

How might we ensure that (digital) startups and local innovators benefit from the potential in the green hydrogen (GH2) sector in South Africa?

Summary of results of the ii2030 Green Hydrogen Edition
July 2023

ii2030

INCLUSIVE INNOVATION 2030

ii2030 GH2 in Africa Edition

Green hydrogen can be transformative for Africa. The sector will create **green jobs** and **new opportunities** for local startups and innovators.

Now is the time to create the fertile ground for entrepreneurs, who often lack access to adequate finance, skills, or even awareness of opportunities in the GH2 sector.

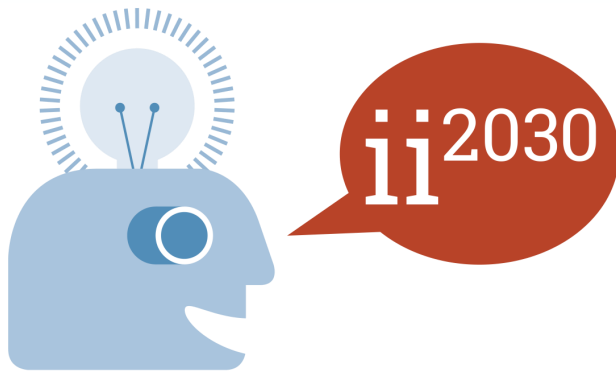
ii2030 is a **catalytic process** that begins with a problem and an opportunity and ends with a prototype of a systemic solution that can be implemented to **strengthen the GH2 support ecosystem** for local startups and innovators in South Africa, Kenya and Namibia.



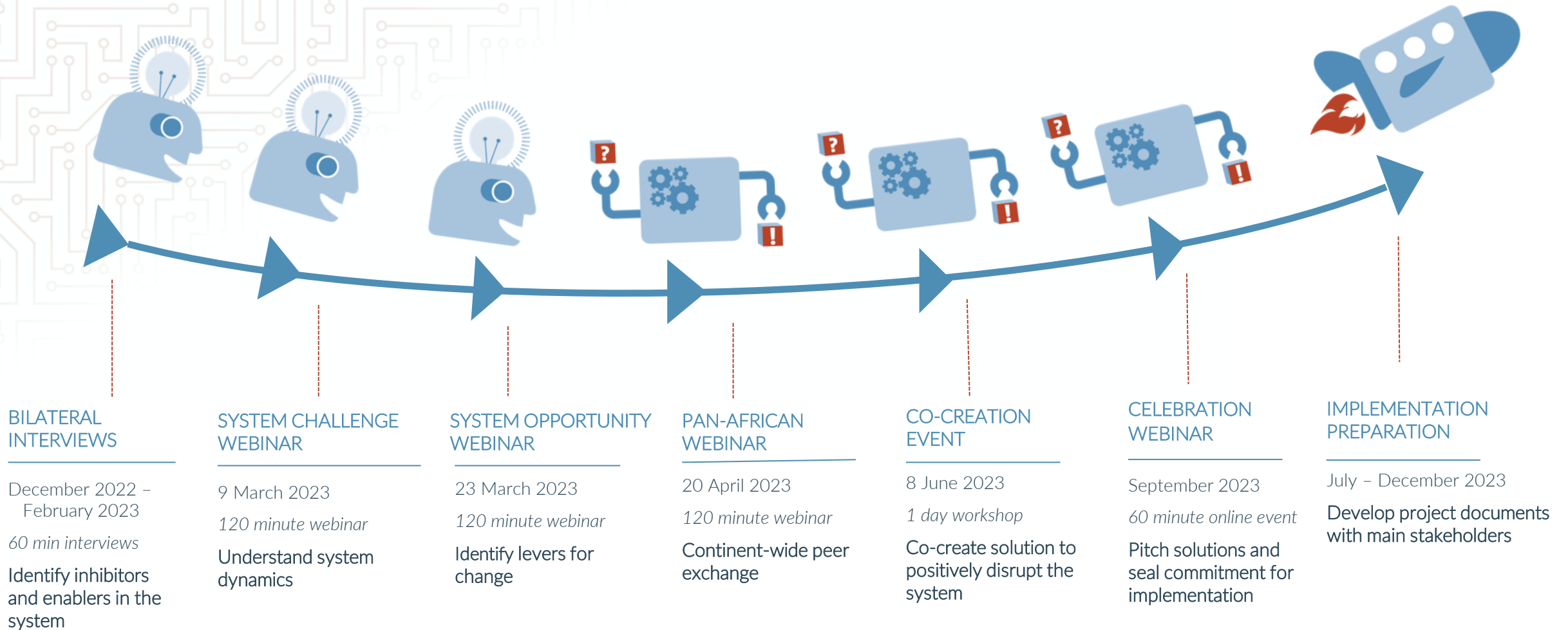
Photo: Co-creation in Cape Town in June 2023 (Endeva)

Guiding Question for the ii2030 GH2 in Africa Edition

How might we ensure that (digital) startups and local innovators benefit from the potential in the green hydrogen sector?



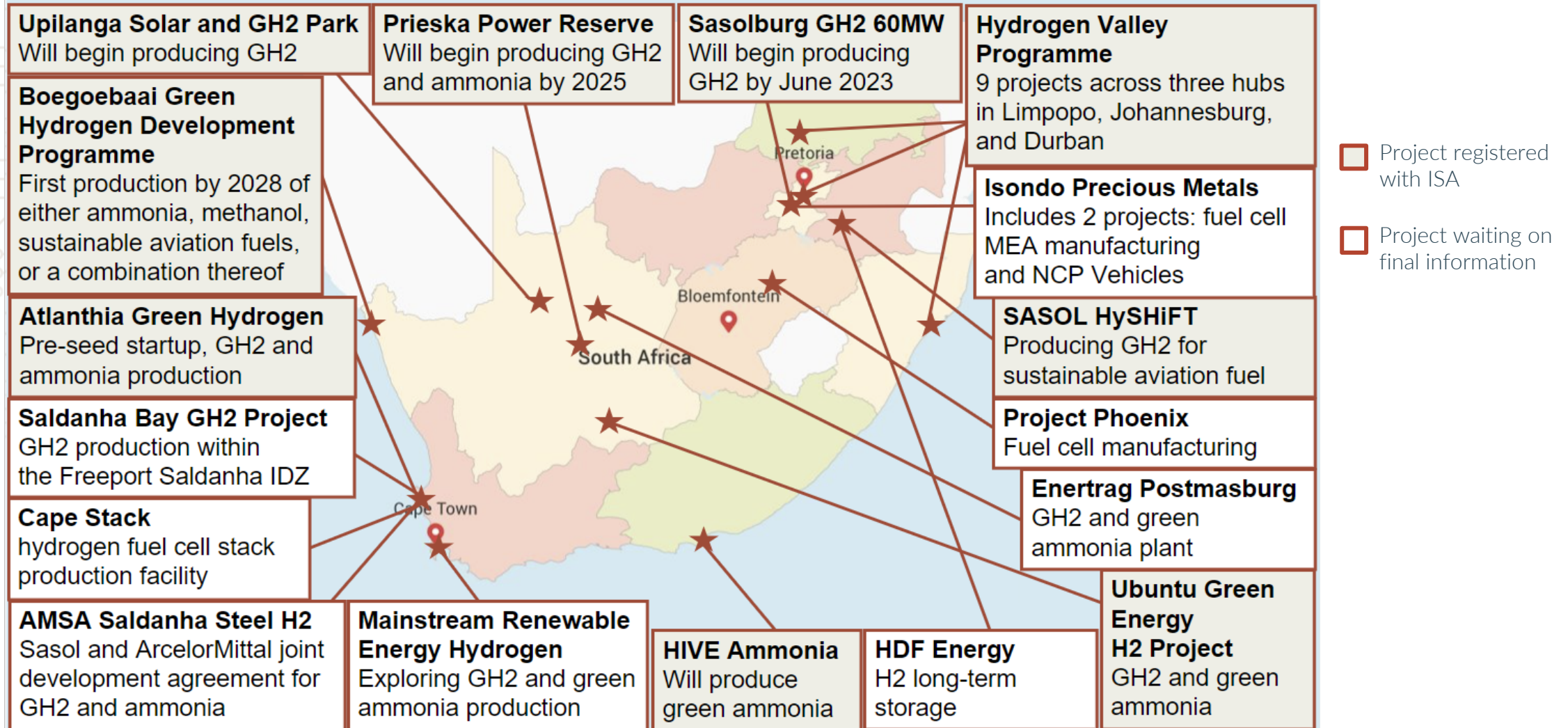
ii2030 Journey in South Africa



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Understanding the System: Status of the GH2 Sector in South Africa and Levers for Change

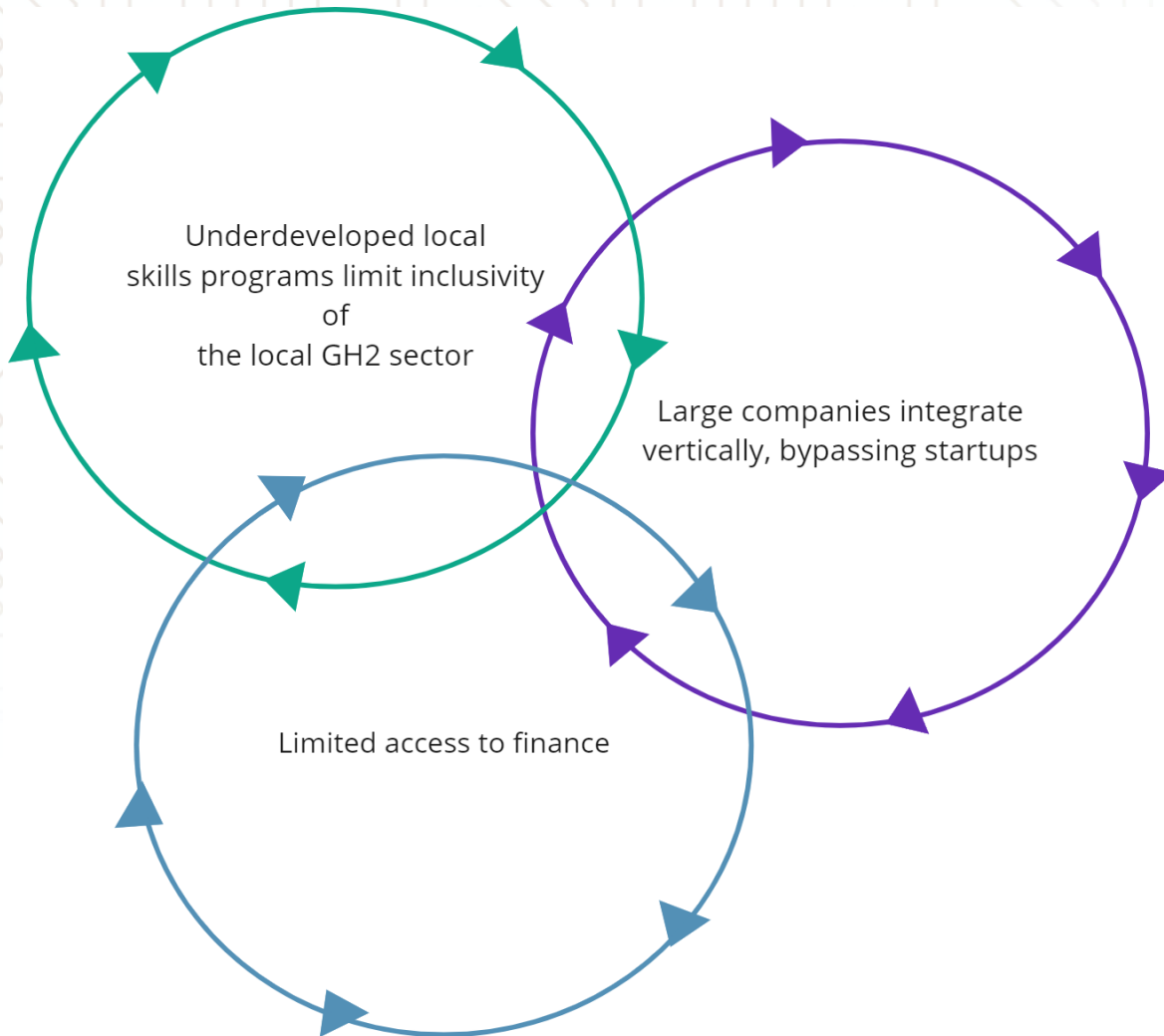
GH2 Projects in South Africa



Key Actors



Core Story of the System



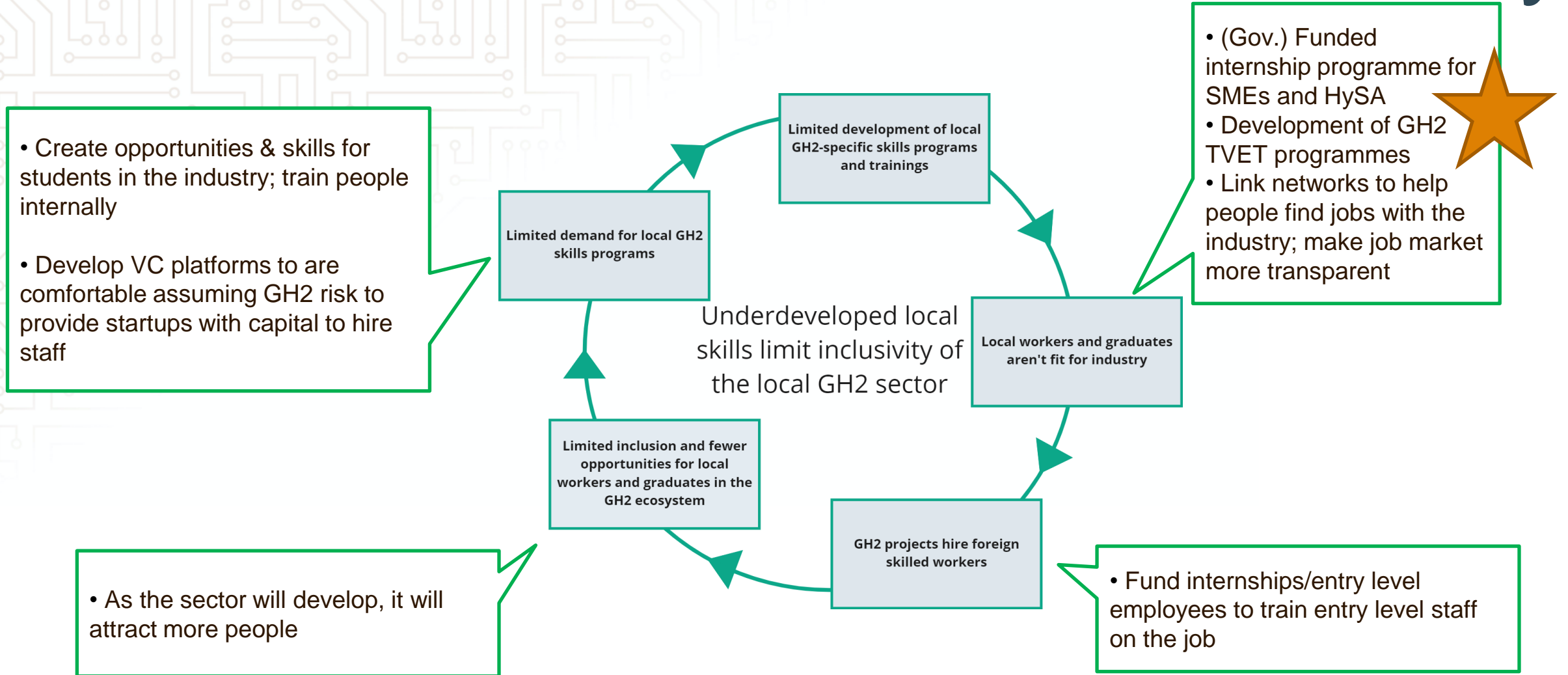
South Africa has a relatively more advanced GH2 ecosystem (PGM industry for electrolysers and fuel cells) and more GH2 application experiences with the HySA.

Yet, we still have a system that is currently optimized to benefit larger players.

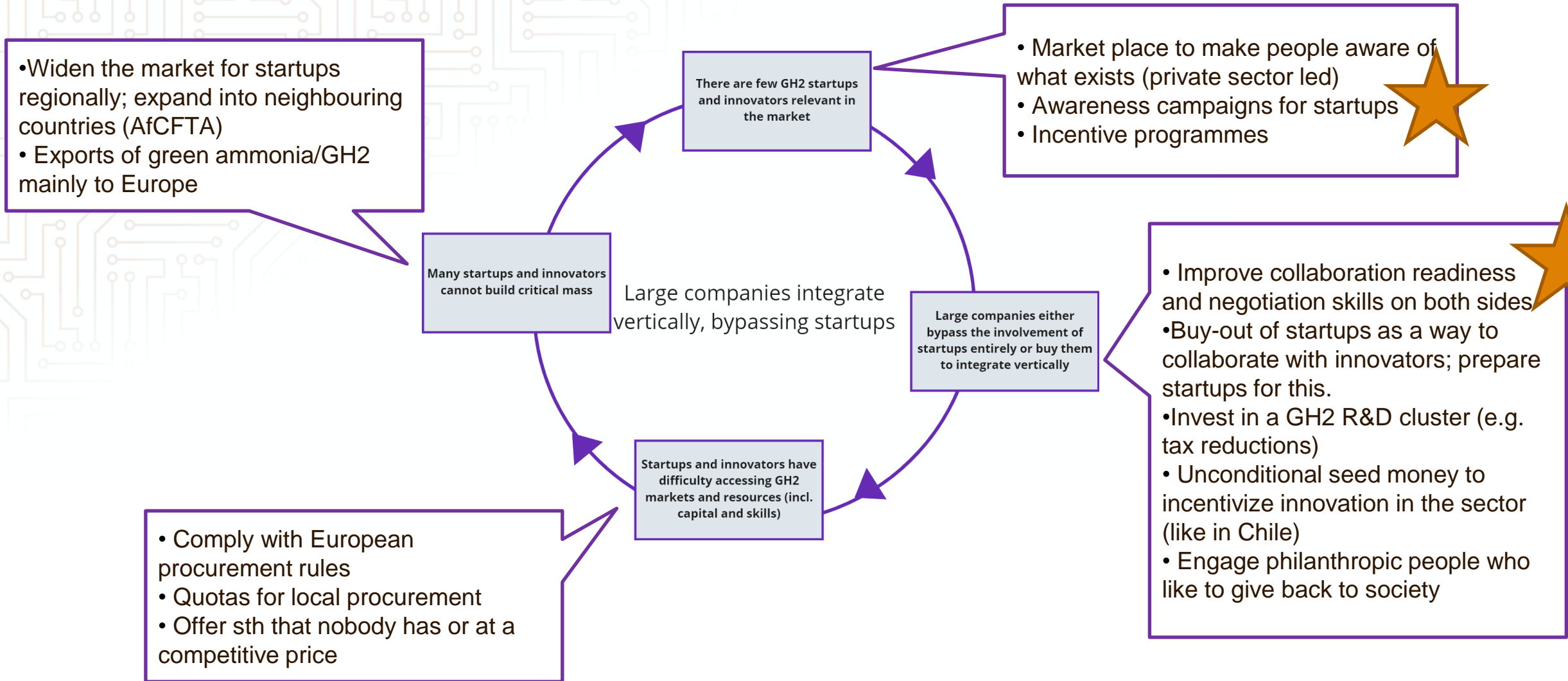
The system excludes smaller players and startups who are faced with limited access to finance for their scale-up activities, limited, affordable skill base, and a risk of exclusion from GH2 projects developed by larger players (lack of collaboration).

This all severely limits their market access and commercialization.


Solutions for Skills and Inclusivity



Solutions for Inclusive Value Chain



Solutions for Access to Finance

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- Awareness of the different funding lines that TIA has: SME funding, VC funds etc.
 - Government could de-risk some funding; so far the sources are limited
 - A unit to help fund seekers to improve the quality of their applications

- Research can play a role to identify niches for startups
- Linkage between research institutions and startups; they spin off from the research institutions
- Bring other players on board in research and the energy department to make startups better prepared for the market; thus less risky.

Scale-up financing are more risk averse to fund disruptive start-ups and innovations


Limited access to scale-up finance for innovation


Start-up do not emerge and are therefore perceived as risky

Limited and non-conductive funding available for GH2 startups and innovators

Start-ups and innovators do not have sufficient funding for increased market access and commercialization

- Would be good to have different kinds of tools: Funding for feasibility studies, production cost, technology, securing off-take agreements etc.
- Esp. feasibility studies would help to develop bankable projects.

- Interactive portal and directory to inform the various options and processes involved (based on study GIZ is already doing on financing landscape)
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The background of the slide is a dark blue-grey color with a subtle, repeating pattern of white circuit board traces and nodes, resembling a complex network or data flow.

Co-creating and integrating solutions into the GH2 Innovation Hub

GH2 Innovation Hub

Integrated Prototype – GH2 Innovation Hub

Developers/Group participants: RIIS, Saldanha Bay Innovation Campus, Technology Innovation Agency, Hyena Energy, Inspiring African Women, Stellenbosch University, CSIR, the Innovation Hub, SeaH4, GIZ, Hydrofuel Solutions, SANEDI, Atlantia Green Hydrogen

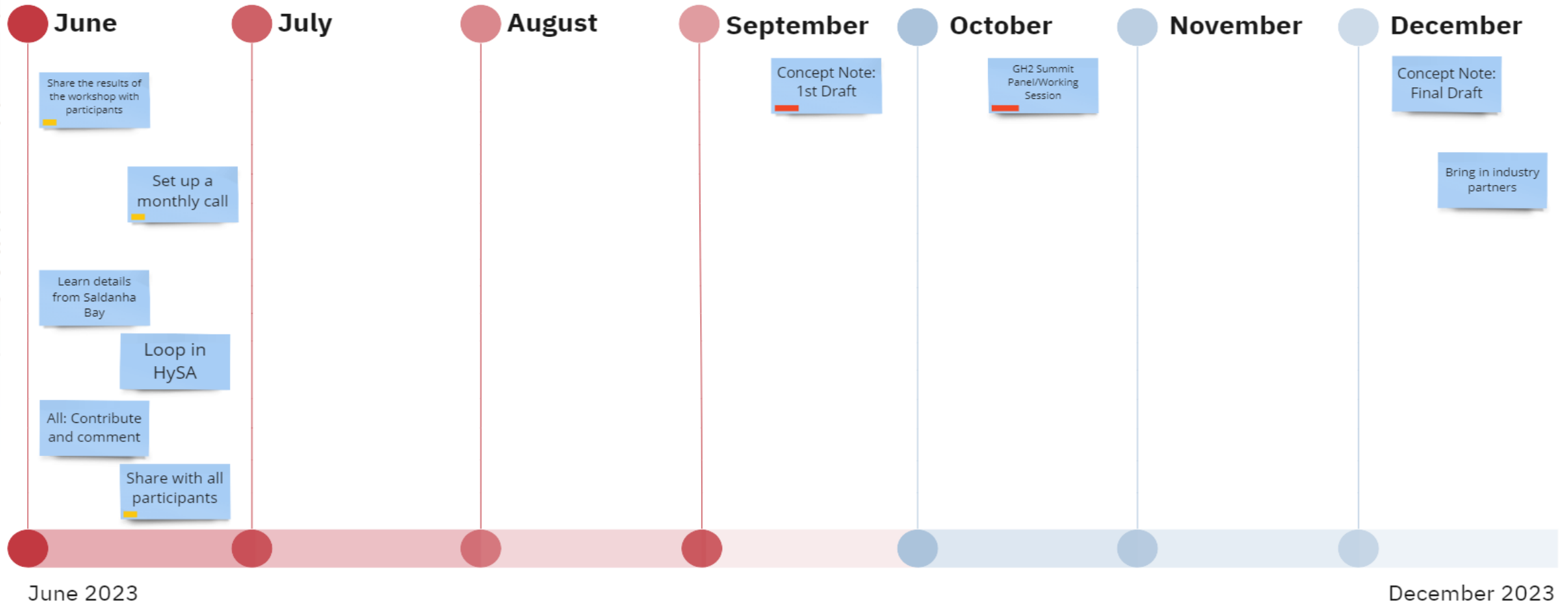
A one-stop-shop for GH2 innovation: an epicenter and hub for innovation with all the necessary actors and resources that make innovation ecosystems work, including mechanisms for information sharing, matching and mentorship.

Featuring:

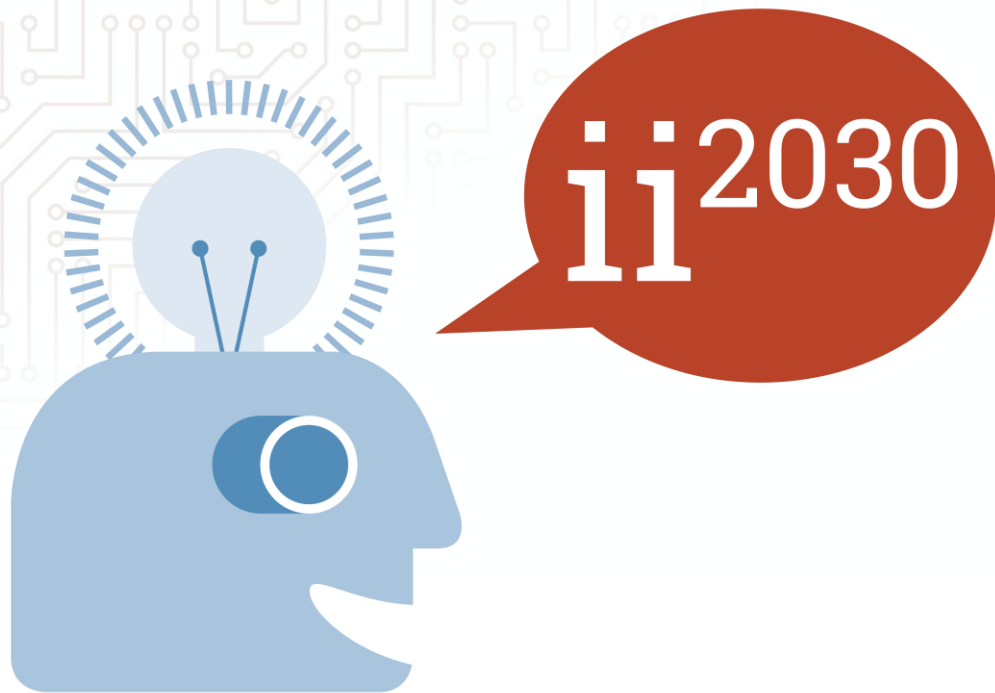
- 1) Incubator and accelerator programs
- 2) Mechanism matching startups with private companies, private investors and offtakers
- 3) Research development and innovation lab
- 4) Enabling infrastructure supporting email addresses, pitch training, business model canvases, design support, co-creation spaces, etc.
- 5) Resident knowledge and expertise to support startups, including an information desk and support centre as well as mentorship and training
- 6) Thought partnership and ideation capability
- 7) Finance
- 8) Positioned near a port, likely within an SEZ



Roadmap to Concept Development



Thank You!



For more information, feedback
or comments, please contact

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