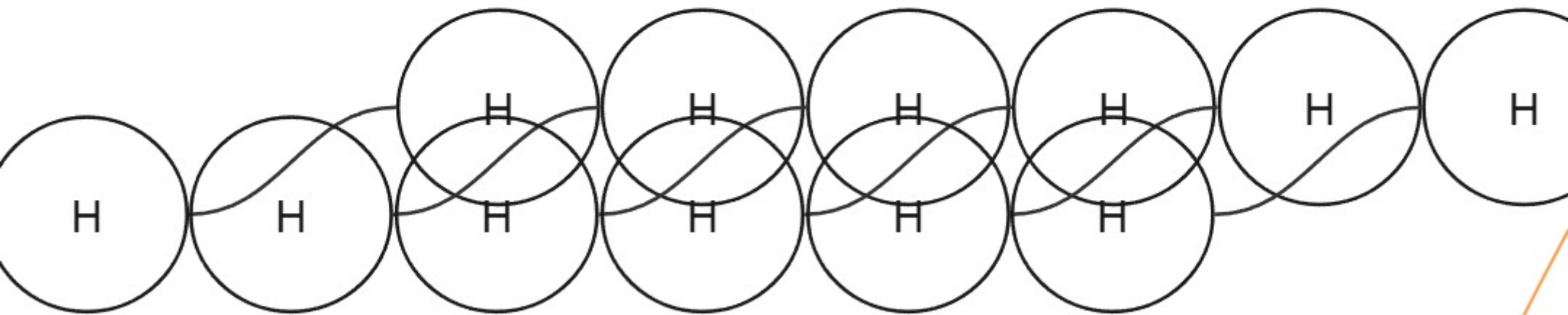


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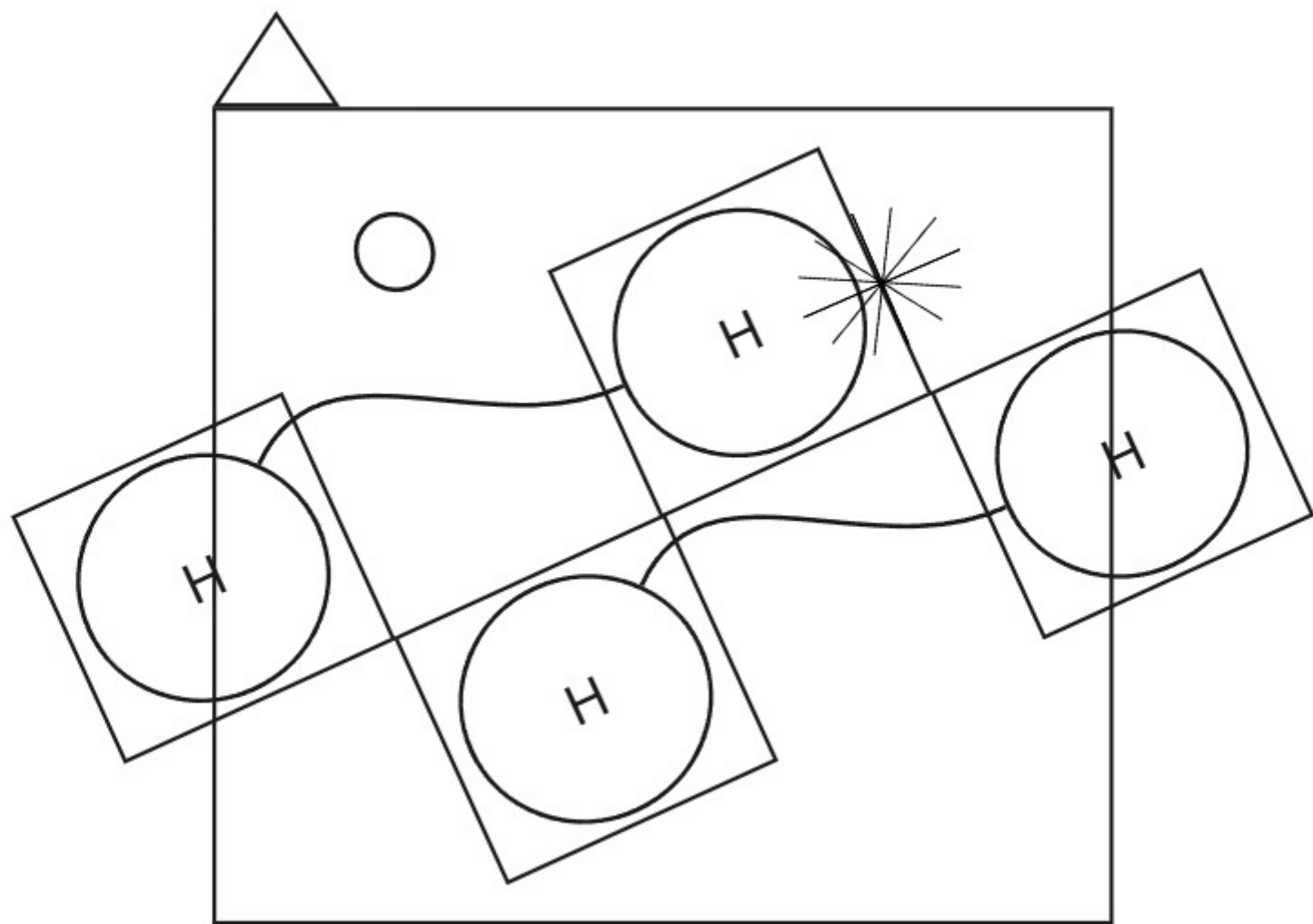
White molecules (NatH_2): A feedforward
Second assessment for decision-making



What next for white molecules?

The IEA has recently published an update on natural hydrogen. We are all very busy. Therefore, when assessing the situation, we are focusing on progress and, above all, on movement in this area. We relate both of these to the validity of the scientific thesis that NatH_2 is a scalable and clean primary energy source. Is it as solid as a rock? Procedural developments, such as the inclusion of NatH_2 in mining legislation, are not yet relevant. We adhere to the simple maxim of not taking the second step before the first. However, we are interested in whether the people involved can substantiate the original hypothesis or not.

Are they alive or not? Or both?



The Mali Hydrogen: Update



Production at Bourakébougou in Mali – a region in political turmoil – remains the only evidence. This makes it almost impossible to verify what is actually happening on the ground and to cross-check scientific sources. The IEA report emphasises once again that the geological data collected as part of a doctoral thesis on the Mali case is accessible only to IFP Energies Nouvelles (IFPEN). The dataset is therefore a black box.

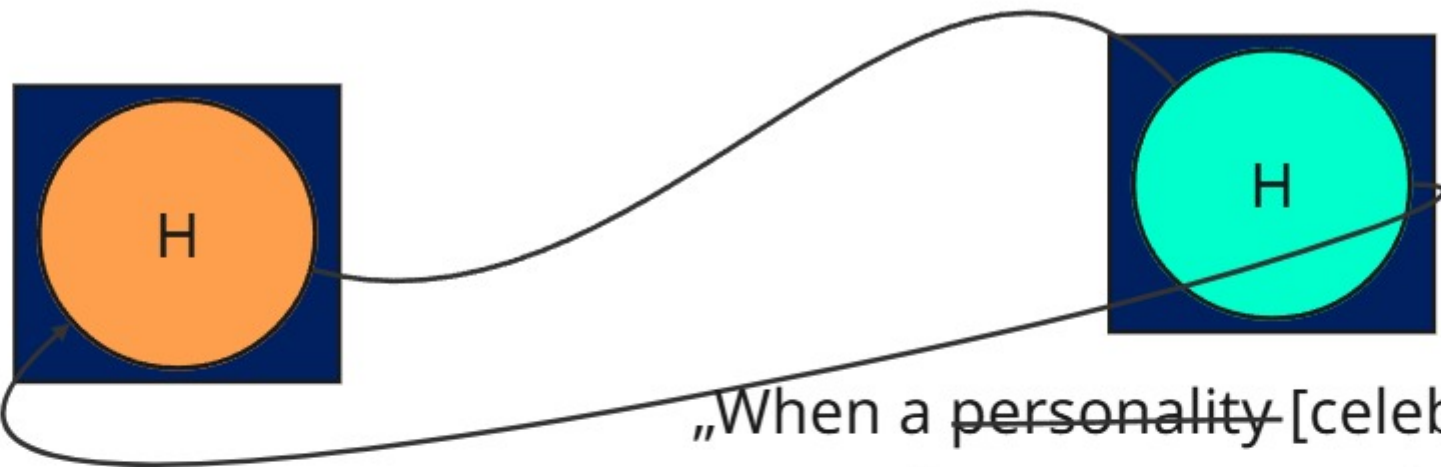
As a reminder: Opportunities

Natural hydrogen NatH ₂ is a primary energy source like oil.	In the life cycle assessment, NatH ₂ production could perform well, as it does not require large areas of land or large amounts of water.	If these conditions are met, a high level of social acceptance of this energy source can be expected.	
	Concentration and purity are different terms. When it comes to the highest concentration and purity of H ₂ , it can be described as emission-free and competitively priced compared to other cheap types of hydrogen or natural gas.	As oil companies are the main players in the NatH ₂ network, their expertise and equipment can be used for exploration.	There is hope that, if no scalable quantities exist, local production could take place, as in Mali.

As a reminder: Risks

There is only one pilot project worldwide that extracts NatH_2 in Mali to supply electricity to a village. All research is based on this project.	Geological plots are highly individual, and no two cubic millimetres are alike.	Zero emissions depend on the H_2 concentration and require the absence of other gases. This condition has been the exception so far.	The cost of separation is an obstacle to future use in the high-tech sector, for example in semiconductors.
In a geological context, H_2 is highly reactive and forms numerous compounds. It is also readily consumed by microbes.	To counteract shortages, one considers to artificially stimulating NatH_2 production. This is an additional risky method.	The USP of NatH_2 is zero emissions at a competitive price. It's valid as long as there is geopolitical agreement on decarbonisation.	Infrastructural weaknesses with regard to unfavourably located sites.
		If this agreement is no longer in place, NatH_2 will lag behind other types of hydrogen or natural gas.	Use in industrial thermal processes for CO_2 reduction only makes sense with high H_2 concentrations.

Q & A



The hypothesis that NatH_2 is a scalable and clean primary energy source of the future lacks direct evidence. We are checking whether there is any indirect proof. To this end, we have developed questions that focus on human output.

„When a personality [celebrity] is part of an ecosystem, there is nothing more human than wanting to please and be liked by it, and so imitating it. If this system is very homogeneous, there is no longer any counter-balance. Human judgement is seriously impaired as a result. [...]“
Our former analysis.

Questions about people

Where can we feel a real drive for innovation?	How many bold ideas are put forward and exposed to the public in order to challenge them?	What are the emergent patterns?		Where are there visible limitations?
How does relative productivity compare in terms of team size and the skills of the team members?	What is the overall motivation?	If a network is already in place, how open is it to new influences?	What about its credibility and integrity?	How is the relationship with the investors?
			What are the structure and hierarchy of the organisations?	

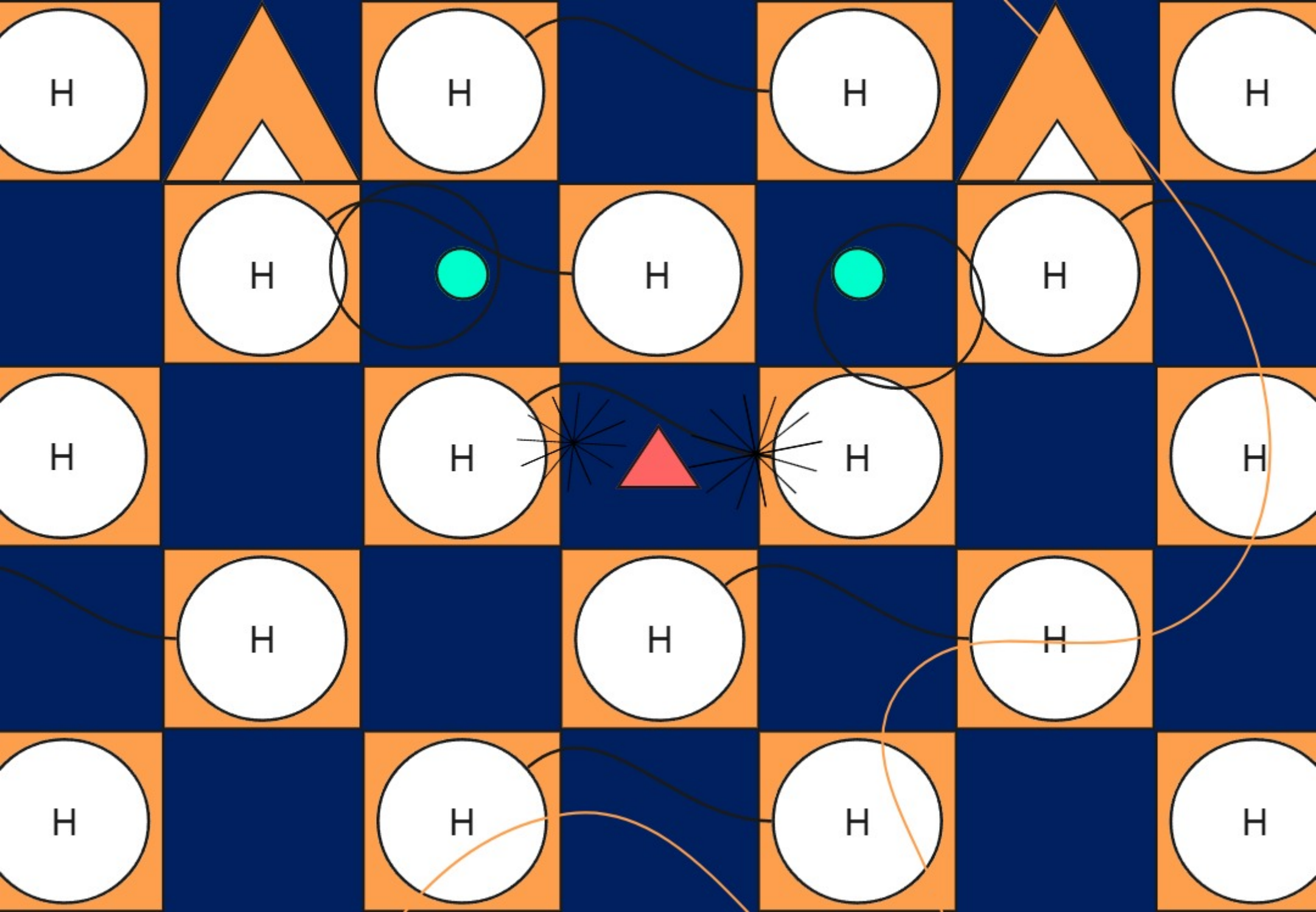
Answers about people

Only the avant-garde can truly create something new, be it in a business, scientific or artistic context. That is not the case here, however.	Bold, original ideas are a true, authentic firework display. Here, we see experts operating with routine and without causing frictions. Incidentally, PR campaigns do not prove bold ideas!	Start-ups [Are they?] are structured according to an 'MBA framework'. Another emerging feature is the generation of voluminous processes.			The weakness lies in a lack of innovative drive. The sheer existence of NatH_2 is not innovative in itself. Ideologies.
Stakeholders usually issue press releases and, occasionally, iterative studies. Communication is closed.	People are motivated to add a new and clean resource to the energy mix.	It is a well-established, international network. The latter is not necessarily a sign of openness for the new.	The scientific basis for the hypothesis that NatH_2 could be a scalable and clean primary energy source is fragile.		Public academic freestyle is rare.
			These structures are suited to time-consuming processes.		

Conclusion and recommended action: Update

The extraction in Bourakébougou, Mali, remains the only evidence, and it is not particularly robust. Geoscientific exploration may take a bit longer, but we miss foundational logic. That is why we have raised questions about the network regarding evidence of progress. Questions about the people, people-questions. What concerns us is the lack of visible movement and a dynamic flow on the path - which is the destination. We maintain that this does not constitute a solid foundation. Despite the NatH₂ projects in Africa, Asia, the Middle East, the Americas and Europe, we therefore continue to recommend caution. Berlin, 30 June 2026

For comparison, our 2025 Christmas report, 'Natural Hydrogen (NatH₂): A new high-potential candidate?', is available for you to read. And of course, it's eye candy.



The question was whether the white molecules are alive or not.
Or both?

Generally speaking: yes! Otherwise, we'd have entirely different problems of universal magnitude. In the specific case under discussion: no. Are we now going to pick a fight with Copenhagen as well? We'll answer that with a clear 'yes and no'. For the time being, the sharks and our enduring motivation to make them fluffier are enough for us. To conclude: an idea without a logical foundation is not a groundbreaking innovation. Nor is it 'disruption', a term that is sometimes inflated and overused. Let's get Christensen off the shelf again!

Contact



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