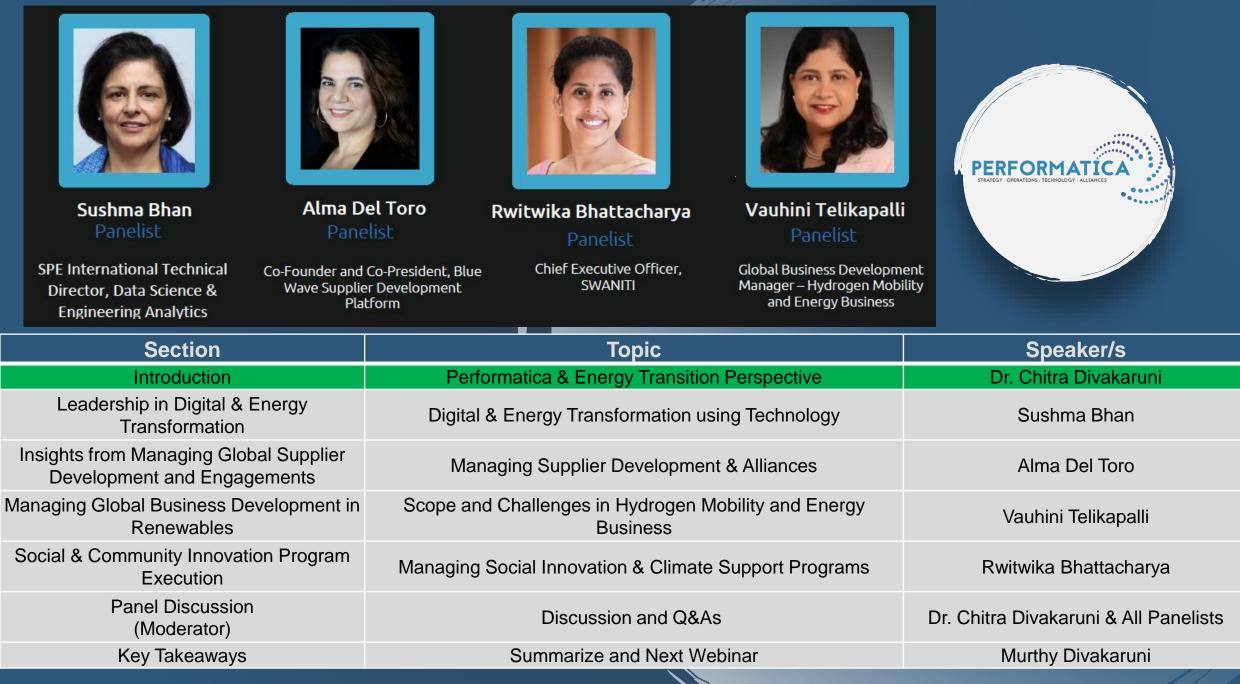
Women Leaders Using Technology as an Innovations Lever

> **Dec 19th, 2023** 10 AM CST (USA) / 930 PM IST (INDIA)



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Energy | Manufacturing | Utilities





Design thinking and Change Management at the core of any proposed solution

operations provide perspective at an engagement level



Consulting+ Technology solutions team from Fortune 500 and Tier I **IT/ITES Firms**



Leveraging low-

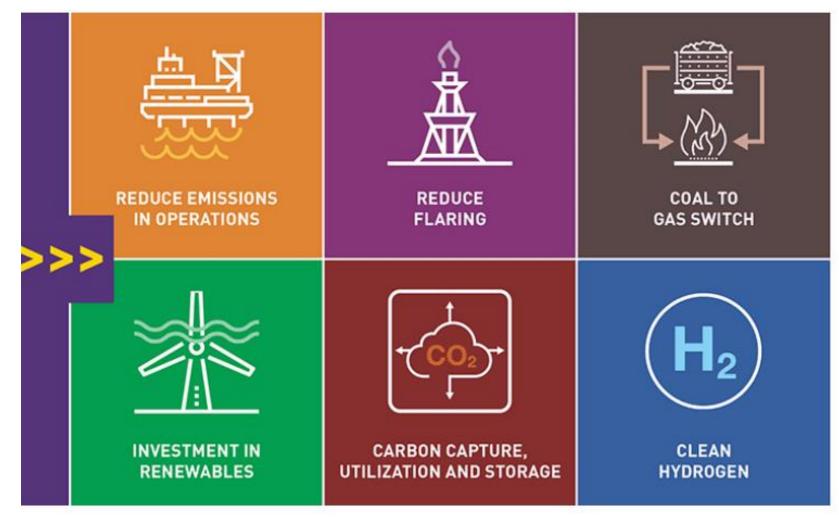
code/no-code

platforms for MVPs

as part of our

engagements

Energy Transition Tracks for Oil & Gas Companies



Source – iogp.org (International Association of Oil & Gas Producers)

<image/>	Wave Supplie		FranciscoReviewika BhattacharyaPanelistChief Executive Officer, SWANITI	Visit of the second		
Engineering Analytics	Pla	uonn		and Energy Dusiness		
Section			Торіс		Speaker/s	
Introduction		Performatica & Energy Transition Perspective			Dr. Chitra Divakaruni	
Leadership in Digital & Energy Transformation		Digital & Energy Transformation using Technology			Sushma Bhan	
Insights from Managing Global Supplier Development and Engagements		Managing Supplier Development & Alliances			Alma Del Toro	
Managing Global Business Development in Renewables		Scope and Challenges in Hydrogen Mobility and Energy Business			Vauhini Telikapalli	
Social & Community Innovation Program Execution		Managing Social Innovation & Climate Support Programs			Rwitwika Bhattacharya	
Panel Discussion (Moderator)		Discussion and Q&As			Dr. Chitra Divakaruni & All Panelists	
Key Takeaways		Summarize and Next Webinar			Murthy Divakaruni	
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Career Journey's Key Pointers

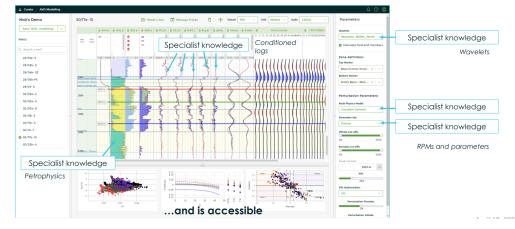
- **Continuous learnings**: IT to Business, Data leadership (XMP4, IBM 360/370 to C, C++, Java, ... global data, standards, AI)
- **Organizational understanding**: Knowing customers, stakeholders, decision makers and your own team
- <u>Future strategic direction alignment</u>: Value of Data & Analytics, establishing it in Shell, guiding it in Ikon Science, leading SPE consortium
- **<u>Risk taking</u>**: New businesses, dealing with unknowns
- Confidence and Trust: alliances with leaders, peers and subordinates, across companies and organizations
- Technical to Business, and Hybrid: E-MBA, publishing technical papers, leading people, processes and projects
- Expanding local to global, from Houston while managing family is doable
- <u>Achieving Results:</u> relentless focus and commitment to delivery & value results and reliability builds credibility
- <u>Giving back</u>: leading Youth org, SPE, IACF & help Kashmiri students' education – supporting women and young professionals

Shell Production Computing Operations, Exploration, Project Management, R&D, Upstream to Downstream, Expert & Data leadership to Chief Data Officer – 30+ years career

Continuing within the Data Sciences & Analytics domain: corporate Ikon Science and non-profit SPE Board, Rice University PSM board roles – Ongoing

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Multi-disciplinary geoscientists could benefit from investigating AVO – what do they need to do it successfully?



Artificial Intelligence and Data Sciences as key levers for Digital and Energy Transformation

- Shell's Well Reservoir and Faculties Management was enabled by standardizing, assuring and with easy access of technical data for additional global production, generating millions USD revenue. Development & Organizational understanding
- Ikon Science's Curate has accelerated access to over 10,000 documents using chatbot (ChatGPT) – within seconds one can query and get to source of data, and business intelligence for Exploration's needs.
- Seismic interpretation and predictive analytics rely on tested models
- Shift in business strategies include Data & Digital transformation includes Geothermal, and other renewables
- SPE's Al4Energy launch next year will foster collective focus, applications and efforts to address multidisciplinary needs



Ways to Accelerate Business Value

of data practitioners

SPE>>ATCE

SPE

Data centric process Customer-centric Showcase small and workflows approach successes 2 8 2 ର∕ ଢ`ହ Get business buv-in Set metrics and and build communities

check-points

Women as Leaders need ...

- Communications ... share ideas, visibility
- Connecting the dots ... strategic thinking
 - Commitment ... delivering value
- Collaboration ... alliances and networks
- Courage and Confidence with EQ ... knowhow and expertise matters
- Compatibility and adaptability ... dynamic business culture, new learnings

to believe in yourself

Panelist Pane SPE International Technical Co-Founder and Director, Data Science & Wave Supplie	Image: state of the state of	ent				
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Managing Global Supplier Development and Alliances My Journey - Alma Del Toro





Legal & Business Multicultural, make us flexible Understand Context & Strategy Excecutive Sponsors Know what you want and **GO FOR IT** Know yourself and follow your **True North** Authentic, Genuine and Adaptable Strategic Partnerships Leverage experience, knowledge & networks Help every time you can, open doors for others Have a Clear Purpose









Managing Global Supplier Development and Alliances Developing Business & Communities

Changing the world, one supplier at a time. Transforming the landscape across industry sectors using technology as an enabler providing a scalable and accessible solution!



Collaboration among governments, NGOs, international companies and local suppliers



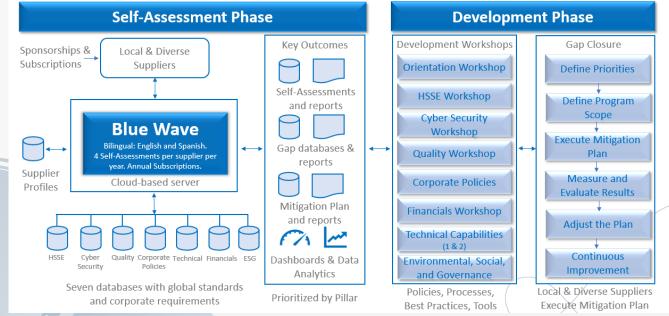
Transferring technology and knowledge = local economic growth, equity



Contributing to the United Nations **sustainable** development goals

Technology is providing a scalable and accessible solution





Managing Global Supplier Development and Alliances Making a Difference around the world

- Creating opportunities, helping suppliers understand how to transfer their capabilities to Renewal Energies
- Helping local and diverse suppliers understand the international standards required by major corporations, we develop them to compete for higher added value business opportunities.
- Supporting emerging Countries develop local content working with IOCs, NOC's, Governments and NGOs.
- Helping Countries develop local development Policies.









Using Technology as an Innovations Lever to Create Equity!

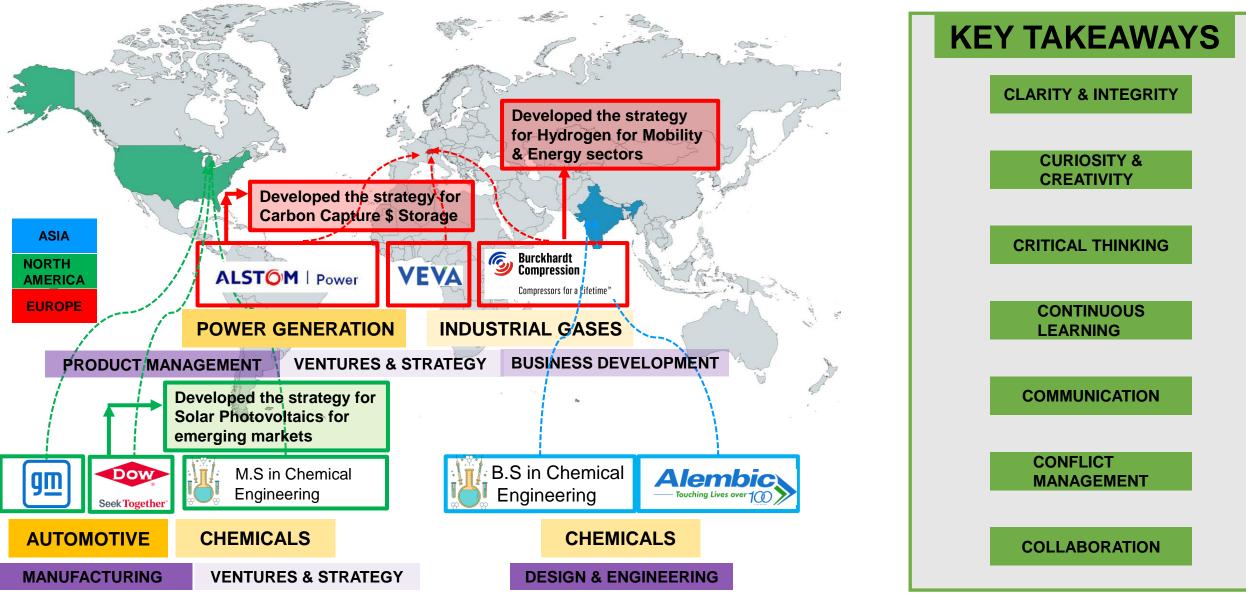
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Panelist Panel SPE International Technical Co-Founder and	Co-President, Blue Chief Executive Officer, Global Business Developme	ent					
Director, Data Science & Wave Suppli Engineering Analytics	er Development SWANITI Manager – Hydrogen Mobi and Energy Business	lity					
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My Journey & Key Takeaways 3 continents..4 Industries..5 Functions



Scope & Challenges in Hydrogen Mobility & Energy Business

WHY HYDROGEN & WHY NOW?

Needed to keep the 1.5° C goal in reach by 2050

Enables decarbonization of hard to electrify sectors such as iron and steel, fertilizers & other heavy industry.

Manufacture fuel cells for future mobility sector as an alternative of fast fueling compared to E-vehicles.

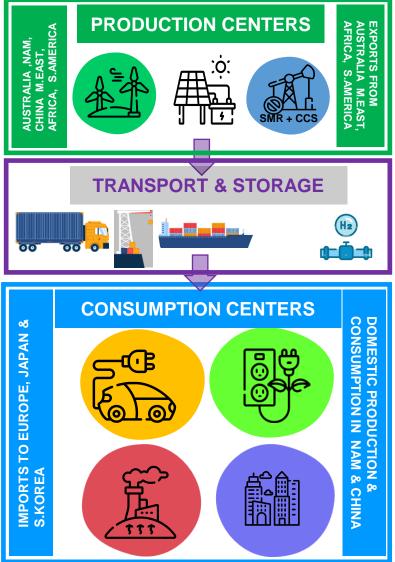
Can be transported as gas or liquid or as a different chemical carrier (ammonia & methanol) to high demand regions.

Enables large scale integration of renewable electricity into the energy system by providing long term energy storage.

Clean feedstock for Industry (refineries, petrochemical and chemical sectors).

Cost effective means of heating decarbonization using existing natural gas pipeline infrastructure

SCOPE & APPLICABILITY



Prepared by Vauhini Telikapalli

CHALLENGES



High Investment costs \$ 460B in 2030.



Scale competitive supply

Hydrocarbon rich countries to scale up blue and green hydrogen production.



Stimulate local demand Need for local market in addition to exports. Decarbonization regulations and clean air to stimulate local demand.



Develop transport infrastructure

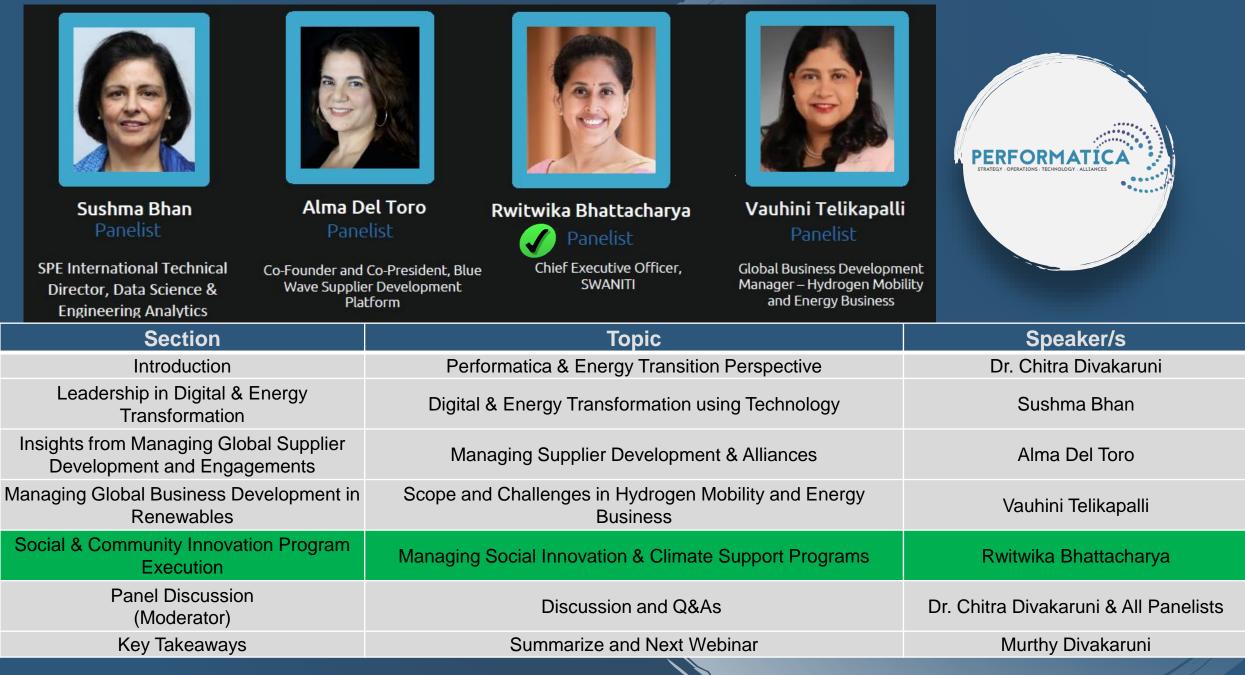
Both expensive and technically challenging.



 Sequire long term off take agreements
Sequire long term off between customers and producers and intergovernmental partnerships.

Future of Energy Transition & Opportunities

- ✓ Fossil fuel demand is projected to peak soon but the outlook remains uncertain
 - Sharp decline in coal demand is expected
 - Natural gas and oil are expected to grow further in the next few years and remain a core part of the world's energy mix
 - Natural gas demand projected to increase driven primarily due to renewable based power generation until batteries are deployed at scale
 - Total demand for oil projected to grow this decade and almost halves in 2050
 - Electrification of transport sector
- ✓ Renewables will make up the bulk of the power mix by 2050
 - Expected to provide 45-50 percent of global generation by 2030 & between 65 and 86 percent by 2050 driven primarily by their cost competitiveness
- ✓ Major investments in the energy sector will be needed but remain stable as a share of GDP
 - Projected to grow between 2 and 4 percent per annum to reach between \$2T to \$3.2T in 2040
- Unlocking critical energy transition technologies, key bottlenecks need to be overcome but can provide significant opportunities
 - Potential bottlenecks include land availability, energy infrastructure, manufacturing capacity, consumer affordability, investment willingness and material availability



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Execution for Social Innovation & Climate Support Programs

- 135 million people living in extreme poverty in the global south will be affected by the climate crisis.
- 80 percent of all displaced people because of the climate crisis will be women.
- Swaniti's work in Chhattisgarh and Jharkhand, mining belts of India, is telling about the climate-migration crisis of the global south.
- But women go from victim to entrepreneur.....



From crisis to opportunity: Creating green businesses

Unlocking government <u>funding</u>





Scaling up businesses successesfully

<u>Making existing</u> <u>business strategies</u> <u>sustainable</u> Needs and opportunities at the intersection of tech and climate

Tremendous potential of women entrepreneurs in grassroots communities but...

- Limited access to capital to scale
- Mentorship and knowledge support on ground
- Access to improved technology tools
- Ability to respond in a timely manner





Panel Discussion

Moderated by Dr. Chitra Divakaruni

Sushma Bhan Panelist Image: Construction of the sector of the sector





Co-Founder and Co-President, Blue Wave Supplier Development Platform



Rwitwika Bhattacharya Panelist

Chief Executive Officer, SWANITI



Vauhini Telikapalli Panelist

Global Business Development Manager – Hydrogen Mobility and Energy Business

Women Leaders Using Technology as an Innovations Lever

Performatica Support in Technology & Social Transformations





Generate the Platform Strategy with Product Roadmap & Milestones Design Platform CoE & Run the Operations/PMO Office

Manage & Monitor Technology Licenses and the Cloud Partners Develop & Monetize from the Alliance/Partner Ecosystem

Thank You



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https://performatica.net/