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# 14th International Green Energy Conference

(IGEC-XIV)

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Name	Tobias Christopher Brunner	
Affiliation	Managing Director, Hynergy GmbH, Germany and Cryomotive GmbH, Germany, and former Vice President, Hydrogen Business Great Wall Motor China	
<h2>Invited Plenary Lecture</h2>		
Presentation Title	<b>Hydrogen on the Way to Competitiveness – A Hydrogen Cost and Decarbonization Perspective</b>	
Abstract (Approximately 200 words)	<p>The Hydrogen Council, the world's largest CEO-backed organization has published Hydrogen Insights 2021, an industry-led study on the cost development of hydrogen technologies in multiple sectors including mobility, energy, industry and heating. The study revealed that the competitiveness of hydrogen technologies is closer than many expected and that investment to overcome the gap is moderate compared with investments in today's energy and fuel systems. Until 2030 nine mobility applications reach competitive cost to conventional and alternative low-emission technologies. The cost of hydrogen production by electrolysis will drop significantly with scaling-up to electrolyzer capacity as do fuel cell systems for mobility applications once a volume production is reached. Fuel cell vehicles may become competitive to battery electric vehicles in several long-range applications, with both technologies complementing each other over the portfolio of mobility applications. As a key conclusion the study also revealed that hydrogen can get a key role in the transition of energy and mobility towards a zero-emission world: hydrogen will be a powerful and indispensable carrier for renewable energy and may be the foundation for an international renewable energy and fuel trading system starting as early as 2030.</p>	
Biographical Sketch (Approximately 200 words)	<p>Dr. Brunner is a Managing Director and Co-owner of Hynergy GmbH, a Hydrogen Energy and Mobility Engineering company in Germany as well as of Cryomotive GmbH, a Startup company to develop cryogenic hydrogen storage and refueling technology for long-haul commercial vehicles. From 2016 to 2020 he also served Great Wall Motors as their VP Fuel Cell R&amp;D. In 2019 Dr. Brunner was appointed Strategic Council of FTXT Future Energy, the new Hydrogen Fuel Cell Company of the Great Wall Group. Since 2021 Dr. Brunner is focusing his activities on Germany and Europe and is co-founding further hydrogen energy companies. Before co-founding Hynergy GmbH in 2015, Dr. Brunner has been serving BMW Group in various roles for more than 10 years, most recently as head of BMW's Technology Project Hydrogen Fuel Cell. Under Dr. Brunner's supervision several fuel cell electric vehicle prototypes and test fleets as well as novel cryogenic storage and refueling technologies have been developed and demonstrated.</p>	