

POINT OF VIEW

HCLTech unveils a bold vision for E&U to converge IT/OT/BT for digital transformation

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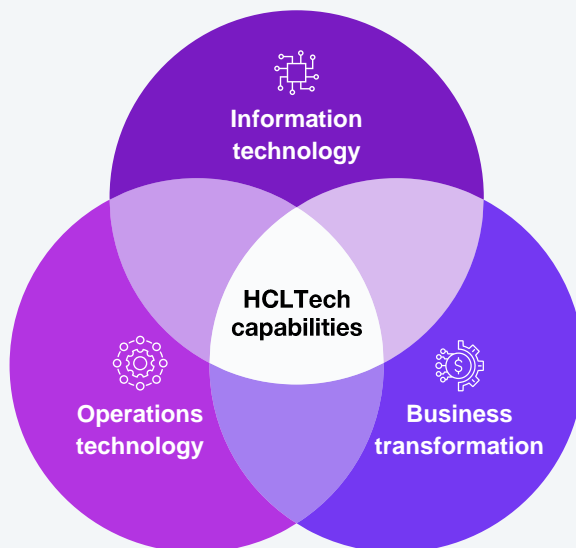
The energy and utility industry is transitioning to provide end-to-end transparency and redefining its priorities and operating model. The driving forces behind the new operating model are growth and demand in energy and the infrastructure required for renewables, battery storage, integration, and distributing energy to grids and other infrastructure. The technology is shifting, too, as the energy and utility (E&U) industry pivots to transforming itself digitally, driving customer engagement, managing costs, and building modern information technology (IT) infrastructure. The transformation agenda can be achieved only when functional silos are broken down, data is shared across an organization, and new partnerships are forged with service providers to support a new operating model.

As a response to these challenges, HCLTech invested in strengthening its capabilities with cross-industry and in-depth business

transformation expertise. Its capabilities are built with a transformation focus—*ikigai*—a systems-thinking approach that is a motivational force for the industry to integrate IT and operations technology (OT) and look at business transformation (BT) (see Exhibit 1).

Energy and utility companies are creating a roadmap and adopting various technologies to manage complex energy systems, but there are hurdles to cross. Digital technologies, such as the internet of things (IoT), cloud, and digital twins, are establishing a connected infrastructure and new operating model while pushing the sustainability agenda forward. However, there is a lack of best practices, visibility, and standards for technology. Like in most industries, data challenges surround the industry technology roadmap—for sourcing, standardizing, or analyzing it in real time.

Exhibit 1: The information technology, operations technology, and business transformation trifecta



Source: HFS Research, 2024

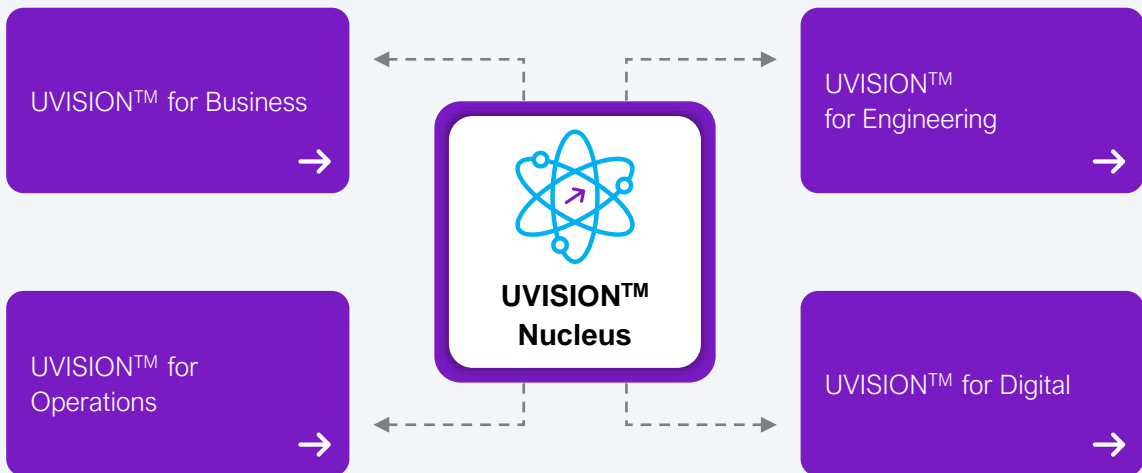
HCLTech's offerings align to address challenges and support the E&U industry's transition to the new model

HCLTech's UVISION framework in Exhibit 2 exemplifies a systems-thinking approach, showing it is hyper-connected to design sustainable engagement models.

- UVISION for Business builds strategies that drive business and process transformation.
- UVISION for Engineering leverages the latest technologies to hyper-automate operations in the design supply chain and aftermarket.

- UVISION for Operations automates processes using automation tools and catalog-based technologies to optimize costs.
- UVISION for Digital leverages digital capabilities to modernize end-to-end digital infrastructure with a sustainable and repeatable systems-thinking approach.
- The [updated tailored capabilities](#) of the UVISION Nucleus framework allow E&U organizations to scale up their digital adoption, connect customers, enhance monitoring, control assets and systems remotely, manage operations and maintenance effectively, build a connected and skilled mobile workforce, and manage risk and resilience.

Exhibit 2: HCLTech UVISION framework

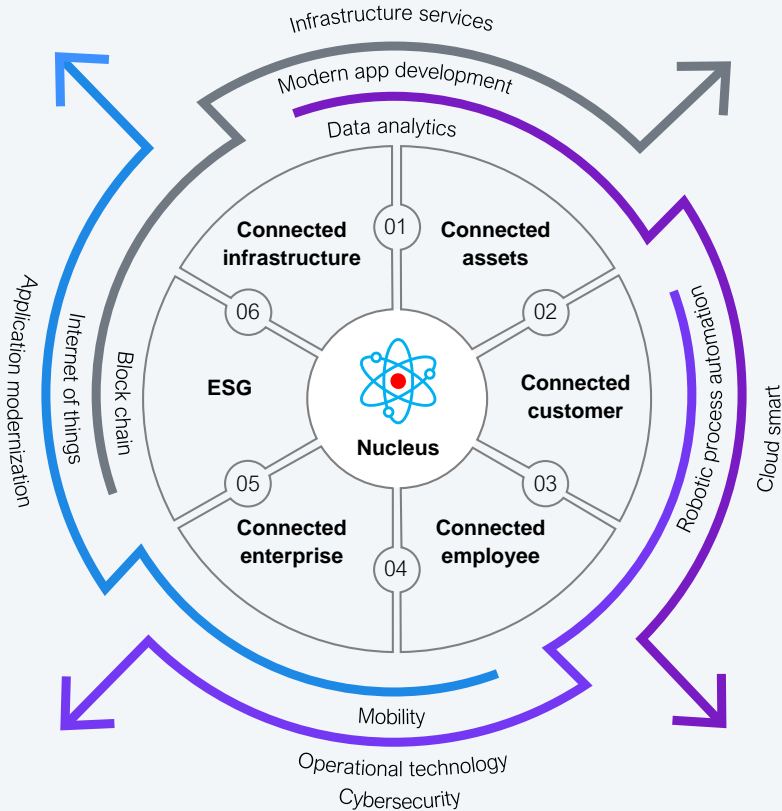


Source: HCL Technologies Ltd., 2024

Connectivity is driving shifts in the E&U industry by connecting the new, decentralized systems with how energy is supplied and consumed via a layer of data and analytics. The role of connected utilities becomes critical for driving improved efficiency, increased reliability, enhanced customer experience, and greater flexibility and scale.

The framework in Exhibit 3 covers business and process transformation, engineering for accelerated product development, process automation in operations, and sustainable digital infrastructure transformation, helping E&U companies to create a flexible operating model that is efficient, reliable, and nimble.

Exhibit 3: HCLTech UVISION Nucleus Framework



Source: HCL Technologies Ltd., 2024

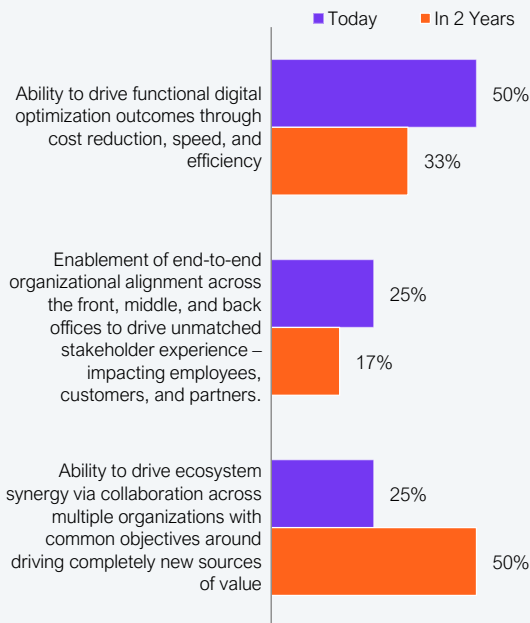
Delivering new sources of value through partnerships and alliances

In the next two years, 50% of E&U companies expect service providers to assist them in driving new sources of value through ecosystem

collaboration. HCLTech is building solutions with industry and technology partners to drive value aligned with the industry’s new operating model (see Exhibit 4). These solutions spread beyond technologies and capabilities to include cloud infrastructure, next-generation networks, digital workplaces, intelligent operations, cybersecurity, and cross-functional services.

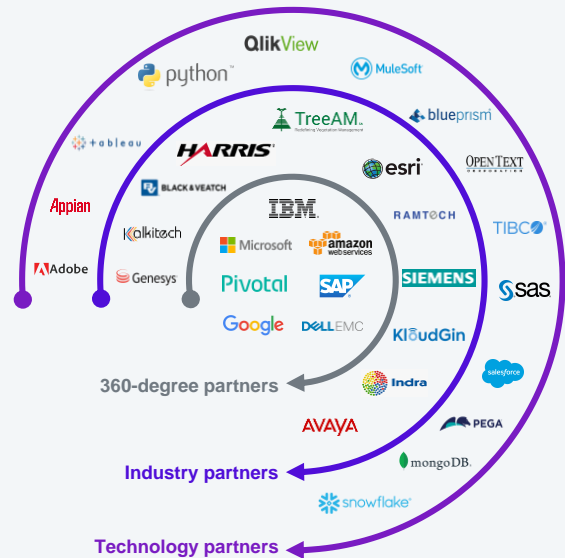
Exhibit 4: Partnerships and alliances drive value, and the importance of industry ecosystems and collaboration is increasing

Which of the following statements best represents the primary value delivered by vendors today? What about in two years?



Sample: HFS Pulse, H12023
Source: HFS Research, 2024

HCLTech’s partnerships and industry alliances



Source: HCL Technologies Ltd., 2024

HCLTech is creating solutions that directly impact the KPIs of key functions

Some countries have regulations for distribution networks, and some don't, so the industry is a gray space. However, KPIs such as systems average interruption duration index (SAIDI), customer average interruption duration index (CAIDI), system average interruption frequency index (SAIFI), asset utilization, and cost per kilowatt hour keep performance and reliability under check. HCLTech has created solutions for key segments such as transmission and

distribution (T&D), generation, and retail that impact these KPIs (see Exhibit 5).

HCLTech's data and analytics and consulting services capabilities have also been aligned with other key functions, such as corporate services and market operations, to provide services that include managing risks and regulatory compliance, settlements, and payments. HCLTech has reconstructed its focus for the industry by adding co-innovation labs and co-created intellectual properties (IPs) within its solutions suite in business services, operations, and engineering.

Exhibit 5: HCLTech UVISION creates value across generation, T&D, and retail KPIs that impact the business

Generation	T&D	Retail
● Resilience (NOC and SOC monitoring)	● Network reliability	● Customer satisfaction score
● Safety	● Safety	● Safety
● Asset health index	● Customer experience	● Customer experience
● Sustainability	● Sustainability	● Sustainment
● Cost effectiveness	● Cost effectiveness	● Cost effectiveness
● Inventory turnover ratio	● Inventory turnover ratio	● Ease of prosumer onboarding (DERM)
● System avg interruption duration index (SAIDI)	● System avg interruption duration index (SAIDI)	● Customer onboarding
● System avg interruption frequency index (SAIFI)	● System avg interruption frequency index (SAIFI)	● On time and accurate billing
● Customer avg interruption duration index (CAIDI)	● Customer avg interruption duration index (CAIDI)	● Outage management

Source: HCL Technologies Ltd., 2024

The Bottom Line: With its changing dynamics of supply and demand, the E&U industry is forcing service providers to rethink their service offerings.

Energy and utility companies globally are in different stages of this transformation; however, it is evident that significant work still needs to be done to derive value from this transformation. The industry needs to forge partnerships with service providers and redefine the services provided to support new operating models.

HCLTech recognizes the transformation in the industry and has rebuilt its focus on snagging opportunities across the value chain. Its suite of connected solutions is aimed at breaking IT/OT silos and transforming business.

While we applaud HCLTech's vision here, it will need to work more closely with business stakeholders beyond the CIO and CTO to make its vision a reality. Last, with the uptake of generative AI across industries, HCLTech should investigate the impact of generative AI in the E&U sector and incorporate it into its vision and solutions.

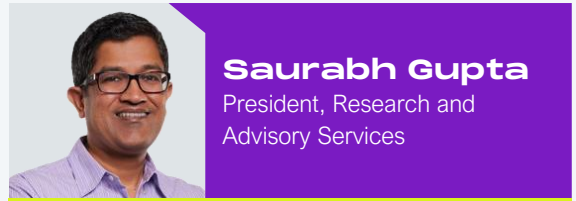
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Nandini is our Associate Practice Lead, driving our research around sustainability, engineering services, and Industry 4.0 in the manufacturing sector.

She has more than 15 years of experience in research and consulting with a focus on automotive, industrial manufacturing, and technology sectors. She has authored and co-authored multiple thought leaderships, managed consulting deliverables, and market research studies on key topics across industries.



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Saurabh Gupta is President, Research and Advisory Services at HFS. He sets the strategic research focus and agenda for HFS Research, understanding and predicting the needs of the industry and ensuring that HFS maintains its position as the strongest impact thought leader for business operations and services research. He oversees HFS' global research function, managing the global team of analysts and operations across the US, Europe, and Asia.

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