizen satisfaction from accelerated access to public service and updated modes of transactions.[43]

Later during the 2014-2019 phase, the entire **African region** had a central place in the European Commission's energy and digital policy. The EU was witnessing a loss of leverage in Africa as both China and Russia extended their influence. As **Africa is a source of the minerals needed for a clean energy transition**, cooperation seemed essential. The EU African Union Summit 2017 emphasised the importance of energy efficiency, renewable energy, and support for the African Initiative on Renewable Energy (AREI). The aim of the 2017 **European External Investment Plan** was to crowd in investments for the EU's neighbours and Africa from financial institutions and the private sector to complement other similar de-risking instruments.

The focus was on sectors such as sustainable energy and digitalisation, through sharing the risk of investment. For this purpose, the EU established the European Fund for Sustainable Development (EFSD) with an agreed allocated initial contribution of €3.35 billion, expected to generate additional public and private investment on the order of €44 billion, and the EFSD Guarantee of €1.5 billion with a liquidity cushion of €750 million. **It is worth noting that the European External Investment Plan is linked to the EU's migration agenda, and was developed unilaterally, not as part of a coordinated EU-African effort to implement a broader reform agenda** (replicating the one-way approach of Phase 1). In fact, most African countries tend to deal with irregular migration from a security perspective rather than addressing the root causes of migration. The Plan was first announced in September 2016 as part of the EU's response to the arrival of high numbers of migrants and refugees, where investments are envisioned to *"contribute towards addressing migratory pressures stemming from poverty, conflict, instability, underdevelopment, inequality, human rights violations, demographic growth, and the lack of employment and economic opportunities, as well as from climate change"*.[44]

On top of the relatively new attention to Africa as one block, **the Southern Neighbourhood continued to largely dominate the EU's energy agenda, which was still controlled by energy security concerns and later the new big gas discoveries in the eastern Mediterranean**. As for the EFSD support for the EU Neighbourhood, a total of 105 projects worth €1.7 billion, including technical assistance, were approved between 2017 and the end of 2020, compared to 97 projects worth €2.1 billion for Sub-Saharan Africa.[45]

The 2017 Digital4Development Agenda, part of the European External Investment Plan, recognized that the EU had "lacked an appropriate framework for mainstreaming digital technologies" into EU development policy over the previous two decades. Considering this limitation, the 2017 document aimed at developing an encompassing strategy to promote digital economies in developing countries, particularly in the African continent. The strategy addressed some **infrastructural issues**, envisaging

"the installation of submarine cables, cross-border fibre connections and Internet Exchange Points (IXPs)". The document also pointed out three main challenges to be faced to assure the success of EU digital policies for developmental purposes: **the risks of electronic censorship, surveillance, and unauthorised access; "the emergence of new vulnerabilities and threats to cyberspace"; and the need to create safeguards to protect fundamental rights and freedoms from restrictions that may be imposed by private actors**. These challenges were perceived as very relevant because EU Member States became some of the main global exporters of surveillance technologies between 2014-2017. According to an investigation by The Correspondent, EU countries approved at least 317 licenses for exports of cyber-surveillance tools in that period and denied only 14 licenses.[46] Furthermore, according to a Commission report,[47] the number of such licenses rose to 285 in 2017 alone, with just 34 denials.[48] Many of these licenses were granted to European companies exporting digital surveillance technologies to the MENA region.[49]

For North African countries, the Digital4Development Agenda sent a clear signal that the future of development cooperation is "digital". However, **these countries needed to consider "Digital4Development" as their priority for cooperation over the** next few years and see that it was smoothly aligned with their national agendas and would be in their own interest. **Some of these countries lacked enthusiasm for this "digital" priority at a time when they were struggling internally on economic, social, and/or political fronts.** Take Algeria, for example. While the country had an **ICT sector action plan[50] (2015-2019) in place**, the Government Action Plan for the Implementation of the Program of the President of the Republic 2017[51] prioritised objectives related to preserving national stability, security, and unity; consolidating pluralist democracy, rule of law, and the modernisation of governance; maintaining the growth dynamics of exports excluding hydrocarbons; consolidating and expanding human development; and improving foreign policy and national defence.

In June 2019, the EU Commission and the African Union (AU) Commission jointly drafted the **New Africa-Europe Digital Economy Partnership**. The Partnership's objectives were ambitious and manifold, ranging from investments in telecom infrastructure to cybersecurity, from eGovernment to fundamental rights protection, and from reforms of the regulatory environment to capacity building and training programmes. The Partnership also advanced the idea that the digital reshaping of African economies had to be an **"African-owned and African-led"** process, thus reassuring African countries that the digital transformation would not be a neocolonial process serving the interests of the European partners at the detriment of African needs.

While several African countries have developed policies and passed legislation on digital issues relevant to the EU, such as cybersecurity and data protection, both individually and as a bloc, it seems that political leadership in Africa is doing far too little policy implementation. Also during this phase (2014-2019), **it became more evident, reading through the document of the New Africa-Europe Digital Economy Partnership, that the EU is treating Africa as one bloc.** The document states that "the experience gained by the EU is an unprecedented opportunity from which Africa can benefit" and highlights that "the importance of a comprehensive approach to policy and regulatory reform based on shared values can bring down barriers between the two markets and stimulate growth in both Europe and Africa".[52] **However, the continent cannot be treated as a homogenous entity; and any EU approach that fails to realise this reality would be unsustainable.**

SECTION 2:
THE GEOPOLITICAL
TWINNING (2019-)

SECTION 2: THE GEOPOLITICAL TWINNING (2019–)

Phase 3 (2019-2022): The twin transition

While in the previous phases EU energy and digital policies developed autonomously and at different paces, the new phase coinciding with the von der Leyen Commission is characterised by a **structural twinning** between the two policy sectors, both at the internal level and in neighbourhood policies. Internally, following the political guidelines of the new Commission, the green transition and the digital transition were declared strategic priorities, and related policies were reshaped within a common frame; a clear geopolitical frame that understood the twin transition in the context of escalating conflicts, state competition, and new claims of digital and technological sovereignty. The internal reformulation of green and digital policies occurred with the 2019 Green Deal (EC 2019) and the 2020 strategic document titled Shaping Europe's Digital Future, respectively. With the Green Deal, the Commission aimed at becoming a geopolitical actor through a green transition proposing a climate law which enshrines the 2050 climate neutrality objective in legislation. This has caused a seismic shift globally with other countries following suit. The Commission proposed to make the respect of the Paris Agreement an essential element for all future comprehensive trade agreements and to channel the funds to achieve the transition via a neighbourhood, development, and international cooperation instrument to allocate a target of 25% of its budget to climate-related objectives. With this new plan, a road towards decarbonisation in its foreign policy, as well as internal policy, seems to be entered. The Commission also aimed at using 'green deal diplomacy' to end global fossil fuel subsidies, phasing out financing by multilateral institutions of fossil fuel infrastructure, strengthening sustainable financing, phasing out all new coal plant construction and acting to reduce methane emissions.

With Shaping Europe's Digital Future, the Commission officially brought EU digital policies into a geopolitical frame. The vision of **"technological sovereignty"** was developed as "Europe's ability to define its own rules and values in the digital age".[53] A set of policy initiatives were planned following this vision. Some of these were regulatory initiatives like the Digital Services Act, the Digital Markets Act, the Artificial Intelligence Act and the Data Governance Act. Investments were planned to foster 5G and 6G connectivity, as well as digital education and cutting-edge technologies such as AI, supercomputing, quantum communication, and blockchains. The European Commission adopted a new European Data Strategy "to make Europe a global leader in the data-agile economy", as well as a new "strategy for standardisation, which will allow for the deployment of interoperable technologies respecting Europe's rules and will help promote Europe's approach and interests on the global stage".[54] The Commission also recognised digital technologies "as powerful enablers for the sustainability transition [that] can advance the circular economy, support the decarbonisation of all sectors and reduce the environmental and social footprint of products placed on the EU market".[55] At the same time, the Commission introduced **the first actions aimed at greening digital technologies themselves**[56]: "Yet it is also clear that the ICT sector also needs to undergo its own green transformation".[57] Key actions included energy efficiency and climate neutrality of data centres and telecommunications by 2030; and a circular economy initiative "to ensure that devices are designed for durability, maintenance, dismantling, reuse and recycling and including a right to repair or upgrade to extend the lifecycle of electronic devices and to avoid premature obsolescence". Shaping Europe's Digital Future also committed the EU to provide support for the digital transformation in Africa, including the creation of a single African Digital Market, and linked development policies with the need to promote a European model of digital

governance, which included both "its model of a safe and open global Internet" and its leadership "in the adoption and standardisation process of the new generation of technology: blockchain, supercomputing, quantum technologies, algorithms and tools to allow data sharing and data usage".[58]

Once the two policies were harmonised under the same geopolitical frame with the Green Deal and Shaping Europe's Digital Future, **the final twinning between energy and digital policies occurred with the New Industrial Strategy for Europe, at the internal level, and with the New Strategy with Africa and the New Agenda for the Mediterranean externally.** The industrial strategy used the term "twin transitions" for the first time and situated it in a geopolitical context:

> These transitions will take place in a time of moving geopolitical plates which affect the nature of competition. The need for Europe to affirm its voice, uphold its values and fight for a level playing field is more important than ever. This is about Europe's sovereignty.[59]

The Strategy with Africa similarly aimed at geopolitical objectives, especially "to strengthen the EU's strategic alliance with Africa", which was defined as "our twin continent".[60] It envisaged five areas of partnership, the first two of which were the green transition and the digital transformation respectively.

*"The twin transition project was soon extended to neighbourhood policies with the **New Agenda for the Mediterranean, which put the twin transition at the centre of the relationship between the EU and its southern neighbourhood."***

The New Agenda aimed at creating "new partnerships on strategic priorities of green and digital transition".[61] The document identified the twin transition as a strategic set of processes able to tackle some of the most urgent challenges in the Southern Mediterranean region. Among these

challenges, the European Commission focused on security-related issues such as protracted conflicts, large refugee populations, migration, geopolitical competition and outside interference, terrorism, organised crime, and corruption, as well as economic objectives, such as economic growth, economic integration, and sustainable use of natural resources.

New security concerns evolving together with the green transition were prioritised. **Alongside access to critical raw materials and technologies, these were also ensuring resilient supply chains, cybersecurity, and the protection and climate adaptation of 'critical' infrastructure**. Further, the new Agenda for the Mediterranean aimed at strengthening EU international cooperation on hydrogen which was also the focus of its comprehensive strategy with Africa. The Commission urged its Member States' foreign policy and external action to anticipate such geopolitical and security challenges, by promoting as well as supporting the development of socially just economic and energy diversification plans, and providing, where necessary, targeted support to the most affected to foster the transformation of their economies.

The New Agenda for the Mediterranean also defined digital policies from a geopolitical perspective. It aimed at integrating "industrial supply chains between the EU and its Southern Neighbours" in light of the new objectives of "open strategic autonomy and the restructuring of global value chains". Significantly, in contrast with the first phase of the EU's foreign digital policy that saw digital technologies as enablers of an efficient global value chain, the new agenda addressed the supply chain of digital technologies themselves.

The new agenda offered a **€7 billion economic and investment plan** to EU partners in the Mediterranean region, while at the same time requiring socio-economic reforms, stability-oriented macroeconomic policies, an enhancement of the business environment, the digitalisation of public administration and electronic identification, intellectual property protection, "further convergence with EU and international data protection standards",

a "high level of protection of the fundamental rights to privacy and data protection", regulatory convergence in the field of telecommunications, and "co-financing investments to enhance the availability of ubiquitous and high bandwidth telecommunication infrastructure". The plan also envisaged some concrete initiatives in several partner countries. In Morocco, the EU-Morocco Digital partnership included measures to finance digital infrastructure and support digital ecosystems. As for Tunisia, the digitalisation of the economy was set as a priority, as well as education and digital infrastructure. As for the entire region, the economic and investment plan set the objectives to provide "technical advice on the regulation and framework conditions for innovation" and to deploy "relevant internet and mobile infrastructure and skills, and the improvement of service delivery in priority public sectors". The 2021 Neighbourhood, Development and International Cooperation Instrument (NDICI) Multi-Annual Indicative Programme For The Southern Neighbourhood 2021-2027 envisaged mobilising, for the 2021-2024 period only, **€118 million for the digital transition and €118 million for the green transition**. "In addition, an allocation of EUR 1,248 million is indicatively foreseen to support blending under the Neighbourhood Investment Platform (NIP) and the deployment of budgetary guarantees under EFSD+ in the Neighbourhood South for the period 2021-2024". In December 2021, a further specification of the Multi-Annual Indicative Programme for the Southern Neighbourhood 2021-2027, covering the first three-year period of the programme, was issued as a Commission implementing the decision. The plan encompassed seven actions, where the digital and the green transitions together played a transversal role.

Two other relevant EU policy documents published in 2021 are the 2030 Digital Compass: The European Way for the Digital Decade and the Global Gateway. The Digital Compass confirmed and reinforced the new geopolitical approach adopted by EU institutions to frame their digital policy. Indeed, the document set the goal to promote the European model of digital transition worldwide by developing "a comprehensive and coordinated approach to digital coalition-building and diplomatic outreach".

The Global Gateway was a comprehensive strategy that aimed at tackling the deficit in investments in global infrastructures. Among the addressed infrastructures, a key role was played by digital networks, including "submarine and terrestrial fibre-optic cables, space-based secure communication systems as well as cloud and data infrastructures, which together provide a basis for exchanges of data, cooperation in high-performance computing, Artificial Intelligence (AI), and earth observation".[62] The EU also set the goal to "promoting green data centres and deploying underwater cables equipped with ocean monitoring sensors".[63] In the digital field, the Global Gateway identified three main instruments to achieve the EU's goals: infrastructure investments of up to €300 billion in the years 2021-2027; capacity building, with the provision of technical assistance to partner countries; and support for regulatory convergence "on ensuring the protection of personal data, cybersecurity and the right to privacy, trustworthy AI, as well as fair and open digital markets".[64] A further specification of the Global Gateway was issued in 2022 to outline a €150 billion investment package focused on EU-Africa infrastructures. **The EU-Africa: Global Gateway Investment Package** had a relevant section on the digital transition. Its main objective was "to secure digital connectivity between Europe and Africa and reinforce interconnections within Africa".[65] Four main initiatives were envisaged by the policy: the EurAfrica Gateway cable, a secondary backup connection to the Ella Link cable connecting Brazil to Europe via the African continent; the construction of networks of fibre-optic cables across Sub-Saharan Africa; and measures to increase last-mile access, such as the densification of national networks. Further, the Africa Europe Digital Innovation Bridge Initiative (AEDIB) was launched to establish a single market for digital innovation between both continents, and the European Secure Satellite Communications programme was planned to provide internet connectivity to the African continent.

Finally, the 2022 Africa Green Energy Initiative has been proposed by Team Europe on 18 February in the context of the 6th EU-AU Summit to support Africa's green transition in the energy sector. The Initiative focuses on increasing renewable energy

capacity; increasing the number of African people gaining access to affordable and reliable energy; promoting sustainable energy uses; and supporting market integration and sector reforms. In exchange for climate objectives and new robust commitments to decarbonise the energy mix, African countries will receive a tailored support package, including the necessary critical enablers to build an ambitious, secure and fair energy transition.

This subsection's discussion of how the EU reformulated its green and digital policies within a common frame during 2019-2022 and the associated policy initiatives, strategies, actions, agendas, plans, instruments, programmes, and platforms reflects the sophistication of the EU instruments but raises some serious concerns and calls for urgent research and action on the North African side.

"EU initiatives are widely perceived by North African policymakers and people as EU-centric, with limited ownership of respective policies by the partners."

First, **EU initiatives are widely perceived by North African policymakers and people as EU-centric, with limited ownership of respective policies by the partners.** A clear example is the "New Agenda for the Mediterranean," which is supposed to be based on "*common* values and dialogue, and progress on *shared* socio-economic and political agenda," but was unilaterally framed by the EU leaders, guided by the EU's own Strategic Agenda 2019-2024, and based on *shared* but not necessarily mutually agreed on priorities. That the EU's foreign policy reflects its interests is of course hardly surprising, but it should be counterbalanced by an African approach based on African interests (North African leaders take the bigger blame for this). What possibly reinforced this EU-centric approach was the decline of the relative bargaining power of North African countries after the Arab Spring. In this regard, jointly exploring modest but tangible ways for North Africa and the EU to mitigate their growing digital divergence is key.

Second, **assuming good intentions from both the EU and North African leaders, North African countries do not necessarily have the capabilities to take *full* or even *good* advantage of "the full EU toolbox and the ground-breaking opportunities of the twin green and digital transitions"** the New Agenda for the Mediterranean draws on. This brings to attention the important but overseen role of enablers of the twin transition in North Africa. Key enablers need to be put in place, with support from the EU, to support an accelerated and successful digital transformation in North Africa. While the EU countries are working to integrate advanced technologies such as AI and supercomputing in their digital systems, North African countries are still struggling with the basics of digital transformation. For example, the cost of connecting through fixed broadband in Algeria and Egypt has increased during 2018-2020 and remains higher than the global average. Fixed broadband access is available in Algeria and Egypt for 4.2% and 3.2% of the monthly gross national income (GNI) per capita respectively. These prices are higher than the global average of 2.8% and are deemed unaffordable at over 2% of GNI per capita. Despite a steady decline, the cost of connecting through fixed broadband in Morocco, at 3.9% of GNI per capita, and Tunisia, at 3% of GNI per capita, is again higher than the global average and the price is considered unaffordable (Figure 1).[66] Skills development also remains crucial to connect the unconnected in North African countries. Some countries including Egypt and Morocco achieved strides in basic, standard, and advanced ICT skills during 2014-2020, reflected by the leaping number of individuals reporting carrying out one of the activities that comprise basic skills such as sending an email with an attachment, standard skills such as creating an electronic slide presentation, and advanced skills such as writing a computer program using a specialised programming language. Nevertheless, insufficient skills can still impede meaningful connectivity, particularly in Algeria and Tunisia, where less than 20% of individuals have basic ICT skills and only 12% and 15% of individuals, respectively, have standard ICT skills (Figure 2).

Figure 1: Enablers and barriers for digital transition in selected North African countries: ICT prices
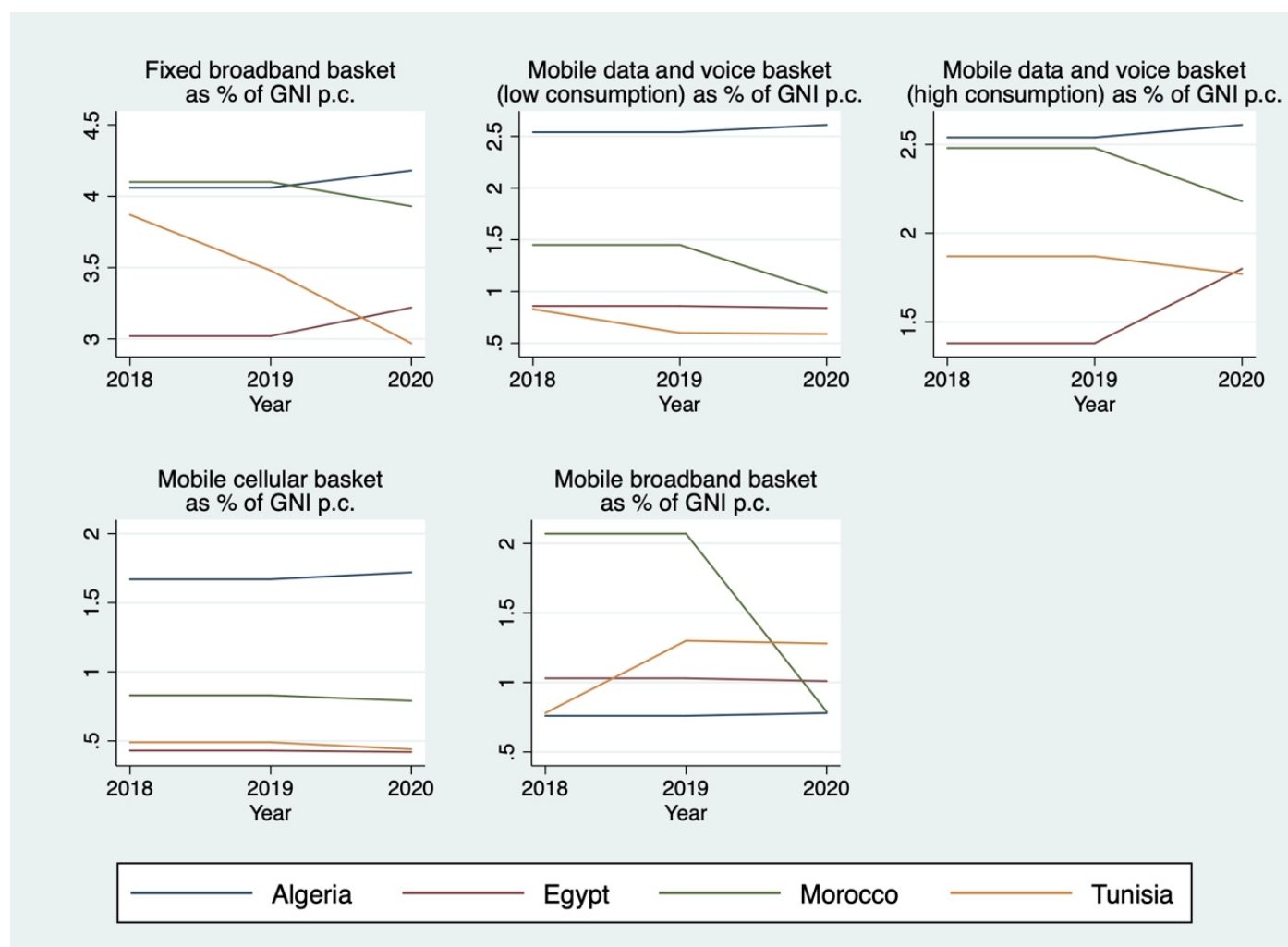
Source: ITU, World Telecommunication/ICT Indicators Database, January 2022

Figure 2: Enablers and barriers for digital transition in selected North African countries: ICT skills
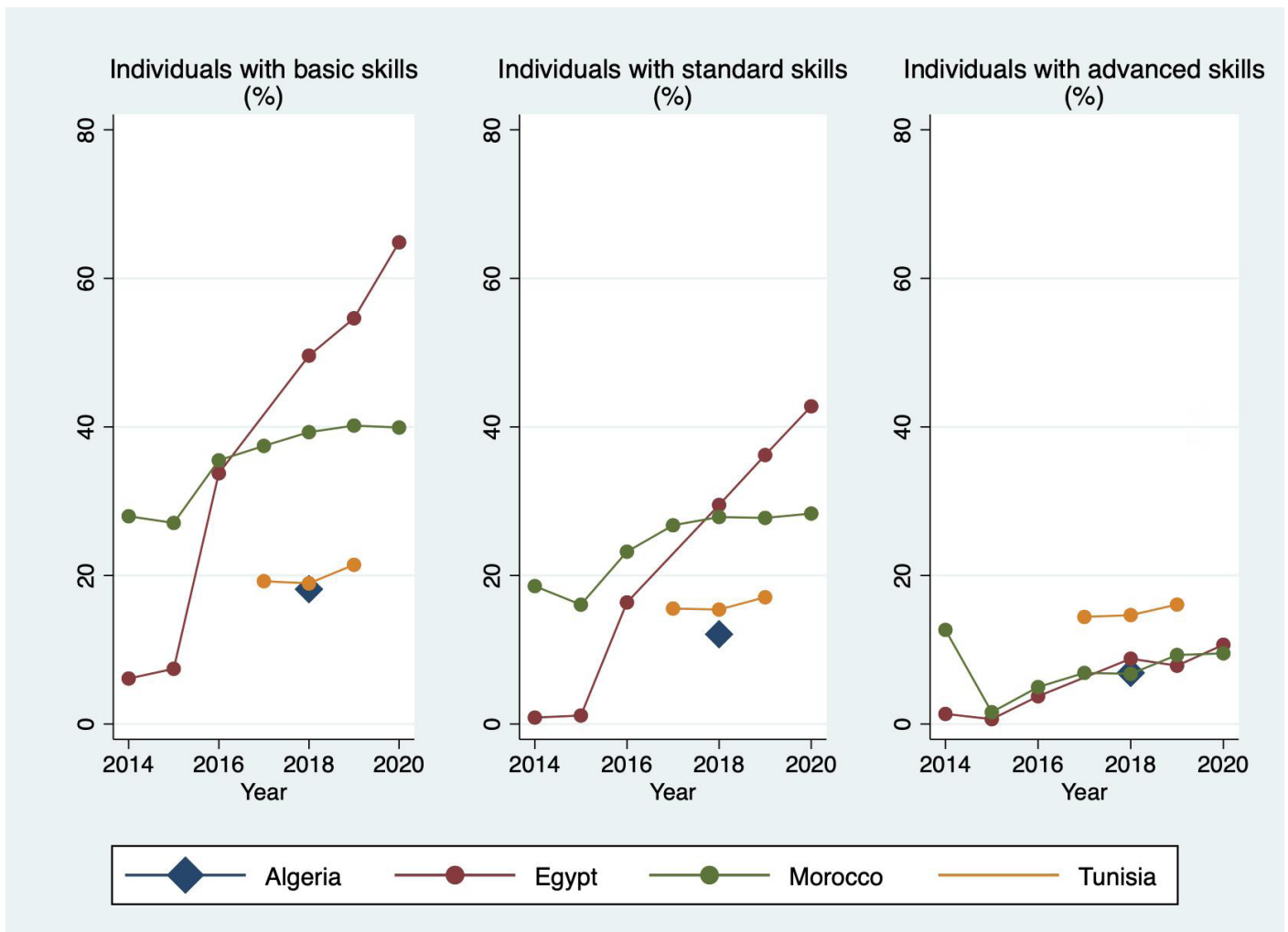
Source: ITU, World Telecommunication/ICT Indicators Database, January 2022

Third, **phase 3 (2019-2022) is largely governed by adaptation attempts, by both the EU and North Africa, to a new normal shaped by the COVID-19 pandemic, which gave rise to global nationalism** due to a new focus on borders, deglobalization and politics of fear.[67] EU instruments during 2019-2022 were supported by a relatively limited EU budgetary financial envelope due to the repercussions of the pandemic. Importantly, **this phase also marked a move towards the "externalisation" of EU Policies in the Mediterranean at large and, specifically, within** the EU's renewed partnership with the Southern Neighbourhood.[68] "Externalisation" is a term that is used in the literature on EU migration policies, where it refers to *"the shifting of responsibilities to third countries of origin and transit of migrants, as well as to the activities carried out by the EU and the Member States on the territory of third countries aiming to externalise the management of migration"*.[69] Externalisation also applies to the approach the EU adopts for its energy and digital policies, where North African countries, for example, are required

to pay their dues to align with the European model of digital governance, which is in the interest of Europe's digital and technological sovereignty.[70]

Fourth, **unlike the EU's clear geopolitical frame that understands the twin transition in the context of new internal and external challenges, "twin transition" as a framework has not been explicitly advocated by North African national agendas.** Very few official documents hinted at the concept. Interestingly, earlier in the previous phase 3 (2014-2019), a governmental document on Egypt's "Policies of the Communications and Information Technology Sector 2012-2017" discussed **"Green ICT"**, specifically how *"ICT tools could play a significant role in mitigating and adapting the effects of climate change through contributing to solutions for reducing the greenhouse gas emissions caused by other sectors"*.[71] A set of policies were proposed in this regard. Algeria also jointly discussed digital transition and energy transition in an official document, but with no explicit mention of "twin transition". Algeria's former Prime Minister, Abdelaziz Djerad, recalled in 2020 that the government's action plan for the implementation of the President of the Republic's programme places energy transition at the heart of the country's development policies, according to "the triptych of an economic renewal based on food security, the energy transition, and the digital economy".[72] This statement echoed official documents such as that by the Commission for Renewable Energies and Energy Efficiency on Energy Transition in Algeria.[73]

Phase 4 (2022–): Toward a new era?

The focus on geopolitics and energy security as a priority comes back to the fore with Russia's invasion of Ukraine. In the Commission's Communication 'external energy engagement in a changing world' in May 2022, actions to ensure its energy security include diminishing flaring, hydrogen investments, and investments in clean energy. Also in the next two publications, the 'REPower EU Plan' and the 'Africa green energy initiative', green hydrogen is the focus when talking about the Southern Mediterranean. Furthermore, the EU restarted energy dialogues with Algeria and Egypt. The aim is to couple additional

gas supplies from existing and new suppliers with technical assistance to tackle methane leaks and to address venting and flaring with the "you collect, we buy" schemes. **The Commission aims to combine gas cooperation with long-term energy cooperation on hydrogen, renewable gases (including biomethane) and other green energy sources to avoid stranded assets and ensure the green transition. However, how far the gas infrastructure can economically as well as technically be transformed towards green hydrogen infrastructure is, to our knowledge, still not clear.** The EU further focuses on the LNG markets and is willing to engage with partners such as Egypt and Israel. In order to facilitate **imports of 10 million tonnes of hydrogen into the EU**, the Commission will focus on three major hydrogen corridors, one of which is the Southern Mediterranean Green Hydrogen. The first one concluded in the Southern Mediterranean is the EU-Egypt Hydrogen Partnership. The Commission has also launched an EU-Morocco Green Partnership. However, the Commission as well as some member states also started new strategic partnership talks with Algeria, desperately looking for new short-term gas supplies, and including fossil gas in the Green taxonomy. With this top-down approach, often present in a geopolitically insecure environment, the European Commission focuses on well-known technologies and policies.[74] This is to the detriment of the digital aspect where policies and investments to support demand-side management such as energy efficiency and electricity grid transitions have been lacking. It seems that the Commission is crowding out more complex solutions as responses are urgent.[75]

The EU will try to achieve its new REPower EU goals using the same instruments of financial support, assistance, technology transfers, and/or enhanced trade relationships, however, its partners of choice have changed, as well as its rhetoric. It remains that the EU sees methane emissions reduction as a priority. It wants to work together with the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD) and the World Bank to create incentives for the rapid collection of wasted fossil gas, including methane, bundling those losses into products that can be sold to international buyers. However, it is also willing

to invest in new fossil fuel infrastructure. This infrastructure can lock in investments for years or cause stranded assets in third countries. Further, in the REPower-EU plan, the focus is mostly on joined-up energy diplomacy, changing the term from 'Green Deal Diplomacy' used just one year before. However, this entails a long-term risk of the EU losing credibility: from condemning one autocratic regime such as Russia to talking to another, such as Algeria; from using diplomacy to push for the phasing out of fossil fuels subsidies externally to subsidising fossil fuels internally; from the push to phase out the coal use externally to using coal internally; from urging other countries to stop investing in fossil fuel infrastructure, it starts investing in fossil fuel infrastructure, possibly causing a lock-in or stranded assets for North African countries. This may contribute to growing international tensions around sustainable transitions just when greater global action is crucial for meeting IPCC goals.

The Russian invasion of Ukraine has not produced relevant reformulations of the EU's digital policies towards its Southern Neighbourhood yet. However, it is plausible that the escalation of tensions between the EU and the Russian Federation will affect the overall European posture towards North African countries, where the Russian presence has been sensibly growing over the last few years. It is to be expected that the geopolitical frame of EU policies for twin transition in the area, as well as the focus on security issues, will increase in relevance, as already testified by a recent Strategic Foresight Report of the EU Commission.[76] This firmly embedded the twin transition in a framework of a geopolitical shift. Published in late June 2022 with the title "Twinning the green and digital transitions in the new geopolitical context", this Commission's communication identifies as strategic objectives, among others, the need **to strengthen "resilience and open strategic autonomy in sectors critical for the twin transitions in an increasingly unstable geopolitical environment", to "strategically managing critical supplies", to set "standards for greening digitalisation"**, to leverage EU regulatory power to step up green and digital diplomacy, and to promote stronger cybersecurity and data policies. Notwithstanding some mentions of European

values and new megatrends putting democracy under pressure, the relevance of fundamental rights protection and the promotion of political reforms towards democratisation was very limited in the report compared with previous documents on the twin transition. It seems that, after the war in Ukraine, **value chains replaced political values in the Commission's list of priorities**. Stressing these political values would have also created a conflict of interest between the EU and the political leadership in North Africa. To ensure their energy security and digital sovereignty amid the war in Ukraine, EU countries did not mind signing cooperation agreements with some military-led regimes criticised for many human rights violations.

However, at the moment, some relevant initiatives in the digital field urgently adopted by the European Commission to provide Ukraine with support and assistance seem to be promising also for a possible extension to North African countries. Some of these initiatives include the inclusion of the Ukrainian telecommunication regulatory agency in the BEREC, the association of Ukraine to the Digital Europe Programme, and the establishment of a multistakeholder forum for the digital policy dialogue called EUTech4Ukraine Futurium Community. These initiatives represent an interesting pilot that could also be reiterated in North Africa as support to ongoing cooperation policies in the digital field.

As for Africa, it became crystal clear during the current phase (2022-) that the continent (as one bloc) is bearing the biggest burden of the world's climate crisis while contributing the least to it. This understanding has raised the expectations (and disappointment) of African countries regarding the EU's promises towards climate finance.[77] In the view of these countries, the EU promises remain hollow. Zooming in on North Africa, the region accounted for only 1.5% of the world's carbon dioxide (CO_2) emissions in 2018, up from 1.2% in 2010. With 492 million tonnes (Mt) of CO_2, emissions in North Africa are relatively limited but nonetheless growing. There is also now a stronger assertion that clean energy transition in North African countries is achievable but is conditional on further deployment of renewables and, to a greater extent, accelerating improvements

in energy efficiency – an area where the EU could prove to be more helpful for North African countries (Table 1).

Table 1: Selected energy indicators for North Africa

|	Historical figures			Stated policies scenario	
	2000	2010	2018	2030	2040
Renewables					
Total final consumption (Mtoe)	70	113	142	198	238
Share of all renewables in final consumption	7.2%	5.4%	4.3%	5.7%	7.1%
Share of modern renewables in final consumption	3.8%	2.9%	1.9%	5.0%	7.0%
Energy efficiency					
Total energy supply (Mtoe)	102	163	206	274	337
Energy intensity of GDP (toe/USD 1,000 [2015 PPP])	0.083	0.085	0.088	0.074	0.067
Average annual evolution (2000-2010, 2010-2018)		0.3%	0.5%	-1.5%	-0.9%
CO_2 emissions					
Total CO_2 emissions from fuel combustion (Mt)	246	390	492	627	719
Coal	15	14	33	29	26
Oil	151	227	238	311	321
fossil gas	79	148	220	287	372
Power sector	74	133	184	195	215
Final consumption	144	226	280	391	455

Source: International Energy Agency

Notes: Modern renewable energy: renewable energy excluding the traditional use of solid biofuels. North Africa comprises Algeria, Egypt, Libya, Morocco, and Tunisia. PPP = purchasing power parity.

The war in Ukraine has led to geopolitical shifts in Europe, Russia, and Asia, in favour of the African continent in general and the North African region in particular. Moving towards phasing out Russian energy imports, the EU member states were forced to urgently reconsider their supply sources of energy products, mainly oil and gas, and come up with a way out of this severe energy crisis. After hastily exploring some alternatives such as Qatar, the US, and Azerbaijan, it became clear that Algeria would also be a reasonable option. In this regard, Algeria has been the centre of European attention this year as never before. This is evident by the large number of EU leaders and officials lately visiting Algeria. Italy reached out to Algeria early. The Italian Prime Minister Mario Draghi visited Algeria on 11 April 2022 to finalise a major €4 billion energy deal. The Italian visit was in the context of a **"broader energy collaboration"** focusing not only on fossil gas but also "hopefully" on the "procurement of green hydrogen, as well as solar, wind, and geothermal energy". French President Emmanuel Macron later visited Algeria on 25 August 2022 in the context of a **"declaration for a renewed partnership"** after five years of an anxious relationship. For a fiscally distressed country, as the saying goes, **"business is business"**. But a typical person, not to mention Algeria's public opinion, recognises that a new era in Algeria-EU relations cannot suddenly and smoothly be opened. Unlike the case with the Italian visit, this is the President who made the statement "Was there an Algerian nation before French colonisation? That's the question" in Paris on 30 September 2021.[78] The President of the European Council Charles Michel visited Algeria later on 5 September 2022, and stated that "Given the international circumstances that we are all aware of, **energy cooperation** is obviously essential, and we see Algeria as a reliable, loyal, and committed partner in the field of energy cooperation". However, there has not been much interest in other fields that can structurally benefit the Algerian side. One example is renegotiating the EU-Algeria Association Agreement.[79]

"Energy gained more traction than digital policy in light of the ongoing war in Ukraine."

Renewable energy has typically been mentioned hand-in-hand with fossil fuels by the EU member states leaders whenever they are exploring new energy deals with African countries, but we will see later how far these "renewable energy" goals are fulfilled. Figure 3 shows that while renewable energy capacity and generation are rising in North Africa, renewables still account for a small part of the region's energy mix. Renewables accounted for 0.2%, 5.3%, 10.7%, and 12.2% of final energy consumption in Algeria, Egypt, Morocco, and Tunisia, respectively, in 2019. These figures represent 63-ppt, 36-ppt, 30-ppt, and 14-ppt drops in the respective countries compared to the levels observed in 2008. The sharp decline in the share of renewables in Algeria, Egypt, and Morocco over the past decade is attributed to the decreasing use of traditional biomass use in Morocco and the rise in transport demand in Algeria and Egypt. **In a region that is rich in renewable energy resources, notably wind and solar energy, energy supply can be revolutionised not only to provide access to electricity but also to meet broader energy demand in buildings, industry, and in transport.**

Figure 3: Renewable energy consumption (% of total final energy consumption)
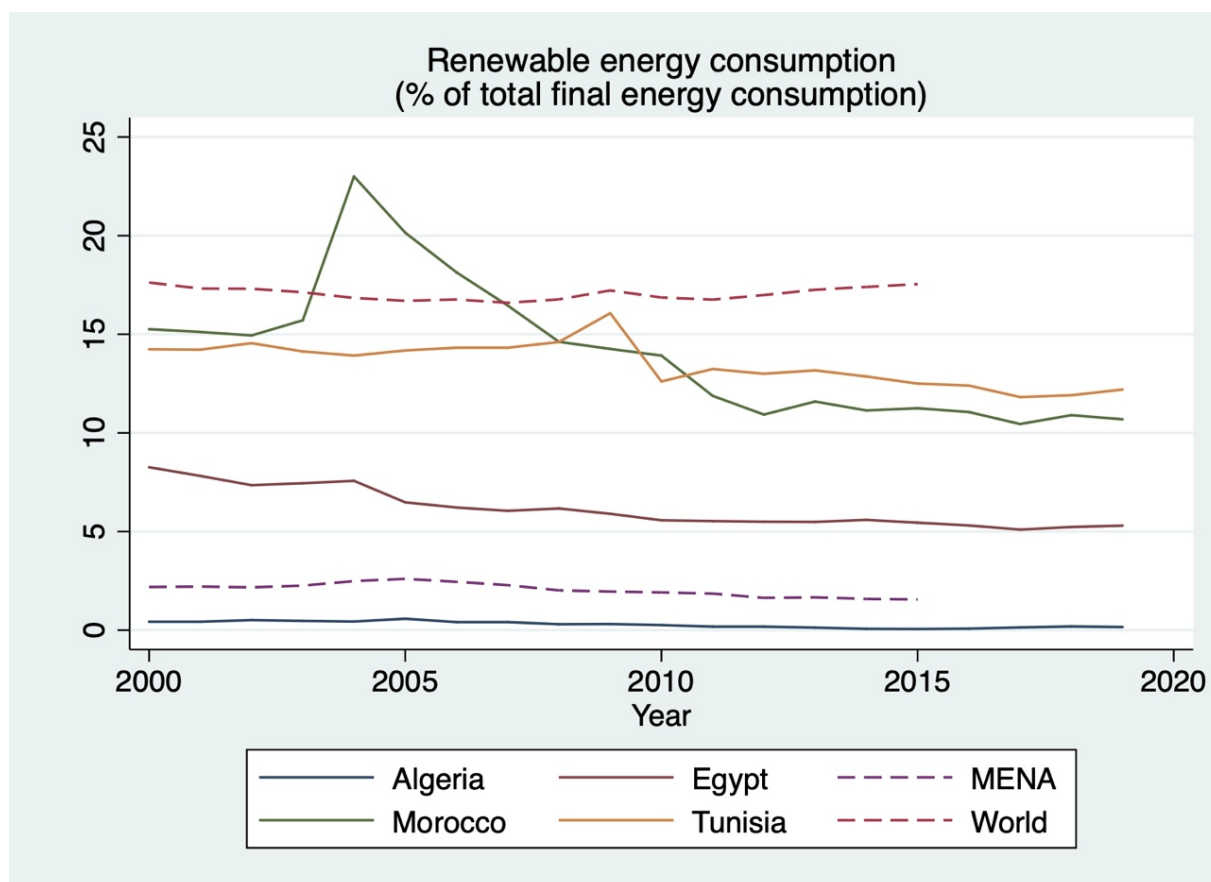
Source: International Energy Agency

Even before the geopolitical shifts, brought about by the war in Ukraine, from phase 2 onwards (2004-), there has been a growing realisation on the North African side that the EU development aid is relatively stable. Yet, it is a low and decreasing share of their countries' GDPs. These countries now see those non-EU donors, and non-Western donors more generally, are more decisively willing and able to increase their external funding, be it mobilised for energy transition or digital transition. China has displaced the EU in Africa (and Latin America as well). Russia has similarly displaced the EU in parts of the Middle East. No ambitious EU strategies have been put in place to reverse this.

*"It is important to note that **the nexus between digital and clean energy policies and the "twin transition" framework has not yet been locally grounded in North Africa."***

Finally, it is important to note that **the nexus between digital and clean energy policies and the "twin transition" framework has not yet been locally grounded in North Africa**. Some progress has been *separately* made towards the energy transition and the digital transition, but this progress is not satisfactory, not to mention that it has not been within the "twin transition" framework. On the energy tran-

sition, progress so far has been thanks to the carefully designed, but not necessarily carefully executed, renewable energy and energy efficiency/energy saving national plans over the past phases (especially 2014-).[80] But despite some positive signals on renewables, progress on energy efficiency has been mostly stagnant in North Africa. Global primary energy intensity - the global proxy for improvements in energy efficiency - has been improving since 2000, albeit, in recent years, at a slower pace. However, in some countries in North Africa, such as Algeria, en-

ergy intensity is increasing (by 10% between 2016 and 2019). Morocco has similarly experienced a 5% increase in energy intensity between 2018 and 2019. Egypt and Tunisia performed better (Figure 4). **Improved energy efficiency is essential to North African countries' clean energy transitions, demanding further dedicated efforts to implement sectoral energy efficiency policies, with many missed-to-date "low-hanging fruits" in industry, construction, and transport sectors.**

Figure 4: Energy intensity efficiency
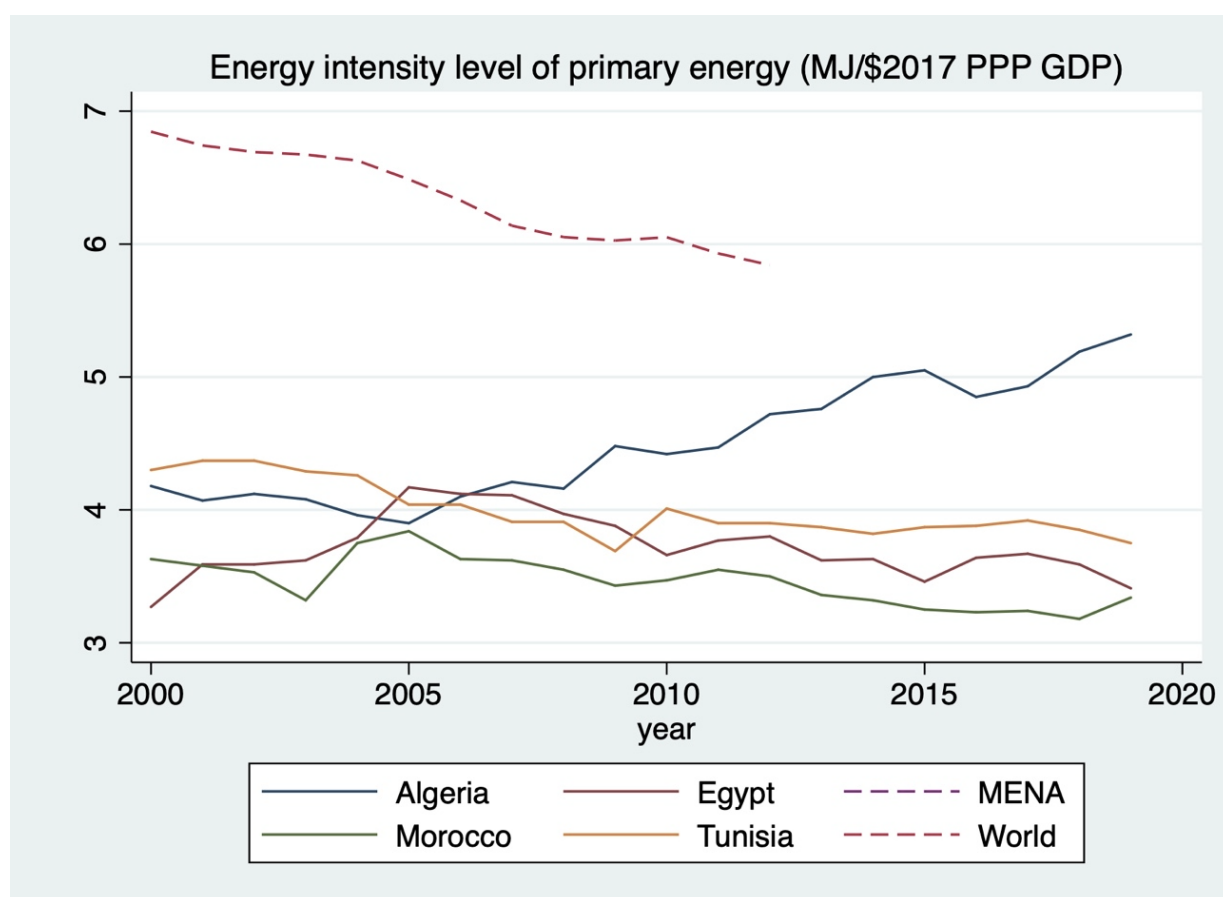
Source: World Development Indicators

On the North African digital front, strengthening the transition enablers would require relatively longer-term investments, which the political leadership and the European financial institutions can be more reluctant to do. North Africa suffers from "fiscal myopia", where governments typically find it more convenient to focus on spending that generates short-term effects or "quick wins" rather than long-term social gains. Following the previous digital transition enablers' discussion, which supports this argument, it also appears that insufficient investments have been allocated to strengthen network readiness which remains poor in North Africa. Overall, Egypt, Morocco, and Tunisia are placed in the third lowest quartile and Algeria in the fourth lowest quartile of network readiness as measured by the Network Readiness Index 2021. These rankings reflect a lower-than-global-average performance in terms of technology (access, content, and future technologies), people (individuals, businesses, and governments), governance (trust, regulation, and inclusion), and impact (economy, quality of life, and SDG contribution) (Table 2).

Egypt's ranking can be mainly attributed to weaknesses related to governance (online access to financial accounts, internet shopping, regulatory quality, and socio-economic gap in the use of digital payments); Algeria to weaknesses related to governance (regulatory quality and e-participation) and impact (high-tech exports); Morocco to weaknesses related to people (professionals) and governance (online access to financial account, internet shopping, socio-economic gap in use of digital payments, and rural gap in use of digital payments); and Tunisia to weaknesses related to governance (socio-economic gap in use of digital payments, gender gap in internet use, and rural gap in use of digital payments) (Table 3).

Besides poor network readiness, according to Cable.co.uk, broadband speed in North Africa is very slow (less than 20 Mbps): Algeria (6.27 Mbps, ranked 179 out of 220 countries), Egypt (7.81 Mbps, ranked 170), Morocco (13.03 Mbps, ranked 133), and Tunisia (8.32 Mbps, ranked 167).[81] These very slow network speeds further indicate that the four countries still suffer from underdeveloped network infrastructure. But, interestingly, despite poor network readiness and very slow broadband speed, internet uptake has accelerated in North Africa, jumping by 110 ppt, 112 ppt, 47 ppt, and 57 ppt in Algeria, Egypt, Morocco, and Tunisia, respectively, during 2014-2020, and is generally higher than the global average. About 63%, 72%, 84%, and 72% of the population in Algeria, Egypt, Morocco, and Tunisia are now using the internet (2020 figures); the global average stood at 63% in 2021. Internet use has also moved closer to gender parity in North Africa. This accelerated internet uptake reflects great demand by North African populations, which can be utilised to promote the uptake of digital services among these populations.

Table 2: The Network Readiness Index of selected African countries, 2021

Country	Score	Rank (out of 130 economies)	Technology	People	Governance	Impact
Egypt	47.56	77	42.49	45.54	46.86	55.36
Morocco	46.06	81	43.06	41.54	44.84	54.80
Tunisia	44.33	87	39.24	45.46	44.15	48.48
Algeria	38.93	100	36.88	40.61	35.20	43.02

Source: Network Readiness Index Database, Portulans Institute, 2021

Table 3: Sub-pillars rankings of the Network Readiness Index of selected African countries, 2021

Pillar/Sub-pillar	Egypt		Morocco		Tunisia		Algeria	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Technology	**72**	**42.49**	**69**	**43.06**	**81**	**39.24**	**90**	**36.88**
Access	66	65.94	65	65.95	86	54.48	81	57.34
Content	71	34.36	81	32.10	80	32.22	93	26.14
Future technologies	89	27.15	71	31.12	72	31.01	88	27.16
People	**75**	**45.54**	**88**	**41.54**	**76**	**45.46**	**89**	**40.61**
Individuals	80	58.24	86	55.44	92	53.97	88	55.17
Businesses	85	33.11	87	32.65	71	35.80	106	26.66
Governments	60	45.28	86	36.53	56	46.61	76	40.00
Governance	**90**	**46.86**	**97**	**44.84**	**98**	**44.15**	**118**	**35.20**
Trust	88	33.00	83	34.06	73	37.14	117	17.84
Regulation	95	54.32	64	64.59	96	53.95	116	42.02
Inclusion	83	53.24	118	35.86	107	41.36	102	45.72
Impact	**62**	**55.36**	**64**	**54.80**	**88**	**48.48**	**101**	**43.02**
Economy	53	43.00	47	44.09	84	31.90	103	24.91
Quality of life	91	59.87	95	59.10	93	59.36	106	50.42
SDG contribution	60	63.20	69	61.21	90	54.20	93	53.72

Source: Network Readiness Index Database, Portulans Institute, 2021

CONCLUSION AND RECOMMENDATIONS: ENHANCING THE TWIN TRANSITION

"The digital and clean energy transitions provide the proverbial fertile ground upon which the relationships between the European Union and North African countries can take root."

Both policy fields offer opportunities for regional cooperation and win-win situations, although this requires a political commitment to joint initiatives and coordination. Moreover, both transitions imply robust institutional mechanisms and policy instruments for the governance of transnational processes and cannot be effectively governed only through national legislation or by single national authorities acting in isolation from each other. Furthermore, the economic, political and social impacts of the digital and clean energy transitions cannot be insulated in specific geographical areas as they rapidly acquire global reach.

Since the EU and North Africa, for historical, geographic and economic reasons, are mutually dependent, the twin transition on both Mediterranean shores is an opportunity to jointly tackle common challenges and benefit from opportunities. Several differences are still in place between the two partner sides, especially in terms of political values and geopolitical postures. However, working on these diversities, and even valorising them on the basis of mutual understanding, could provide a viable solution to the manifold common problems afflicting the Mediterranean area, as well as a way to institutionalise and implement innovative forms of regional cooperation in many other policy fields. However, there are several conditions required to make the twin transition project work as an effective common platform between the EU and North Africa. These conditions are addressed by the following policy recommendations.

1. **EU institutions should make efforts to raise awareness in North African countries about the nexus between digital and clean energy policies.** Digitalisation can help the EU, as well as Northern African countries, achieve energy efficiency reductions through demand side management measures for example,

as this is a win-win solution, provided that digital technologies themselves undergo a greening process aimed at reducing energy consumption, powering their infrastructure with clean energy, promoting circular economy initiatives in the IT devices sector, and dealing with electric and electronic waste in more effective ways than the current ones. Paired with the energy efficiency measures, a subsidy reform away from fossil fuels should be accelerated taking into account necessary support for the poorest.

2. **The twin transition project implies momentous transformations that require a higher level of cooperation between partner countries.** This entails the need to establish stable and effective ways to cooperate and coordinate initiatives, from policy elaboration to implementation and evaluation. The challenges brought up by the twin transition cannot be addressed by unidirectional and top-down approaches that have often informed the EU neighbourhood policies in the energy and digital sectors.

3. **EU institutions should be more cautious in promoting a geopolitical frame for the digital transition in the Southern neighbourhood and focusing exclusively on security needs.** This implies more careful policies for the export of electronic surveillance technologies, as well as a better framework to promote decentralising and generative technologies that will empower the people, besides the governments. North African countries paying attention to cybersecurity issues is positive and important. However, there is a risk linked to the securitization of digital networks in the area, which becomes even more evident when considering the absence of references to fundamental rights protection in the North African national digital strategies. Further, the EU should make sure that new concepts and policy imperatives such as "technological sovereignty", "digital sovereignty" and "open strategic autonomy" are clear to its North African partners and

can be inclusive enough to be shared and accepted in the region.

4. In line with its long-advocated values, **the EU should keep on promoting political reforms aiming at democratisation and fundamental rights protection in its cooperation with the Southern Neighbourhood. I**t seems that, after the war in Ukraine, value chains replaced political values in the Commission's list of priorities. From condemning one autocratic regime, such as Russia, the EU went talking to another, for example, Algeria. The EU should walk the talk and be consistent in its approach.

5. **The EU should avoid taking short-term measures such as investing in new fossil fuel infrastructure. This could cause lock-in effects in its neighbourhood for up to 40 years.**[82] To stay within a 1.5ºC carbon budget (50% probability) implies leaving almost 40% of 'developed reserves' of fossil fuels unextracted.[83] Plans to invest in **'you collect, we buy'** schemes should be stimulated in the fossil gas exporting countries. Further, the energy transition should be looked at from a just systems perspective.

6. **EU institutions have to avoid using the renewable energy resources from its neighbourhood for hydrogen as long as the neighbourhoods' own renewable energy needs are not fulfilled** (SDG 7 'access to clean energy sources for all'). Further, next to the ethics behind it, it is also a more efficient use of the available renewable energy resources while exporting the remaining fossil gas. **Access to capital while ensuring the right investment framework is present is essential to achieve this.**

7. **EU institutions should strengthen innovation ecosystems and digital capability and skills, requiring relatively longer-term investments, in the Southern Neighbourhood, to reach the ultimate goal of a just EU-Southern Neighbourhood partnership with regard to the digital transition.** This way the Southern Neighbourhood countries will be able to reap the benefits of "the full EU toolbox and the ground-breaking opportunities of the twin green and digital transitions" that the New Agenda for the Mediterranean draws on.

"The project of a twin transition in the Mediterranean can succeed on the condition that it is able to reshape the relationships between the EU and North Africa on a more just and sustainable basis."

This entails an accurate evaluation of needs, interests and capabilities on both the shores of the Mediterranean, as well as a focus on essential enablers of the twin transition, without which even the best-designed toolbox would fail. The challenges to be faced for the realisation of the twin transition project are arduous and rooted in old and new differences, inequalities and tensions. These will require political determination and effective cooperation to be overcome.

ENDNOTES,
BIBLIOGRAPHY,
AUTHORS,
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ENDNOTES

1   European Commission. (2020) A New Industrial Strategy for Europe.

2   Ibid.

3   European Commission and HR/VP. (2021) Renewed partnership with the Southern Neighbourhood: A new Agenda for the Mediterranean.

4   By 'geopoliticisation' we mean the reframing of policy problems from the perspective of state rivalry and competition over resources.

5   Morata F. and I. S. Sandoval. (2012) *European Energy Policy: An Environmental Approach*. (Cheltenham: Edward Elgar).

6   European Commission. (2003) Wider Europe - Neighbourhood: A New Framework for Relations with our Eastern and Southern Neighbours.

7   Ibid.

8   European Union. (2004) European Neighbourhood Policy.

9   European Commission. (2005) An international perspective for a global information society. https://ec.europa.eu/information_society/doc/factsheets/025-global-info-society.pdf

10   Now the Directorate-General for Communications, Networks, Content and Technology (DG Connect).

11   European Commission: DG Information Society. (2005) An international perspective for a global information society.

12   Euro-Mediterranean Information Society. EUMEDIS – information and communication technologies. https://south.euneighbours.eu/project/eumedis-information-and-communication-technologies/

13   European Parliament, Directorate General for Research. (2001) Developing Countries and the ICT Revolution. Working paper.

14   The top-down approach is defined by the European Parliament study as related to the "typical of large international organisations (e.g., World Bank, ITU, UNDP, G8 …), and results in strong influence by national governments on political choices. This approach is necessary to create a favourable environment for the use of ICT and its diffusion."

15   The bottom-up approach is defined by the European Parliament study as "typically adopted by NGOs, which strictly cooperate with local (often non-governmental) entities such as schools, businesses, hospitals,… with the aim of carrying out projects in the field directly impacting on local stakeholders (the poor in particular)."

16   Infocom Technology Inc. (2004) *Egypt Telecommunications Master Plan II Volume 2; Broadband Access Technology & Architecture*. https://pdf.usaid.gov/pdf_docs/Pnacx652.pdf

17   DRN. (2013) Evaluation of the European Union's Support to two European Neighbourhood Policy Regions (East and South). Final Report, vol. 3, pp. 14-18.

18   European Commission. (2006) Strengthening the European Neighbourhood Policy.

19   Medgaz and Galsi.

20   Darbouche H. (2011) "Third Time Lucky? Euro-Mediterranean Energy Cooperation under the Union for the Mediterranean". *Mediterranean Politics*, 16(1): 193-211.

21   Darbouche, H. (2008) "Decoding Algeria's ENP Policy: Differentiation by Other Means?" *Mediterranean Politics*, 13(3): 371-389.

22   Tagliapietra, S. and G. Zachmann. (2016) Energy across the Mediterranean: a call for realism. *Bruegel Policy Brief*. https://www.bruegel.org/policy-brief/energy-across-mediterranean-call-realism

23   Goldthau, A. and B. Sovacool. (2012) "The uniqueness of the energy security, justice, and governance problem". *Energy Policy*, 41(C): 232-240.

24   Thaler P. and V. Pakalkaite. (2021) "Governance through real-time compliance: the supranationalisation of European external energy policy". *Journal of European Public Policy*, 28(2): 208-228.

25   European Investment Bank. (2021) "The rise of Africa's digital economy: the European Investment Bank's activities to support Africa's transition to a digital economy". DOI: 10.2867/135126

26   European Commission. (2011) A new response to a changing Neighbourhood.

27   European Commission. (2011) Energy Roadmap 2050.

28   European Commission. (2014) European Energy Security Strategy.

29   European Commission. (2015) A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy.

30   Council of the European Union. (2015) Council conclusions on Energy Diplomacy, p3.

31   Council of the European Union. (2015), p 6.

32   European Parliament, Directorate General for External Policies. (2017) "Energy: a shaping factor for regional stability in the Eastern Mediterranean?" https://www.europarl.europa.eu/thinktank/en/document/EXPO_STU(2017)578044

33   European Commission. (2015) Review of the European Neighbourhood Policy.

34   2030 Egypt Vision. *The Sustainable Development Strategy (SDS): Egypt Vision 2030?* https://arabdevelopmentportal.com/sites/default/files/publication/sds_egypt_vision_2030.pdf

35   Arab Republic of Egypt, Ministry of Communications and Information Technology. (2013) *National ICT Strategy 2012-2017.* https://mcit.gov.eg/Upcont/Documents/ICT%20Strategy%202012-2017.pdf

36   The Ministry of Industry, Investment, Trade and Digital Economy. (2017) *Maroc Digital 2020.*

37   Oxford Business Group. (2015) *The Report: Morocco 2015.*

38   Republic of Tunisia, Ministry of Communication Technologies. (2016) *Digital Tunisia 2018.* http://www.cni.tn/index.php/en/repository/National-Strategic-Plan/Digital-Tunisia-2018/

39   Republic of Tunisia, Ministry of Communication Technologies. (2017) *Digital Tunisia 2020.* http://www.tunisieindustrie.nat.tn/fr/download/news/2017/smart/11.pdf

40   "Digital Tunisia 2020: why are projects struggling to see the light of day?" *The Maghreb Economist*, 30 May 2020. https://www.leconomistemaghrebin.com/2020/05/30/tunisie-digitale-2020-pourquoi-les-projets-peinent-a-voir-le-jour/

41   "Tunisia Digital Summit: National Digital Transformation Strategy for 2021- 2025 period". *Tunisia Monitor Online*, 29 October 2020. https://www.tunisianmonitoronline.com/index.php/2020/10/29/tunisia-digital-summit-national-digital-transformation-strategy-for-2021-2025-period/

42   People's Democratic Republic of Algeria, Ministry of Post and Telecommunications. "The Action plan of 2015-2019". https://www.mpt.gov.dz/en/content/action-plan-2015-2019

43   "Algeria is capable of making the digital transition". *Youth of Algeria*, 6 June, 2022. https://jeunessedalgerie.dz/lalgerie-est-capable-doperer-la-transition-numerique/

44   "The European Fund for Sustainable Development: What's it all about?" *Devex*, 20 October 2017. https://www.devex.com/news/the-european-fund-for-sustainable-development-what-s-it-all-about-91214

45   The European Fund for Sustainable Development. (2021) Operational Report 2020. https://ec.europa.eu/eu-external-investment-plan/sites/default/files/documents/efsdoperational_report_en.pdf

46   Goslinga, M. (2017) "How European spy technology falls into the wrong hands". *The Correspondent*. 23 February. https://thecorrespondent.com/6257/how-european-spy-technology-falls-into-the-wrong-hands/2168866237604-51234153

47   European Commission. (2019) Setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

48   European Commission. (2019) Report from the Commission to the European Parliament and the Council on the implementation of Regulation.

49   TIMEP (The Tahir Institute for Middle East Policy). (2019) Export of Surveillance to MENA Countries, https://timep.org/reports-briefings/timep-brief-export-of-surveillance-to-mena-countries/

50   Ministry of Post and Telecommunications. The Action plan of 2015-2019.

51   Republique Algerienne Democratique et Populaire, Services du Premier Ministre. (2017) Plan d'action du gouvernement pour la mise en œuvre du programme du president de la republique. https://andp.unescwa.org/sites/default/files/2020-09/Plan%20d%27Action%20du%20Gouvernement%20pour%20la%20Mise%20en%20%C5%92uvre%20du%20Programme%20du%20President%20de%20la%20Republique%202017.pdf

52   AU-EU Digital Economy Task Force (AU-EU DETF). New Africa-Europe Digital Economy Partnership. https://digital-strategy.ec.europa.eu/en/library/new-africa-europe-digital-economy-partnership-report-eu-au-digital-economy-task-force

53   European Commission. (2020b) Shaping Europe's Digital Future.

54   Ibid.

55   Ibid.

56   In 2012, the EU had adopted a Directive (Directive 2012/19/EU) on electrical and electronic waste, which also introduced limitations to e-waste exports. However, as reported by the European Environmental Bureau (EBB), "24 out of 27 member states fail to

collect sufficient WEEE (Waste Electrical and Electronic Equipment) separately". The EU has never improved the enforcement of its WEEE rules (for example, through a new regulation), nor has integrated them into its own digital policies as well as in digital neighbourhood partnerships.

57   Ibid.

58   Ibid.

59   European Commission. (2020)

60   European Commission and HR/VP. (2020) Towards a comprehensive Strategy with Africa.

61   European Commission and HR/VP. (2021) Renewed partnership with the Southern Neighbourhood: A new Agenda for the Mediterranean.

62   European Commission and HR/VP. (2021b) The Global Gateway.

63   Ibid.

64   Ibid.

65   European Commission. (2022) EU-Africa: Global Gateway Investment Package.

66   The cost of connecting through mobile broadband is relatively low, however, in North Africa.

67   Bieber, F. (2022) "Global Nationalism in Times of the COVID-19 Pandemic". *Nationalities Papers*, 50(1): 13-25. DOI: 10.1017/nps.2020.35

68   Lannon, E. (2021). "The externalisation of EU policies in the renewed partnership with the Southern Neighbourhood: the potential impact of the New Mediterranean Agenda". In S. Florensa (ed), *IEMed Mediterranean Yearbook 2021 (Barcelona: IEMed), pp. 17–23.*

69   Santos Vara, J. and L. Pascual Matellán. (2021) "The Externalisation of EU Migration Policies: The Implications Arising from the Transfer of Responsibilities to Third Countries", in W.T. Douma, C. Eckes, P. Van Elsuwege, et al. (eds) *The Evolving Nature of EU External Relations Law* (The Hague, T.M.C. Asser Press).

70   Renda, A. (2022) "Beyond the Brussels Effect: Leveraging Digital Regulation for Strategic Autonomy" (European Strategic Autonomy Series), Policy Brief, Foundation for European Progressive Studies. https://feps-europe.eu/publication/853-leveraging-digital-regulation-for-strategic-autonomy/

71   Arab Republic of Egypt, Ministry of Communications and Information Technology. (2013) Policies of the Communications and Information Technology Sector 2012-2017. https://mcit.gov.eg/en/Publication/Publication_Summary/663

72   "Government determined to establish sustainable energy plan, says Djerad". *Algerian Press Service*, 28 November 2020. https://www.aps.dz/en/economy/36716-government-determined-to-establish-sustainable-energy-plan-says-djerad

73   CEREFE. (2020) «Transition Energétique en Algérie : Leçons, Etat des Lieux et Perspectives pour un Développement Accéléré des Energies Renouvelables» Commissariat aux Energies Renouvelables et à l'Efficacité Energétique, Premier Ministre, Alger.

74   Patterson, J., C. Wyborn, L. Westman, et al. (2021) "The political effects of emergency frames in sustainability". *Nature Sustainability*, 4: 841–850. DOI: 10.1038/s41893-021-00749-9

75   Kuzemko, C., M. Blondeel, C. Dupont et al. (2022) "Russia's war on Ukraine, European energy policy responses & implications for sustainable transformations". *Energy Research & Social Science.*

76   European Commission. (2022b)

77   Timperley, J. (2021) "The broken $100-billion promise of climate finance — and how to fix it". *Nature*, 598(7881): 400–402. DOI: 10.1038/d41586-021-02846-3

78   Bobin, F. and O. Faye. (2022) "Macron and Algeria: Five years of a troubled relationship". *Le Monde*, 25 August. https://www.lemonde.fr/en/le-monde-africa/article/2022/08/25/macron-and-algeria-five-years-of-a-troubled-relationship_5994733_124.html

79   https://www.consilium.europa.eu/en/documents-publications/treaties-agreements/agreement/?id=2002036

80   For example, Algeria has adopted a Renewable Energy and Energy Efficiency Development Plan 2015-2030 since 2015, launched an energy transition plan as part of its 2020 Five Year Development Plan, and introduced a National Transition Program 2020 in 2021. Egypt launched its Sustainable Development Strategy (SDS) "Egypt Vision 2030" in 2016 and the Egypt National Climate Change Strategy (NCCS) 2050 in 2021. Morocco launched its National Strategy for Sustainable Development 2030 in 2017, with its National Energy Strategy being in force since 2009. Tunisia launched its Strategic Development Plan (SDP) 2016-2020 in 2016, announced its energy transition strategy in 2014, finalised its Energy 2030 Strategy in 2016, and, most recently, introduced a slightly updated Renewable Energy Program (2017-2022).

81   https://www.cable.co.uk/broadband/speed/worldwide-speed-league/

82   Oberthür, S. and C. Dupont. (eds.) (2015) *Decarbonization in the European Union: Internal policies and external strategies.* (Springer).

83   Trout, K., G. Muttitt, D. Lafleur et al. (2022) "Existing fossil fuel extraction would warm the world beyond 1.5 °C". *Environmental Research Letters* 17(6): 1-12. DOI 10.1088/1748-9326/ac6228

BIBLIOGRAPHY

African Union-European Union Summit. (2017) Investing in Youth for Accelerated Inclusive Growth and Sustainable Development.

Bieber, F. (2022) "Global Nationalism in Times of the COVID-19 Pandemic". *Nationalities Papers*, 50(1): 13-25. DOI: 10.1017/nps.2020.35

Bobin, F. and O. Faye. (2022) "Macron and Algeria: Five years of a troubled relationship". *Le Monde*, 25 August.

Council of the European Union. (2015) Council conclusions on Energy Diplomacy.

Council of the European Union. (2007) The Africa-Eu Strategic Partnership: A Joint Africa-EU Strategy.

Darbouche, H. (2008) "Decoding Algeria's ENP Policy: Differentiation by Other Means?" *Mediterranean Politics*, 13(3): 371-389.

Darbouche H. (2011) "Third Time Lucky? Euro-Mediterranean Energy Cooperation under the Union for the Mediterranean". Mediterranean Politics, 16(1): 193-211.

DRN. (2013) Evaluation of the European Union's Support to two European Neighbourhood Policy Regions (East and South). Final Report, vol. 3.

European Commission. (2003) Wider Europe - Neighbourhood: A New Framework for Relations with our Eastern and Southern Neighbours.

European Commission. (2004) European Neighbourhood Policy.

European Commission. (2005) An international perspective for a global information society.

European Commission. (2006) Strengthening the European Neighbourhood Policy.

European Commission. (2011) A new response to a changing Neighbourhood.

European Commission. (2011) Energy Roadmap 2050.

European Commission. (2014) European Energy Security Strategy.

European Commission. (2014) European Security Strategy.

European Commission. (2015) Review of the European Neighbourhood Policy

European Commission. (2015) A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy.

European Commission. (2017) Digital4Development: mainstreaming digital technologies and services into EU Development Policy.

European Commission. (2019) Report from the Commission to the European Parliament and the Council on the implementation of Regulation.

European Commission. (2019) The European Green Deal.

European Commission. (2020) A New Industrial Strategy for Europe.

European Commission. (2020b) Shaping Europe's Digital Future.

European Commission. (2022) EU-Africa: Global Gateway Investment Package.

European Commission. (2022b) Twinning the green and digital transitions in the new geopolitical context.

European Commission and HR/VP. (2020) Towards a comprehensive Strategy with Africa.

European Commission and HR/VP. (2021) Renewed partnership with the Southern Neighbourhood: A new Agenda for the Mediterranean.

European Commission and HR/VP. (2021b) The Global Gateway.

European Commission and African Union Commission. (2019) New Africa-Europe Digital Economy Partnership.

European Commission: DG Information Society. (2005) An international perspective for a global information society.

European Investment Bank. (2021) The rise of Africa's digital economy: the European Investment Bank's activities to support Africa's transition to a digital economy. DOI: 10.2867/135126

European Parliament, Directorate General for External Policies. (2017) Energy: a shaping factor for regional stability in the Eastern Mediterranean? https://www.europarl.europa.eu/thinktank/en/document/EXPO_STU(2017)578044

European Parliament, Directorate General for Research. (2001) Developing Countries and the ICT Revolution. Working paper.

European Union External Action Service. (2016) Global Strategy for the European Union's Foreign and Security Policy.

Goldthau, A. and B. Sovacool. (2012) "The uniqueness of the energy security, justice, and governance problem". *Energy Policy*, 41(C): 232-240.

Goslinga, M. (2017) "How European spy technology falls into the wrong hands". *The Correspondent*. 23 February.

Herranz-Surrallés, A. (2015) "European External Energy Policy: Governance, Diplomacy and Sustainability", in A.K. Aarstad, E. Drieskens, K.E Jørgensen, et al. (eds.) *Sage Handbook of European Foreign Policy* (London: Sage).

Kuzemko, C., M. Blondeel, C. Dupont et al. (2022) "Russia's war on Ukraine, European energy policy responses & implications for sustainable transformations". *Energy Research & Social Science*.

Lannon, E. (2021). "The externalisation of EU policies in the renewed partnership with the Southern Neighbourhood: the potential impact of the New Mediterranean Agenda". In S. Florensa (ed), *IEMed Mediterranean Yearbook 2021* (Barcelona: IEMed), pp. 17–23.

Morata F. and I. S. Sandoval. (2012) *European Energy Policy: An Environmental Approach*. (Cheltenham: Edward Elgar).

Oberthür, S. and C. Dupont. (eds.) (2015) *Decarbonization in the European Union: Internal policies and external strategies*. (Springer).

Patterson, J., C. Wyborn, L. Westman, et al. (2021) "The political effects of emergency frames in sustainability". *Nature Sustainability*, 4: 841–850. DOI: 10.1038/s41893-021-00749-9

Renda, A. (2022) "Beyond the Brussels Effect: Leveraging Digital Regulation for Strategic Autonomy" (European Strategic Autonomy Series), Policy Brief, Foundation for European Progressive Studies. https://feps-europe.eu/publication/853-leveraging-digital-regulation-for-strategic-autonomy/

Santos Vara, J. and L. Pascual Matellán. (2021) "The Externalisation of EU Migration Policies: The Implications Arising from the Transfer of Responsibilities to Third Countries", in W.T. Douma, C. Eckes, P. Van Elsuwege, et al. (eds) *The Evolving*

Nature of EU External Relations Law (The Hague, T.M.C. Asser Press).

Tagliapietra, S. and G. Zachmann. (2016) Energy across the Mediterranean: a call for realism. Bruegel Policy Brief. https://www.bruegel.org/policy-brief/energy-across-mediterranean-call-realism

Thaler P. and V. Pakalkaite. (2021) "Governance through real-time compliance: the supranationalisation of European external energy policy". *Journal of European Public Policy*, 28(2): 208-228.

TIMEP (The Tahir Institute for Middle East Policy). (2019) Export of Surveillance to MENA Countries, https://timep.org/reports-briefings/timep-brief-export-of-surveillance-to-mena-countries/

Timperley, J. (2021) "The broken $100-billion promise of climate finance — and how to fix it". *Nature*, 598(7881): 400-402. DOI: 10.1038/d41586-021-02846-3

Trout, K., G. Muttitt, D. Lafleur et al. (2022) "Existing fossil fuel extraction would warm the world beyond 1.5 °C". Environmental Research Letters 17(6): 1-12. DOI: 10.1088/1748-9326/ac6228

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