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From External Governance to Energy Diplomacy: The European Pursuit of Green Hydrogen

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Abstract

Following the Russian invasion of Ukraine, the European Union (EU) and its Member States are faced with the double imperative of ensuring energy security whilst reaching decarbonisation goals. A number of authors have suggested that we are observing a geopolitical Commission that is shifting to more active 'energy diplomacy', as opposed to its traditional 'external energy governance' based on the EU's liberal and regulatory roots. However, this may be challenged by Member States that have their own views when it comes to hydrogen exports and, more generally, may oppose granting the Commission further capabilities in the international arena. Our paper examines whether Europe's role in international energy politics is indeed changing, using the case of green hydrogen in Algeria, Morocco and Mauritania. In Algeria and Morocco, we find that Germany has shifted from promoting green norms to seeking green energy supplies for its industry, whilst the EU plays only a supporting role. However, the EU is able to take the lead in promoting hydrogen in Mauritania, bringing countries that are skeptical of hydrogen imports, like Spain and France, under the Team Europe umbrella. This indicates that the EU is indeed engaging in energy diplomacy but does so only under specific (geo)political circumstances within partner countries.

Keywords: economy/economics; external economic relations; foreign policy; international political; international relations; non-economic external relations

Introduction

In the span of a few years, Europe has been rocked by a series of political and economic upheavals. Climate change, concerns about supply chain vulnerabilities, increased geo-economic competition and the Russian invasion of Ukraine and its impact on energy markets have all presented challenges for the European Union (EU) and its Member States (MSs). Amongst this turmoil, the EU[1] has pronounced a new approach to international affairs with the advent of a 'geopolitical Commission' and shifted its focus towards strategic partnerships with like-minded countries (Siddi and Prandin, 2023).

This stance is in contrast with earlier accounts of the EU as an actor in the international arena. It has been described as engaging in 'external governance' through functionalist extension, spreading its regulation to other countries (see, amongst others, Abbasov, 2014; Andersen et al., 2016; Damro, 2012; Lavenex, 2014). Whilst in the past years, the EU has attempted to take a more active role in international policies, for example, in the realm of development cooperation, this has met with MS pushback, aligning with

[1]The EU refers to the institutions and initiatives of the EU, including but not limited to the European Commission and those where the Commission plays a leading role such as the European External Action Service (EEAS).

intergovernmentalist theories of integration (Burni et al., 2021; Hodson and Howarth, 2023).

Similar dynamics could be observed in the energy sector. MSs have opposed the Commission's attempts to go beyond external energy governance and negotiate directly with fossil suppliers (Siddi and Kustova, 2021). Instead, they have preferred to deploy their own energy diplomacy to gain access to energy supplies (Goldthau, 2010; Prontera, 2018). However, the key inflection point of the Russian invasion of Ukraine has spurred stronger within-EU cooperation on energy, particularly around gas (Goldthau and Youngs, 2023; Jerzyniak and Herranz-Surrallés, 2024). In addition, initial evidence suggests that the Commission is increasingly signing partnership agreements with countries abroad for gas, hydrogen and critical minerals (Jerzyniak, 2024). Yet there is still little research on how this EU geopolitical turn is affecting its relationships with other countries, particularly those in the Global South (Weinhardt and De Ville, 2024).

This paper therefore asks whether we indeed observe a shift in the EU's role in international politics when it comes to relationships with third countries on the ground and under what conditions it is able to take the lead role in those contexts, taking on roles previously reserved for the MSs themselves. We use the case of hydrogen to explore these dynamics, examining energy engagement by the EU and its MSs in three North African countries: Morocco, Algeria and Mauritania. We focus on green – or 'renewable' as defined in EU policy – hydrogen[2] in particular. Green hydrogen represents a particularly salient case, given its dual climate and energy security imperative and due to the role that Europe plays in creating and shaping international markets. We select our countries of interest due to their excellent material resources for hydrogen production and proximity to Europe, on the one hand, and the differing geopolitical contexts and existing relationships to the EU and its MSs, on the other. We compare how the EU, as represented by the European Commission and the EEAS, and MSs are engaged with these countries on hydrogen, drawing from 40 expert interviews as well as participant observation and document analysis.

Our results show that European energy engagement with North Africa is shifting with the new geopolitical reality. The EU is taking a more active approach towards energy diplomacy. However, its approach is still conditioned by external factors, most notably the existing engagement of MS governments in the selected countries. The EU is relegated to supporting their action if MSs' interests do not align in the country of interest and if there are existing energy initiatives by MSs. In addition, we show that two MSs are particularly active in energy diplomacy: Germany and Italy. For Italy, this is a continuation of its previous approach (Prontera, 2018), but it is a major change for Germany, which was previously focused on spreading pro-renewable energy and climate norms (Quitzow and Thielges, 2020).

The remainder of the paper is structured as follows. Section I traces the trajectory of the EU's role in international (energy) politics, identifying the need for further research on its actions in third countries. Section II presents our research approach and analytical framework for the conditions of EU engagement in energy diplomacy. Section III summarises the EU and key MSs' positions on hydrogen imports, and Section IV looks

[2]'Green' hydrogen or renewable hydrogen is hydrogen made with renewable electricity. We use these terms interchangeably throughout the paper, as partner countries often refer to renewable hydrogen as green.

in depth at how these European actors are engaged in North Africa. Section V discusses our key findings, and the last section concludes.

I. The EU's Geopolitical Turn in Energy Politics

The EU's new approach to international affairs as a self-proclaimed 'geopolitical Commission' has led authors to ask how this is changing the EU's role in the international arena (Siddi and Prandin, 2023). Previous work suggests that the EU has historically been able to exert influence on non-EU countries through its market and regulatory power, where foreign countries choose to adopt EU rules to facilitate access to its market (Austvik, 2018; Damro, 2012; Lavenex, 2014; Lavenex and Schimmelfennig, 2009). This was seen by some as a unique form of governance that represents the extension of functionalist integration beyond EU membership and 'quite distinct from the traditional sphere of foreign policy' (Lavenex, 2014, p. 885).

However, the changing geopolitics – and geopoliticisation – of certain issues may result in changes to the EU's role in the international arena. Authors argue that geopolitical challenges led the EU to attempt deeper integration in the realm of development policy with its Team Europe approach (Burni et al., 2021). The Team Europe approach now plays a central role in the implementation of the EU's Global Gateway strategy, seeking to connect the Neighbourhood, Development and International Cooperation Instrument-Global Europe with joint programming under the umbrella of Team Europe initiatives. As intergovernmentalist scholars might expect, MSs have opposed integration in development cooperation in terms of delegating new powers to the EU; but they are nevertheless active participants within Team Europe, both shaping and being shaped by EU policy (Hodson and Howarth, 2024; Prontera and Quitzow, 2024).

Similar dynamics may be observed in the trajectory of the EU's role in international energy politics. Traditionally, scholars have described the EU as promoting energy market liberalisation externally in the European Neighbourhood (Lavenex, 2004) as well as promoting a liberal regime for investments in upstream oil and gas resources to facilitate competitive markets. The promotion of the Energy Charter Treaty is an example par excellence of this approach. Authors term this influence 'external governance', where the EU promotes the diffusion of its liberal, market-based approach as a means to pursuing its foreign energy policy goals (Abbasov, 2014; Andersen et al., 2016). With the EU's advancing climate agenda, this has also extended to the promotion of clean energy policies. Scholars have identified the EU's role in facilitating the success of the Paris Agreement as the combination of leadership 'by example', in that it demonstrated the successful deployment of renewable energy at home, and leadership as a negotiator in the multilateral United Nations (UN) system (Meckling, 2018). Moreover, it has backed this up with financial support in the European Neighbourhood and the Global South for clean energy investments for local decarbonisation, constituting the largest bilateral donor in the field (Bertheau and Ferrini, 2017).

The EU's traditional approach to external energy governance differs from energy diplomacy as practised by most other states in the energy arena. Energy diplomacy can be defined as using foreign policy to secure access to (fossil) energy supplies (Goldthau, 2010). Studies of energy diplomacy find that countries engage in diplomatic efforts to facilitate energy supply contracts involving their companies, both state-owned

and not (Griffiths, 2019; Lee, 2019). Conversely, energy-producing countries may use diplomacy to access foreign markets and utilise energy as leverage over others, sometimes termed 'energy statecraft' (Krane, 2015; Newnham, 2011; Power et al., 2016). Both the United States and Russia are seen as using their energy resources to influence the choices of other countries in support of their geopolitical goals (Bazilian et al., 2017; Szulecki and Overland, 2023).

A growing awareness of Russia's power in the energy realm led some authors to observe a turn in the EU's understanding of energy, with it being increasingly framed as a security and geopolitical issue (Herranz-Surrallés, 2016; Kuzemko, 2014). Authors also observe the Commission utilising its regulatory power to pursue geopolitical goals in the energy market by selectively applying regulations to target the power of Russian state-controlled firms (Goldthau and Sitter, 2015b). Other authors also suggest that following the initial invasion of Ukraine in 2014, the EU aimed to take a more active role in energy diplomacy but was forced to use a regulatory approach due to MS pushback (Batzella, 2022; Siddi and Kustova, 2021). The Commission also sought to foster greater coordination amongst EU MSs to increase its collective bargaining power in global energy markets with the 'Energy Union', launched in 2014. Initially conceived to increase MS coordination to enable the joint negotiation of gas contracts with Russia, it ended up mainly promoting further integration of European energy markets and decarbonisation of Europe's energy system (Austvik, 2018).

In recent years, however, authors have observed more substantive changes in the role of the EU. Some argue that the EU is developing a new set of capabilities as a 'catalytic state', complementing its regulatory capacities by supporting and facilitating action by energy market actors (Prontera and Quitzow, 2022). In addition, Siddi and Prandin (2023) argue that the EU discourse in energy politics has progressively shifted from a focus on multilateral cooperation and open strategic autonomy to strategic partnerships with 'like-minded' Western and neighbouring countries, with the war in Ukraine strongly accelerating this trend. The REPowerEU plan, which was formulated in direct response to the war, sought to exploit apparent synergies between an increased ambition in clean energy and industrial decarbonisation with energy security. It included targets to reduce energy consumption, boost the deployment of renewable energy and investments in energy infrastructure and diversify energy imports. The latter included both aims to better co-ordinate and secure imports of natural gas and to strongly accelerate the development of both domestic hydrogen production and hydrogen imports (European Commission, 2022c). Following from this, the EU has indeed taken a range of more interventionist measures to address its energy security issues, including the rapid expansion of liquefied natural gas (LNG) import infrastructure, the loosening of state-aid rules to support investments in energy infrastructure, the introduction of requirements for the utilisation of gas storage capacities and a joint gas purchasing mechanism (Goldthau and Youngs, 2023; Quitzow et al., 2023a).

While there is a burgeoning scholarly literature investigating this rapidly changing landscape and the related changes to the EU as a geopolitical actor, this has so far primarily focused on within-EU dynamics and capacities that affect the EU's ability – or lack thereof – to influence external affairs. The ways that the EU's geoeconomic turn influences international politics and developing countries in particular are only beginning to be explored in the academic literature (Weinhardt and De Ville, 2024). An exception is

a recent article by Jerzyniak (2024) that analyses new partnership agreements signed by the Commission, finding a host of new agreements focusing on securing gas supplies and critical minerals as well as the development of hydrogen supply chains. Jerzyniak and Herranz-Surrallés (2024) also assess the cases of hydrogen and gas, suggesting that the EU's power to influence international energy politics depends not only on EU-internal factors but also on external variables, including material variables and the geoeconomic preferences of other global players.

Our research takes this call for a more outward-oriented discussion of the EU as a geopolitical actor as a starting point for our empirical investigation of the EU's engagement in the promotion of renewable hydrogen for import. Renewable hydrogen is interesting as a case because it differs from fossil fuel imports in that there are no competitive markets for the energy carrier: the technology is still developing and it is unlikely to be cheaper than the fossil gas it seeks to replace in the near or medium term (Pepe et al., 2023). Hence, to pursue its aims to import renewable hydrogen, the EU has to not only convince potential exporting countries that hydrogen is a viable solution for the transition to a climate-friendly energy system but also build up trade relations with potential exporters. From a foreign policy perspective, the former goal may lend itself to approaches that align with 'external energy governance' focused on exporting standards and market rules, while the latter may require more active 'energy diplomacy' to secure supplies for Europe.

The rise of hydrogen has been accompanied by academic literature reflecting on its potential geopolitical implications. Some authors suggest that hydrogen could intensify existing rivalries around technology and lead to 'hydrogen diplomacy' as importers seek access to supplies (Van de Graaf et al. 2020). Others suggest that this may create new dependencies between states, highlighting the vulnerability of the EU compared to other major economies (Quitzow and Zabanova, 2025). Recent work on international hydrogen cooperation observes the EU and Germany promoting international hydrogen partnerships with both in close proximity and at great distance from the EU, suggesting that more factors are at play than just the development of bilateral hydrogen trade (Jerzyniak, 2024; Lindner, 2023; Plank et al., 2023; Quitzow and Zabanova, 2024). An analysis of the German hydrogen discourse also finds that strategic cooperation with international partners for geopolitical reasons has grown (Belova et al., 2023). Jerzyniak and Herranz-Surrallés (2024) find that the EU aims to exert structural power in global hydrogen markets.

Despite the academic interest in Europe's geopolitical turn and the geopolitics of hydrogen, there has not yet been in-depth, empirical research on the EU's in-country engagement with potential hydrogen exporters. Our research seeks to close this gap by analyzing EU hydrogen relations with three key potential hydrogen-exporting countries in North Africa: Morocco, Algeria and Mauritania. A comparative analysis of relations between these three countries and Europe can provide important insights into how the EU's changing approach to its external energy relations is conditioned by contexts in partner countries.

II. Research Approach and Analytical Framework

Our analysis of hydrogen cooperation between the EU and North African countries builds on the article by Jerzyniak and Herranz-Surrallés (2024). They define a set of internal and

external factors that shape the EU's ability to project geoeconomic power. Internally, the EU needs a convincing narrative to justify its actions, a political mandate to pursue a policy agenda and institutional infrastructure to take it forward. Externally, the combination of material variables, the preferences of other actors and its ability to create political alliances shapes the EU's geopolitical room to manoeuvre. In the case of hydrogen, the internal factors, that is, the narrative around hydrogen, its political mandate and the potential tools that the EU has at its disposal, are constant across the cases. As these have already been explored by Jerzyniak and Herranz-Surrallés (2024), we give only a brief overview of the EU's narrative and tools, as well as its political mandate for hydrogen imports drawing from MSs' positions.

Our main empirical focus is on external factors: the context in specific partner countries, which represent an additional layer of enabling factors for EU energy relations, conditioning the scope for EU influence and the specific approach that the Commission applies. The country-level factors that we consider can be divided into two broad categories: material conditions for hydrogen exports, including renewable resources and pre-existing infrastructure, and geopolitical conditions. Geopolitical conditions include the broader geopolitical context such as the country's position in regional and international politics, the preferences of the partner countries, existing energy relations with the EU (as represented by the European Commission and the EEAS), and the existing energy relations between partner countries and MSs. We place particular emphasis on the relations between partner countries and MSs. As intergovernmentalist scholars have observed, MSs have tended to push back against integration in the sphere of international development cooperation (Hodson and Howarth, 2024). Similar dynamics have also been present in the sphere of energy, with MSs resisting attempts by the Commission to negotiate on their behalf with Russia (Siddi and Kustova, 2021). In addition, existing research on energy politics reveals that certain MSs have developed their own capacities and approaches. Following an intergovernmentalist logic, they are unlikely to give up these capacities unless it is to their benefit.

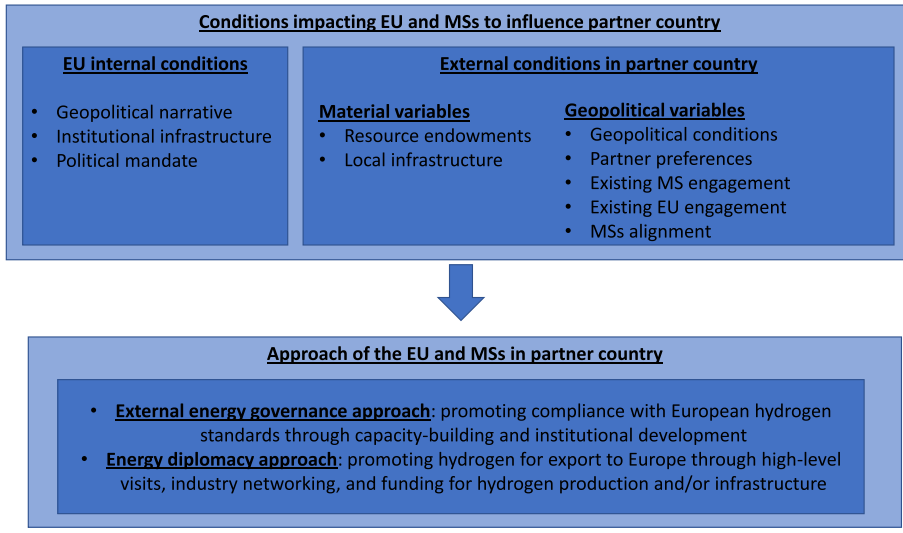
Amongst the MSs, Italy, France and Germany stand out as three countries with a broad portfolio of existing cooperation activities. Italy and France have combined the promotion of clean energy with more traditional energy diplomacy centred on oil and gas, where national champions are flanked by their states (Goldthau and Sitter, 2015b; Griffiths, 2019; Prontera, 2018). Other countries have engaged in international energy cooperation that aligns more closely with traditional EU external energy governance, with Germany as an important case in point. It has deployed a 'soft power' approach to promote renewables via an increasing number of energy partnerships (Quitzow and Thielges, 2020). This has included the promotion of renewable energy support schemes and the creation of new multilateral institutions such as the International Renewable Energy Agency (IRENA). In some cases, we also observe alignment and cooperation between the Commission and selected MSs in their external energy governance attempts. In Morocco, for instance, the EU and Germany have promoted regulatory harmonisation and the development of renewable energy (Herranz-Surrallés, 2018; Katsaris, 2016).

Against this background, the remainder of this article investigates which tools the 'geopolitical' Commission uses and whether it is adding a more active energy diplomacy approach to its existing regulatory power. Drawing on the logic of intergovernmentalism, we expect that the Commission's approach will be conditioned by the local context,

which includes the ongoing activities of MSs, which may or may not be willing to delegate capacities and tasks to the EU. In this vein, we also investigate the alignment among different actors, including state-owned or formerly state-owned energy companies, given their historical importance in MS–partner country relations (Prontera, 2018). Based on the academic literature, indicators of external energy governance will include the influence of the EU's regulations on partner countries and efforts to promote this influence via dialogues, capacity-building and institutional development (Abbasov, 2014; Goldthau and Sitter, 2015a; Herranz-Surrallés, 2016; Lavenex, 2004). Energy diplomacy seeks to promote exports to Europe via mechanisms such as high-level visits and agreements, industry networking and support for strategic infrastructure including production and transportation (Goldthau, 2010; Griffiths, 2019; Herranz-Surrallés, 2016; Lee, 2019). Figure 1 provides an overview of the framework used for the analysis.

We selected three countries to explore these dynamics: Morocco, Mauritania and Algeria. These countries were selected due to their excellent renewable energy resources coupled with their close proximity to Europe. Hence, they all offer strong potential for the development of renewable hydrogen imports and are natural targets not only for an external governance approach to promote global decarbonisation but also for 'hydrogen diplomacy' aimed at securing European energy supplies. However, they differ in terms of their existing infrastructure and the path that exports could take to Europe. The broad geopolitical conditions also differ across cases in terms of how partner countries position themselves in regional and international politics as well as their existing energy relationships with MSs and the EU. Yet all countries have signalled their interest in developing hydrogen for export to Europe. This allows us to draw conclusions about relational patterns between different EU actors and under what conditions the EU takes a leadership role in developing hydrogen relations. The analysis is based on desktop

Figure 1: Influences on EU hydrogen cooperation with potential hydrogen-exporting countries. [Colour figure can be viewed at wileyonlinelibrary.com]



research, participation in hydrogen events and semi-structured expert interviews. The desktop research includes the analysis of policy documents, papers, reports and local and international news. Some documents that were not publicly available at the time of analysis were obtained and analysed, such as Algeria and Mauritania's draft hydrogen roadmaps. The authors participated in various events on hydrogen and energy with representatives from the EU, MSs and potential exporters between March and December 2023. These were held by businesses, governments and research institutions and included formal events such as the Berlin Energy Transition Dialogue as well as informal events such as planning meetings, capacity-building workshops and networking events. From these events, the authors gained insights on relationships and key actors and recruited first interviewees for the semi-structured interviews.

Semi-structured interviews were conducted with experts on policy, industry and finance. Interviewees were selected based on their role in hydrogen developments and included policy-makers, potential hydrogen buyers, project developers, service providers, funders, researchers, financers and members of development institutions. Following a snowballing approach, interviewees were asked to determine other important stakeholders who they thought should be approached for comment. This resulted in 40 interviews, with a higher number of interviewees in Mauritania due to the dearth of literature and corresponding information on the country's energy situation and relationship to Europe. Interviews ranged from 20 min to 1.5 h, and interviewees were occasionally contacted again with follow-up questions on specific issues. Because of the sensitive nature of energy politics, interviewees are anonymised. Interviews are cited with their International Organisation for Standardisation (ISO) country code and identifier key (i.e., DZ5 = Algeria, Interviewee 5). For further information, please see Appendix S1.

The next section gives a brief overview of the goals and interests in hydrogen imports in the EU and key MSs for hydrogen transit and demand, determining which MSs seek to import hydrogen from North Africa and which ones oppose this strategy. We then examine how the EU and its MSs engage with the three potential hydrogen exporters. These country analyses include a short overview of the previous relations between the EU, MSs and the country of interest, drawing from academic publications on the topic where relevant. This is then followed by a longer section drawing from our own empirical research, which describes the current relationships and the mechanisms by which European actors – both MSs and the EU – seek to influence local hydrogen developments.

III. European Positions on Renewable Hydrogen Imports

The EU'S Approach to Hydrogen Imports

According to the EU Hydrogen Strategy, launched in July 2020, the development of renewable hydrogen plays an important role in decarbonising hard-to-abate sectors in the EU (European Commission, 2020). Following the Russian invasion of Ukraine, the Commission added an additional geopolitical rationale for developing a renewable hydrogen economy, highlighting its potential role in reducing European dependence on Russian natural gas. In this vein, the EU significantly increased its ambition for the development of renewable hydrogen in its 2022 REPowerEU communication, further highlighting the importance of not only developing domestic hydrogen production but also a diversified

supply of hydrogen imports. Specifically, this includes the plan to develop a corridor for renewable hydrogen from North African countries (European Commission, 2022c).

The EU's narrative framing of hydrogen is that it will be a crucial pillar of its future energy and economic security (Jerzyniak and Herranz-Surrallés, 2024; Pepe et al., 2023; Quitzow et al., 2023b). While authors have described its political mandate as blurred due to MS disagreements over which kinds of hydrogen should be supported, it nevertheless draws on a number of tools to promote hydrogen (Jerzyniak and Herranz-Surrallés, 2024). In keeping with the EU's regulatory power, this includes the establishment of a 'global rules-based and transparent hydrogen market based on EU's experience' (European Commission, 2022b). It also includes the international pillar of the European Hydrogen Bank,[3] a joint hydrogen purchasing mechanism to be launched by the end of 2025[4] and the development of hydrogen partnerships, with a particular focus on the European Neighbourhood and Africa.

Despite its import ambitions, the EU has been comparatively slow at developing tangible hydrogen projects. It has mainly initiated a series of political partnerships with potential exporting countries, including agreements with the Gulf Cooperation Council, a number of African countries (Egypt, Mauritania, Morocco, Namibia, Tunisia) and two Latin American countries (Argentina and Uruguay) as well as Kazakhstan, Norway and Ukraine (for more, see Jerzyniak, 2024). In addition, Global Gateway has added a focus on investing in hydrogen in partner countries in various regions, but most of the announced projects are still at a very early stage. Amongst other plans, the European Commission has announced it will make €2 billion available under the Global Gateway initiative to support the development of the hydrogen value chain in Brazil (Martin, 2025). It also supports further initiatives under the umbrella of its Team Europe approach, such as the Team Europe Renewable Hydrogen Funding Platform for Chile, where the European Investment Bank (EIB) and the German Development Bank (KfW) pooled €200 million to support Chile's green hydrogen industry (EEAS, 2025).

In terms of its political mandate to support hydrogen production abroad, the EU has a challenge in that its MSs are divided in whether or not they support hydrogen imports at all (Quitzow and Zabanova, 2024). The next section therefore gives an overview of relevant MSs seeking to import, transport or produce hydrogen and their stances on imports from outside Europe.

MSs' Stances on Hydrogen Imports

Germany has already taken a series of steps towards establishing a comprehensive hydrogen foreign policy, driven by the ambition to decarbonise its production of basic materials like steel and chemicals. Germany has a strong interest in developing an international market for green hydrogen, and its government has signed a wide range of hydrogen-related agreements and partnerships around the globe, a central aim of which is to pave the way for imports (Belova et al., 2023; Lindner, 2023). Via its flagship initiative H2 Global, it is providing auction-based funding for supplying hydrogen and

[3]So far, the EHB has only funded European hydrogen projects; see https://www.bruegel.org/analysis/lessons-european-unions-inaugural-hydrogen-bank-auction.

[4]https://energy.ec.europa.eu/topics/eus-energy-system/hydrogen/european-hydrogen-bank/mechanism-support-market-development-hydrogen_en.

hydrogen derivatives to Northern Europe (Quitzow et al., 2024). In addition, Germany is working directly with potential suppliers by both building on its well-developed set of bilateral energy partnerships (Quitzow and Thielges, 2020) and launching new partnerships with a primary focus on hydrogen cooperation. Underpinning these partnerships, the government-sponsored Power-to-X Hub is developing and implementing capacity-building efforts on hydrogen. In addition, Germany's Federal Foreign Office has launched a hydrogen diplomacy initiative targeting mainly fossil-fuel-exporting countries including Angola, Colombia, Kenya, Nigeria, Kazakhstan, Saudi Arabia and Ukraine.[5]

The Netherlands represents an important partner in German efforts to develop an international hydrogen market. Not only does it face similar challenges, given a strong chemical industry and relatively low renewable resources for local hydrogen production, but it also stands to gain as a potential hub for hydrogen imports. It seeks to connect international exporters and Dutch domestic production in the North Sea with industrial demand centres in Northwest Europe. The Port of Rotterdam (2025) is currently the most important energy corridor to Northwest Europe and aims to leverage its current position to continue this role in the future hydrogen value chain. Acknowledging the scale of the task at hand, the Dutch government is developing partnerships along the whole value chain to work towards an international hydrogen market (Stam et al., 2024).

Italy has developed a similar vision as a hydrogen transit hub, in this case between Europe and the Middle East and North Africa (MENA) region. It has supported European initiatives to facilitate hydrogen trade, including the idea of a European pipeline network known as the European Hydrogen Backbone (2025) initiative. This complements its ambitions to advance its 'Mattei Plan', becoming a hub for energy trade between Europe and Africa (Simonelli, 2025). However, Italy has not yet developed a coherent hydrogen diplomacy to support its vision as a European hydrogen hub; its international hydrogen policy is currently carried out by its state-owned companies, building on and reproducing the country's approach in the fossil fuel sector (Prontera, 2024).

While Spain holds a similar geographic position between Europe and the MENA region, it combines this with significant ambition for the domestic production and export of green hydrogen to the rest of Europe. To facilitate this, it has strongly advocated for a hydrogen pipeline that would connect the Iberian Peninsula with the envisioned European Backbone (Biogradlija, 2022). In addition, projects for the use of green hydrogen in fertilizer and steel production have emerged as avenues for unlocking potential downstream value creation (Minh Khoi Le, 2024). Spain has been less keen on engaging with North African partners to facilitate future hydrogen imports, largely shying away from hydrogen diplomacy towards its southern neighbours (Escribano and Urbasos, 2023).

Finally, France has taken a stance towards the hydrogen sector that is at loggerheads with both German and Spanish visions for hydrogen trade. Its vision for a French hydrogen economy builds strongly on domestic nuclear power supplemented with increasing shares of renewable energy as a strategy for securing its long-term energy needs, including electricity-based hydrogen (Government of France, 2025). The French government has voiced concerns regarding the build-up of new import dependencies, as envisioned by Germany and the European Commission (Bouacida, 2024). Under pressure from

[5]A full list of hydrogen partnerships is available at https://www.bmwk.de/Navigation/EN/hydrogen/international-cooperation-on-hydrogen/international-cooperation-on-hydrogen.html.

Spain and Germany, it has agreed to an offshore hydrogen pipeline along its Mediterranean coast but remains a reluctant supporter, with the project deemed 'dead on arrival' (Messad, 2023). In line with its focus on domestic production, France has also not pursued an active hydrogen diplomacy targeting non-European countries (although French companies are engaged in hydrogen projects abroad).

Given its mixed political mandate, the EU may face challenges in its attempt to secure green hydrogen imports. Taking this into account, the next section explores the energy relations between European and North African actors and how the EU and MSs influence the trajectory of North African green hydrogen development.

IV. Hydrogen Diplomacy in North Africa? The Cases of Algeria, Morocco and Mauritania

Algeria: German–Italian Energy Diplomacy with EU Support

Literature on the existing energy relationship between Algeria and Europe shows that although Algerian fossil energy exports are important for Europe, there has been relatively little EU–Algeria energy cooperation in the past. Attempts to promote regulatory convergence were unsuccessful, as they were seen as challenging Algerian autonomy and strategically important fossil energy assets (Darbouche, 2010; Katsaris, 2016). EU–Algerian cooperation only slightly increased when the EU shifted away from framing energy cooperation as regulatory harmonisation and towards strategic energy cooperation (Herranz-Surrallés, 2018). In contrast, Italy and Algeria have long-standing energy relations driven by their respective national champion firms: strong relations between Italy's ENI and Algeria's state-owned Sonatrach have enabled ENI to gain access to its fossil resources (Prontera, 2018).

In terms of the geopolitical context, diplomatic issues between European countries and Algeria, often around the issue of the Western Sahara, have sometimes resulted in Algerian trade restrictions (see, e.g., against France, Middle East Monitor, 2024). However, these restrictions have not extended to gas, except against Algeria's key regional rival Morocco. Though it has historically close ties with Russia, Algeria was eager to reassure European partners of its dependability for fossil fuel imports after the Russian invasion of Ukraine and has demonstrated interest in exporting green hydrogen (Saadi, 2022; Salami, 2022).

Algerian and European preferences align neatly in the case of green hydrogen. Algeria aims to develop green hydrogen for export and, in the longer term, targets a 10% share of the European hydrogen market (Government of Algeria, 2023). Unlike in the past when European efforts to promote renewable energy were seen as a threat, green hydrogen is seen as complementary to national priorities to stay an important energy supplier (DZ5). Algerian hydrogen development goals are closely linked to European projections: interviewees suggested that the Algerian hydrogen strategy was developed in reaction to European and German demand outlined in their hydrogen strategies (DZ3, DZ4).

Interviewees suggested that Algerian hydrogen ambitions are shaped by the relationship between Algeria and MSs, particularly Germany and Italy, which were seen as the most important countries in this field (DZ4). Both Germany and Italy are actively promoting hydrogen exports to Europe, as their interests in developing this sector are aligned.

Germany seeks to import hydrogen, which will pass from Algeria up through Italy and Austria (German Federal Ministry for Economic Affairs and Climate Action, 2024), while Italy seeks to become a hub for energy trade. Algeria's proximity to a willing energy hub (Italy) as well as its existing infrastructure is a point in its favour.

In classic energy diplomacy fashion, MSs and their companies are intertwined: companies seek access to resources, and states support their companies. Reminiscent of previous cooperation around gas, Italian–Algerian cooperation appears to be pushed largely by energy companies. Sonatrach is the key stakeholder in all projects and tends to work with its preferred partners such as Italy's ENI, expanding its existing fossil fuel partnerships to include hydrogen and renewables. In late 2021, Italy's SNAM bought stakes in ENI's pipelines, which now carry Algerian gas, pitching the idea that these could be used for green hydrogen in the future (Jewkes, 2021). By early 2023, SNAM (2023) was discussing a 'SoutH2Corridor' to bring hydrogen to Europe with government representatives from Germany, Austria and Italy.

These exchanges were further supported by MS governments and transmission system operators and then by the Commission, which granted the SoutH2Corridor Project of Common Interest (PCI) status in November 2023, granting it access to European funding and faster approval and implementation procedures.[6] A further declaration of intent to build this infrastructure was signed in Brussels between Germany, Austria and Italy in May 2024, attended by the EU Energy Commissioner, who spoke on the initiative's potential 'to become a key project to transport much-needed renewable hydrogen to the EU's industrial centres' (De La Feld, 2024). The first joint conference to develop the project was held in Brussels in January 2025 with the aforementioned countries, as well as Algeria and Tunisia, with the European Commission and Switzerland observing (German Federal Ministry for Economic Affairs and Climate Action, 2025). Unlike other PCI projects, this pipeline has an explicit focus on Northern Africa: it describes itself as 'a 3,300 km dedicated hydrogen pipeline corridor connecting North Africa, Italy, Austria, and Germany … [which] aims to supply low-cost renewable hydrogen produced in North Africa to European demand clusters'.[7]

In addition to its cooperation with fellow MSs and the EU on pipeline infrastructure, Germany is closely involved in promoting hydrogen production in Algeria. Multiple interviewees highlighted the central role of Germany and the Algerian–German energy partnership for Algeria's hydrogen strategy (DZ2, DZ5, DZ6). There are even claims that the Algerian hydrogen roadmap 'was written by Germany's GIZ [Deutsche Gesellschaft für Internationale Zusammenarbeit]' (DZ6) – the GIZ being Germany's development agency that implements the energy partnership. In addition, the energy partnership provides networking between the German government, industry actors and key Algerian players, including the inter-ministerial group for the hydrogen strategy, the Ministry of Energy and Sonatrach. This has resulted in hydrogen buyers contracting with Algerian sellers, for example, at the 2022 German–Algerian energy day where Sonatrach and VNG AG, a major German natural gas importer, set up an agreement on hydrogen for import to Germany (DZ6). Further networking is promoted by the GIZ, KfW and the German Chamber of Commerce (AHK), including trips for Algerian

[6]All PCIs may be viewed at https://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/main.html.
[7]https://www.south2corridor.net/ [Accessed 28th April 2025].

officials to visit Germany and meet with businesses and policy-makers (German Federal Ministry for Economic Affairs and Climate Action, 2023). In addition, Germany is seen as a key partner for financing electrolyser demonstration projects and for helping to create hydrogen markets (DZ3, DZ4). The KfW has greatly increased its presence in Algeria with an explicit focus on green hydrogen, including studying the potential of projects proposed by the Algerian energy ministry, which will inform the financing decisions by Germany. This culminated in an agreement between Germany and Algeria in June 2024 to strategically co-operate on hydrogen, including €20 million for funding a hydrogen pilot plant (Martin, 2024).

In Algeria, the EU's engagement is limited to playing a supportive role to Germany and Italy's energy diplomacy efforts and indirectly influencing Algerian hydrogen development with its regulatory standards. In terms of its regulatory influence, interviewees highlighted that in order for hydrogen exports to succeed, Algerian business and government would need to understand the certifications, standards and requirements of international markets, particularly in Europe (DZ5). In addition, part of the hydrogen strategy is to decarbonise certain exports such as ammonia, methanol and cement for the markets that demand decarbonisation – i.e., Europe (DZ4). This suggests an awareness of EU policies like the EU Carbon Border Adjustment Mechanism (CBAM) and pressure to align with EU goals. When it comes to engagement in energy diplomacy, the EU is rather absent: it has not yet used its energy dialogue mechanism to sign an EU-Algeria hydrogen partnership, although this was discussed in 2022. At the time of this research, the EU's direct engagement was limited to smaller scale events, such as workshops to understand hydrogen opportunities and mechanisms and the presentation of the hydrogen roadmap by the Algerian energy ministry to the EU (DZ3, DZ5). However, the designation of the 'SoutH2Corridor' as a PCI signals the Commission's readiness to back MSs' import ambitions.

Morocco: German Energy Diplomacy with the EU in the Backseat

In contrast to Algeria, Morocco has a long-standing engagement with both the EU and its MSs on energy market reforms and renewable energy projects (Herranz-Surrallés, 2018; Katsaris, 2016). In particular, Germany has worked closely with high-level Moroccan stakeholders and has been integral in promoting renewable energy policy, technical assistance and financing (Quitzow and Thielges, 2020; Steinbacher, 2015). For example, Germany spearheaded the Noor solar power project with support from the EU, France and the World Bank – envisioned as part of the failed Desertec initiative to build large amounts of clean electricity in Morocco for export to Europe (Schmitt, 2018). This ties into the geopolitical context: authors have argued that Morocco's energy policy is part of a larger strategic goal to make the country 'indispensable to European Union countries' (Rignall, 2016) and give Morocco soft power on the international stage (Nicolai, 2022). In addition, Allan et al. (2022) argue that European energy imports and European companies' involvement in energy projects in the Western Sahara implicate their home countries in the kingdom's claim to the contested territory. As with Algeria, the issue of the Western Sahara and the balance of power in the region has complicated relations between the EU, MSs and Morocco in the past.

Morocco's hydrogen ambition is primarily driven by its interest in becoming Europe's main hydrogen supplier, exporting to Europe via ship and/or by pipeline to Spain (Government of Morocco, 2021). Exporting hydrogen is a clear goal of the King, whose public statements and strategy are to position Morocco as an export champion, 'a hydro monarchy at the crossroads between Europe and Africa' (MAR2).

Germany in particular is active in promoting Moroccan hydrogen exports, with interviewees describing a 'gold rush mood' amongst German delegations and companies visiting Morocco (MAR1, MAR2). Germany signed a Declaration of Intent to co-operate in 2020 and has since engaged in multiple state visits including the topic of energy (see, e.g., German Federal Ministry for Foreign Affairs, 2022). The key mechanism by which this energy diplomacy is carried out is Germany's bilateral energy partnership with Morocco. The energy partnership provided 'heavy support' for the country's hydrogen roadmap (MAR1), with one interviewee claiming that the initiative 'played and continues to play a decisive role in the Kingdom's hydrogen strategy' (MAR3). Yet, the Kingdom appears to be moving away from this German influence, as the official hydrogen strategy was designed by a small taskforce without external or foreign actors (MAR1, MAR2). According to one interviewee, this was a deliberate decision by the King whose rationale is that Morocco is on the rise and capable of autonomous policy development (MAR3). There is also a hesitancy to use loans to fund hydrogen developments which are seen as risky (MAR2, MAR3, MAR4). Therefore, the German KfW is providing mixed grant and loan funding of €300 million for smaller scale projects (KfW, 2024). Whilst the Netherlands has been less active in the policy sphere, it signed a collaboration agreement with Morocco and will provide hydrogen funding within its larger green investment fund of €300 million, of which 35% will be grants (Zoutien, 2023). This is likely to be imported via the Port of Rotterdam, where Vitol has indicated interest in purchasing green hydrogen from Morocco (Sharpe, 2021).

Despite this interest from hydrogen demand centres, the countries that would need to co-operate for pipeline infrastructure, France and Spain, are notably absent. As explained above, Spain seeks to produce and export its own hydrogen to the rest of the EU, while France is opposed to hydrogen imports, and in particular to onshore transport infrastructure for hydrogen. The middle ground that has been proposed to transport Spanish hydrogen through France and to Germany is the 'BarMar' pipeline, which would run offshore between Barcelona and Marseilles. Whilst this infrastructure within Spain and France has received PCI status, it explicitly focuses on transporting European hydrogen, rather than hydrogen from North Africa (in contrast to the Algerian pipeline PCI).

In addition, there are also potential political barriers for European–Moroccan hydrogen cooperation due to regional geopolitics and the issue of the Western Sahara. MSs that wish to co-operate with Morocco must tread carefully around this issue, as Germany discovered in 2020 when its stance on the Western Sahara led to tensions with serious and negative implications on cooperation in all domains, albeit temporarily (MAR3). The EU and EIB do not operate in Western Sahara and will not support projects there (MAR6, MAR7). However, Morocco is still planning on building major hydrogen projects in the occupied zone. In 2022, large tracts of land were granted to eight projects (Government of Morocco, 2023), of which at least four were in the Western Sahara. Land is also politically allocated: which sites are given to developers and international actors

depends on their stance on the Western Sahara issue, along which lines the kingdom separates friends from foes (MAR2).

Perhaps due to these barriers, the EU's 'green partnership' agreement with Morocco (European Commission, 2022a) has not yet resulted in major EU support for hydrogen exports. Rather than engaging in active hydrogen diplomacy, the EU has taken a backseat to Germany. For example, whilst the EIB was involved in discussions with the Moroccan Agency for Solar Energy (MASEN) to fund electrolysis projects, the actual investment was eventually provided by the KfW instead (MAR6). The EU's approach in Morocco has therefore mainly been that of external energy governance by promoting regulations so far. The Commission and Morocco co-facilitated coordination on green hydrogen action at IRENA, followed by a Morocco–IRENA strategic partnership to lay the groundwork for hydrogen trade (IRENA, 2021). In accordance with Morocco's strategy for regional leadership, it also takes an active role in the African Green Hydrogen Alliance, especially on green hydrogen standards and certification (MAR8). Such collaboration can strengthen the voice of potential exporters in negotiations with Europe on regulations that they will be subjected to.

Mauritania: Team Europe Aligns for Mauritanian Hydrogen Development

Europe's existing engagement with Mauritania has largely been on migration, security and development (Hill, 2018) rather than energy. Collaboration on security is particularly important because of the geopolitical situation, particularly increased violence in the Sahel region and the influence of Russia and the Wagner Group (Pokalova, 2023). In addition to the United States and United Kingdom, Spain and France are particularly active, focusing on security and development projects aimed at providing alternatives to migration (Casas-Cortes et al., 2016; Frowd, 2014; Vives, 2017). In the past, international initiatives involving energy were focused on development and energy access (in 2020, around 47% of Mauritania's population had access to electricity) (International Energy Agency [IEA], 2025). However, experts observed an increase in European involvement in energy in the past years, which they linked to the geopolitical contexts and energy interests: Mauritania's status as the 'last state standing' in the increasingly volatile Sahel (MRT 23, MRT18), as well as new natural gas extraction (MRT23).

In addition to gas, Mauritania aims to export hydrogen to Europe. Mauritania is very attractive for hydrogen production due to its excellent solar and wind resources, although it has limited infrastructure in terms of ports, roads and power lines. Hydrogen production appeals to key Mauritanian stakeholders as a way to bring revenues and jobs to the country, as well as international investments in basic infrastructure (MRT29, MRT11, MRT15, MRT17, MRT19, MRT25, MRT22, MRT28). Mauritania aims to primarily export hydrogen to Europe, and its government is following developments within the EU very carefully (MRT22, MRT12, MRT18). However, Mauritania's lack of energy infrastructure connections to Europe presents a challenge for energy exports: hydrogen pipelines traversing the Western Sahara are a political impossibility (MRT13, MRT25), as Mauritania maintains its neutrality between Algeria and Morocco in the conflict. Even offshore pipelines bypassing the territory would involve further cooperation with Morocco, which could be politically sensitive (MRT2).

The Mauritanian government is focused on collaborating with Germany in particular, which it sees as a prime partner for exports (MRT22, MRT28). Local stakeholders hoped to access German funding, whether by signing a bilateral agreement as was the case in Namibia, or other support measures (MRT22), and projects with German involvement have been actively pursued by the government to establish export markets (MRT28). However, Germany is not yet funding hydrogen production in Mauritania, remaining focused on technical assistance. Although the GIZ is well-established in Mauritania, it lacks a pre-existing energy partnership and its engagement has been focused on democracy and broader economic development rather than energy. Its main involvement in hydrogen is via the CONNEX initiative, which is run and funded by Germany (Bauer, 2024) and provides technical and legal expertise to the Government of Mauritania in their negotiations with potential hydrogen developers (MRT16, MRT18).

In Mauritania, we observe a relatively high level of engagement from the EU, which is taking a 'Team Europe' approach to promoting green hydrogen. The Commission is of key importance for Mauritania's policy development, as its Technical Assistance Facility (TAF) is engaged in designing the hydrogen legal framework for Mauritania (MRT28, MRT19, MRT11). There is also close collaboration between development actors on the ground, such as the EEAS, EIB, French Development Bank (AFD), World Bank and African Development Bank (MRT11, MRT13, MRT18, MRT22). Regular meetings between employees from these institutions who work on energy enable them to divide up tasks: for example, the EIB is working on feasibility studies for priority infrastructures and financing possibilities, whilst the AFD is working on developing a national land registry, which could make siting hydrogen projects and infrastructure easier (MRT3). In the past years, the AFD and the Commission also co-operated to promote the liberalisation of Mauritania's energy market, with the TAF supporting changes to the electricity code (MRT11, MRT19, MRT14, MRT13).

Building on this existing collaboration, the EU launched a Team Europe initiative in Mauritania in October 2023 focused on hydrogen (European Commission, 2023). This project was backed by the Commission, France, Germany, Spain and the EIB to support infrastructural development, foster job creation and continue to consolidate the legal and fiscal framework for hydrogen. In February 2024, both the President of the European Commission von der Leyen and Spanish Prime Minister Pedro Sánchez visited Nouakchott and announced various cooperation initiatives for green hydrogen. Von der Leyen (2024) encouraged hydrogen production and green steel in Mauritania, which she suggested would be supported by Global Gateway investments. At the same time, the EIB announced a financing arrangement to support green investment and youth employment for €20 million.[8] During the same visit, the Spanish prime minister also suggested that up to €200 million in financial support could be made available to Mauritania for green hydrogen projects (Collins, 2024). This visit also resulted in a new framework agreement between Spain and Mauritania on migration and security (European Commission, 2024). In April 2024, this was followed by a visit of a European business delegation to Mauritania where the EU ambassador was present, and memoranda of understanding (MOUs) for hydrogen and green steel production were announced with

[8]https://www.eib.org/en/press/all/2024-062-bei-monde-signature-d-un-contrat-de-financement-de-20-meur-avec-la-bci-pour-soutenir-les-entreprises-mauritaniennes.

three companies, two of which were Spanish (Investment Promotion Agency of Mauritania, 2024).

V. Discussion: A Shift Towards Hydrogen Diplomacy?

Our analysis finds that in the current geopolitical environment, the EU is adding to its external energy governance approach with diplomatic tools. At the same time, the Commission's scope for action depends on the local context, and hydrogen diplomacy often remains the purview of MSs. Table 1 provides an overview of the main results of our analysis, including the role of MSs and the factors shaping these roles.

For Italy, energy diplomacy is business as usual, with engagement in Algeria led by national champions and flanked by the government – as with gas in the past (Prontera, 2018). However, there is a change in the case of Germany, which we observe engaging in active energy diplomacy, whereas it was previously seen as a soft power focused on promoting regulatory alignment on renewables (Quitzow and Thielges, 2020; Steinbacher, 2015). Germany's existing energy partnerships in Algeria and Morocco have been expanded to enable hydrogen imports, strengthening diplomatic ties as well as networks of firms seeking energy supplies. In the case of Algeria, Germany has an ally in Italy, which also seeks to promote European hydrogen imports and become a 'hydrogen hub' as part of its Mattei Plan.

We also observe that Germany's active energy diplomacy in both Morocco and Algeria may constrain the EU, making it less likely to engage in energy diplomacy itself. This may also be influenced by its existing relationships or lack thereof – as in Algeria, where previous EU external energy governance attempts have failed (Katsaris, 2016). In Morocco, the EU has a strong existing relationship (Herranz-Surrallés, 2018; Katsaris, 2016), which provides additional capacities for EU action. In this case, the Commission has engaged more directly with Morocco on green hydrogen standards, continuing with its external energy governance approach as highlighted in previous studies (Damro, 2012; Goldthau and Sitter, 2015b; Lavenex and Schimmelfennig, 2009). In addition, the Commission's approach uses some energy diplomacy tools, such as a 'green partnership', but is not yet providing funding for projects. This may be due to geopolitical limitations, including the opposition of France and Spain to hydrogen imports and Morocco's aspirations to produce green hydrogen in the Western Sahara. In Algeria, MS alignment on hydrogen imports allows the EU to play a supporting role by providing PCI status for an infrastructure project aimed at exporting North African hydrogen through Italy to Germany.

In Mauritania, we see the conditions under which the EU begins to actively engage in energy diplomacy. The first is low pre-existing MS engagement on energy: Germany has no energy partnership in Mauritania, and its engagement was primarily focused on development and democracy promotion, while Spain and France were engaged rather in security, migration and development. The second condition is that the Commission has previous engagement in energy issues in the partner country, in this case from its work through the TAF on electricity market reform. The third is a geopolitical context conducive to MS alignment: the impetus to provide support during the Sahel crisis and migration appears to have overcome the French and Spanish reluctance to support hydrogen imports, enabling the EU to bring together its MSs. The EU therefore takes an important role in

Table 1: Member State and EU Hydrogen Engagement in Selected Cases.

	Algeria	*Morocco*	*Mauritania*
Material variables			
Resources	Excellent	Excellent	Excellent
Infrastructure	Good	Good	Poor
Geopolitical variables			
Geopolitical conditions	Ties with Russia, some political conflicts with EU/MSs but not involving energy	Some political conflicts with EU/MSs over Western Sahara	EU/MS security cooperation, concerns about Sahel and Russian influence, migration
Partner preferences	Interest in hydrogen exports to Europe, emerging willingness to engage with renewable energy	Interest in renewable energy leadership and exports to Europe, but tensions over autonomy and Western Sahara	Interest in hydrogen exports to Europe and closer cooperation, previous energy focus on electricity access
Existing EU energy engagement	Attempts and existing framework, but relatively little cooperation	Long-standing cooperation on renewable energy	Relatively new, technical assistance for electricity market reforms
Existing MS engagement	Germany: bilateral energy partnership Italy: long-standing engagement by Italian SOEs	Germany: bilateral energy partnership France: long-standing engagement	No strong legacy of engagement in energy sector
MS alignment	Alignment: German, Italian and Austrian interest in hydrogen imports	Misalignment: German and Dutch interest in hydrogen imports vs. Spanish and French reluctance	Alignment: German interest in hydrogen imports, French and Spanish interest in migration and security
Outcomes: approach of EU and MS in partner country			
MS approach	Germany: energy diplomacy via Energy Partnership: funding hydrogen development, high-level visits and industry network-building, involvement in policy-making Italy: energy diplomacy via private sector, national champions	Germany: energy diplomacy via Energy Partnership: funding hydrogen development, high-level visits and industry network-building, influence in policy design Netherlands: energy diplomacy via public sector: funding hydrogen development	Germany: energy governance via CONNEX technical assistance France: energy governance via AFD technical assistance Spain: energy diplomacy via Team Europe funding for green hydrogen
EU approach	Supporting MS energy diplomacy External energy governance: influence via standards Energy diplomacy: designation of the SoutH2Corridor as PCI	Taking a backseat External energy governance: influence via standards, targeted engagement via IRENA Energy diplomacy: high-level visits, high-level agreement with Morocco	Leading Team Europe External energy governance: influence via standards, extensive involvement in policy-making via TAF Energy diplomacy: high-level visits and industry network-building, funding via Global Gateway

coordinating hydrogen diplomacy, leading the emerging Team Europe initiative in the country and facilitating intergovernmental cooperation in line with previous research in the development sphere (Hodson and Howarth, 2024; Prontera and Quitzow, 2024). It also has pledged financial assistance through the Global Gateway for hydrogen and supportive infrastructure such as roads and has been involved in promoting business networking between European firms and Mauritania. It also continues using external energy governance tools, influencing Mauritania's regulatory framework for hydrogen via the TAF.

That said, this research comes with limitations. First, the empirical research on Morocco, Mauritania and Algeria was conducted over the course of one year, and we rely on our experts' assessments of how engagement has changed over time rather than having been embedded in these countries ourselves over a longer period of time. In addition, we only look at three countries in North Africa that have a particular history and relationship with the EU and its MSs, as well as each other. Further research could compare these dynamics in additional countries that have cooperation agreements with the EU and/or its MSs on hydrogen, such as Namibia, South Africa, Egypt, Kazakhstan and more. It would also be relevant to compare the hydrogen-related engagement between the EU and North Africa with the engagement between the EU and Norway, which is much closer in terms of its functionalist integration with the EU and where we might expect the EU to play a key role. Another direction would be to compare the evolving role of the EU across different policy fields. A key question is whether its role is being shaped primarily by internal factors within the given policy field or by the external conditions prevailing in the specific partner countries. This paper suggests that the latter plays an important role in at least modulating the role that the EU plays.

Conclusion

The geopolitical conditions under which the EU operates have changed dramatically in the last years. Historically, the EU was seen as influencing other countries by externalising its regulations and norms, including for energy market liberalisation and climate protection. With increasing geopolitical turmoil, especially since the Russian invasion of Ukraine, the Commission has shifted its focus towards strategic partnerships with 'like-minded' countries. Our paper asks how the 'geopolitical' Commission plays out externally, on the ground: what does the EU do, and how is this influenced by the activities and preferences of its MSs in the selected partner countries?

The case of green hydrogen engagement in Morocco, Mauritania and Algeria demonstrates the Commission employing a more active diplomatic approach to pursue green hydrogen imports for European industry. In Mauritania, in particular, its existing external energy governance capacities remain influential, but these are combined with diplomatic efforts such as high-level visits and Global Gateway funding, as well as MS coordination via Team Europe. This is in contrast with Algeria and Morocco, where the EU rather plays a supporting role and uses external energy governance tools. An important factor in shaping the EU's role in these countries is the existing engagement of Germany, which is turning its energy partnerships – previously a vehicle for norm transfer – into a vehicle for energy diplomacy as it seeks hydrogen for its industries.

The EU's approach to possible energy exporters is therefore conditioned by that of its MSs, which have strong existing competencies and interests of their own. From an intergovernmentalist point of view, this is unsurprising in that states are resistant to giving up competencies unless they see benefits to European cooperation. However, we show that the potential for EU engagement and MS cooperation differs depending on the external context, rather than on the issue itself. Spain and France generally do not support importing Moroccan hydrogen, but have joined the Team Europe initiative for hydrogen in neighbouring Mauritania due to the specific geopolitical context there. The Russian influence in the region, Sahel conflicts and associated migration are key issues that drive Spanish and French engagement in Mauritania – and hydrogen is seen as a potential win-win in providing both local jobs and (green) exports.

This illustrates the importance of looking outside the EU when seeking to understand its role in international affairs and whether and under what circumstances it is changing to act as more than just a regulatory power. Looking only at the within-EU political mandate to pursue hydrogen imports shows opposition from key MSs and would therefore appear to constrain the EU's ability to pursue hydrogen imports. Yet, in the context of the partner country, these interests may become secondary and cooperation under the umbrella of Team Europe feasible.

In other words, the interplay between the EU and its MSs in external relations is crucial to better understanding the evolving dynamics of European diplomacy. Further studies of diplomacy in third countries that compare different realms from energy to development to security could add to our understanding of the EU as an international actor and its on-the-ground actions outside of Europe.

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Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix S1. Supporting information.