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TOWARDS IMPROVED GREEN HYDROGEN COMMUNICATION STRATEGIES IN THE MEDITERRANEAN: BRIDGING NORTH-SOUTH COOPERATION DYNAMICS

Nazih Toubal
Project Manager at REVOLVE and researcher at Universitat Autònoma de Barcelona (UAB)

Abstract

This policy brief addresses the imperative need for improved communication strategies to facilitate the widespread adoption of green hydrogen (GH) technologies in the Mediterranean while bridging north-south cooperation dynamics. The Mediterranean region, characterised by its diverse economic, social and environmental landscapes, stands to benefit significantly from the development and adoption of GH technologies. However, presently today, effective communication on GH between northern and Southern Mediterranean (SM) countries is at an embryonic stage due to isolated national strategies that are being developed excluding the interconnection potential at a supranational level. This policy brief examines the challenges and opportunities associated with overcoming communication barriers between the north and south of the Mediterranean to create strong synergies revolving around GH deployment and energy security in the region, focusing on two countries in the northern Mediterranean, France and Spain, and two in the south, Algeria and Morocco. Several factors contribute to the complexity in the development of effective communication strategies in the region, including wide economic disparities, public awareness and regulatory uncertainty.

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Introduction

Officially, energy partnerships between northern and Southern Mediterranean (SM) countries started in 1996, when the Euro-Mediterranean Energy Forum (EMEF) was created. In light of the European Neighbourhood Policy (ENP), the European Union made the decision in 2006 to expand the Energy Community Treaty (ECT) to include SM countries in order to diversify its energy supplies and assure energy security following tensions between Russia's and Ukraine's fragile energy agreements. Algeria, Libya and Egypt were not convinced to adopt fundamental energy market reforms or to participate in legally enforceable responsibilities with the European Union (EU) since their economies are heavily dependent on fossil fuel exports. The countries of the SM were not very enthusiastic about this unanticipated inclusion because it would limit their ability to be energy independent and act freely at an international level (Seimenis & Miltiadis, 2005). After the creation of the Union for Mediterranean (UfM) in 2008 to promote dialogue and cooperation among countries bordering the Mediterranean, the UfM launched the notion of a "multilateral commitment" and the principles of "co-ownership" for renewable energy solutions. This was the first year that SM nations began to show their interest in phasing out the fossil fuel era as demonstrated by the Mediterranean Solar Plan (MSP) initiative.

Furthermore, in the following years, major conventions for climate action in the Mediterranean have been held in both Marseille and Tangier. MedCOP21 took place in Marseille in June 2015, and MedCOP22 took place in Tangier in July 2016. There was a clear effort by the EU to create ties with Morocco for the development of renewables in the region and this has fundamentally shaped the kingdom's approach to its partners in southern Europe. Spain, since the 1990s, significantly increased its gas imports from Algeria after the completion of the Maghreb-Europe Gas Pipeline (MEG) followed by the Medgaz pipeline in the 2000s. For example, Algeria accounted for 25% or 8,545 GWh of total gas deliveries to Spain in January 2024 (Enagas, 2023). Almost a quarter of a century later, the EU has reaffirmed its commitment to renewable energy development and green hydrogen (GH) production through the European Green Deal (EGD). In this context, the EU's collaboration with North African countries takes on renewed significance, particularly in the context of GH, which has emerged as a key enabler of the energy transition (IRENA, 2024).

SM countries have the potential to become the world's leading producers of GH, leveraging vast areas of available land, high solar radiation, offshore wind power, and an established pipeline network (ICIS, 2023). Moreover, North Africa receives one of the highest numbers of sunshine hours in the world, with an average of over 4,000 hours per year, making it a suitable region to install large-scale solar plants that could be used to power electrolysers to produce GH (Vividmaps, 2015). Moreover, wind energy development is very attractive for investors in the Western Sahara due to its favourable conditions. While Morocco expects an increase in green energy investments in the coming years, other regional actors share similar potential. Algeria has the largest wind energy potential on the continent, approximately 7,700 GW if fully developed, and released plans to expand renewable energy production to 15 GW by 2035, with an annual growth rate of 1 GW (Evwinds, 2023). The strategic location of these countries as a bridge between Europe and Africa allows for cross-border energy trade and regional cooperation, making them key players in the emerging GH economy.

Consequently, we are witnessing the rapid development of several GH projects in the Mediterranean such as the H2Med energy interconnection project, which will be the first green H2 corridor in the Iberian Peninsula, connecting Barcelona and Marseille by 2030 (LaMoncloa, 2022), or the SouthH2 corridor, connecting North Africa to Europe through Italy by dedicated H2 pipelines. Given that SM countries are exploring hydrogen economy plans to meet Europe's growing demand, it is crucial to ensure that regulatory standards, safety protocols, and certification processes are well communicated across borders. By establishing clear channels

of communication between European policy-makers and their SM counterparts, both regions can work towards common standards that enable seamless integration of hydrogen markets. The Mediterranean region stands at the crossroads of an unprecedented energy transition, and communication strategies are essential to overcome existing barriers to unlock the full potential of cooperation based on GH large-scale development.

Communication: a Euro-Mediterranean imperative

The EU has significantly contributed to the promotion of sustainability in the SM region through initiatives such as the ENP and the MSP (Lehne, 2014). Nonetheless, their results have repeatedly fallen short of their aims, mostly because of difficulties in inter-regional collaboration processes and a lack of communication normative tactics that do not appropriately represent regional situations (Shumilin, 2020). This could be explained due to the complex political, cultural and economic landscape of the region, which can have a significant impact in developing communication tactics that resonate across such varied contexts. Communication strategies that work well in one country might not be effective in another due to these cultural and political differences. Subsequently, a lack of tailored, region-specific approaches can lead to miscommunication or insufficient engagement with local stakeholders. As noted by Shumilin (2020), failing to acknowledge and adapt to these unique regional characteristics often results in communication tactics that seem disconnected from local realities.

Even though the ENP recognises the importance of engaging with civil society, media, and other non-state actors in neighbouring countries, communication strategies have not been developed in this regard to focus on empowering civil society organizations (CSOs), fostering public debate and participation in the SM region (Mirel, 2021). Furthermore, the ENP was supposed to enhance the visibility and impact of EU assistance and cooperation initiatives in neighbouring countries. On the contrary, due to the lack of effectively communicating about EU-funded projects, programmes and initiatives, the EU could not tangibly demonstrate its commitment to supporting the development, reform and modernisation efforts of neighbouring countries (Santaniello et al., 2022).

An EU Neighbours South opinion poll was conducted between November and December 2022 showing that 55% of Algerians think that the EU could be more engaged in the green transition in Algeria and 70% of participants have no information whatsoever about EU communication campaign awareness (EU Neighbours, 2022). In Morocco, 36% of Moroccan respondents feel that their country has not benefited the most from current EU policies and 44% have also no information about EU communication campaign awareness. This lack of awareness underscores the limitations of EU-centric communication strategies in effectively reaching and engaging with the public in SM countries (Santaniello et al., 2022). Policy-makers in North Africa generally view EU green initiatives as EU-centric, with little partner ownership of the corresponding policies (Santaniello, 2022). One of the latest examples is the New Agenda for the Mediterranean, re-launched in 2021 to strengthen the strategic partnership between the EU and its Southern Neighbourhood partners. However, the New Agenda still presents a unilateral framework by EU leaders, based on shared but not necessarily mutually agreed priorities for 2021-2027. Indeed, a common dialogue was not taken into account by the EU regarding its formulation of its climate resilience, energy and environment policies.

Communication strategies employed by the EU are being perceived as top-down and disconnected from the local context, leading to limited buy-in and impact (Gonçalves, 2012). To address these challenges, there is a need for more context-sensitive and participatory communication approaches that actively involve stakeholders from the SM in the design and implementation of sustainability initiatives. This requires building trust, fostering dialogue, and ensuring that communication efforts are tailored to the specific needs and priorities of the region (Pavan, 2009). Furthermore, enhancing inter-regional collaboration mechanisms and

promoting knowledge sharing among countries in the SM can help overcome barriers and foster more effective cooperation on shared challenges, such as climate change, resource management, and socioeconomic development (Shumilin, 2020).

The promise of a common green hydrogen strategy in the Mediterranean

GH development in the Mediterranean can be perceived as a renewed opportunity for the EU to ensure effective communication with SM countries, considering the lessons learned from previous initiatives such as the ENP, MSP and Desertec (Schmitt, 2018). The past fragmented approach has limited the scale and impact of renewable energy projects, reducing regional integration and a ramping growth of regulatory uncertainties (Alnawafah, 2023). Inconsistent, and yet sometimes, non-existent joint policies across Mediterranean countries create uncertainty for investors and industry stakeholders.

Considering the multifaceted approach that can be taken for future GH initiatives in the Mediterranean, it is essential to aim for a common GH communication strategy in the region. Public awareness and support are crucial for the successful implementation of policies, as it creates a conducive environment for investment, regulation and social acceptance (Ahmad & Saimy, 2023). However, current public awareness of GH and its potential benefits remains limited in many Mediterranean countries due to the lack of information, misconceptions, and competing priorities. By engaging with citizens, communities and stakeholders across the region, a common communication strategy can build momentum and generate valuable public support (Ahmad & Saimy, 2023). On top of that, it seems that regulatory uncertainty across Mediterranean countries creates challenges for investors and industry stakeholders, blocking cross-border collaboration and investment (Alnawafah, 2023). This is why harmonisation and alignment of regulatory frameworks bridging the north and south of the Mediterranean can create a more predictable and enabling environment for GH deployment, facilitating market entry and scale-up of projects. Moreover, by fostering policy dialogue and knowledge exchange among Mediterranean countries, a common communication strategy can promote the adoption of best practices, lessons learned, and innovative approaches, driving forward the energy transition agenda in the region.

Ensuring inclusive decision-making processes that engage stakeholders is crucial for building trust and legitimacy in future GH initiatives. Developing Communities of Practice (CoPs) becomes a cornerstone of this approach, offering a collaborative platform that bridges the gap between policy goals and community interests (Bicchi, 2024). CoPs create a space for experts, practitioners and local communities to come together, share best practices, and explore innovative solutions that could build a common communication strategy for GH in the Mediterranean. Holistic approaches to communication not only strengthen the alignment of GH projects with local needs but also enhance the resilience and sustainability of these initiatives. By actively involving CoPs in the communication plans, policy-makers and stakeholders can create a more inclusive and collaborative environment where stakeholders from different backgrounds can contribute to the discussion, ensuring that GH policies and projects are inclusive and relevant to those they aim to serve (Wesso & Brandt, 2023).

Spain and France have National Energy Climate Plans (NECPs), which can serve as a foundation text for a strategic communication plan through multiple channels, such as press releases, governmental websites, official statements and social media channels, to construct a narrative that emphasises the importance of renewable hydrogen in achieving the energy transition. For instance, the Spanish Hydrogen Association (AeH2) claims to be the voice of hydrogen in

Spain, representing 300 partners from across the hydrogen value chain by facilitating dialogue, sharing insights, and disseminating information through webinars and collaborative projects (AeH2, 2022). France's strategy regarding GH, beyond its communication channels, is integrated into its investment energy plan for 2030 and with claims as well of leading the European H2 market and technology innovation (Gouvernment, 2022). This could seem problematic at some point, as EU members are in a race for leadership for GH development rather than cooperating and creating long-term partnerships. Despite individual planned cooperation with SM countries, as shown in the German GIZ approach through its hydrogen diplomacy initiative (Valverde, 2023), there are still no concrete common EU efforts to implement its GH strategy in the SM.

Countries such as Algeria and Morocco have both shown great interest in developing and exporting GH and have already developed new initiatives, policies and communication strategies to level up their share of large scale H2 projects (Recharge, 2024). Algeria, for instance, entered into a collaborative agreement on GH in February 2024 with Germany to form a GH task force to guarantee the supply of hydrogen and, by 2040, aims to meet 10% (or 4 million tons) of the GH demand in the EU market (ICIS, 2024). Moreover, VNG, the second-largest gas distributor in Eastern Europe, signed an agreement with the state-run Algerian Sonatrach to become the first German energy company to fund a GH project in Algeria. Under the terms of the deal, national gas firm Sonatrach would establish a 50MW GH pilot plant in the Algerian city of Arzew, with assistance from the German government, totalling €20m in funding (Kurmayer, 2024). Similarly, in an attempt to draw in investors, the Moroccan government announced in March 2024 in an official communication called "L'offre Maroc" that it will devote 1 million hectares, beginning with 300,000 hectares in the first phase, to GH projects (Reuters, 2024).

Despite the growing number of GH projects, the communication strategies of Spain, France, Algeria and Morocco, in this context, can still be perceived as premature and show little alignments towards common goals. Yet again, competition rather than collaboration is promoted among these countries. However, beyond geopolitical tensions, the establishment of collaborative platforms such as the Mediterranean Hydrogen Alliance (MHA) provides a promising opportunity to create a unified communication strategy. Focusing on mutual interests and leveraging the unique strengths of each country, the EU and SM nations can turn initial challenges into a strong partnership that drives the Mediterranean economy forward, with open communication, shared knowledge, and collaborative policy-making on GH.

Conclusions and recommendations

The pursuit of a common communication strategy for GH in the Mediterranean requires addressing significant gaps in the current EU approach, such as fostering regional collaboration, and bridging cultural and regulatory divides. Although since 1996 the EU has made considerable efforts to promote sustainability in the SM countries through the UfM, ENP, MSP and the Barcelona Declaration, these efforts have often fallen short due to a lack of tailored communication strategies, misaligned policy frameworks, and limited inter-regional collaboration. The fragmented nature of communication in the region has resulted in policies that do not effectively represent the unique regional contexts, leading to a lack of ownership and engagement from SM countries. In addition, the Euro-centric approach of the EU's communication strategies, perceived as top-down and disconnected from local realities, further exacerbates these issues. A common communication strategy must aim to empower SM and EU stakeholders by promoting participatory approaches, engaging civil society, and fostering cross-border collaboration. To advance the development of GH communication strategies, the European Commission (EC) and SM countries should consider the following policy recommendations:

- SM countries should engage more frequently with their European neighbours in joint communication campaigns to raise awareness about the benefits of GH in the Mediterranean, addressing common misconceptions and highlighting successful projects. This includes participating in common projects, sharing best practices, and promoting partnerships that support GH development through international grants and funds in both shores of the Mediterranean.

- The EC should consider a dedicated Mediterranean GH task force focused on coordinating GH initiatives in the region, including SM countries' needs and interests. This task force should bring together representatives from relevant directorates, including energy, climate action, research and external relations, to develop a comprehensive strategy for promoting GH communication and collaboration among Mediterranean countries. The task force should engage with civil society, industry stakeholders, and local communities in building trust and fostering a sense of ownership in GH projects. This could lead to increased public support and a smoother implementation process of GH policies in the region.

- The EC should prioritise knowledge exchanges and capacity-building with SM countries to support the development and implementation of GH technologies. This could involve organising workshops, training programmes, and study tours to exchange best practices, lessons learned and technological innovations.

- The EC and SM countries should work together to harmonise regulatory frameworks for GH production, trade and utilisation, creating a common level field for investors and promoting cross-border cooperation. This could involve developing common standards, certification schemes, and regulatory incentives to facilitate market integration and investment in GH projects across the Mediterranean.

- Implementing these policy recommendations could strengthen the EC-SM ties on GH, creating a more integrated common communication strategy in the Mediterranean that will facilitate future regional cooperation on GH.

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