IDC PERSPECTIVE

The Race to the Future Utility — Run Like There's No Tomorrow: Highlights from the 2020 IDC European Utilities Executive Summit

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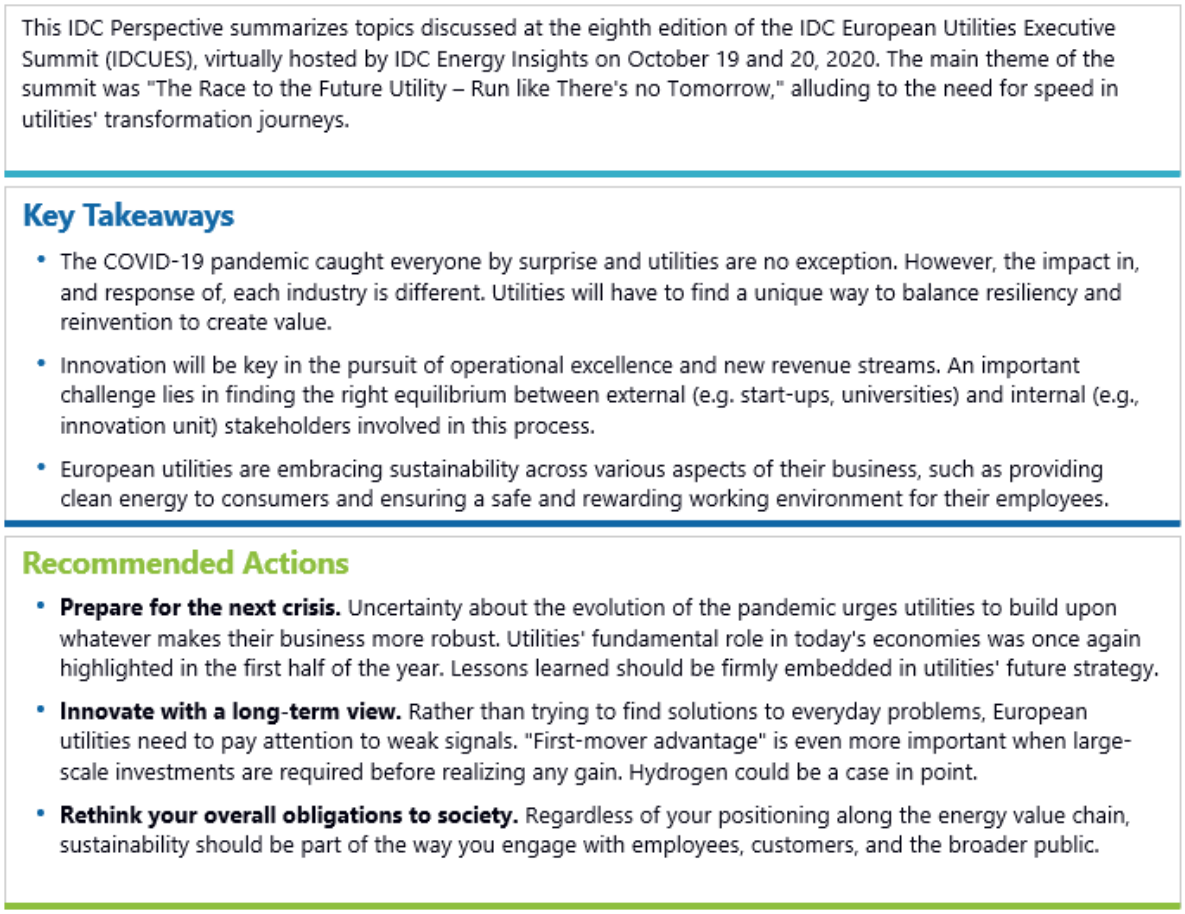
EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: The Race to the Future Utility — Run Like There's No Tomorrow: Highlights from the 2020 IDC European Utilities Executive Summit



Source: IDC, 2020

December 2020, IDC #EUR144955720

SITUATION OVERVIEW

The Summit at a Glance

On October 19 and 20, 2020, IDC Energy Insights hosted its eighth annual IDC European Utilities Executive Summit (#IDCUES20).

Initially scheduled as a physical event in March, this year's edition was postponed to October and its format was changed to a "virtual" summit, a first for the IDCUES series. The hope is for next year's edition to revert to its traditional format, in Malaga, the location originally selected for 2020.

In line with tradition, this year's IDCUES was a truly pan-European event, attended by 64 utility executives from 24 countries (20 European countries shown in Figure 2), representing 47 companies.

FIGURE 2

Country Representation at IDCUES 2020

Source: IDC Energy Insights, 2020

Faithful to its objective of fostering collaboration between various sectors of utility organizations, this year's event featured an almost equal split between line of business (30%), IT (31%), and digital and innovation executives (28%), while C-level executives/managing directors represented 11%.

This year's edition was supported by NTT DATA, Accenture, MECOMS, OMNETRIC – A Siemens Company, Oracle Utilities, Bidgely, and Centrica Business Solutions.

Hands in the Now, Eyes on the Next Normal

When COVID-19 struck Europe's economy, utilities were already facing numerous challenges. The energy transition had them working hard to secure their place in a not-so-distant future that is significantly different from the recent past. Digital technologies have provided them with new tools and possibilities but conveyed a reminder that their workforce is ageing and their customers are becoming more demanding.

The end of the first wave of the pandemic has allowed us to draw some conclusions on how European utilities weathered this crisis. On the negative side, utilities deferred grid investments and were forced to postpone non-essential work. They also faced problems with their supply chains, while a few observed an increase in cyberattacks. On the positive side, the crisis had no real impact on the security of supply and stringent personnel safety measures were rapidly adopted.

All this happened against the backdrop of a truly phenomenal event, from a demand perspective. EU gas consumption was 6.5% lower in the first half of 2020 compared with last year. Electricity demand was 11% lower in the second quarter than it ever had been during the previous four years. Gas and electricity prices plummeted and so did carbon dioxide emissions, down by a quarter in volumes year over year in 2Q20. Unsurprisingly, the share of renewable energy sources (RES) in EU's electricity generation mix rose to 43% in 2Q20 versus 37% in 2Q19.

One could argue that this was a harbinger of change, unexpectedly providing us with glimpses of the future energy system. As is customary, IDC Energy Insights developed a framework for utilities that need to balance resiliency and reinvention to create value in the next normal. Its three dimensions are:

- **Acceleration of automation initiatives.** Cutting across various aspects of utilities' business, automation is poised to bring about unprecedented change in a sector that urgently needs it. Technologies such as artificial intelligence (AI), robotic process automation (RPA), and low-code/no-code platforms will have to become an integral part of European utilities' operational transformation.
- **Improvement of customer digital experience.** Despite experiencing a positive trend, the Net Promoter Score (NPS) of European utilities is still negative (at -8.5). Digital channels are key in changing this perception. They help utilities speak to a younger audience – their future customers. They are also critical in making operations more efficient and offering a more convenient experience. They comprise a prerequisite for higher non-commodity revenues that energy retailers so desperately need in the context of low energy demand.
- **Development of a new ecosystem strategy.** Faced with the need to be part of an integrated experience that goes beyond the boundaries of their industry, utilities will need to identify their new role in an increasingly complex ecosystem. Mobility and housing are examples of domains where utilities will have to find their place at the intersection of energy, lifestyle, and connected living. The right capabilities and partnerships will define their chances of success.

Regardless of the recovery pace, which will unavoidably be different in each country, utilities can only put in place sustainable business models by accelerating digital transformation (DX) and rearchitecting the core business.

FIGURE 3

IDCUES20: Hands in the Now, Eyes on the Next Normal

Source: IDC Energy Insights, 2020.

IDCUES attendees were asked to imagine what their companies will look like in 2050. More than 84% claimed that it will be "something completely different" while only 5% thought utilities are going to look "reasonably the same."

In fact, there are increasing examples of utilities deviating from their traditional business models and contenders entering the utility business. Enel X, for example, shows how a formerly vertically integrated utility can identify transformative trends and obtain a first-mover advantage. Its diversified services cover areas such as emobility, smart cities, smart homes, and more recently, payment services. At the same time, companies from the oil and gas sector are heavily investing in renewables and electrification. French multinational utility Total boasts a portfolio of 7GW in wind and solar generational and has acquired energy supplier Direct Energie. It aims to reach at least 35GW of renewables by 2025. Tesla has been operating in the stationary battery storage domain for years now with Powerwall for retail customers and its Megapack utility-scale storage offering. Leveraging its storage technology and Autobidder platform, Tesla is now a licensed electricity generator in the U.K. and recently became the first company to trade flexible power in the U.K.'s Balancing Mechanism using National Grid's new control room API.

All this suggests that change is imperative in the utility world, as companies need to strike the right balance between facing a volatile present and preparing for the next normal. During plenary sessions, breakout workshops, and informal conversations, speakers and attendees were motivated to put all these ideas into perspective and engage in a fruitful dialogue. Below are some examples.

Thriving in the New Ecosystem

Energy transition is about more than describing a shift in the energy mix; it is now clear that it entails a paradigm shift in the way utilities interact with stakeholders. In the not-so-distant past, they could limit themselves to operating within the boundaries of their positioning along the energy value chain. This is not the case in the current environment, characterized by competition from non-traditional players and blurry limits between new business models.

One of the U.K.'s most innovative energy suppliers was "on stage" at IDCUES to present an excellent example of the role a utility can assume in the context of this evolving ecosystem. Despite being recently founded, the company has expanded abroad (not only in Europe) and serves close to 2 million retail customers with green electricity. Unlike other energy retailers, it licenses its proprietary technology platform to other utilities. One of the U.K.'s largest energy suppliers has entered a strategic agreement to implement it and develop it further. Essentially, two competitors have switched to a partnership and a vendor-client type of relationship at the same time.

Thus, partnerships are key; this is even more true beyond the realms of "traditional" energy supply. The energy supplier put its in-house technology to use when partnering with companies owning and operating electric vehicle (EV) charging point networks. Rather than using a plethora of different apps, their customers are automatically identified and pay for energy by receiving a single energy bill. Unsurprisingly, almost three-quarters of IDCUES utility delegates asked about the number of partners in their future business model, replied that it will increase and include players from industries it has never partnered with before. Only 11% thinks the same figure will decrease.

Finally, as further proof of its thriving in the new ecosystem, the energy supplier presented its work for the vertical farming sector. Despite being a niche, this type of farming could become indispensable to cover the globe's future food production needs. With energy representing a large share of costs for this type of activity, the supplier's time-of-use tariffs enable farmers to benefit from lower prices at night; their indoor vertical farms did not mind receiving light at night, instead of following their usual schedule. "This is an example of how we can help these businesses be much more financially sustainable so as to achieve net zero by 2050," said the company's CEO.

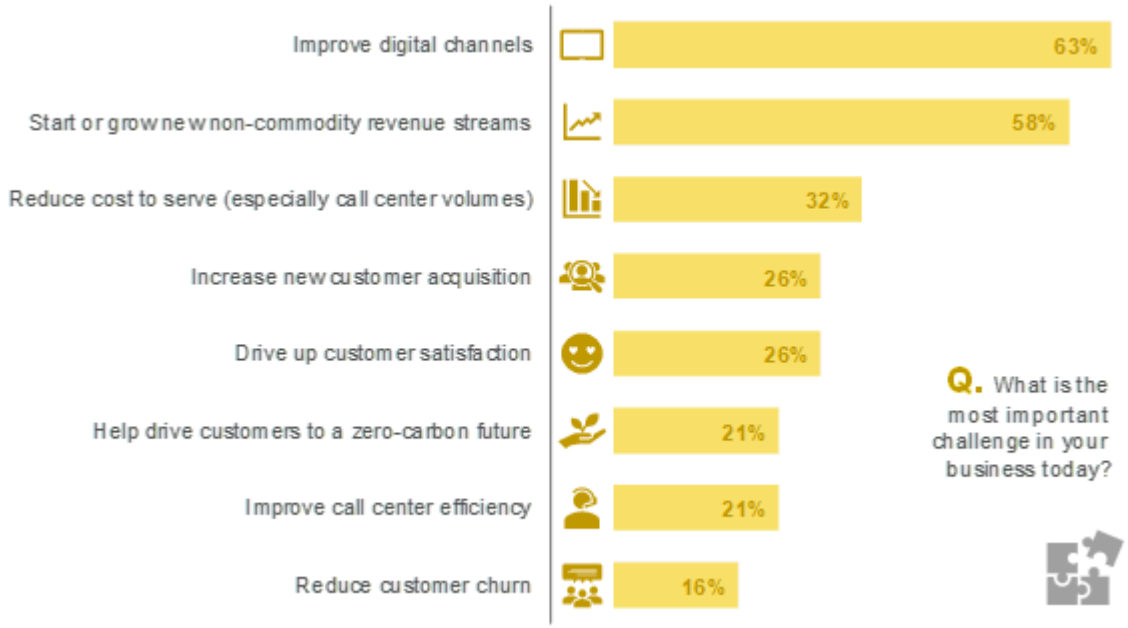
Turning Customers into Allies

At the core of utilities' digital transformation lies their relationships with customers. Virtually no other aspect of their business has given them as much trouble as satisfying customers' evolving needs. In Europe's competitive energy supply market, utilities are faced with a challenge: they must meet customer experience (CX) expectations that are set by other, more digitally mature industries while delivering on customers' energy-specific needs.

Two European utilities provided IDCUES delegates a glimpse of their relevant plans and actions with regards to this issue. Prior to their presentations, summit invitees set the scene by giving their views on the most important challenges they are facing. Unsurprisingly, "improving digital channels" topped the ranking, being selected by more than 63% of respondents, with "starting or growing new non-commodity revenues streams" a close second at 58% (Figure 4). Ideas put forward by these two utilities certainly provided some food for thought.

FIGURE 4

Identifying Challenges — A Necessary Condition for Future Success



Source: IDCUES Pre-event Survey, 2020

The first to come on stage was one of Europe's largest energy retailers. After a recent acquisition, it counts a staggering 50 million customers, spanning a good share of Europe's energy markets. Its SVP for digital transformation detailed the advantages of utilizing chatbots across the different energy supplier brands the company owns. "Customers want to be serviced here and now", said the SVP, stressing how technology is only part of the solution. Designing meaningful interactions and thinking end to end are fundamental. True cost-to-serve reduction also requires integration with back-end systems. While this sounds easy, complexity arises when placing chatbots in more than one channel (e.g., the company's own website and messaging applications). "Be there, where your audience is" is the mantra for the SVP, who also elaborated on how chatbots are being used for sales and loyalty funnels. Starting with one of its subsidiaries in Northern Europe, the utility raised awareness among its customers of its loyalty program. This use case has now developed further, and solar PV and insulation product sales are now possible via a chatbot.

Another interesting aspect beyond the actual implementations was the utility's "central light" approach to scale up DX initiatives across the organization. Innovations developed locally are scaled through a central digital team that steers the international community, ensuring scaling potential is identified and best practices are transferred.

The second perspective on the relationship between energy utilities and their customers came from an unusual angle; that of one of Europe's largest transmission system operators (TSOs). While TSOs don't serve customers directly except from a few high-consumption energy customers, the CEO of this company made it clear that it can no longer ignore the vast potential represented by retail energy customers. Matching increasingly volatile renewable generation with demand and managing peak electricity loads calls for taking advantage of all the flexibility the market can offer. Decentralized demand response is a use case that the TSO has long showed interest in, especially in the context of emobility. "We want to make sure we can act as an enabler," said its CEO, who

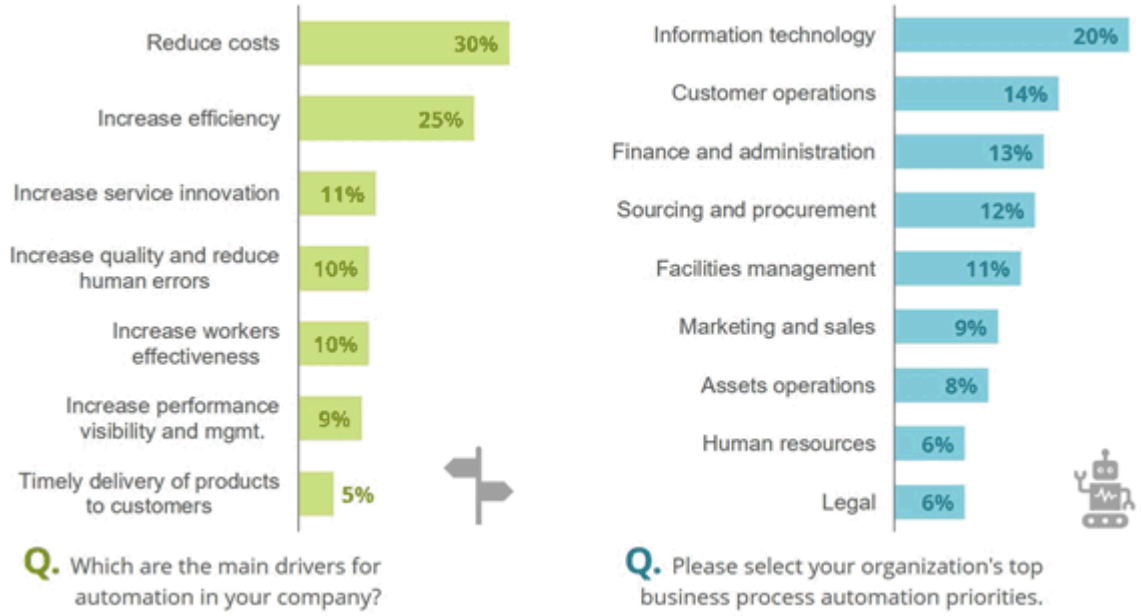
went on to explain that unlocking the flexibility potential of EVs will be high on its agenda for years to come. In fact, building upon its numerous pilot projects, the TSO launched together with two more European TSOs a company whose objective is to make it easy for EV owners to offer flexibility services to grid operators. "We have high expectations of EVs as a flexibility source", said the CEO, explicitly inviting others to join efforts. "We are building platforms to unlock this potential together with other market participants," the CEO added.

Winning the Automation Challenge

The quest for future-proofing utility operations has always involved automation. In the past years, utilities have put serious efforts in automating at scale, in search of cost reduction and increased efficiency. However, the scope of automation can be broadened to include a wide array of processes.

FIGURE 5

Assessing Automation's Potential — A Long Way to Go



Source: IDC Energy Insights, 2020

A worthy example of a European utility that is moving at full speed in this regard was present at IDCUES. One of Europe's top 3 gas distribution system operators (DSOs), represented by its CIO, gave an overview of the company's initiatives and its unique approach in turning the company into a digital innovation "powerhouse."

As the owner of a 70,000km gas network, the company is constantly working to make its regulated operations as efficient as possible while abiding by the highest safety standards. An extensive program combining Big Data, advanced analytics, and the Internet of Things (IoT) enabled the automation of mission-critical processes such as:

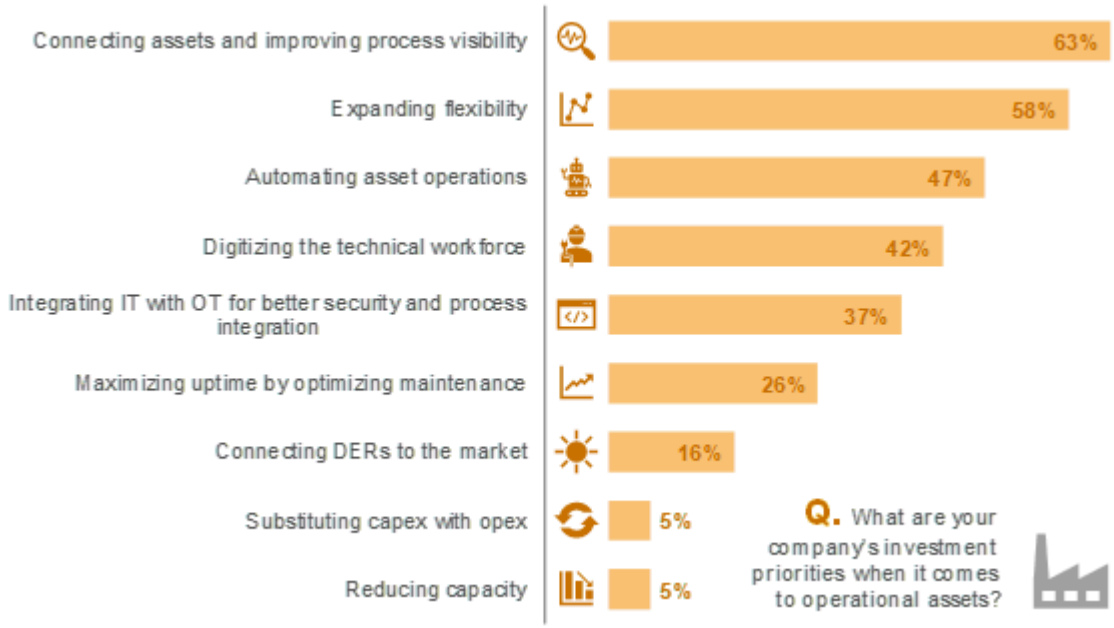
- **Network balancing**. Controlling the balance of inflow and outflow of gas in the network might seem trivial, but it is not. Leaks, nontechnical losses, or a malfunction can lead to imbalances. The DSO created "logical subnetworks," dividing its vast network into smaller units whose outflow and inflow are constantly monitored using sensors. This makes identifying the source of potential issues and prioritizing interventions easier .
- **Odorization**. Natural gas is odorless and safety regulations oblige operators to inject an odorant to make leaks easier to detect. This process is expensive and quite complex when dealing with a network covering the territory of an entire country. Again, thanks to the clever use of sensors, real-time monitoring of odorization levels was made possible. Safety guidelines are thus respected while minimizing unnecessary costs.

"We decided to review over 250 processes with an impact on more than 30 systems," said the CIO, describing an ongoing, far-reaching effort that commenced about two years ago. The final goal is to automate processes that span operations, procurement, accounting and finance, as well as processes that cut across these three categories, grouped under customer experience, regulatory management, and capex and asset management.

The sheer size of these projects put together would have disheartened many of the company's peers, including the most advanced ones. The DSO's CIO makes no secret out of what constitutes the recipe for success: an internal innovation unit launched in late 2018. Working in a dedicated space, the utility's employees, an external consultant, and developers are tasked with ideating, prototyping, testing, and releasing innovative solutions. An agile methodology is adopted by cross-functional teams whose full-time involvement leads to a significantly shortened project timelines. The most prominent example of a currently mature and fully deployed solution is the use of head-mounted displays (HMDs). The utility's field technicians are equipped with an HMD attached to their helmets that enables them to access asset and maintenance documentation using voice commands. Furthermore, they can contact a more experienced colleague if they need assistance. "Working individually rather than in crews protects our employees during the COVID-19 emergency. We also use this technology for training purposes," said the CIO.

FIGURE 6

Extracting Value form Assets — The Power of Flexibility and Visibility



Source: IDCUES Pre-event Survey, 2020

ADVICE FOR THE TECHNOLOGY BUYER

IDCUES has successfully established itself as a platform for the free trade of ideas within the European utilities industry. Over eight editions, it has facilitated discussion between peers from across the value chain around evolving market roles, operation and business model change, CX improvement, IT transformation, and digital transformation.

Looking ahead to the ninth IDCUES, hopefully in Malaga, Spain, on October 11 and 12, 2021, here are a few takeaways that utility executives should consider when mapping out their strategies:

- **Innovate following a vision.** In an intrinsically risky world, innovation is a requirement for utilities. New business models constitute threats and opportunities, and many companies in the sector have a hard time keeping up with the pace of technological advances. When tackling these challenges, utilities must go beyond an opportunistic approach that seeks to solve imminent issues. It is only with a strong cohesive vision that long-term goals (e.g. decarbonization change) can be achieved and persistent problems (e.g., the ageing workforce) can be solved.
- **Automate to become more human.** Against common belief, automation can help (rather than hinder) your organization to become more human. Customers appreciate shorter response times when contacting customer support (e.g., thanks to chatbots) and your staff will feel empowered when dedicating time and effort in meaningful tasks, leaving repetitive ones aside. Equipping yourself with a technology such as RPA is a true game-changer in this regard. It enables employees to concentrate on high-value, judgmental tasks, changing the way they live their working time.
- **Be as agile as your customers.** Backed by real-time insights on both supply and demand for energy, utilities can achieve a higher degree of personalization of their offerings. An

agile way of work that brings together expertise from cross-functional teams can boost speed and enthusiasm among employees and lead to better pricing. Customers are also becoming more demanding of a seamless experience akin to ones they are used to from other technological services. Catering to the complex needs of young, tech-savvy customers is a means of ensuring future revenues.

- **Treat grids as new business model facilitators.** More active participation of grid owners will be the cornerstone of the new energy landscape, given the complexity of challenges faced by stakeholders depending on them. Whether because of the electrification of mobility, or because of power-to-gas, grids are under considerable strain to do their part in facilitating the emergence of new business models.

LEARN MORE

Related Research

- *IDC FutureScape: Worldwide Utilities 2021 Predictions* (IDC #US45816020, October 2020)
- *What Have Utilities Been Focusing on During the COVID-19 Crisis and What Are Their Medium-Term Plans?* (IDC #EUR146521020, June 2020)
- *European Utilities after COVID-19: Technology Bets for the "Next Normal"* (IDC #EUR144593020, May 2020)
- *In Which IT Solutions Will European Utilities Invest to Sustain Business Transformation?* (IDC #EUR144593220, April 2020)
- *The What and Why of Intelligent Process Automation in Utilities* (IDC #EUR146118720, March 2020)
- *IDC FutureScape: Worldwide Utilities 2020 Predictions* (IDC #US44327819, October 2019)
- *Relevance, Risk, and Resilience: Highlights from the 2019 IDC Pan-European Utilities Executive Summit* (IDC #EUR144327719, May 2019)
- *How are European Utilities Leveraging Technologies to Accelerate their Digital Transformation in 2019?* (IDC #EUR144592919, April 2019)

Appendix

TABLE 1

Conference Agenda

Time	Agenda
Day 1: October 19, 2020	
Plenary Sessions	
10:20	Welcome on Stage Gaia Gallotti, associate research director, IDC Energy Insights Jean-François Segalotto, associate research director, IDC Energy Insights
10:30	The Race to the Future Utility — Run like There's no Tomorrow Roberta Bigliani, head of Industry Insights, Future of Work Practice executive lead
10:45	Utilities' Road to 2050 – How to be Ready for the Future Unknown Playground

TABLE 1

Conference Agenda

Time	Agenda
	Luigi Cardani, senior vice president energy and utilities, NTT DATA
11:00	Networking, one-to-one meetings
11:10	How E.ON Drives Digital @ Scale to Drive Impact for Its Customers Kuldip Singh, senior vice president digital transformation, E.ON
11:25	Partner Panel Debate: Innovation at Scale: Are Utilities Running Fast Enough? Moderated by Jean-François Segalotto, associate research director, IDC Energy Insights Hosting: ▪ Wytse Kaastra, managing director, Utilities Europe, Accenture ▪ Abhay Gupta, CEO and founder, Bidgely
11:45	Networking, one-to-one meetings
Parallel Roundtable Discussions	
11:55	Roundtable A: Grid Infrastructure – Value and Speed with IIoT? Moderated by Phevos Skalidis, IDC Energy Insights Tom van Boxstael, partner of energy and smart infrastructure EMEA, OMNETRIC Franz Winterauer, head of data services EMEA, OMNETRIC
	Roundtable B: Discover, Engage and Serve – Modern CX for the Modern Utility Customer Moderated by Jean-François Segalotto, IDC Energy Insights Brian Bradford, vice president of industry strategy, Oracle
	Roundtable C: The Platform Revolution: Empathy at Scale to Transform the Customer Experience Moderated by Gaia Gallotti, IDC Energy Insights Mar Jorba, product manager, MECOMS
	Roundtable D: Designing the Future Utility Moderated by Roberta Bigliani, IDC Cristina Paternoster, engagement manager, NTT DATA
12:25	Final Remarks
12:30	Networking, one-to-one meetings
Day 2: October 20, 2020	
Plenary Sessions	
10:00	IDCUES20 Workout

TABLE 1

Conference Agenda

Time	Agenda
10.30	IDC Opening Remarks — Summary of Day 1 Gaia Gallotti, associate research director, IDC Energy Insights
10:40	Revolutionizing B2B Energy Customer Operations Zoisa Walton, CEO, Octopus Energy for Business
10:55	Networking, one-to-one meetings
11:10	Digital Transformation and Operating Model Virtualization Marco Barra Caracciolo, CIO, Italgas
11:25	Fireside chat: A Reality Check on New Utility Business Models — Connected Energy Services Moderated by Gaia Gallotti, IDC Energy Insights Wytse Kaastra, managing director, Utilities Europe, Accenture
11:35	Networking, one-to-one meetings
11:50	Fireside chat: Energy-as-a-Service: A Key to Flexibility and Demand-Side Management Moderated by Jean-François Segalotto, IDC Energy Insights Marc Crauwels, vice president, Utility Sales, Centrica Business Solutions
12:00	Transforming the Energy Market – Connecting the Consumer to the Energy Market Manon van Beek, CEO, TenneT
12:15	Looking Ahead to 2021 Roberta Bigliani, head of Industry Insights, Future of Work Practice executive lead
12:30	Networking, one-to-one meetings

Source: IDC Energy Insights, 2020

Synopsis

This IDC Perspective summarizes topics discussed at the eighth IDC European Utilities Executive Summit, hosted virtually by IDC Energy Insights, on October 19 and 20, 2020. The main theme of the summit was "The Race to the Future Utility – Run like There's no Tomorrow," alluding to the need for speed in utilities' transformation journeys.

"In many ways, the COVID-19 pandemic acted as a catalyst for change. Trends present prior to the outbreak have greatly accelerated, rewarding the most forward-looking European utilities," said Phevos Skalidis, research manager, IDC Energy Insights. "This year's IDCUES showcased examples of how resilient sustainable business models in the utility industry can be."

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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