

2023

ENERGY & COMMODITIES ISSUE 1

Guide to Next.

3 Core Energy Trends You'll Need to Adopt in 2023



publicis
sapient

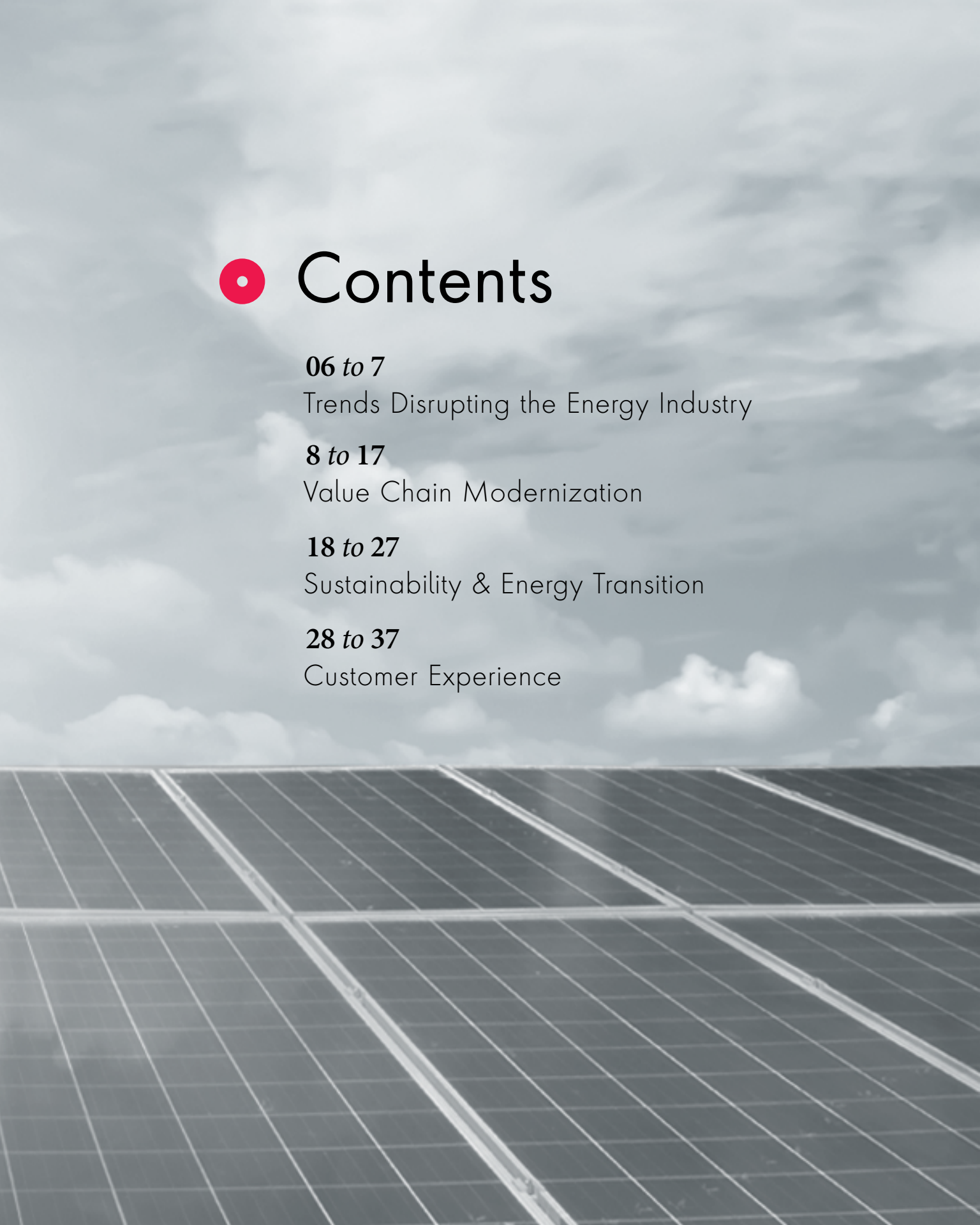




2023

How energy companies can attain
optimal growth in 2023 while
decarbonizing and appeasing customers.





Contents

06 to 7

Trends Disrupting the Energy Industry

8 to 17

Value Chain Modernization

18 to 27

Sustainability & Energy Transition

28 to 37

Customer Experience



● Trends Disrupting the Energy Industry

**IN TODAY'S RAPIDLY EVOLVING CLIMATE,
THE ONLY CONSTANT IS CHANGE.**

With political, economic and social factors disrupting and reshaping the industry, energy and utility companies continue to steer towards greener, more customized solutions for the planet and its ever-conscientious citizens.

As we approach 2023, which trends will shape the energy and commodities industry, and attain optimal growth for your business?

THE TOP THREE ENERGY TRENDS FOR 2023

- 1** DBT: The Must-Have Trend in 2023
- 2** All Roads Lead to Decarbonization
- 3** Personalized Customer Experience is the Way to Shine



VALUE CHAIN MODERNIZATION

● DBT: The Must-Have Trend in 2023

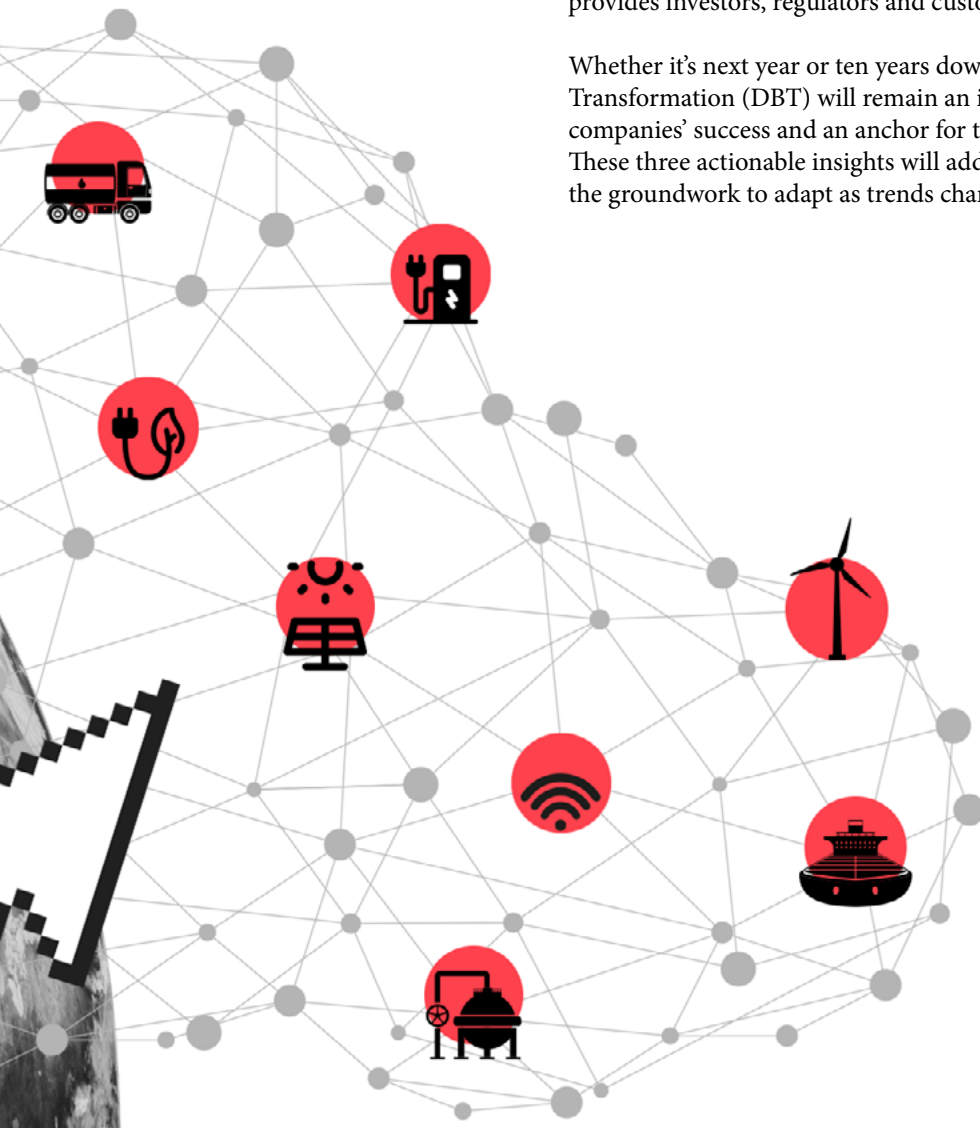


The energy market is more volatile than ever: supply and demand are in flux; pricing is unpredictable and consumer expectations are evolving. In changing times, how can energy companies gain more certainty? The answer lies in Value Chain Modernization (VCM).

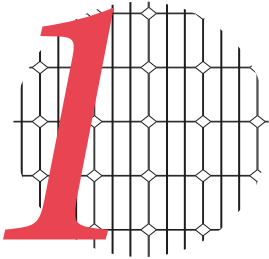
The richest resource a company can own is data, because when the right people have the right data at the right time, smarter business decisions are made. Smart business decisions can only be made when decisions are aligned across the value chain.

A unified, predictive data ecosystem across the oil and gas value chain can result in hugely transformational capabilities, such as untapped growth opportunities. Retailers also benefit from optimizing their value chain as they go on to develop a range of innovative products and services, customized specifically in accordance with their customers' needs. When it comes to ESG, a connected data ecosystem provides investors, regulators and customers the transparency they demand.

Whether it's next year or ten years down the line, Digital Business Transformation (DBT) will remain an integral part of energy and trading companies' success and an anchor for the certainty they are seeking. These three actionable insights will add value to your business today and lay the groundwork to adapt as trends change.

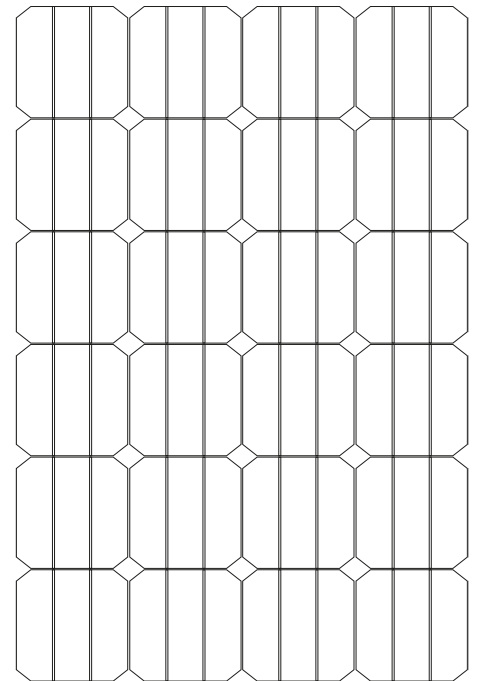
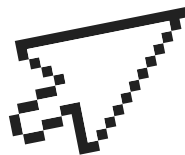


Unlock Data and Insights with Unified, Cloud-Based Ecosystems



In 2023, energy companies will need to maintain a continued focus on building resiliency in unstable conditions. The key to resilience will lie in gathering data and insights accessible by all departments in real-time for an agile and quick response to change, and for unified decision-making.

Energy companies will be looking to create [unified data ecosystems to unearth real insights](#) that lead to smarter decisions, predictive capabilities and improved operations. The visibility gained by unifying data will have a direct impact on all areas in the supply chain and can save OPEX costs; it can even improve margins on CAPEX costs. Given the volume of products energy companies work with, gaining even small efficiencies can yield savings in the multi-millions.



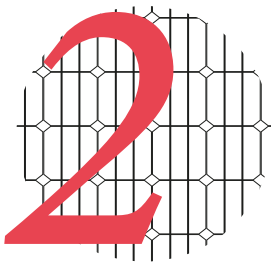
[Moving from in-house compute and data storage to the cloud](#) will bring efficiency and performance gains, as well as cost savings. This is a critical first step in refocusing an organization. [Cloud is the foundation](#) on which an entire transformation strategy is built. It is also a key ingredient in allowing IT organizations to be agile in support of new value.



“ Monolithic trading systems aren’t built to manage the complexity of the current structure deals. ”

**SHAILESH JOSHI,
MANAGING PARTNER**

Modernize Your CTRM System to Handle Multi-Objective Optimizations



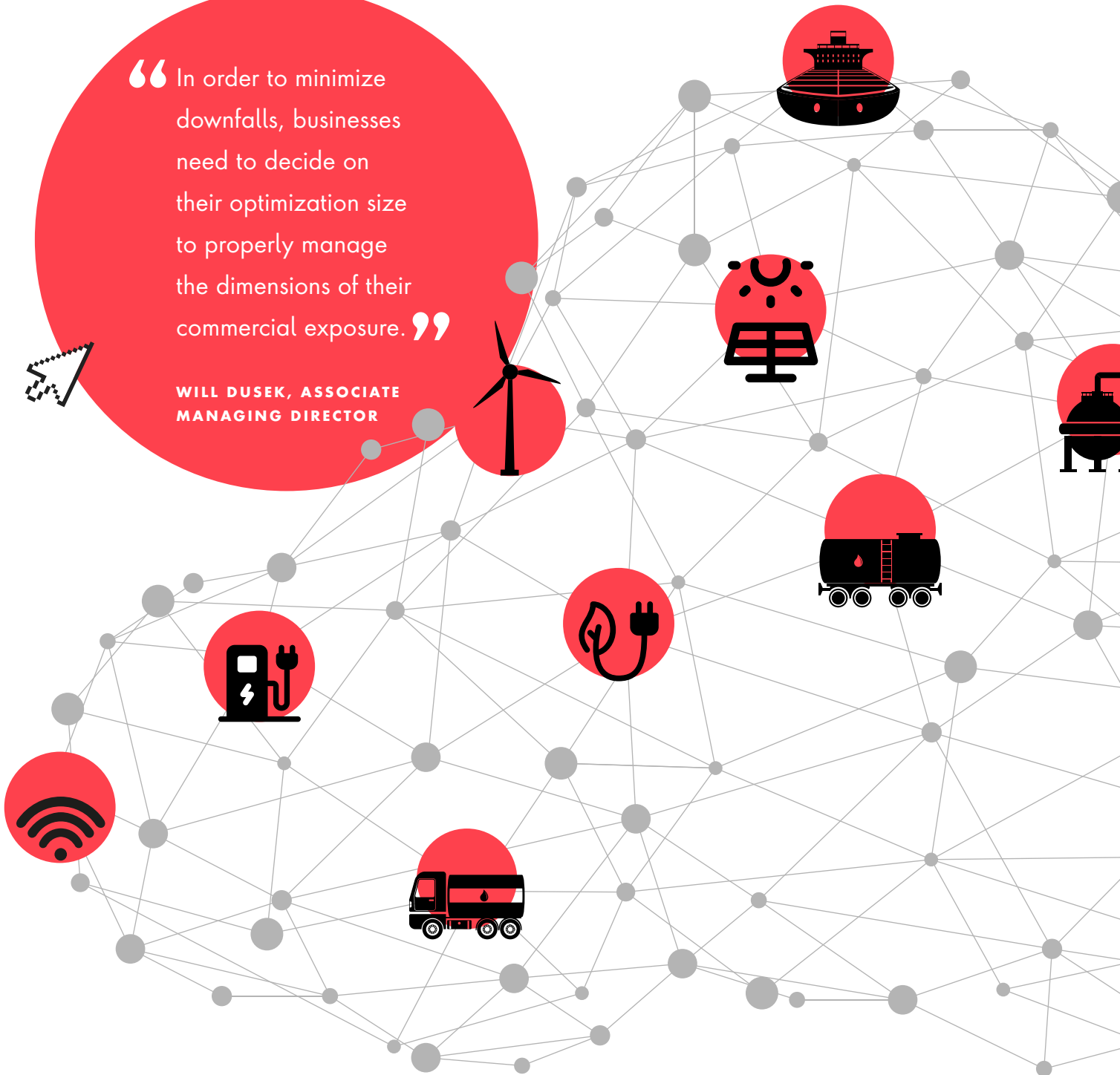
The volatility of the market and the entrance of new resources will affect the entire supply chain, but it will also have a notable impact on trading capabilities. Those markets have become more interconnected based on price arbitrage and carbon objectives. Aiming to maximize P&L while minimizing carbon footprints creates a situation where we have multi-objective optimizations.

Data is the new differentiator, especially in highly volatile trading. Real-time and reliable data is essential for real-time and better decision-making. Modernizing your CTRM ecosystem can help with better data integration, speed and agility. Taking it a step further, AI-driven models will be key for multi-objective optimizations, as well as complex structured deal management and valuations.

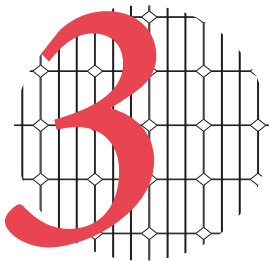
Lastly, updated CTRM systems are essential to keep up with the commercialization of new products, including carbon. The business case for carbon has been made, and energy companies are ready to focus on technology upgrades. Carbon trading, carbon management and monitoring, and carbon accounting processes will need to be incorporated into CTRM ecosystems to capture new market opportunities. Keep in mind the [different ways to collaborate on a CTRM implementation or upgrade](#) once your company is ready to proceed, and expect to see a huge demand in this area.

“ In order to minimize downfalls, businesses need to decide on their optimization size to properly manage the dimensions of their commercial exposure. ”

WILL DUSEK, ASSOCIATE
MANAGING DIRECTOR



Commercialization and Beyond

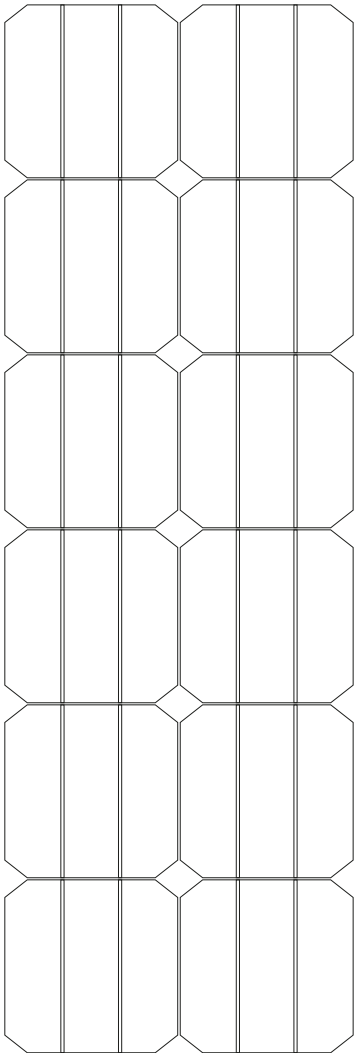


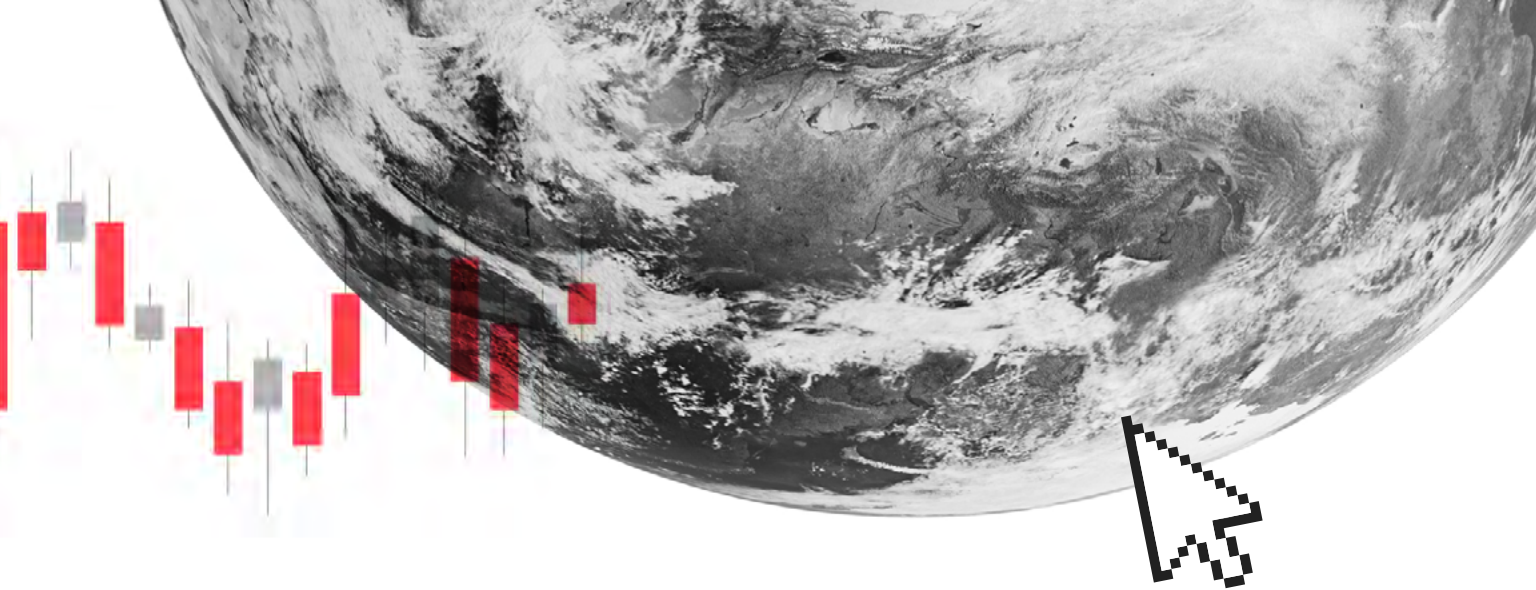
Our industry experts predict that in 2023, commercialization trends will emerge across the supply and trading industry, representing an opportunity for new optimizations and revenue streams.

HYDROGEN & BATTERIES

Growth in hydrogen production and battery capacity is set to make their respective value chains more complex and to cause further fragmentation across secondary energy sources.

Both sectors will grow rapidly in 2030: it is forecast that 10% of the world’s electricity will be used for hydrogen manufacturing, where 13% of natural gas will be used for that process. Meanwhile, battery storage capacity will increase by twenty times, while growth in annual DER2 installation capacity will increase by three times. Therefore, it is essential for companies in the supply and trading industry to gain a good understanding of the upcoming trends for secondary energy sources and to be continually preparing for what’s next beyond the next year.





NATURAL GAS

The natural gas and LNG markets are highly volatile, but there are ways of managing risks within them, including monetizing intraday natural gas volatility to better manage new risks and metrics, and leveraging the growing asset footprint for LNG trading.

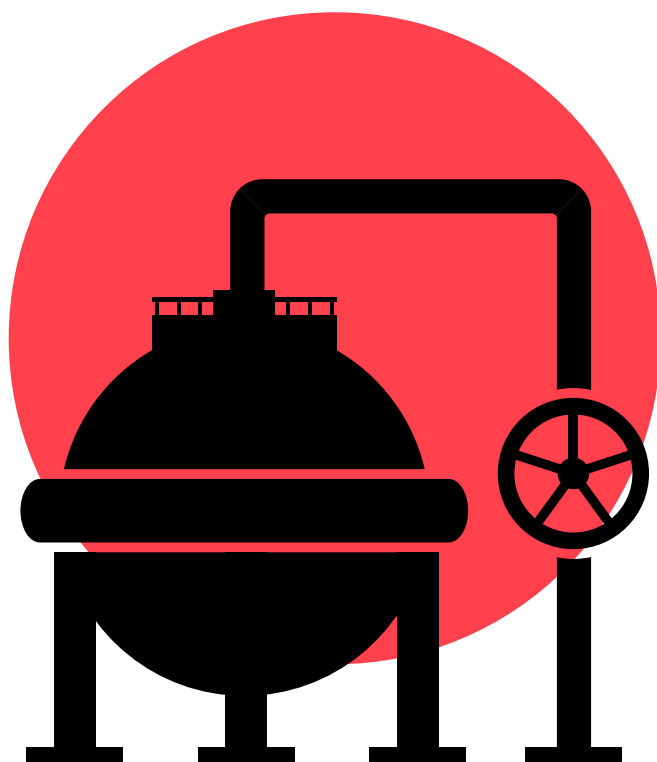
ECOSYSTEM PARTNERSHIPS

Ecosystem partnerships focusing on the delivery of various energy projects will be a new gateway to untapped market opportunities. One way to leverage partnerships is to add oil and gas production to high-growth, low-risk areas, and to deliver new energy projects, such as Bioenergy with Carbon Capture and Storage (BECCS), batteries and hydrogen.

NEW PRODUCTS & SERVICES

Meet carbon targets by introducing and monetizing new products and services across the ever-evolving value chain, such as building carbon offset and onset businesses or introducing offset-paired carbon-negative LNG products.

We will also see some companies explore the opportunity of using hydrogen and ammonia to clean up energy systems and to produce cement and steel.



Next starts now.

To get started, please visit

<https://www.publicissapient.com/industries/energy-commodities>

Or contact us anytime:



SHALEISH JOSHI

Managing Partner

shailesh.joshi@publicissapient.com



WILL DUSEK

Associate Managing Director

will.dusek@publicissapient.com





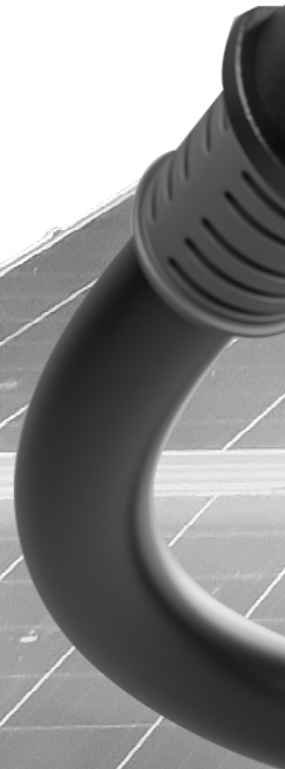
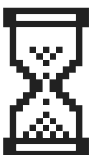
All Roads Lead to Decarbonization

As the world continues to experience climate change first-hand and at a rapid pace, energy consumers supportive of [the race to Net Zero](#) now demand sustainable energy.

When it comes to reducing the world's carbon footprint, no single solution scales beyond the 5-10% range. The intermittent solar and wind can't meet consumer demand, and while hydrogen is becoming much more valuable, sourcing it remains high in cost.

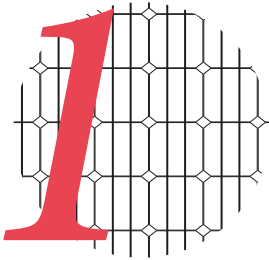
As we continue to see companies invest in energy transition and prepare for the future, we also need to see the conversion of conventional and alternative fuels, including carbon, into a single system.

Sustainability is an engine of growth to your business, but what solutions align with consumers' green ethics while swiftly helping you reach your Net Zero goals profitably?





Accelerating Decarbonization Through Digitization

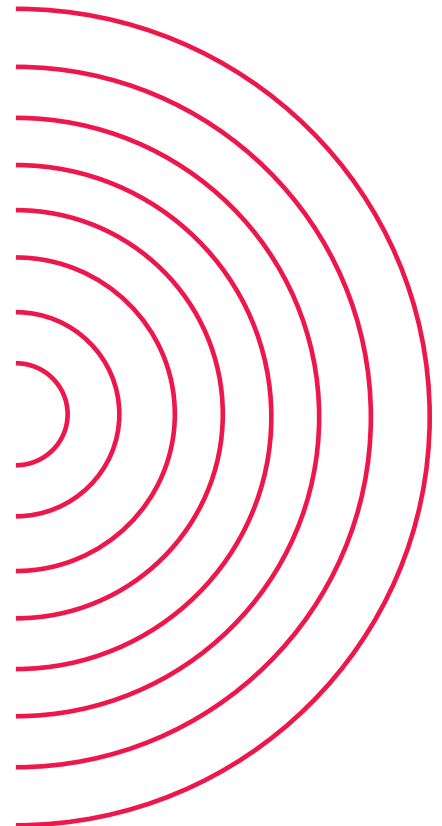
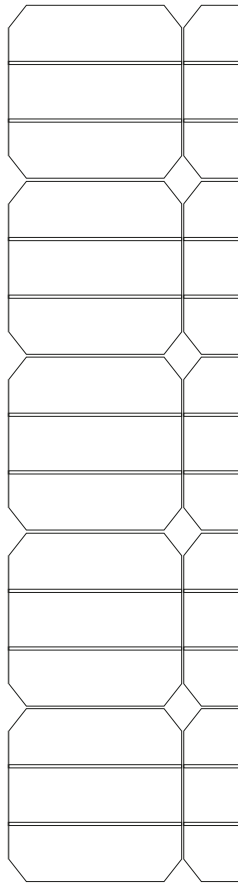


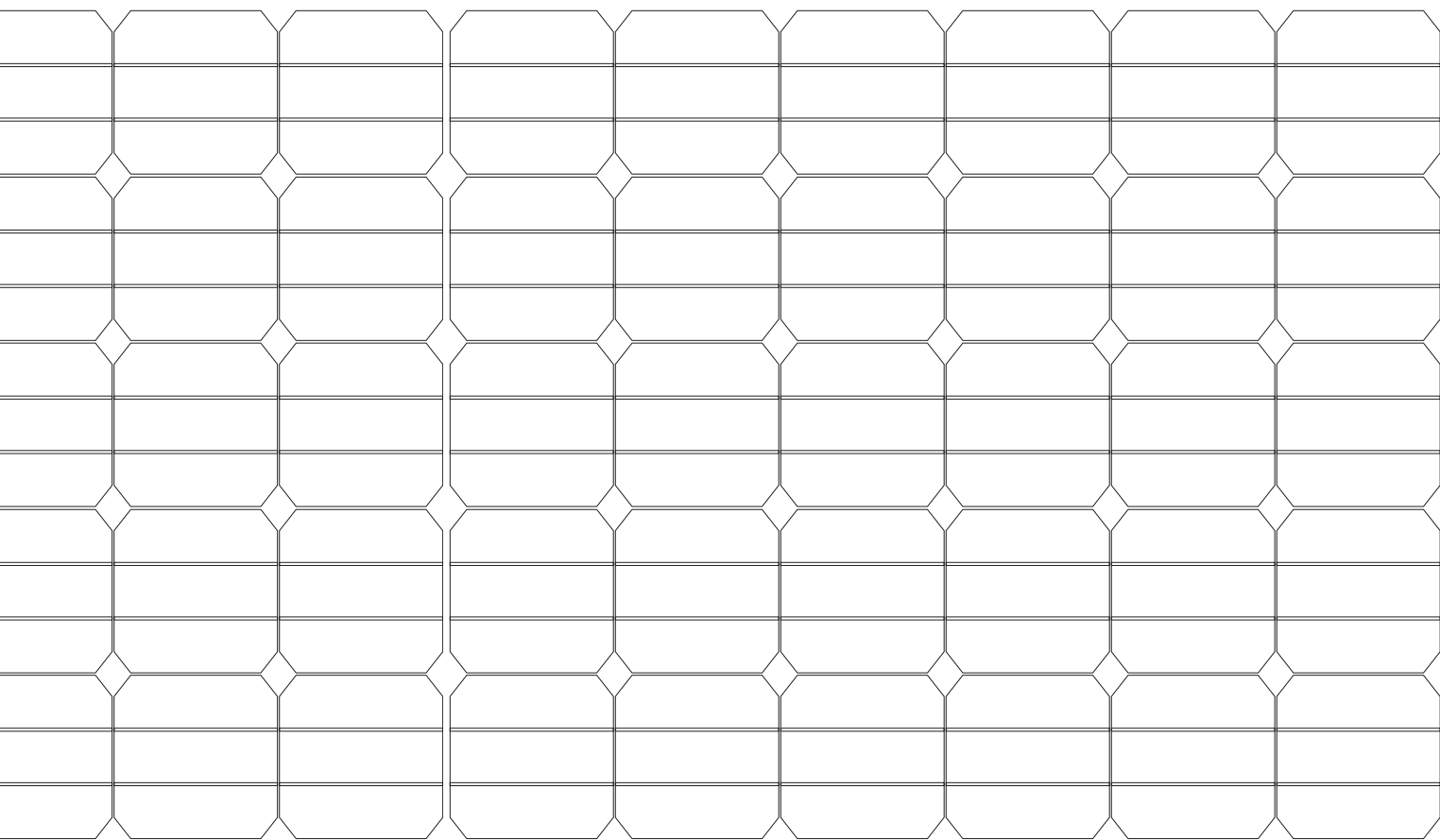
No one said it would be easy, but energy suppliers must strive to remain competitive in a radically changing business landscape. In order to transform, businesses must embrace the opportunities presented to them by the Net Zero agenda.

With pressure from government regulators and, now, a more knowledgeable, engaged and environmentally-conscious consumer base, there is a need for “digital enlightenment.” Digital and data are central to understanding the consumer and monitoring the progress and performance of technologies such as smart meters, solar panels, EV charge points, heat pumps, etc. We helped one client with our [“Peak Service solution” that leverages smart meter data](#) to offer an easy way for their teams to engage customers in energy conservation while increasing retention.

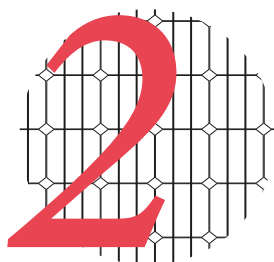
Updating legacy systems, investing in technology and committing to a Net Zero future to connect and extract this data will require a significant investment.

Unsure where to start? Follow our [Next Stop: Net Zero plan and six steps on becoming a digital native](#) in the energy industry.





Let's Capture Carbon



We're trying to reduce carbon, but how about trying to capture it? [Using the right tools](#) will allow companies to accurately measure and manage their carbon emissions and other greenhouse gas emissions, to derive accurate numbers that dramatically differ from modeled calculations.

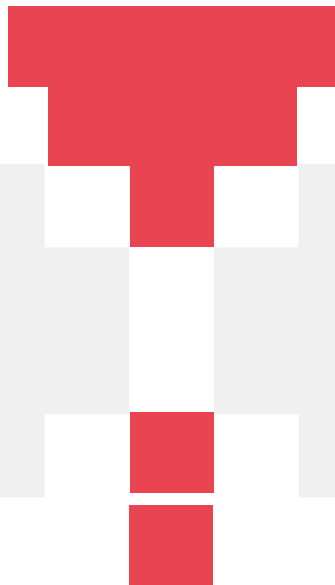
Capturing carbon data will help develop a strong carbon trading strategy for organizations looking to invest in the Carbon Capture, Utilization and Storage (CCUS) space. A customized carbon management tool enables forecasting the amount of CO₂ emissions likely to be captured, and to calculate the amount of space required to store the carbon deep underground.

Research by our experts has found that US-based companies are currently more focused on CCUS capture than their European counterparts, meaning we could see this trend expand in Europe next year.

In 2023, the goal should be to experiment with new uses for the captured carbon, in addition to advancing and fine-tuning technology to speed up the process of carbon mineralization, where carbon naturally binds itself to minerals and permanently turns into stone.

The trick will be to scale up current technology and ensure that it doesn't create more emissions than it draws down.

**"THE POSSIBILITIES FOR REACHING
NET ZERO ON TIME ARE ENDLESS,**

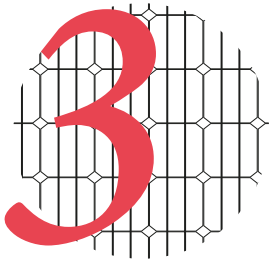


**BUT YOU NEED TO MAKE THE RIGHT
CHANGES STARTING NOW."**

AKHIL SEGHAL, VICE PRESIDENT



Electrification and Beyond



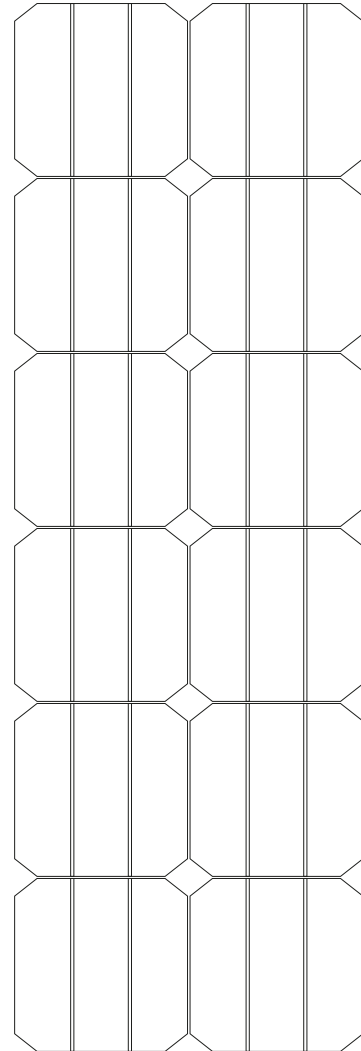
The industry is rapidly evolving, with new trends continually emerging. To stay ahead of the game, energy companies will need to identify these trends early on, as they will require new innovation, flexible technology and extra funding.

Here are some trends we expect to see next year and beyond.

METHANE

Currently, methane emissions account for 30% of the total greenhouse gas emissions. It is predicted that total worldwide methane emissions will increase by 13% by 2030 without the Global Methane Pledge.

Addressing methane emissions—which are 80 times more pollutant than CO₂ emissions—will address 30% of the climate change issue. Those emissions mostly come from the agriculture industry, and one of the most efficient and almost zero-cost ways of reducing them is through landfill gas utilization, leveraging new technology, shifting towards plant-rich diets and embracing alternative sources of protein.





HYDROGEN

Hydrogen may be our best bet as a key pillar in decarbonizing the global energy system. Natural gas might be regarded as a fossil fuel, but converting it to hydrogen will remain an important trend next year and beyond.

While the cost of converting green energy into hydrogen may be quite high, emerging tools that can do the job have a very high efficiency rate. In the future, converting renewables into hydrogen for heating will become a necessity to tackle climate change.

Experts predict that the switch to hydrogen heating will start to happen in the next decade. However, to use hydrogen gas at home, electric appliances, such as boilers, must be hydrogen-ready. The technology to do that is ready, but it requires a widescale strategic switchover by central governments.

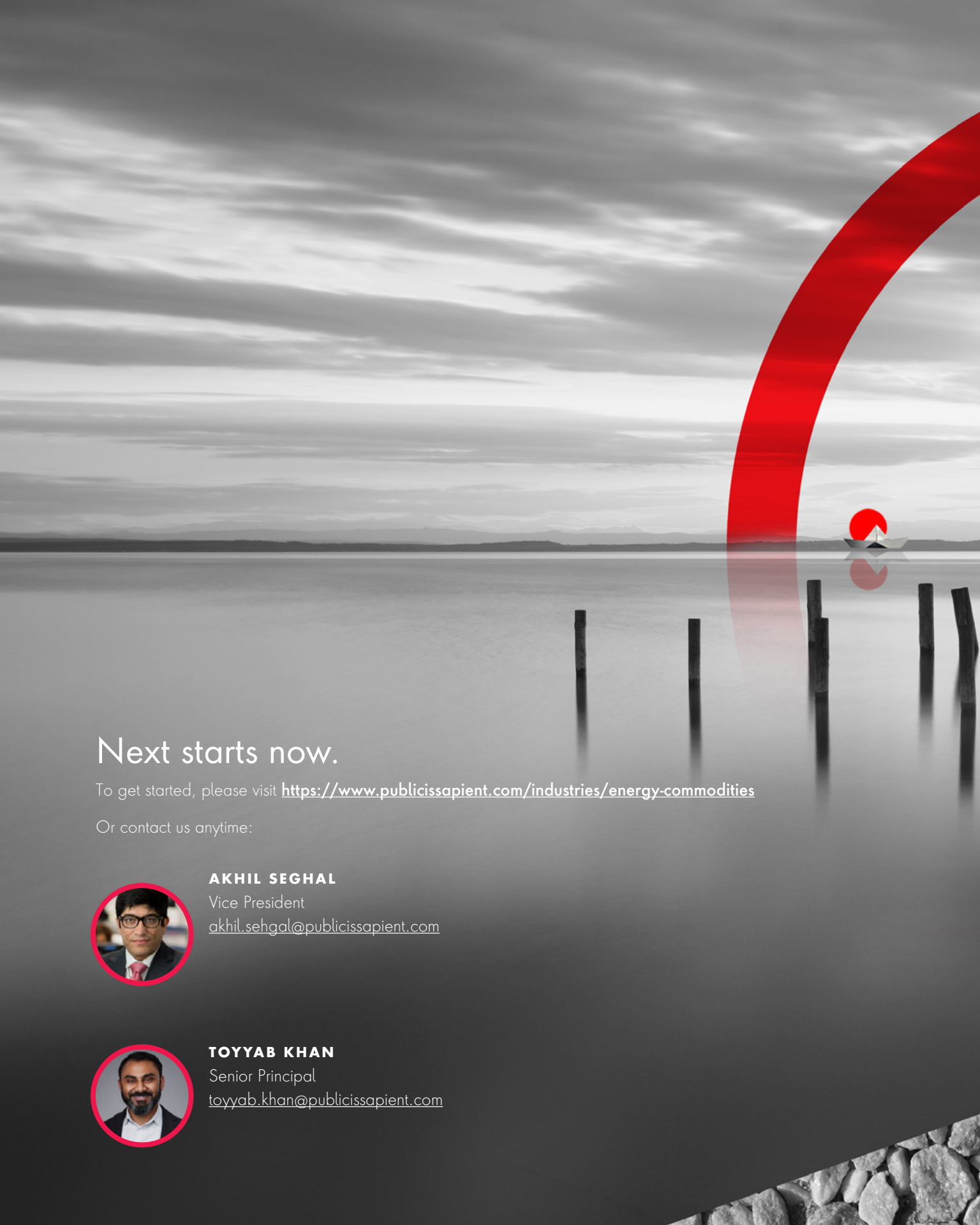
CROSS-INDUSTRY IMPACT

Expect to see changes in the industrial sector, too. Take cement and steel manufacturers, for example. Steel production alone produces a significant 7% of the global CO₂ count, while cement adds another 5-6% of that. Those industries will switch to hydrogen as an alternative fuel. Electric Vehicles (EV) will have a heavy footprint in the transportation industry, and solving the methane problem will impact the agricultural industry. Expect a future with a lot of cross-industry collaboration to make the biggest impact.



**“STARTING NOW, BUSINESSES
WILL NEED TO SCALE UP CURRENT
TECHNOLOGY AND ENSURE THAT IT
DOESN'T CREATE MORE EMISSIONS
THAN IT DRAWS DOWN.”**

TOYYAB KHAN, SENIOR PRINCIPAL



Next starts now.

To get started, please visit <https://www.publicissapient.com/industries/energy-commodities>

Or contact us anytime:



AKHIL SEGHAL

Vice President

akhil.sehgal@publicissapient.com



TOYYAB KHAN

Senior Principal

toyyab.khan@publicissapient.com



CUSTOMER EXPERIENCE

● Personalized Customer Experience is the Way to Shine



Prolonged inflation and a volatile energy market will leave consumers in a tricky position next year, where they'll look for ways to capitalize on energy while still expecting customized products and solutions from their providers.

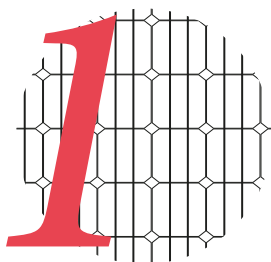
That's why energy companies will need to steer away from convoluted legacy billing systems to focus on modern SaaS-based billing platforms and more transparent online experiences, making for a satisfying end-to-end customer journey. Supporting these evolving expectations will require transforming back-end systems to be more flexible and scalable, offering real-time pricing visibility, and organizing around the customer every step of the way.

To succeed in 2023, energy companies must ditch traditional thinking and embrace the moments that matter for the end user in three key ways.





Buy into Consumers Selling Energy



As the threat of recession looms, the need for energy security will drive innovation and innovation-supporting policy that will enable consumers to stretch their money, or better yet, make more of it, all while helping the environment.

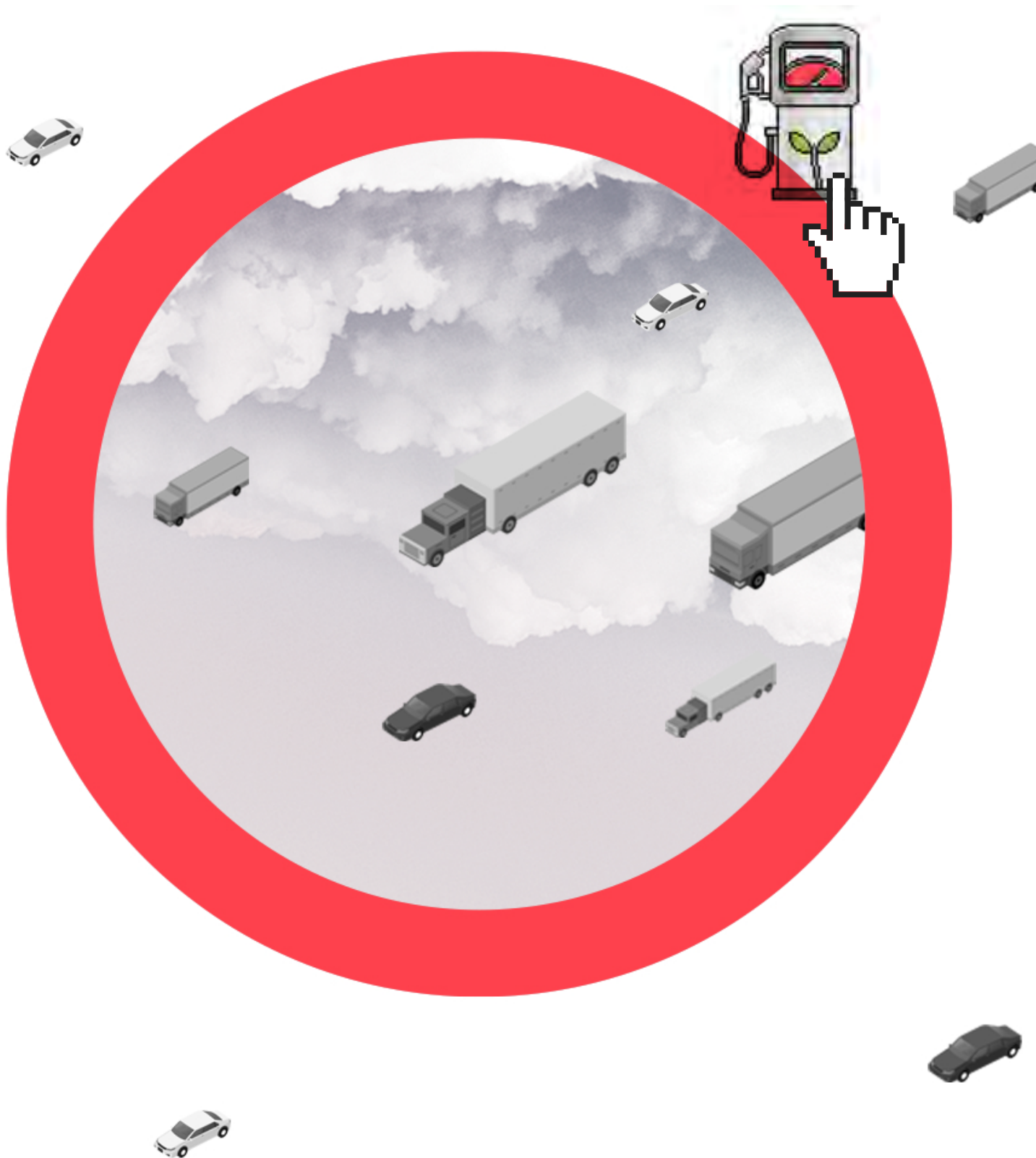
One trend that will see growth, and that has the potential to transform the energy system as we know it, is the cost-effective vehicle-to-grid (V2G) technology, where electric vehicles (EV) will be able to feed the energy stored in their batteries back into the National Grid. In other words, EV owners will sell their energy back to energy providers. That's one smart way for consumers to make money while decarbonizing and balancing the grid.

However, as EV adoption (and its carbon footprint) grows, we will also start to see new grid constraints on the supply side that [demand new solutions](#). EV owners with home-based charge points have begun to capitalize on this deficiency by turning to renewables to generate extra electricity to charge their own vehicles at home and sell to the community. Neighbors, tourists or any other EV owners could

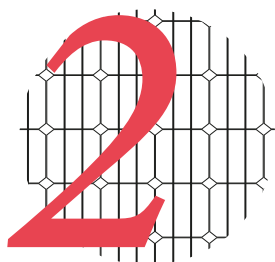
pay to use the greener energy sources.

While this idea would theoretically provide a great incentive for European EV owners to turn to greener energy sources, it may prove difficult to implement, as many city roads lack parking space and are either too narrow or difficult to find. Meanwhile in North America, policies around net metering are still evolving, as seen from recent state proposals, and more can be done to accelerate solar and storage adoption.

Capturing, storing, then selling renewable energy from home may catch on as a broader trend in 2023. Despite the intermittent supply in solar and wind power, consumers are still able to collect enough energy for personal use and to sell the rest to the community. Our industry experts see another trend emerging where this very stored-at-home renewable energy could be available for use on the go; it would work in a similar fashion to mobile roaming or “hot spots” while abroad, except with energy.



Go the Extra Mile for Your Customers



Providing good service is no longer enough. The way to go? Integrating customer service with field service to improve customer certainty.

To achieve that, energy companies will need to go the extra mile by following up with their customers after a certain event has taken place—like a power outage—to assess whether they may require additional services, such as double checking that the power is back on or if the electricity meters are functioning as normal, and, most importantly, how they could have handled things better. If the outage was caused by a natural disaster, the energy provider may want to check if any repairs are still required in the neighborhoods they provide energy for. It's more than just about the initial transaction; it's about the quality of service and the reliability of a company in times of need.

Changing the way customers engage with utilities must go beyond apps and data to include call centers. A modern CRM can connect data and touchpoints to transform customer engagement and reduce workforce costs while giving unprecedented visibility into the end-to-end customer journey. The CRM also enables the 360° customer data that is essential for energy companies to get



the right information and resources to the right customers during a crisis. Eventually, this also helps utilities coordinate with the public sector to swiftly get things back to normal.

This [360](#) customer data will also help energy suppliers get ahead of government mandates by recommending energy-saving solutions for their customers in the form of actionable insights and nudges. But doing it right requires removing data silos across an organization and gathering advanced insights on consumer consumption patterns that will help guide customers on how to limit and conserve energy, as well as the best time to use it, all with the purpose of lowering rising bills.

Connecting data across the organization will also generate valuable insights to understand the customer, the home the units and ultimately the products that can be recommended and even developed to meet their needs, reduce consumption, and build trust between providers and customers.

For example, the Oshawa Peak Power App built by Publicis Sapient for the Ontario Energy Board disaggregated consumers' home devices to identify which ones were using the largest amount of energy, and based on those insights, offered personalized tips, products and solutions.

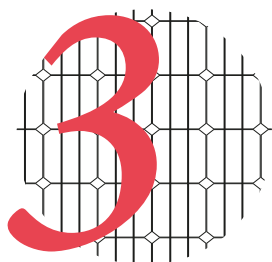
[Learn about our partnership with the Ontario Energy Board.](#)

“The goal for businesses is to not look at services as static but as something where they can continuously add value.”

**SUPRATIK CHAUDHURI,
CLIENT PARTNER**



Smart M2M Payments



The future of energy payments will look something like this in the next few years: payments will no longer depend on mobile apps but rather on real-time, automated machine-to-machine (M2M) payments and relationships with little to no human intervention needed.

Using real-time data analytics, we will see more cars, trucks and other vehicles interacting directly with other machines to pay for fuel, insurance, road tolls and maintenance. M2M is incredibly versatile and has high potential for scalability. By looking across different customer types and capturing data from initial use cases, energy providers will identify ways that M2M can improve operational efficiency, cost-efficiency and the quality of products and services.



“Businesses need to
move away from
simple transactions to
moments that matter.”

**CRAIG GOSLING,
SENIOR CLIENT PARTNER**



Next starts now.

To get started, please visit <https://www.publicissapient.com/industries/energy-commodities>

Or contact us anytime:



SUPRATIK CHAUDHURI

Client Partner

supratik.chaudhuri@publicissapient.com



CRAIG GOSLING

Senior Client Partner

craig.gosling@publicissapient.com





publicis
sapien

Publicis Sapien is a digital business transformation partner helping large-scale energy organizations like Chevron, British Gas and Uniper get digitally-enabled, both in the way they work and the way they serve their customers. As digital pioneers with 20,000 people and 50+ offices around the globe, our experience in technology, data sciences, consulting and customer journeys enables us to evolve our clients' businesses with products and services that put consumers first.

2023

ENERGY & COMMODITIES ISSUE 1

Guide to Next.

3 Core Energy Trends You'll Need to Adopt in 2023



publicis
sapient

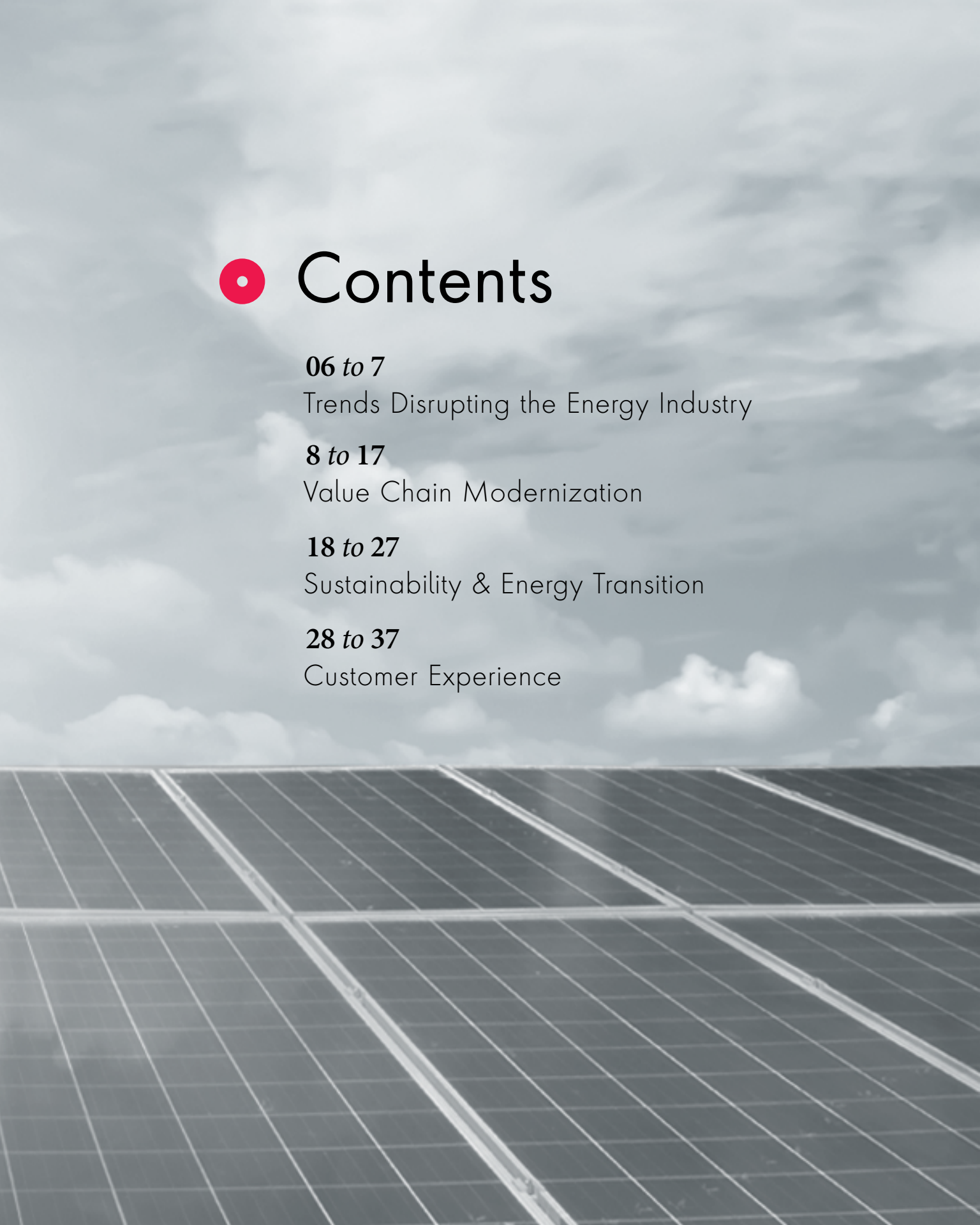




2023

How energy companies can attain
optimal growth in 2023 while
decarbonizing and appeasing customers.





Contents

06 to 7

Trends Disrupting the Energy Industry

8 to 17

Value Chain Modernization

18 to 27

Sustainability & Energy Transition

28 to 37

Customer Experience



● Trends Disrupting the Energy Industry

**IN TODAY'S RAPIDLY EVOLVING CLIMATE,
THE ONLY CONSTANT IS CHANGE.**

With political, economic and social factors disrupting and reshaping the industry, energy and utility companies continue to steer towards greener, more customized solutions for the planet and its ever-conscientious citizens.

As we approach 2023, which trends will shape the energy and commodities industry, and attain optimal growth for your business?



THE TOP THREE ENERGY TRENDS FOR 2023

- 1** DBT: The Must-Have Trend in 2023
- 2** All Roads Lead to Decarbonization
- 3** Personalized Customer Experience is the Way to Shine



VALUE CHAIN MODERNIZATION

● DBT: The Must-Have Trend in 2023

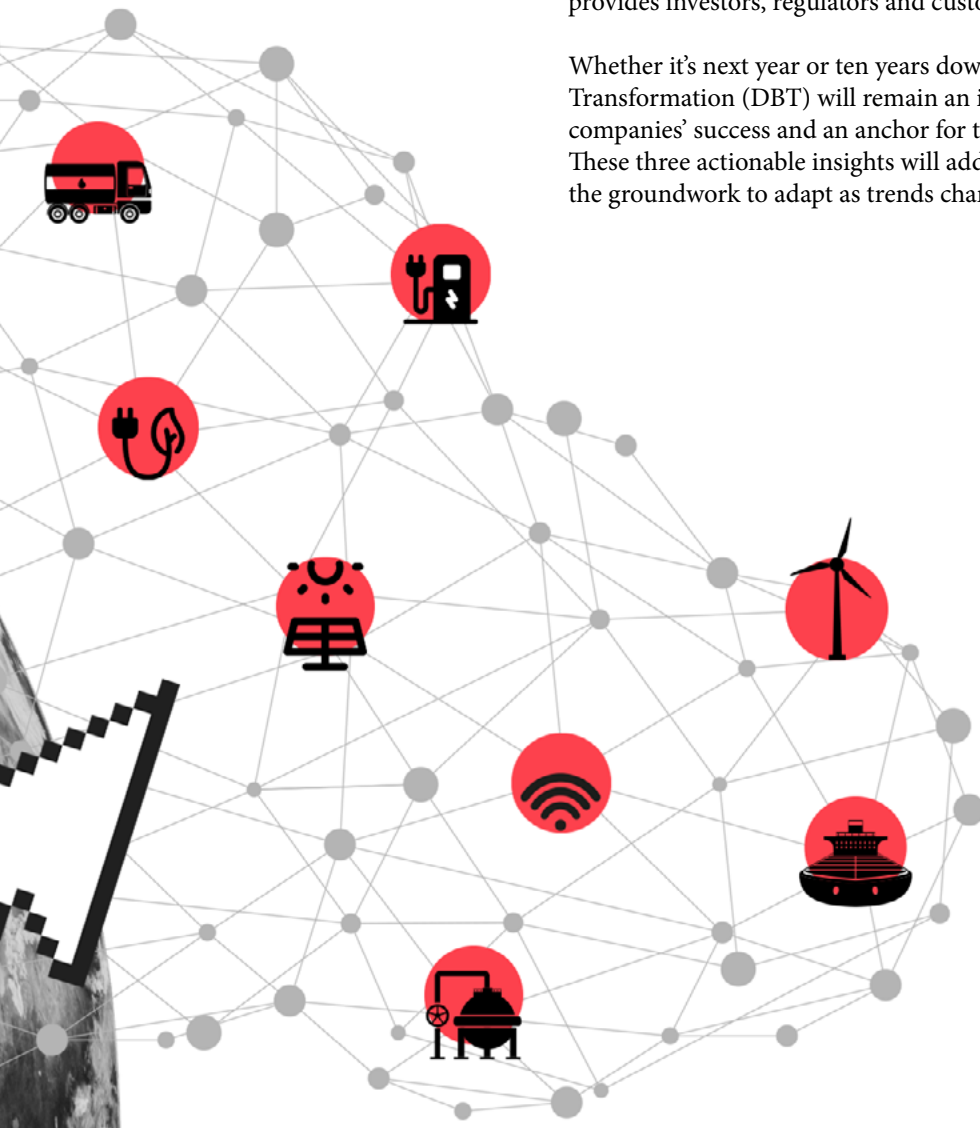


The energy market is more volatile than ever: supply and demand are in flux; pricing is unpredictable and consumer expectations are evolving. In changing times, how can energy companies gain more certainty? The answer lies in Value Chain Modernization (VCM).

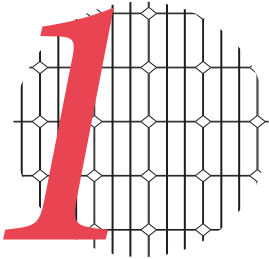
The richest resource a company can own is data, because when the right people have the right data at the right time, smarter business decisions are made. Smart business decisions can only be made when decisions are aligned across the value chain.

A unified, predictive data ecosystem across the oil and gas value chain can result in hugely transformational capabilities, such as untapped growth opportunities. Retailers also benefit from optimizing their value chain as they go on to develop a range of innovative products and services, customized specifically in accordance with their customers' needs. When it comes to ESG, a connected data ecosystem provides investors, regulators and customers the transparency they demand.

Whether it's next year or ten years down the line, Digital Business Transformation (DBT) will remain an integral part of energy and trading companies' success and an anchor for the certainty they are seeking. These three actionable insights will add value to your business today and lay the groundwork to adapt as trends change.

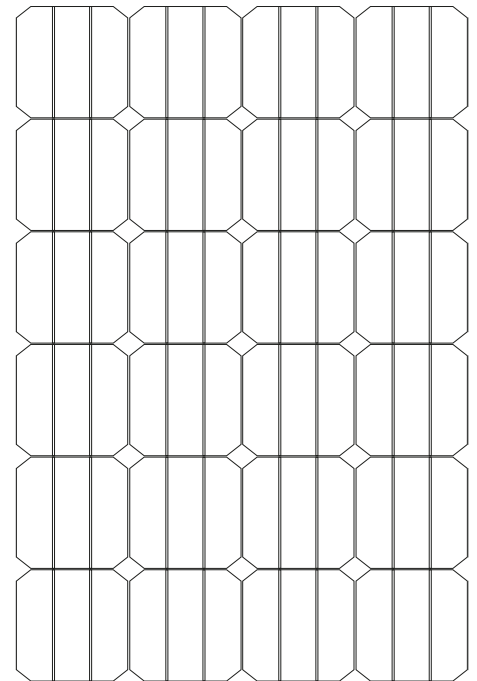
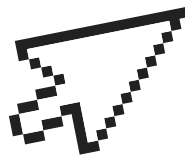


Unlock Data and Insights with Unified, Cloud-Based Ecosystems



In 2023, energy companies will need to maintain a continued focus on building resiliency in unstable conditions. The key to resilience will lie in gathering data and insights accessible by all departments in real-time for an agile and quick response to change, and for unified decision-making.

Energy companies will be looking to create [unified data ecosystems to unearth real insights](#) that lead to smarter decisions, predictive capabilities and improved operations. The visibility gained by unifying data will have a direct impact on all areas in the supply chain and can save OPEX costs; it can even improve margins on CAPEX costs. Given the volume of products energy companies work with, gaining even small efficiencies can yield savings in the multi-millions.



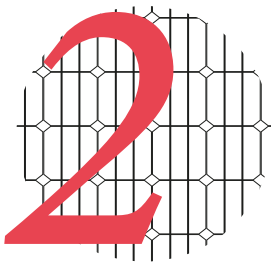
[Moving from in-house compute and data storage to the cloud](#) will bring efficiency and performance gains, as well as cost savings. This is a critical first step in refocusing an organization. [Cloud is the foundation](#) on which an entire transformation strategy is built. It is also a key ingredient in allowing IT organizations to be agile in support of new value.



“ Monolithic trading systems aren’t built to manage the complexity of the current structure deals. ”

**SHAILESH JOSHI,
MANAGING PARTNER**

Modernize Your CTRM System to Handle Multi-Objective Optimizations



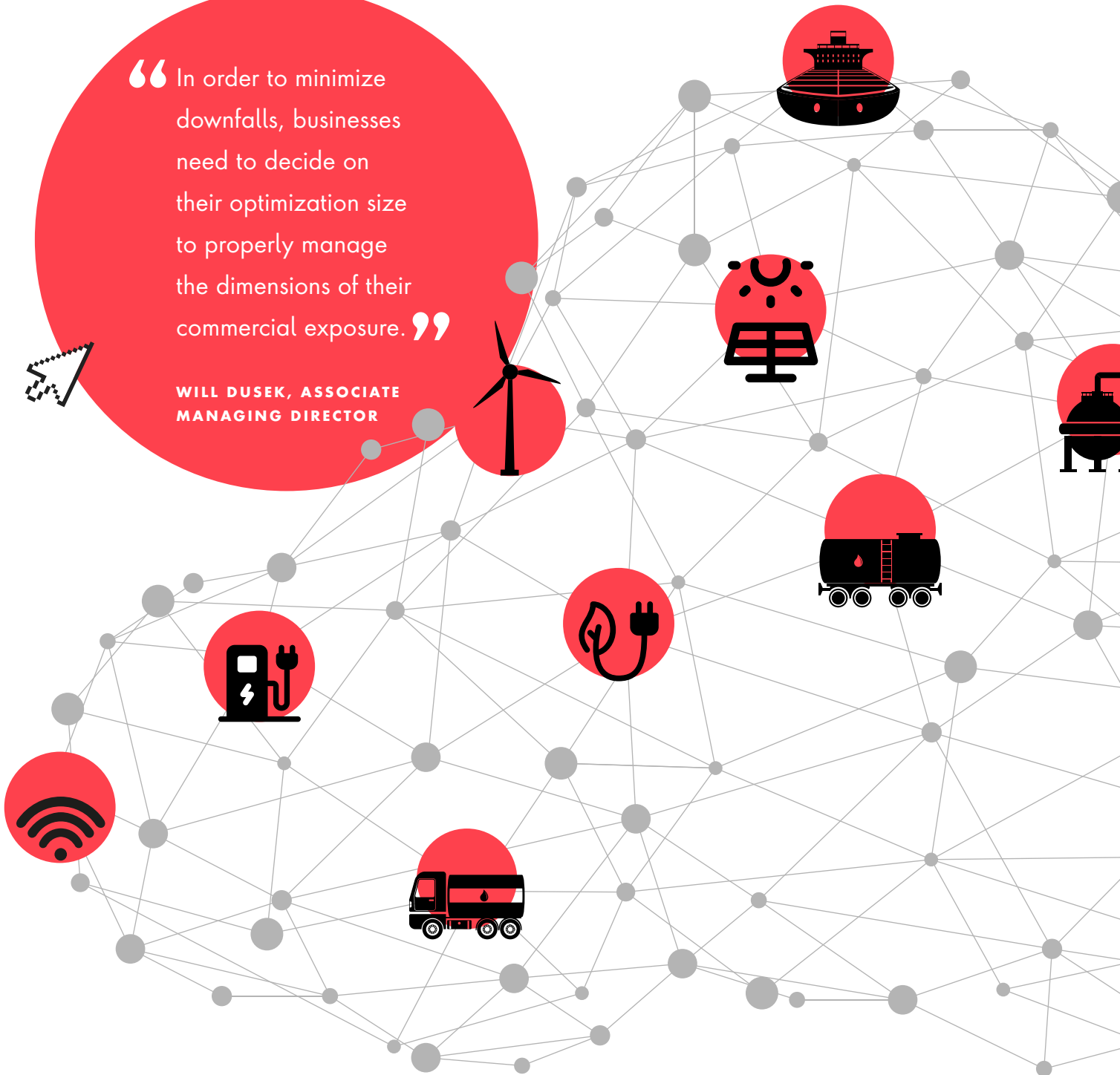
The volatility of the market and the entrance of new resources will affect the entire supply chain, but it will also have a notable impact on trading capabilities. Those markets have become more interconnected based on price arbitrage and carbon objectives. Aiming to maximize P&L while minimizing carbon footprints creates a situation where we have multi-objective optimizations.

Data is the new differentiator, especially in highly volatile trading. Real-time and reliable data is essential for real-time and better decision-making. Modernizing your CTRM ecosystem can help with better data integration, speed and agility. Taking it a step further, AI-driven models will be key for multi-objective optimizations, as well as complex structured deal management and valuations.

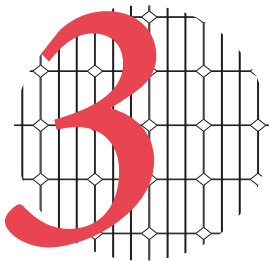
Lastly, updated CTRM systems are essential to keep up with the commercialization of new products, including carbon. The business case for carbon has been made, and energy companies are ready to focus on technology upgrades. Carbon trading, carbon management and monitoring, and carbon accounting processes will need to be incorporated into CTRM ecosystems to capture new market opportunities. Keep in mind the [different ways to collaborate on a CTRM implementation or upgrade](#) once your company is ready to proceed, and expect to see a huge demand in this area.

“ In order to minimize downfalls, businesses need to decide on their optimization size to properly manage the dimensions of their commercial exposure. ”

WILL DUSEK, ASSOCIATE
MANAGING DIRECTOR



Commercialization and Beyond

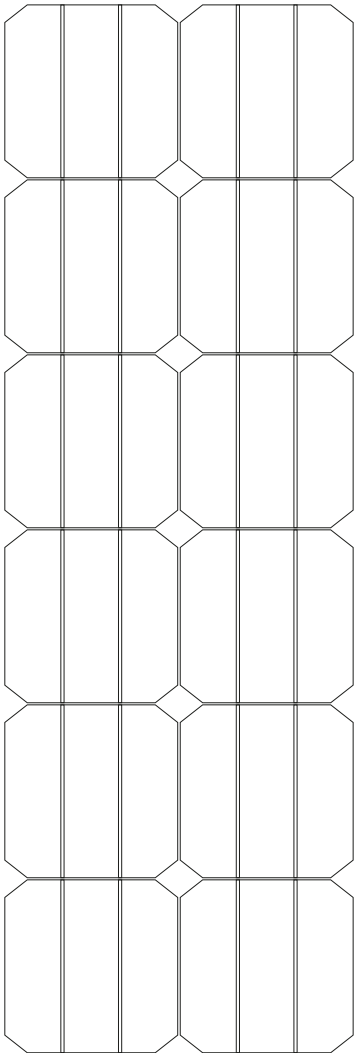


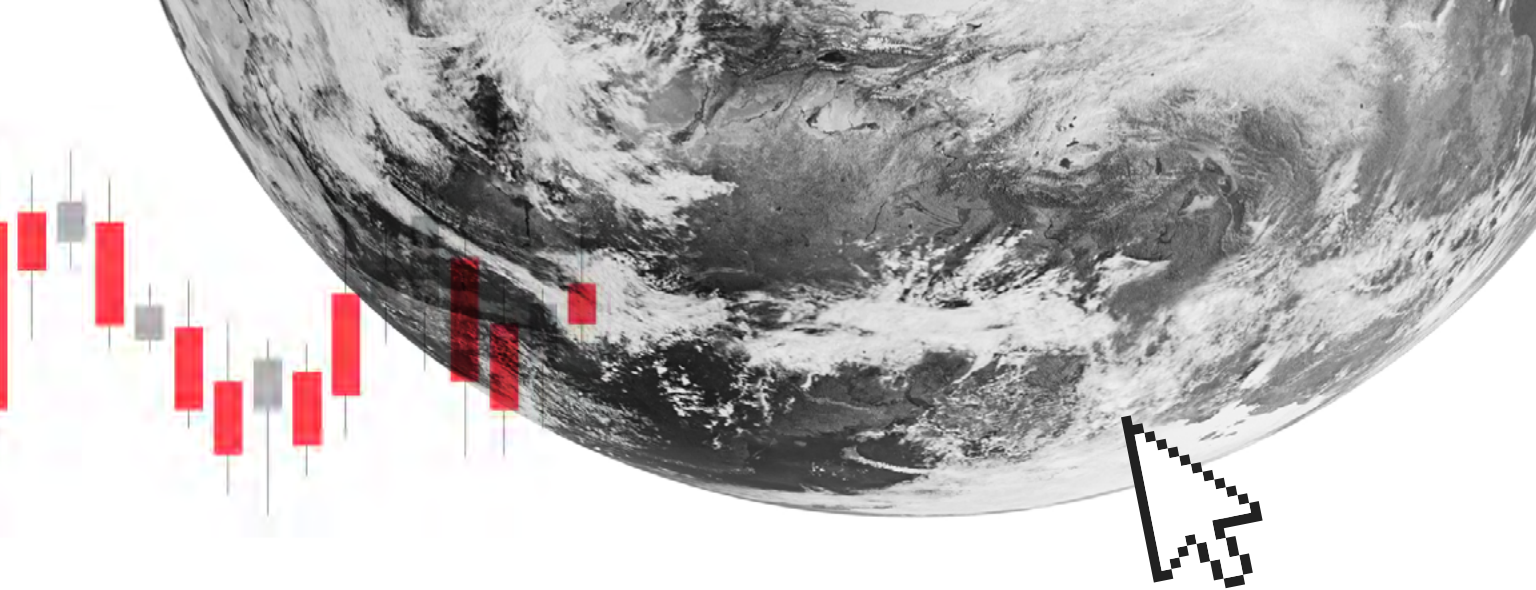
Our industry experts predict that in 2023, commercialization trends will emerge across the supply and trading industry, representing an opportunity for new optimizations and revenue streams.

HYDROGEN & BATTERIES

Growth in hydrogen production and battery capacity is set to make their respective value chains more complex and to cause further fragmentation across secondary energy sources.

Both sectors will grow rapidly in 2030: it is forecast that 10% of the world’s electricity will be used for hydrogen manufacturing, where 13% of natural gas will be used for that process. Meanwhile, battery storage capacity will increase by twenty times, while growth in annual DER2 installation capacity will increase by three times. Therefore, it is essential for companies in the supply and trading industry to gain a good understanding of the upcoming trends for secondary energy sources and to be continually preparing for what’s next beyond the next year.





NATURAL GAS

The natural gas and LNG markets are highly volatile, but there are ways of managing risks within them, including monetizing intraday natural gas volatility to better manage new risks and metrics, and leveraging the growing asset footprint for LNG trading.

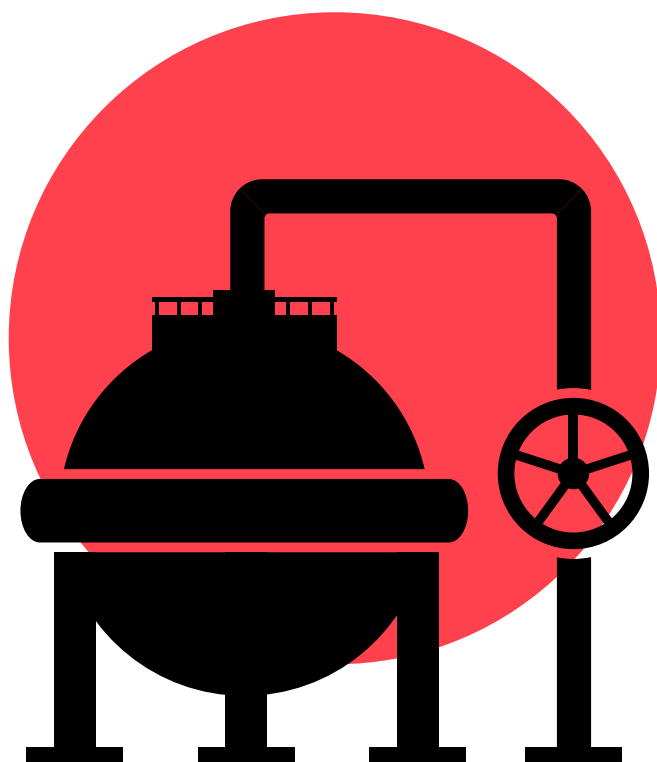
ECOSYSTEM PARTNERSHIPS

Ecosystem partnerships focusing on the delivery of various energy projects will be a new gateway to untapped market opportunities. One way to leverage partnerships is to add oil and gas production to high-growth, low-risk areas, and to deliver new energy projects, such as Bioenergy with Carbon Capture and Storage (BECCS), batteries and hydrogen.

NEW PRODUCTS & SERVICES

Meet carbon targets by introducing and monetizing new products and services across the ever-evolving value chain, such as building carbon offset and onset businesses or introducing offset-paired carbon-negative LNG products.

We will also see some companies explore the opportunity of using hydrogen and ammonia to clean up energy systems and to produce cement and steel.



Next starts now.

To get started, please visit

<https://www.publicissapient.com/industries/energy-commodities>

Or contact us anytime:



SHALEISH JOSHI

Managing Partner

shailesh.joshi@publicissapient.com



WILL DUSEK

Associate Managing Director

will.dusek@publicissapient.com





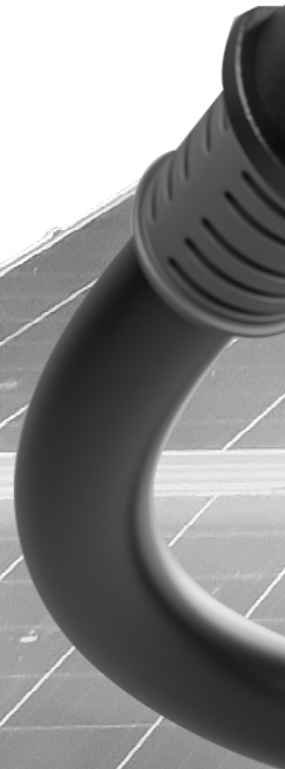
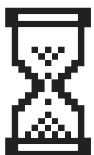
● All Roads Lead to Decarbonization

As the world continues to experience climate change first-hand and at a rapid pace, energy consumers supportive of [the race to Net Zero](#) now demand sustainable energy.

When it comes to reducing the world's carbon footprint, no single solution scales beyond the 5-10% range. The intermittent solar and wind can't meet consumer demand, and while hydrogen is becoming much more valuable, sourcing it remains high in cost.

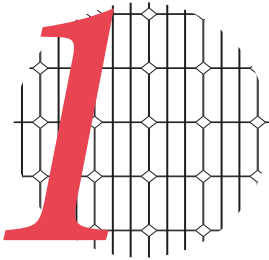
As we continue to see companies invest in energy transition and prepare for the future, we also need to see the conversion of conventional and alternative fuels, including carbon, into a single system.

Sustainability is an engine of growth to your business, but what solutions align with consumers' green ethics while swiftly helping you reach your Net Zero goals profitably?





Accelerating Decarbonization Through Digitization

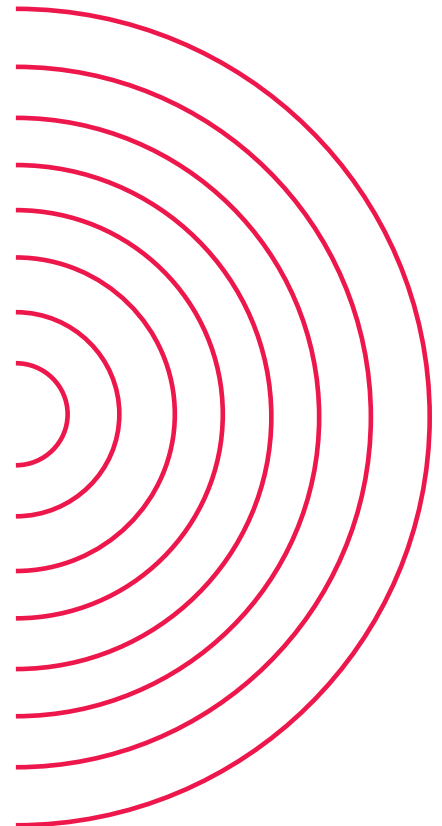
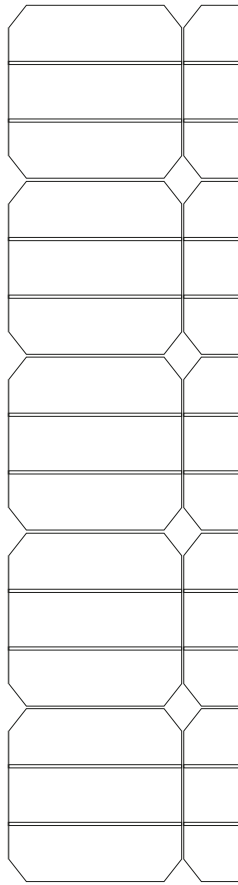


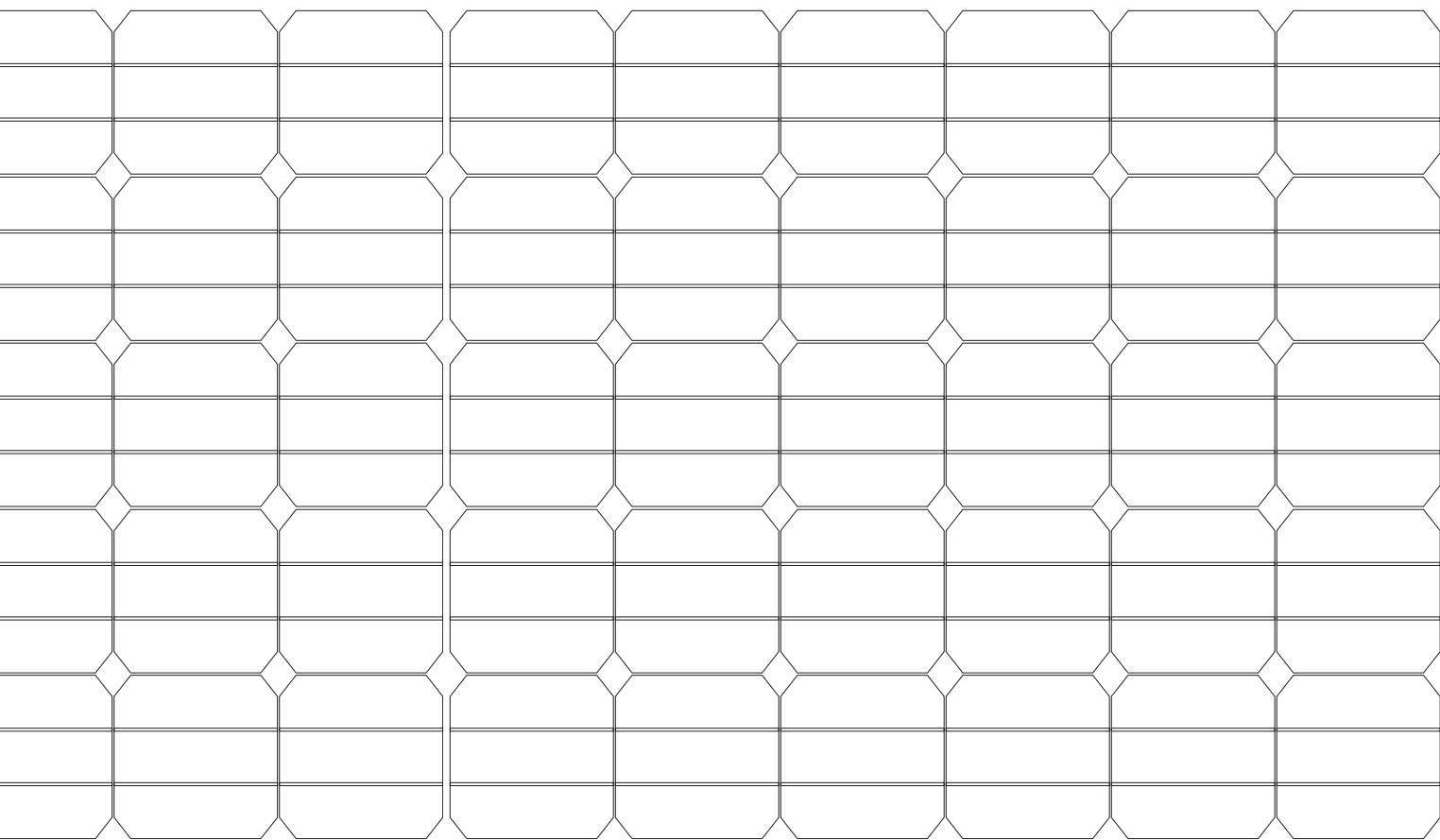
No one said it would be easy, but energy suppliers must strive to remain competitive in a radically changing business landscape. In order to transform, businesses must embrace the opportunities presented to them by the Net Zero agenda.

With pressure from government regulators and, now, a more knowledgeable, engaged and environmentally-conscious consumer base, there is a need for “digital enlightenment.” Digital and data are central to understanding the consumer and monitoring the progress and performance of technologies such as smart meters, solar panels, EV charge points, heat pumps, etc. We helped one client with our [“Peak Service solution” that leverages smart meter data](#) to offer an easy way for their teams to engage customers in energy conservation while increasing retention.

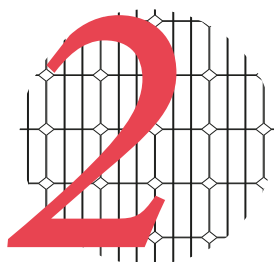
Updating legacy systems, investing in technology and committing to a Net Zero future to connect and extract this data will require a significant investment.

Unsure where to start? Follow our [Next Stop: Net Zero plan and six steps on becoming a digital native](#) in the energy industry.





Let's Capture Carbon



We're trying to reduce carbon, but how about trying to capture it? [Using the right tools](#) will allow companies to accurately measure and manage their carbon emissions and other greenhouse gas emissions, to derive accurate numbers that dramatically differ from modeled calculations.

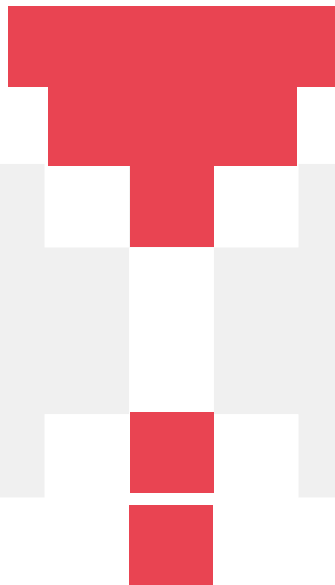
Capturing carbon data will help develop a strong carbon trading strategy for organizations looking to invest in the Carbon Capture, Utilization and Storage (CCUS) space. A customized carbon management tool enables forecasting the amount of CO₂ emissions likely to be captured, and to calculate the amount of space required to store the carbon deep underground.

Research by our experts has found that US-based companies are currently more focused on CCUS capture than their European counterparts, meaning we could see this trend expand in Europe next year.

In 2023, the goal should be to experiment with new uses for the captured carbon, in addition to advancing and fine-tuning technology to speed up the process of carbon mineralization, where carbon naturally binds itself to minerals and permanently turns into stone.

The trick will be to scale up current technology and ensure that it doesn't create more emissions than it draws down.

**"THE POSSIBILITIES FOR REACHING
NET ZERO ON TIME ARE ENDLESS,**

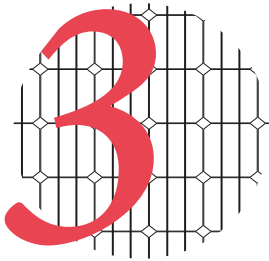


**BUT YOU NEED TO MAKE THE RIGHT
CHANGES STARTING NOW."**

AKHIL SEGHAL, VICE PRESIDENT



Electrification and Beyond



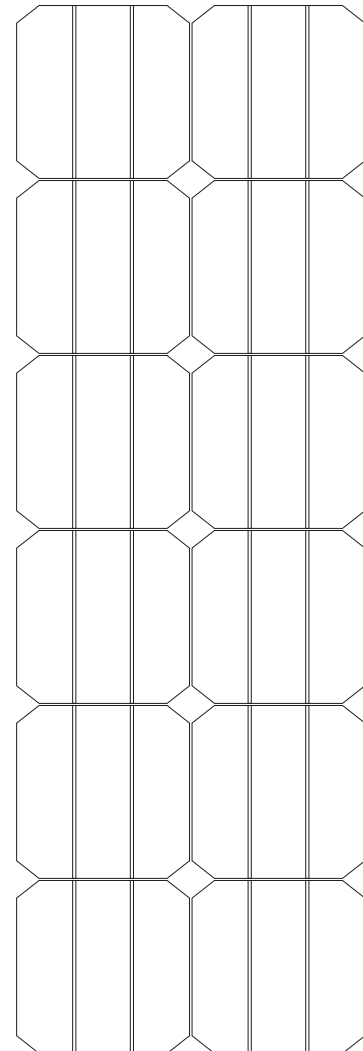
The industry is rapidly evolving, with new trends continually emerging. To stay ahead of the game, energy companies will need to identify these trends early on, as they will require new innovation, flexible technology and extra funding.

Here are some trends we expect to see next year and beyond.

METHANE

Currently, methane emissions account for 30% of the total greenhouse gas emissions. It is predicted that total worldwide methane emissions will increase by 13% by 2030 without the Global Methane Pledge.

Addressing methane emissions—which are 80 times more pollutant than CO₂ emissions—will address 30% of the climate change issue. Those emissions mostly come from the agriculture industry, and one of the most efficient and almost zero-cost ways of reducing them is through landfill gas utilization, leveraging new technology, shifting towards plant-rich diets and embracing alternative sources of protein.





HYDROGEN

Hydrogen may be our best bet as a key pillar in decarbonizing the global energy system. Natural gas might be regarded as a fossil fuel, but converting it to hydrogen will remain an important trend next year and beyond.

While the cost of converting green energy into hydrogen may be quite high, emerging tools that can do the job have a very high efficiency rate. In the future, converting renewables into hydrogen for heating will become a necessity to tackle climate change.

Experts predict that the switch to hydrogen heating will start to happen in the next decade. However, to use hydrogen gas at home, electric appliances, such as boilers, must be hydrogen-ready. The technology to do that is ready, but it requires a widescale strategic switchover by central governments.

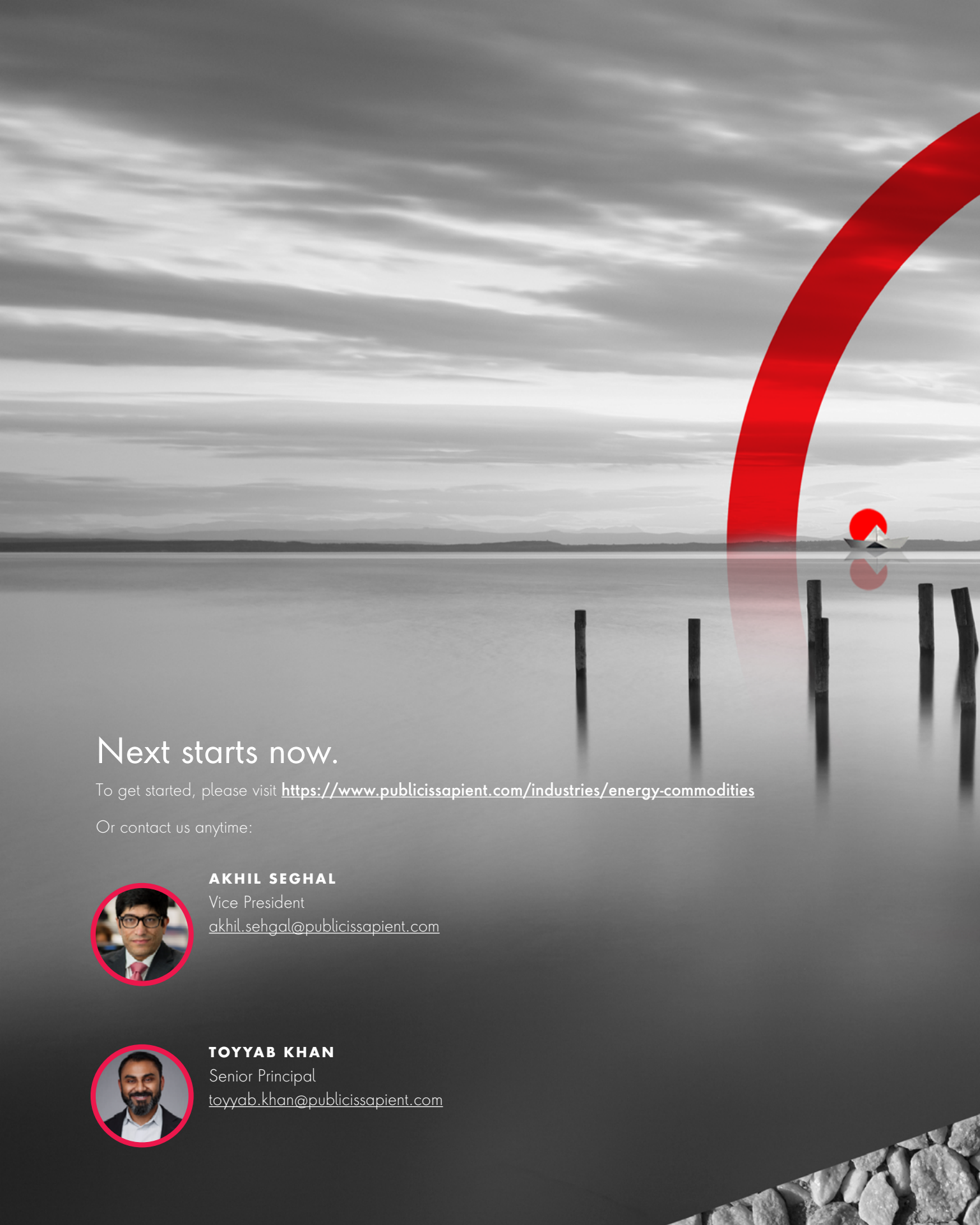
CROSS-INDUSTRY IMPACT

Expect to see changes in the industrial sector, too. Take cement and steel manufacturers, for example. Steel production alone produces a significant 7% of the global CO₂ count, while cement adds another 5-6% of that. Those industries will switch to hydrogen as an alternative fuel. Electric Vehicles (EV) will have a heavy footprint in the transportation industry, and solving the methane problem will impact the agricultural industry. Expect a future with a lot of cross-industry collaboration to make the biggest impact.



**“STARTING NOW, BUSINESSES
WILL NEED TO SCALE UP CURRENT
TECHNOLOGY AND ENSURE THAT IT
DOESN'T CREATE MORE EMISSIONS
THAN IT DRAWS DOWN.”**

TOYYAB KHAN, SENIOR PRINCIPAL



Next starts now.

To get started, please visit <https://www.publicissapient.com/industries/energy-commodities>

Or contact us anytime:



AKHIL SEGHAL

Vice President

akhil.sehgal@publicissapient.com



TOYYAB KHAN

Senior Principal

toyyab.khan@publicissapient.com



CUSTOMER EXPERIENCE

● Personalized Customer Experience is the Way to Shine



Prolonged inflation and a volatile energy market will leave consumers in a tricky position next year, where they'll look for ways to capitalize on energy while still expecting customized products and solutions from their providers.

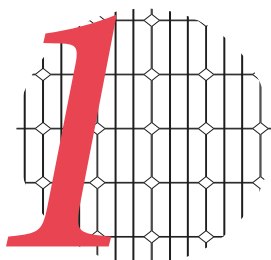
That's why energy companies will need to steer away from convoluted legacy billing systems to focus on modern SaaS-based billing platforms and more transparent online experiences, making for a satisfying end-to-end customer journey. Supporting these evolving expectations will require transforming back-end systems to be more flexible and scalable, offering real-time pricing visibility, and organizing around the customer every step of the way.

To succeed in 2023, energy companies must ditch traditional thinking and embrace the moments that matter for the end user in three key ways.





Buy into Consumers Selling Energy



As the threat of recession looms, the need for energy security will drive innovation and innovation-supporting policy that will enable consumers to stretch their money, or better yet, make more of it, all while helping the environment.

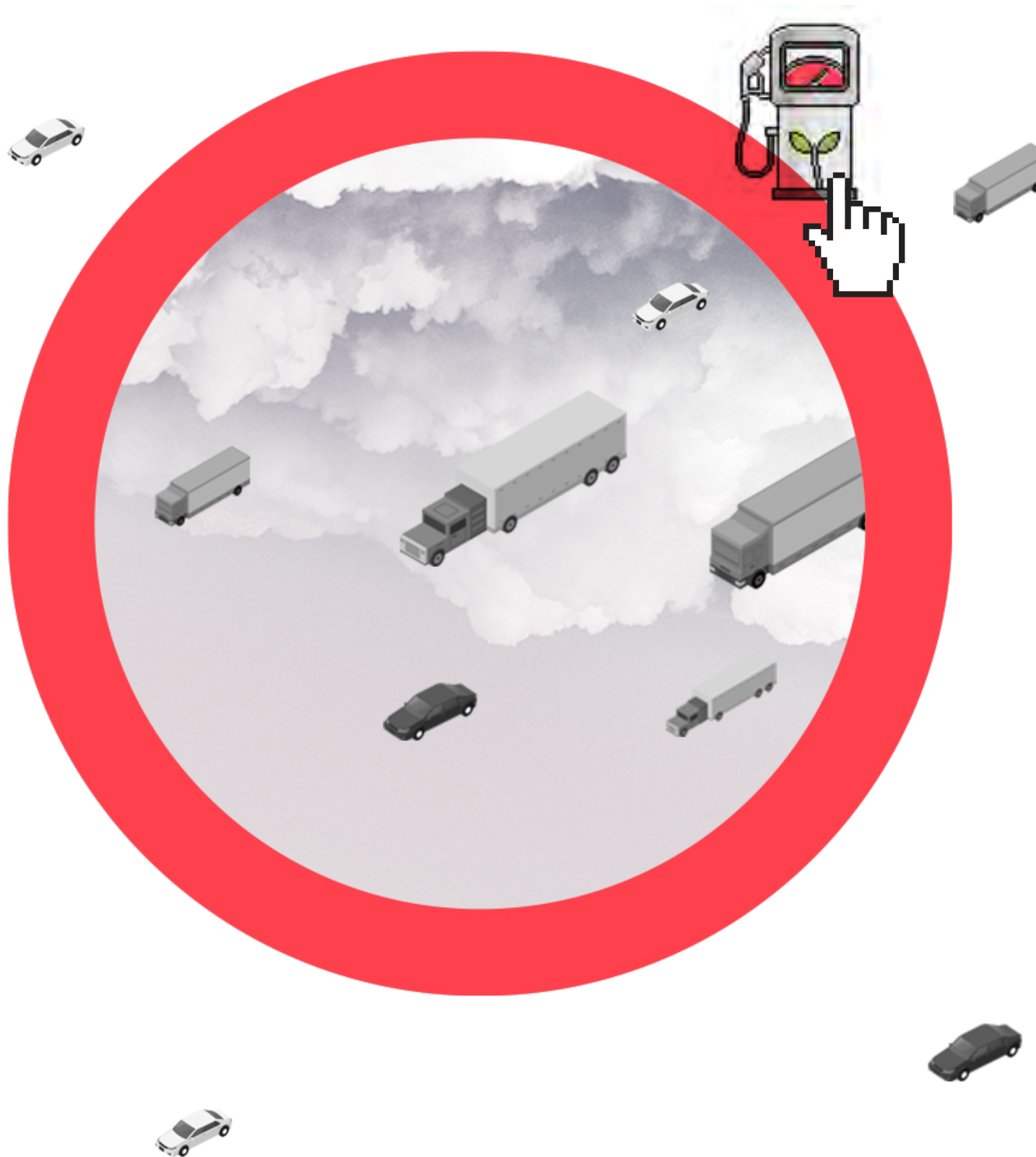
One trend that will see growth, and that has the potential to transform the energy system as we know it, is the cost-effective vehicle-to-grid (V2G) technology, where electric vehicles (EV) will be able to feed the energy stored in their batteries back into the National Grid. In other words, EV owners will sell their energy back to energy providers. That's one smart way for consumers to make money while decarbonizing and balancing the grid.

However, as EV adoption (and its carbon footprint) grows, we will also start to see new grid constraints on the supply side that [demand new solutions](#). EV owners with home-based charge points have begun to capitalize on this deficiency by turning to renewables to generate extra electricity to charge their own vehicles at home and sell to the community. Neighbors, tourists or any other EV owners could

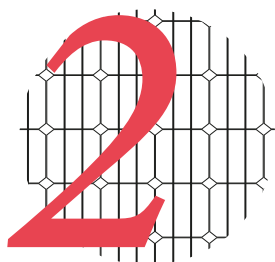
pay to use the greener energy sources.

While this idea would theoretically provide a great incentive for European EV owners to turn to greener energy sources, it may prove difficult to implement, as many city roads lack parking space and are either too narrow or difficult to find. Meanwhile in North America, policies around net metering are still evolving, as seen from recent state proposals, and more can be done to accelerate solar and storage adoption.

Capturing, storing, then selling renewable energy from home may catch on as a broader trend in 2023. Despite the intermittent supply in solar and wind power, consumers are still able to collect enough energy for personal use and to sell the rest to the community. Our industry experts see another trend emerging where this very stored-at-home renewable energy could be available for use on the go; it would work in a similar fashion to mobile roaming or “hot spots” while abroad, except with energy.



Go the Extra Mile for Your Customers



Providing good service is no longer enough. The way to go? Integrating customer service with field service to improve customer certainty.

To achieve that, energy companies will need to go the extra mile by following up with their customers after a certain event has taken place—like a power outage—to assess whether they may require additional services, such as double checking that the power is back on or if the electricity meters are functioning as normal, and, most importantly, how they could have handled things better. If the outage was caused by a natural disaster, the energy provider may want to check if any repairs are still required in the neighborhoods they provide energy for. It's more than just about the initial transaction; it's about the quality of service and the reliability of a company in times of need.

Changing the way customers engage with utilities must go beyond apps and data to include call centers. A modern CRM can connect data and touchpoints to transform customer engagement and reduce workforce costs while giving unprecedented visibility into the end-to-end customer journey. The CRM also enables the 360° customer data that is essential for energy companies to get



the right information and resources to the right customers during a crisis. Eventually, this also helps utilities coordinate with the public sector to swiftly get things back to normal.

This [360](#) customer data will also help energy suppliers get ahead of government mandates by recommending energy-saving solutions for their customers in the form of actionable insights and nudges. But doing it right requires removing data silos across an organization and gathering advanced insights on consumer consumption patterns that will help guide customers on how to limit and conserve energy, as well as the best time to use it, all with the purpose of lowering rising bills.

Connecting data across the organization will also generate valuable insights to understand the customer, the home the units and ultimately the products that can be recommended and even developed to meet their needs, reduce consumption, and build trust between providers and customers.

For example, the Oshawa Peak Power App built by Publicis Sapient for the Ontario Energy Board disaggregated consumers' home devices to identify which ones were using the largest amount of energy, and based on those insights, offered personalized tips, products and solutions.

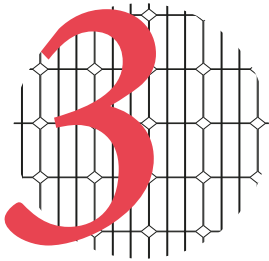
[Learn about our partnership with the Ontario Energy Board.](#)

“The goal for businesses is to not look at services as static but as something where they can continuously add value.”

**SUPRATIK CHAUDHURI,
CLIENT PARTNER**



Smart M2M Payments



The future of energy payments will look something like this in the next few years: payments will no longer depend on mobile apps but rather on real-time, automated machine-to-machine (M2M) payments and relationships with little to no human intervention needed.

Using real-time data analytics, we will see more cars, trucks and other vehicles interacting directly with other machines to pay for fuel, insurance, road tolls and maintenance. M2M is incredibly versatile and has high potential for scalability. By looking across different customer types and capturing data from initial use cases, energy providers will identify ways that M2M can improve operational efficiency, cost-efficiency and the quality of products and services.



“Businesses need to
move away from
simple transactions to
moments that matter.”

**CRAIG GOSLING,
SENIOR CLIENT PARTNER**



Next starts now.

To get started, please visit <https://www.publicissapient.com/industries/energy-commodities>

Or contact us anytime:



SUPRATIK CHAUDHURI

Client Partner

supratik.chaudhuri@publicissapient.com



CRAIG GOSLING

Senior Client Partner

craig.gosling@publicissapient.com





publicis
sapien

Publicis Sapien is a digital business transformation partner helping large-scale energy organizations like Chevron, British Gas and Uniper get digitally-enabled, both in the way they work and the way they serve their customers. As digital pioneers with 20,000 people and 50+ offices around the globe, our experience in technology, data sciences, consulting and customer journeys enables us to evolve our clients' businesses with products and services that put consumers first.

2023

CONSUMER PRODUCTS ISSUE 2

Guide to Next.



publicis
sapient



2023

This year's outlook on what's next and how
Consumer Products firms can strategically
plan for changing customer demands.

TABLE OF CONTENTS



04 Digital Operating Models

14 Democratizing Net Zero

24 Predictive Analysis

32 Brands of the Metaverse





● Digital Operating Models

HOW THE CONSUMER PRODUCTS INDUSTRY IS TRANSFORMING ITS OPERATING MODEL FOR A DIGITALLY ENABLED WORLD

As consumer product brands enter a new era, companies are transforming from siloed conglomerates into consumer-driven digital businesses. How and why are the top performers choosing to restructure?

In 2023 and beyond, consumer products (CP) companies have an opportunity to completely transform their business through customer engagement. What's stopping them? It comes down to whether or not their digital capabilities and strategy are centralized, which can empower digital transformation.

Conglomerates like Kellogg's, B&G Foods and Unilever continue to separate into specialty category companies to focus on key growth areas and become more agile. But digital capabilities are one part of the business that can benefit from staying together.

"These companies are about to add a new business complexity, and rightfully so, because specializing will be more profitable," said Dan Liebermann, managing director at Publicis Sapient. "But if they want to maintain a digital experience that's cost-effective and maintains some level of consistency to their customers, they can't split into multiple digital models. It won't work."

So, what will? Many CP firms are looking into core digital hubs that house capabilities like data and marketing under one roof. According to Liebermann, while it's a really tricky thing to pull off—especially for newly separated companies—this approach can help achieve consumer engagement and get results from new technology.

What is a digital-first operating model?

A digital-first operating model is different for every company, but it revolves around one thing: making digital capabilities a priority.

Many CP firms have little alignment on digital strategy, data and technology across departments, brands and regions. Switching to digital-first operating model prioritizes a digital investment. One way to create a digitally enabled company is by putting digital at the center.

“It means having some sort of core, ideally a digital core, where all digital capabilities sit in one group and have full control of digital investments and budgets,” said Sabrina McPherson, senior managing director at Publicis Sapient. “So, marketing and data are handled centrally across all brands under one umbrella.”



FOR EXAMPLE, A DIGITAL CENTER OR CORE MIGHT CONTAIN THESE SERVICES FOR THE ENTIRE ORGANIZATION:

- Digital commerce
- Content services
- Consumer services
- Marketing/merchandising
- Digital media
- Data and analytics
- Digital product management

In a less mature digital operating model, all of these services might be handled regionally or on a brand-by-brand basis. With a more mature digital-first operating model, they could be handled by a central entity.

“Many CP firms have limited digital resource dedication or alignment on digital standards,” McPherson said. “There are digital initiatives embedded in every different brand or business, but they’re not leveraging across the business to do digital in an efficient way, nor are there core standards or excellence around it.”

A digital strategy might not be a new idea for consumer products brands, but investing in completely new organizational models to support digital strategy is just beginning to gain traction.



Why CP companies are transforming their operating models

Two main factors are motivating CP firms to make a change: reducing costs due to inflation and remaining relevant against the competition. These issues are also driving the various specialty spin-offs within the industry.

REDUCING POST-COVID-19 INFLATION COSTS FOR CONSUMER PRODUCTS BRANDS

Many consumer products brands are also looking for innovative ways to cut costs because of sustained inflation.

While companies anticipated an eventual recovery after COVID-19 lockdowns, a massive rise in costs for key raw materials is straining the return to “normal.” CP brands are facing smaller-than-expected margins, and they have to make tough decisions on what to invest in and where they can cut costs.

At first glance, the costs of building out a new digital-first operating model are daunting for many firms. But in the long term, having a central data hub can save CP companies money and time across brands, especially when utilizing first-party (1P) data.

“If I don’t have a consolidated digital operating model, I’m having to figure out who a consumer is many times for many different brands,” Liebermann said. “I’m going to create a frustrating experience for customers when they visit any of my emerging digital properties, and it will be at least three times more expensive for me to fix things.”

“

Consumers are expecting seamless interactions on their mobile or desktop, across offline and online; they expect always-on engagement. As a manufacturer, you have an opportunity to engage with them across all these multiple touchpoints and be top of mind.

”

**SABRINA MCPHERSON,
SENIOR MANAGING DIRECTOR,
PUBLICIS SAPIENT**

REMAINING RELEVANT IN A DIGITAL ENVIRONMENT FOR LEGACY BRANDS

In the past, traditional, siloed marketing methods and regional retailer relationships were enough to sustain business operations for legacy CP brands. Today, almost all companies in the industry are looking to build direct and deeper relationships with consumers, which is directly enabled through digital channels and capabilities.

“Standards of how brands engage with consumers are set by digital natives that often are outside of the CP industry. Consumers increasingly expect any brand to know them almost better than they know themselves,” McPherson said. “Delivering on this ever-rising bar of expectations requires digital content that is always evolving, timely and personal, which is why you need this hub in the center to be able to have those insights on a more frequent basis.”

Research has shown that consumers are no longer as loyal to specific brands as they once were, and they are more willing to seek out new brand options after negative experiences. Inflation and rising costs are also pushing consumers to pull back on spending and seek brands with lower costs.

This creates a key opportunity to tap into new digital channels to consumer relationships and collect 1P data. Even if it doesn't make sense for a CP brand

to invest in a direct-to-consumer (D2C) commerce channel, D2C digital marketing is a must.

To serve personalized ads for multiple brands to the same customer profile through Pinterest, Spotify and email, for example, business units from different brands and regions will need a centralized structure to share information and work together.

OPTIMIZING CONSUMER PRODUCTS ORGANIZATIONS TO HANDLE DIGITAL TOOLS

Some consumer product companies have even decided on a digital-first operating model after trial and error with new technology.

CP firms often invest in a D2C channel, digital marketing, cloud migration or another data-heavy initiative to modernize the organization and achieve growth.

Then, after purchasing technology platforms, consulting work and training, they discover they aren't reaping the expected benefits. This is because while the technology improved, the organizational model did not.

"Migrating to Amazon Web Services (AWS) might turn a lot of heads, get various press releases, and by all accounts is a good thing to do," Liebermann said. "But how do you actually use it? You can build a Bugatti

that can go 200 mph, but you give it to someone and they might drive it 20 mph and crash into a tree. It's about preparing people to use new tools at their maximum capacity."

Whether companies have already invested in digital or are just starting their digital journey, the operating model is an often overlooked yet significant factor in success.

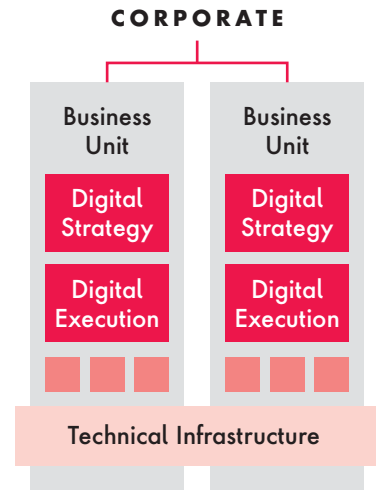


The three stages of digital operating model transformation

GENERALLY, MOST CP FIRMS THAT HAVE INVESTED IN DIGITAL CAPABILITIES START WITH A DECENTRALIZED OPERATING MODEL THAT IS NOT TRULY “DIGITAL-FIRST.” THEN, STEP-BY-STEP, FIRMS CAN BEGIN TO CONSOLIDATE THEIR DIGITAL CAPABILITIES—FROM BEING DECENTRALIZED TO A DIGITAL CORE.

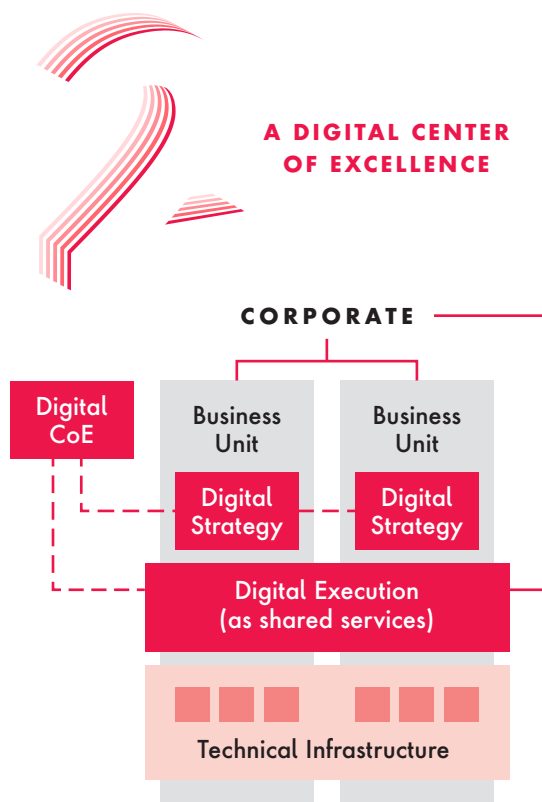


A DECENTRALIZED DIGITAL OPERATING MODEL



In a decentralized digital operating model, digital is a low priority, and it's siloed separately within different units. This model is not “digital-first.”

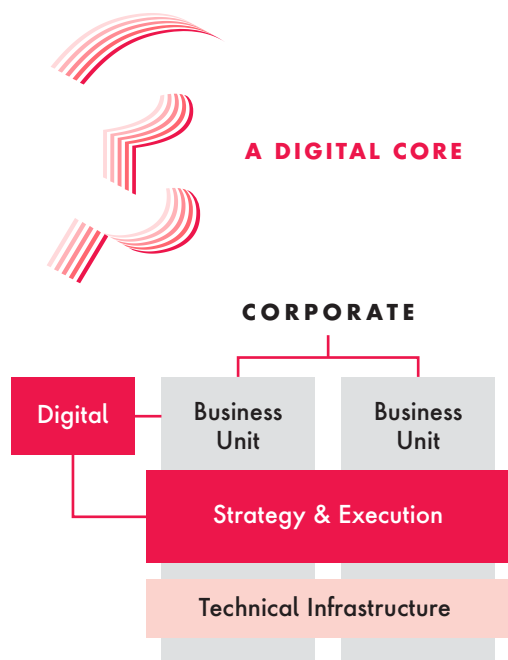
Each business unit manages digital strategy and delivery independently with very little exchange. This model isn't scalable, and it often comes with a lot of cross-region duplication. Usually, digital solutions are purpose-built for specific needs or groups, and there's minimal digital resource allocation.



The next level of digital maturity is creating a digital center of excellence (DCoE), which is the top priority for many CP brands in 2023.

“This digital center of excellence is really there to help business units adopt best practices and help share what ‘good’ looks like when it comes to digital,” McPherson said.

This operating model creates expertise and consistency for digital across business units and provides a single source of digital metrics and data. However, the digital strategy and execution are still left up to siloed brands and regions—and the center’s success still relies on the separate business units’ budgets.



A digital core operating model is an advanced model that the vast majority of CP firms haven’t yet adopted, but it is vital to the success of digitally native companies and brands. This model gives a centralized digital hub full control of all digital investments and budgets as well as digital experience and OKRs.

While regions would still have a limited ability to execute digital strategy, they’d use solutions and resources from a global digital team. When CP companies adopt this top-down mentality to drive acceptance across the organization, it makes it easier for each business unit to adapt to digital changes. “This model is about moving from a focus on technology platforms to one of high-impact digital outcomes,” McPherson said. “The digital organization moves from being just a service provider to a solutions partner.”

How can consumer products firms prepare for a digital-first model?

While the goal of transitioning to a digital-first operating model is to create more speed and agility, successfully moving digital to the center of a company takes longer than expected.

This is something that CP firms often struggle with, as it can take over a year to see results. With other business model changes, it's quite easy to employ a "test-and-learn" strategy to try new ways of working or new technology. But with true organizational changes, results are slower to take root.

"Lots of companies want to know if we can try this new operating model within a month just to see what it looks like," Liebermann said. "But you need to build out the foundation first. You can't build a new house without the foundation."





Taking a step-by-step approach to operating model transformation

The first piece of advice companies can lean into is building a DCoE before creating a true digital core.

This center of excellence requires not only a team and, ideally, a chief digital officer, but also talent that can build out standards for key digital capabilities, such as digital marketing, data and analytics, digital product management and consumer insights.

Focusing on developing a high level of knowledge around these key capabilities will help integrate a digital hub into your organization—and better achieve buy-in throughout different business units. And the ultimate goal for a digital hub? Budget and decision-making power.

“If you’re just a center of excellence and you don’t have budget or decision-making control, you can only indirectly influence what each market is doing as far as how much they want to spend on digital marketing and how much they want to spend on digital experience building,” McPherson said.



Focusing on accountability and organizational culture

A key component to the initial success of a DCoE is the culture around digital strategy and change, which can often be looked upon as a secondary factor, or the “softer side” of digital compared to technology. “Solving not just the operating component, but also the cultural component, is the hardest part, and it takes time,” Liebermann said.

CP firms can stand up a solid DCoE or hub, but if business units aren’t motivated to utilize that center of excellence through projects and budgets, they’re not going to be able to contribute at maximum capacity.

“Companies experience a version of buyer’s remorse. The investments have been made, and the return isn’t there. And they realize it’s more about the people and process components and not about the data, the tool or the luminary behind it. When the culture is there, a centralized digital operating model creates a powerful synergy. The people, processes and technology can work together, and the return becomes incredibly clear,” Liebermann said.



Democratizing Net Zero

HOW CONSUMER PRODUCTS COMPANIES ARE DEMOCRATIZING SUSTAINABILITY

As climate change concerns grow, CP firms are welcoming consumers and competitors into their plans to become more sustainable.

Sustainability KPIs present a unique challenge for consumer products (CP) firms compared to other standard metrics. When it comes to product margins, return on advertising spend (ROAS) or out-of-stock (OOS) rate, each company has individual results. Achievement is separate, and success is exclusive. The same can't be said for sustainability, a different kind of business goal.

One company's success in carbon neutrality or recycled packaging is not removed from another company's failure; both companies are facing the same future. The end goal of sustainability is a collective success—for companies and consumers alike—because one company's progress alone cannot possibly sustain the planet's health, even if it looks good on an annual report.

So, what does this mean for CP firms in 2023? Scott Clarke, vice president of consumer products at Publicis Sapient, says the future of sustainability will

be “democratization.” Instead of using sustainability as a unique selling point or guarding green solutions internally, companies will tackle the planet's health as a shared problem with a shared solution. While this shift comes with obstacles, it will also create freedom to connect with consumers and competitors in more innovative ways than ever before.

“If you're serious about doing something good for the environment, sustainability can't be delivered in a competitive way,” said Clarke. “You have to be willing to work as a collaborative ecosystem, tackling sustainability problems alongside consumers, competitors, academics and government bodies.”

CP companies should be earnest about sustainability—and not just for altruistic reasons. Not only are consumers interested in sustainability, but they're also willing to invest more in brands that are truly sustainable. A majority (62%) of Americans said they'd pay more for sustainable products in a recent Publicis Sapient survey. Similarly, 77% said they avoided certain firms or products for their environmental impact at least some of the time.

What does it mean to “democratize sustainability?”

Traditionally, sustainability has been viewed as a fraught question between companies and consumers. Who should take ownership? Consumers are encouraged, often by corporations, to make drastic changes to their daily habits in the name of sustainability. From eating vegan, to switching to reusable containers, to avoiding air travel, there’s not a single area of life where individual behavior can’t be altered to help the planet.

Meanwhile, corporations are expected to do the same. Consumers are relying on brands to fundamentally change their business to be more purposeful in their actions, especially as their size and scale have substantially more impact compared to individual actions.

However, neither companies nor consumers are substantially rewarded by the free market for making the sustainable choice. This economic dilemma creates the assumption that neither party is motivated to make a change. The opposite is actually true. For starters, most consumers do, in fact, want to change their individual behavior, but many just don’t know how. Not only are there a myriad of different actions to take, but the rules and messages are also uncertain, and most societal systems are not well-equipped to handle them. Corporations face a similar problem.

The idea of democratizing this vague idea means breaking down the stigma and shame surrounding sustainability. Rather than shifting responsibility to the consumer, CP firms can uplift them by making it easier to do the right thing.

You can incentivize and empower people to make better choices and reward them for making the right decision. But you have to be transparent. You can't be seen as an enemy of the environment and then turn to the consumer to ask them to do more.

SCOTT CLARKE

Vice President of Consumer Products, Publicis Sapient

“

How can CP firms enable consumers to be more sustainable?

The number one place to start for any firm is bridging the say-do gap, or the gap between what consumers say they believe in and what they actually do in practice.

COMMUNICATION AND EDUCATION ON CONSUMER PRODUCT DISPOSAL

For example, 95% of Americans say they recycle. Yet fewer than half of them know the basics of recycling, according to a recent survey. CP firms are racing to develop recyclable packaging for their products, but many well-intentioned consumers will not dispose of that packaging in a sustainable way. Additional research shows nearly two-thirds (63%) of consumers say they're more likely to purchase products that are well-marked with recycling instructions. Yet roughly 60% say disposal instructions on items are hard to find and that there's a lot of conflicting advice on recycling. "The product itself is only one element of that end-to-end journey," said Clarke. "If I buy the most sustainable product but then waste some of its contents or fail to recycle it correctly, that has significant carbon implications."

Traditionally, recycling information is communicated via a small logo or

fine print. However, research shows that this is not enough to really make sure products will be recycled. CP companies have the opportunity to step up their communication and educate consumers on exactly how they can recycle their products in a sustainable way. This could be in the form of instructions on the back of the box or a how-to video within a product description, given that 69% of customers prefer video to text when learning about a product. Companies can even include an instructive insert on how to dispose of the product or packaging.

Not only does this make efforts to create recyclable products more worthwhile, but it also builds trust, relevancy and loyalty with consumers.

INCENTIVIZING CONSUMERS TO PRACTICE SUSTAINABILITY

But this is just the first step; actually getting consumers to follow through on recycling or other disposal instructions is another process. One way to incentivize sustainable actions is through consumer rewards. The rewards can come in many different forms, from meaningful experiences, to QR codes, to apps.

For example, Volkswagen turned a staircase that was next to an escalator into a working piano to incentivize people to be more active and use less energy. This prompted more and more people (a 66% increase) to take the stairs instead of the escalator because it would play a song and offer a fun experience.

In Canada, a CP company introduced a smart sensor on the back of recycling bins that would allow consumers to scan the QR code on the back of products to see whether or not they're recyclable.

Companies have also used accompanying apps to empower consumers to make the right choice. In the U.K. and France, a CP company created a mobile app that informs

people of the most sustainable choice in a particular category, such as skincare. The app also rewards the consumer with loyalty points for purchasing the most sustainable product.

However, it's important to understand that consumers have reasonable limits. "In an urban area, you can encourage consumers to walk versus drive to the store. But you can't expect the same from someone living in most rural locations, where the closest store may be 25 miles away," said Clarke.



USING SPECIFIC LANGUAGE TO DESCRIBE SUSTAINABILITY EFFORTS

Another aspect of sustainability is the actual choice of the products themselves. CP companies have started introducing carbon-neutral food and beverage products to the market, with corresponding product labels to attract climate-conscious consumers. However, nearly six in 10 consumers don't actually know what that term means or define it incorrectly.

The same issue presents itself with other terms, like GMO-free, because only 52% of consumers know what GMOs are. If CP companies want consumers to choose and, in many cases, pay more for sustainable products, they need to better educate them on what sustainability entails.

CP companies can go beyond a small logo or label to be more specific in how certain products are helping the environment—through more detailed, engaging messaging on different channels. This can also help to combat “greenwashing.” Research shows that among European fashion brands, 59% of green claims are misleading. Part of this issue is the use of vague

terminology in product marketing that many consumers gloss over or even misinterpret.

You only need to look toward rising grassroots influencers such as TikTok star Andrea Cheong to see the power of customers in calling out brands for greenwashing. She represents the growing wave of consumers using their purchasing power to identify exaggerated sustainability claims and shift their purchases toward cleaner, “slower” brands that put intense focus on measurable and focused impact.

“Be very clear about how your product, or your company, is giving back,” said Clarke. “What specifically are you doing? Companies can’t hide behind broad concepts of environmentalism and net-zero targets because no one understands what they actually mean.”

This also means that companies should be transparent about failures and

missteps at the same time. CP firms can more effectively incentivize and educate consumers on sustainability if they, too, are open and humble about their decisions and mistakes.

Overall, democratizing sustainability is a combination of three efforts: educating consumers about the ramifications their choices have on the environment, nudging them to make a smarter decision and then empowering or rewarding them for making that decision.

“Companies should be applauded for what they’re doing when it comes to sustainability across the entire supply chain,” said Clarke. “But they have a bigger opportunity and responsibility to help consumers make more sustainable choices, too.”

However, democratizing sustainability is not limited to the actions of consumers. The idea extends to other stakeholders in the business ecosystem, like competitors and government entities.

“

Closed ecosystem competition between players and categories is what drives a lot of environmental inefficiency. Often, sustainability comes from litigation, or maybe fear of financial loss, because a purely cost-driven market does not incentivize environmentally friendly behavior. But if companies in the same industry can cooperate, they'll actually be more efficient across their supply chain. ”

**EMMANUEL KRANTZ,
SENIOR DIRECTOR OF
CUSTOMER EXPERIENCE
AND INNOVATION,
PUBLICIS SAPIENT**

How can CP firms create a sustainable business ecosystem?

Historically, CP firms have invested in private and self-sustaining business models, from suppliers to manufacturing and transportation. While this serves the business when it comes to the bottom line, it causes slower growth when it comes to sustainability.

“Closed ecosystem competition between players and categories is what drives a lot of environmental inefficiency,” said Emmanuel Krantz, senior director of customer experience and innovation at Publicis Sapient. “Often, sustainability comes from litigation, or maybe fear of financial loss, because a purely cost-driven market does not incentivize environmentally friendly behavior. But if companies in the same industry can cooperate, they'll actually be more efficient across their supply chain.”

COLLABORATE WITH OTHER FIRMS ON TRANSPORTATION, SOURCING AND MANUFACTURING

There are a few different opportunities where CP firms can collaborate to achieve sustainability goals, like net-zero targets. For example, if a clothing brand is looking for a more sustainable way to wash clothes as part of the manufacturing process, it can partner with a detergent brand and an appliance manufacturer as well. These three companies can work together to nudge consumers to make more sustainable choices about how they wash and dry their clothes, as well as improve the sustainability of their own practices in a cooperative way.

“

Ultimately, if CP firms can embrace sustainability as not just another KPI, but a collaborative effort, where the focus shifts from ‘direct to’ to ‘direct with,’ the opportunities are endless. ”

SCOTT CLARKE
VICE PRESIDENT OF
CONSUMER PRODUCTS,
PUBLICIS SAPIENT

Collaboration can even exist between competitors within the same industry. For example, within telecommunications in the U.S., T-Mobile and Nokia are partnering to offer 5G connectivity to their consumers on new networks through T-Mobile’s 5G Open Innovation Lab.

“The more companies can cooperate within their supply chains, the more environmentally efficient they can become,” said Krantz. “If you look at large-scale carbon emissions, it comes from deforestation and transportation of goods. If companies work on these issues in a coalition format, they can make a larger impact.”

One way consumer products firms can collaborate on the back end is through selling products or raw materials to companies within the same industry. For example, if two manufacturers are utilizing the same agricultural raw materials, they can use the same crop source to reduce deforestation on additional land, or share transportation logistics to reduce emissions for multiple vehicles.

LEVERAGE PUBLIC-PRIVATE PARTNERSHIPS TO REWARD SUSTAINABLE CHOICES

Finally, the third major stakeholder in the sustainability conversation is the government, which is sometimes perceived to be at odds with consumer products firms or consumers themselves. Certain bills and laws are interpreted to favor corporations or consumers to the potential detriment of the other party.

Sustainable legislation, such as the Right to Repair Law in New York state or the U.S.-proposed Climate Risk Disclosure Rule, pressures corporations to make changes through potential legal consequences. Consumer products firms have the opportunity to work with lawmakers and other government organizations to not only abide by this legislation, but to also proactively partner on sustainability initiatives that reward consumers.

For example, Unilever has partnered with the U.K.’s Foreign, Commonwealth & Development Office on a TRANSFORM initiative to fund environmental entrepreneurs in East Asia and Sub-Saharan Africa. Other CP firms are involved in an agribusiness sustainability task force that’s part of Prince William of Wales’ Sustainable Markets Initiative (SMI), which is striving to transition to regenerative supply chains by the end of 2022.

Patagonia has taken sustainability collaboration to the next level by transferring its non-holding stock (98%) to an environmental non-profit called the Holdfast Collective. Founder Yvon Chouinard described the move as “going purpose” rather than “going public.” Purpose-driven public-private or private-private partnerships like this have the ability to effect change on a much larger scale, especially if there are goals and targets attached to them.

Sharing the burden of sustainability

While sustainability targets are significant and daunting, the power of democratization and bringing in partners to work together on climate change will make the journey a lot easier. Not only can different stakeholders share the burden of climate change, but they can also face the challenge in a much more powerful way, whether that's through consumer messaging on recycling, government partnerships or even manufacturing collaboration.





Predictive Analytics

HOW PREDICTIVE ANALYTICS CAN CHANGE THE CP INDUSTRY

While the growing crystal ball of first-party data can predict anything, it can't predict everything. Which predictive analytics use cases will provide the most ROI for consumer products firms in 2023?

If a consumer products company could predict exactly what their customers wanted and what they'd do next, they'd be able to serve customers in more meaningful ways and transform their organization. In fact, 62% of consumers think companies should anticipate their needs, and 61% are comfortable with companies using relevant personal information in a transparent and beneficial manner.

From brand.com websites, to omnichannel marketing, to subscription models, CP firms have customer data that could be used to predict the future. The announcement of a “cookieless future” and global shutdowns set CP companies on an accelerated path toward new digital channels that get them closer to the consumer.

“CP brands have been discussing predictive analytics for years. But what's different about 2023 is that CP companies have become much smarter in understanding how data, including artificial intelligence (AI), can be used to inform key business decisions and enhance human experiences,” said Scott Clarke, vice president of consumer products, EMEA and APAC, at Publicis Sapient. “This knowledge—together with an increasing capacity to gather large amounts of data, as well as increased computing power and algorithmic capability—affords CP brands the opportunity to do predictive analysis at scale.”

While the practice is still in its inception among CP firms, a Stanford study analyzing 30,000 manufacturing establishments across industries revealed that businesses that use tools to automate prediction achieve nearly \$1 million more in annual sales compared to non-adapting competitors. CP companies that can successfully integrate data from multiple sources and automate for high-value use cases will be able to scale and benefit from this growing technology.

What does “predictive analytics” mean?

To start, “predictive analytics” means using historical and real-time data to predict how people will behave in the future—from first-party or third-party consumer data, to social media comments, to weather patterns. Either manually or automatically, companies use this data to determine many different things: what kind of advertising content customers will engage with, which SKUs should be discontinued, at what time marketing emails should be sent or how much inventory should be sent to specific retailers.

The difference between predictive analytics and general data analytics is the predictive algorithm that harnesses the power of the data to turn it into a proactive decision-making tool.

“A lot of CP companies say they are data-driven businesses,” Clarke said. “But for many, the extent of their analytical maturity is the ability to describe what has happened. Few can systematically understand or explain

why something has happened, and fewer still have the ability to link cause and effect and predict what will happen on the basis of a given action.” In fact, a recent Gartner survey reveals that only 53% of marketing decisions across industries are influenced by data in general, let alone predictive analytics. The ability to use data to make decisions in a proactive, predictive manner remains a source of competitive advantage across the CP industry—and for many CP companies it has emerged as the elusive North Star.



Differentiating the predictive analytics hype versus the reality

Many remember the classic predictive analytics story from Target that went viral in 2012: The retailer sent coupons for baby products to a pregnant teenager who hadn't publicly disclosed that she was pregnant. It's unclear whether Target's pregnancy prediction algorithm was that advanced at the time or it was just an interesting coincidence, but the story elevated the potential power of AI in business use cases, especially marketing.

Since then, some AI use cases have created an inflated perception of what predictive analytics can do for businesses. The root of this problem is a misunderstanding of how to implement predictive analytics. Businesses need to have the right mixture of relevant expertise and clearly defined use cases to see significant ROI from this strategy.

Thus far, many CP brands have been focused on just one aspect of predictive analytics: building up consumer data sources and figuring out new ways to

integrate and store that data. While this has been crucial for an industry that previously didn't rely on consumer data, most brands have yet to take the next step.

"More data is not necessarily the answer," Clarke said. "The vast majority of data you capture may not be relevant to the decisions you need to make every day as a business. Defining the right business questions and use cases—and understanding how to deliver those use cases—should really be the focus."

So, what are the top use cases for predictive analytics in the consumer products industry for 2023, and what steps should CPs take to become successful? The areas where they can make the most impact on their customers are predictive content, demand forecasting and consumer trends insights.

Optimizing digital content with consumer data

As many CP firms transition to a digital-first organization, online content becomes the priority, which can be much more dynamic and personalized. In 2022, 73% of consumers expect companies to understand their unique needs and expectations, up from 66% in 2020. Not only do consumers love digital content personalization, but it also boosts revenue. Businesses that personalize web experiences see an average sales increase of 19%.

“A CP brand may want to recommend a new product to consumers, but the value propositions for different demographics might be very different,” Clarke said. “You might like a new caffeinated beverage to give you an energy boost while working out; another person might drink it to keep them awake while studying. The exact same product is being recommended, but the content being used to inspire people would be very different.”

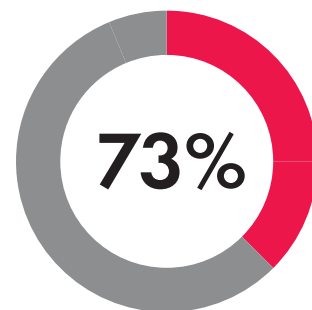
Implementing predictive analytics allows CP companies to automatically serve the optimized homepage or ad to the consumer who’s most likely to identify with it based on an algorithm that learns over time. One way businesses can gather data to create dynamic websites and customer journeys is clickstream analysis. As

CP firms invest in their brand.com websites, tracking certain metrics—such as where consumers click on pages, how much time they spend on different portions of the homepage and what steps they take on the path to purchase—can help determine which products and content appeal to customers.

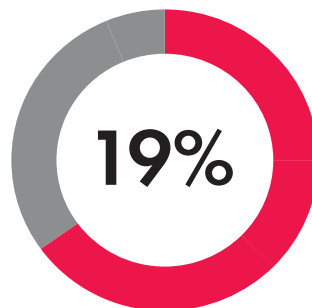
“Understanding which clicks are intentional versus unintentional—and being able to test different content combinations for different types of users—will become increasingly important and a mandate for CP companies,” Clarke said.

Some CP firms are partnering with third-party technology to deliver dynamic content, while other firms are building out analytical capabilities in-house. For example, Mondelēz partnered with an outside provider to create personalized CTV ads across devices based on data like geography, weather and other third-party information. Kraft Heinz has instead built out a Customer Data Platform (CDP) with AI/Machine Learning capabilities, called “Kraft-O-Matic,” to improve ad efficiency and discover other customer insights.

Whether in-house or external, it’s important that firms use a cloud-based CDP that can integrate with all different data sources and that retail partners can easily access in real time. It’s also crucial to use KPIs to embed data into daily working practices instead of continuing with legacy processes.



CONSUMERS WHO EXPECT COMPANIES TO UNDERSTAND THEIR UNIQUE NEEDS AND EXPECTATIONS



AVERAGE SALES INCREASE IN BUSINESSES THAT PERSONALIZE WEB EXPERIENCES

Navigating demand forecasting using AI/ML algorithms

Another crucial post-pandemic use case for predictive analytics is inventory management and demand forecasting. In many instances, COVID-19 broke formulas and algorithms put in place to determine consumer demand. Major global events can negate even intelligent machine learning based on years of data. How can CP firms use predictive analytics during “unprecedented times,” especially with a lack of consumer visibility compared to retailers?

One way to begin creating a new demand forecasting model is by incorporating consumer behavior insights from new digital channels. Rather than factoring in just the typical variables, like seasonal purchase patterns from retail data, firms can factor in customer data from D2C channels. “What are the sites they’re visiting? What content are they reacting toward? What product are they liking the most? This gives you insights that can go into demand forecasting,” said Elizabeth Papasakelariou, group vice president of consumer products for Publicis Sapient North America.

Consider that 90% of the world’s data has been created in the last two years, according to the U.S. Chamber of Commerce. From weather to social media trends to Google search data to first-party customer data—and second-

party data from retailers—CP firms have a variety of sources that, once integrated, can help to create more accurate demand forecasts. However, it’s crucial to have a scalable, cloud-based data-sharing platform before integrating new data sources. To start creating a more accurate demand forecasting algorithm, firms can slowly integrate external data to increase accuracy.

For example, US Foods migrated from an on-premises SQL data server to the cloud to unify internal and external data for demand forecasting. Because of the newly streamlined data ingestion, the company uses additional resources to incorporate weather and clickstream data from its e-commerce business to create more accurate forecasts. Now, according to a data scientist at US Foods, this data collaboration platform saves the company \$100,000 per year.

Another CP firm, Campbell Arnott’s, integrated its supply and demand planning data to decrease manual forecasting and improve overall forecast accuracy. This allowed the data team to test for erratic demand scenarios—and begin to use a weekly-based forecast—as well as increase prediction accuracy by 15%.



The first step to being able to integrate new types of data sources for demand planning is having a solid data-sharing backbone that works for external partners—and internal talent that can experiment with the data to create more accuracy for future demand.

Predicting consumer trends for product development

Another growing digital frontier in CP is predictive analytics for the research and development of new products. From fashion to food and beverage, customers' behavior and preferences are constantly changing, and using data to predict these trends is becoming a mandate.

"If you aren't learning something about your consumer that your competitor doesn't know, then you're not competitive," Clarke said. It's not necessarily about collecting more data; it's about creating and testing new and unique use cases for customer data.

Many CP firms are already using predictive trend data through social listening algorithms and new data channels, such as "smart" devices like coffee machines, thermostats and more. Data from these channels can work together in unison to form powerful behavioral insights and help inform where to focus R&D efforts. For example, the Keurig smart coffee maker allows users to customize their coffee through a Wi-Fi-enabled app.

The coffee makers can track which types of coffee and flavor combinations customers are using, and the company can use that data to predict customer trends and develop new K-Cup products.

The AI company Tastewise mines data from restaurants, social media and online recipes to see which ingredients and foods are trending. Rather than look at surveys or industry reports, the company allows CP firms to analyze real-time online content from millions of different sources.

However, in order to see results, brands have to take the next step and test these new products, styles or variations that may be vastly different from the company's previous legacy. "Most companies want growth, and you don't get that through optimizing what you have today," said vice president of data and AI at Publicis Sapient Simon James. "You have to be prepared to test new things. A zero tolerance to risk is not the safe bet that you think it is."

Predictive analytics also come into play when deciding which products to de-list or sell. Unilever, for example, created an AI-powered tool to determine which products should be discontinued based on first-party and retailer data. For large CP companies with hundreds of brands, using historical data from different sources will be crucial to determine which products under those brands are fit for a digital future.

The first step for CPs is to identify a use case for a new product and determine which data sources could be informative for that use case. Rather than reactively jumping on trends to inform SKU rationalization, CP firms should be proactively deciding which brands or product categories are ripe for experimentation—whether or not current data sources can give a well-rounded recommendation.



Getting started with predictive analytics

For CP companies that aren't experimenting with predictive analytics, there are a few important considerations to keep in mind in 2023. The first is data privacy. "If anything happens, like a data breach, you're going to lose some of your consumers," Papasakelariou said.

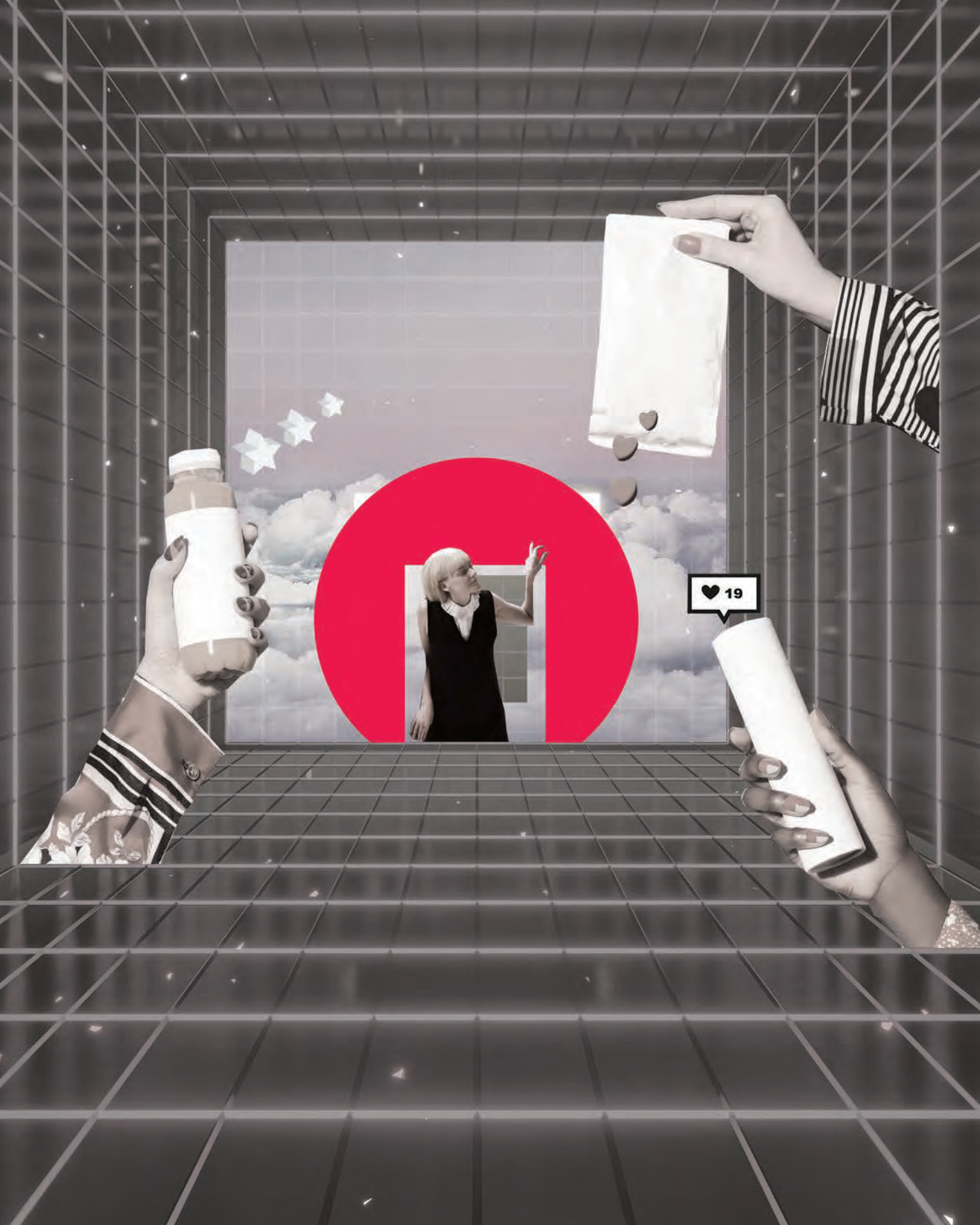
Another key consideration for CP leaders is change management for analytics technology and processes. It takes time for teams to get acclimated to new data sources for decision-making, and executives should make sure they have buy-in and provide training to account for the adjustment.

"People must be held accountable to acting on data," Clarke said. "Teams

also need to be creative and inspired in terms of coming up with the right use cases (i.e., the things that you're going to measure and inform through the data)."

Finally, as firms begin to use data more creatively to predict the future, companies that can easily share and view data in real time will be able to use their data more efficiently and creatively.

"Ultimately, anything is possible today," says Clarke. "So figure out what you want to know and why, and then think about where that data is coming from, how to activate it and how to manage it."



Brands in the Metaverse

WHAT DOES THE METAVERSE MEAN FOR THE CP INDUSTRY?

How should consumer products companies create an authentic engagement strategy for this next-generation commerce channel?

SUMMARY

- **Research shows that the majority of consumers aren't on metaverse platforms—yet.** CP brands should first reinvigorate their Web 2.0 social media strategies to ensure they translate to Web 3.0 and appeal to young consumers' need for authenticity.
- **Web 3.0 technologies, like the metaverse and virtual reality, will soon move to owned brand channels rather than trending metaverse platforms.** Rather than betting on current Web 3.0 companies, CP brands should upskill employees and build Web 3.0 talent.
- **More than half of consumers are worried about harassment, inclusion and data privacy in the metaverse** and expect brands to address these Web 2.0 issues before the adoption of Web 3.0.
- **Gaming is the most popular metaverse activity so far,** and consumers aren't interested in purchasing NFTs or cryptocurrency that doesn't provide any added rewards or value.
- **CPs should consider building longstanding partnerships with retailers** and implement first-party data management strategies across channels.

Several years ago, consumer products brands questioned whether they should engage with consumers on social media. Today, it's not up for debate.

Social platforms are a key part of a brand's overall marketing strategy—through organic social posts, social media ads and sponsorships through influencers. In 2023, eMarketer predicts that CP digital ad spend will reach \$41.69 billion, higher than every industry except retail. But what about engaging with consumers in the metaverse?

It's a difficult question for CP companies to answer. Some firms, like Unilever, have already developed many metaverse experiences for different brands, like their Magnum ice cream brand's virtual museum, as well as their Closeup dental care brand's "City Hall of Love" for couples who aren't legally allowed to marry in the physical world.

Other companies have devoted consumer engagement resources elsewhere, given that 60% of people are still unfamiliar with the metaverse, according to Publicis Sapient research. On top of that, Web 3.0 (the next era of the internet, based on virtual reality and decentralization) is rapidly evolving.

Is there a rationale for being one of the trailblazers of this nebulous, not-widely-adopted space? Not for obvious reasons.

"Do CP firms need to create a Roblox game experience or mimic what has already been done in the metaverse? No," said AJ Dalal, managing director, Data & Web3 Strategy at Publicis Sapient. At least not yet.

In 2023, CP brands will have the opportunity to meet consumers where they are and plan out a strategy for where they'll be soon. The key component to success on the digital channels of the present and future? Authenticity, powered by data analytics and internal knowledge building.

“

A CP brand shouldn't invest in the metaverse, or even TikTok, just because it's in the news or because other companies are doing it. You should invest because you understand who your consumer is, and because you know your consumer is on that platform or going to be on that platform.

”

**SABA ARAB, MANAGING
DIRECTOR, PUBLICIS SAPIENT**

Connecting with consumers on social media

While companies should certainly be planning for the metaverse, social media platforms currently provide a better ROI for consumer engagement. According to recent Publicis Sapient research, less than 10% of U.S. respondents use Sandbox, Roblox or Decentraland compared to 25% of respondents that use TikTok, 42% of respondents that use Instagram and 67% of respondents that use Facebook.

Before investing in consumer engagement in the metaverse, CP companies should re-evaluate their current social media strategy to build connections, express their core values and be more authentic. Consumers will still be looking to connect and transact with brands on these familiar social media platforms for years to come.

However, the key is not to reinvent the wheel every time a new piece of tech or platform is introduced. It's important to build out a consumer engagement strategy with enough flexibility that it can be applied to different networks, including TikTok or the metaverse. Rather than redefine a strategy to match

a new platform, brands should evaluate how new networks will fit into their current strategy. If your current brand voice on social media isn't coming across as authentic to consumers, it won't translate in the metaverse, either. A large part of the challenge when it comes to building authenticity through consumer engagement is a loss of creativity or a lack of risk-taking. "The most successful ads are the ones that feel the most natural," said Elizabeth Papasakelariou, group vice president of consumer products at Publicis Sapient. "A brand will say they didn't get engagement on the content they planned. And it's like, 'This is the brief you gave your creator, and it feels canned.' You have to give power and freedom back to the creatives." When brands attempt to mold influencers or creators into traditional advertising spokespeople, consumers will keep scrolling.

Another key aspect to authenticity online is making sure the message, technology and data are working together. The right customers need to hear the right message at the right

time through efficient targeting. As CP firms create and manage their customer data platforms (CDPs), it's essential that marketing teams can take ownership over the data and use it so that each target demographic is receiving a message that is authentic and relevant to them.

When the metaverse does eventually overtake social platforms as the primary hub for social connection, CPs will still need to let creative teams and influencers guide authentic content, with the proper data management and marketing across channels to back it up. As for right now, CPs can focus on connecting with younger demographics on platforms that are already popular.

Upskilling CP employees in Web 3.0 technology

Consequently, 2023 is a year for brands to build metaverse and Web 3.0 knowledge and strategy. The first step to preparing for widescale adoption of technology like AR/VR and non-fungible tokens (NFTs) is upskilling employees. Because Web 3.0 adoption remains somewhat low, brands that are investing in knowledge now get the chance to be proactive—rather than reactive—as consumer expectations around the metaverse evolve.

Being prepared for Web 3.0 doesn't necessarily mean investing heavily in a specific technology company or metaverse platform. In fact, because the space is changing so rapidly, focusing solely on any one application may prove inefficient.

Almost one-third (29%) of consumers expect that brands will instead embed metaverse experiences directly on their

owned websites and social platforms, according to Publicis Sapient research. This could include anything from 3D product demos, virtual showrooms and stores or brand experiences created for avatars as part of the typical e-commerce experience. Therefore, a safe Web 3.0 investment for CP companies can be internal—rather than external—to prepare for this change.

To get employees engaged and learning about future technologies, companies can implement internal Web 3.0 training programs through learning management software. This training can include anything from metaverse to blockchain to cryptocurrency topics that will be standard parts of business strategy in the next decade. The goal is not to create a strenuous or difficult program, but one that employees find interesting and useful. Providing meaningful and ongoing training is a

known factor in retaining talent, as well as creating a consistent presence in Web 3.0 itself. This training can cultivate “early adapters,” or employees that lead the charge in developing prototypes of Web 3.0 or metaverse experiences—and who will also help guide their peers in learning new skills.

As the space advances and changes, so will the training, and key internal stakeholders can lead the movement. Not only does this opportunity show current employees that your organization cares about innovation, but it also helps attract new employees as well.

We know in the next five years, a large percentage of graduates will have some type of Web 3.0 training as part of their curriculum.

If we aren't creating a culture of innovation around this, then we could lose talented folks to a company that invests in Web 3.0.

AJ DALAL

Managing Director, Data & Web3 Strategy, Publicis Sapient

“



Understanding how to develop a strategy for the forthcoming metaverse involves understanding what's broken about the user experience in Web 2.0—from the perspective of younger generations. Rather than making bets on which metaverse technology company or platform will take off in the next three to five years, CP brands should identify unique Web 2.0 pain points that could be solved with Web 3.0 technology and/or ideas, like VR/AR, NFTs, blockchains or decentralized, autonomous organizations (DAOs).

Defining a metaverse strategy for CP brands

Another way that CP companies can be proactive in the metaverse space is by redefining their brand values and purpose in the context of Web 3.0.

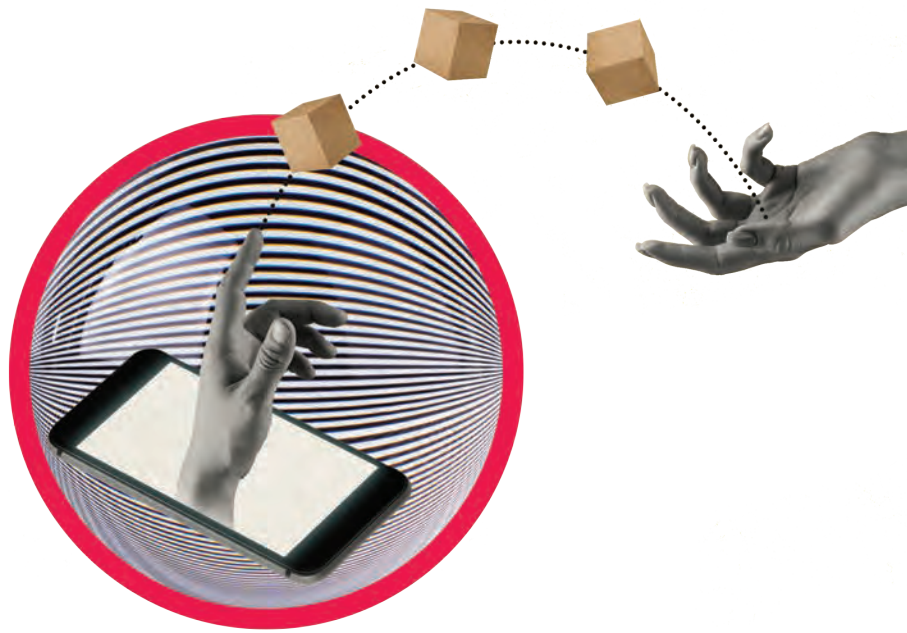
While brand values and strategy should show continuity across all forms of media, CP brands need to expand their thinking to accommodate the attitudes of future generations. Generation Alpha and Generation Z are growing up spending time on TikTok, Instagram and Roblox, and they don't necessarily see these platforms as modern or advanced.

"The newest generation of consumers looks at the world differently," Dalal said. "Older generations see companies like Apple, Google or Meta as innovators. Younger people have seen these companies in control for a long time, gaining record profits. And they don't see how their life is any better or see any growth for themselves. So they're saying: Let's fix what's broken."

According to Publicis Sapient research, more than half of consumers (57%)

are concerned about their safety and protection—including sexual harassment—in the metaverse. A similar majority (58%) agree that there needs to be a way to verify identity in virtual worlds. Harassment and anonymity are two issues that have been difficult for social media platforms and young users themselves to manage on Web 2.0, and CP brands should be proactive in their solutions to these problems with their metaverse strategy before they emerge again.

Another key frustration for CP brands and users alike is transparency around customer data. Younger generations are beginning to realize just how valuable their data is to brands, and CP companies are searching for ways to get first-party data themselves without the obstacle of tech conglomerates. More than half (59%) of U.S. consumers worry that their data and information will be collected in the metaverse. While first-party data is a key draw for CP companies creating digital and metaverse experiences, consumers expect brands to do better on Web 3.0.



In response, some companies are looking into a “zero-party” data exchange as part of their Web 3.0 strategy (i.e., an exchange that asks consumers permission for any relevant information and allows consumers to proactively share data). In return, consumers receive some sort of benefit or value for giving brands their information, potentially in the form of an NFT.

Zero-party data can come from surveys, games, questionnaires or loyalty profiles, which could be stored through blockchain technology. Customers could earn rewards by providing their information to brands—all within an interactive online environment.

“You can provide rewards and utility for engaging in metaverse experiences,” Dalal said. “Not just for a limited time. Make the experiences decentralized, available and open for anyone.”

It’s important to recognize the shift in audience demographics for the metaverse when determining what type of experiences to invest in. The average age of a metaverse user is anywhere from 16–27, and while experts predict this pool of users to increase drastically, adoption will be much higher among Generation Z and younger.

This age group is incredibly values-driven, persuaded by social proof and looking for personalization, hence the reason many consumer products brands are looking at gamification as a foot in the door to these virtual worlds. According to research from Publicis Sapient, 29% of U.S. respondents between ages 18 and 34 are interested in playing video games in a metaverse space.

Before designing a Web 3.0 experience, like a virtual game, CP companies should decide on their brand values, how they fit into their metaverse and Web 3.0 strategy and how they play into expectations and attitudes from younger demographics. Then they can use that strategy to inform the experiences they create.

“Values in the metaverse should be a lot more organic,” Papasekalariou said. “You will already see inclusivity built in from the start. Right now, a social page is only for this group, or only for that group. The metaverse going to be

open to all, and I think that’s the biggest difference.”

For Gen Z, inclusivity is important, and that doesn’t end with diversity in marketing campaigns or events for marginalized groups—it even extends to ownership and inclusion within brands’ Web 3.0 strategies themselves.

“The current Web 3.0 community is very passionate,” Dalal said. “And Web 3.0 is being built on the principle of decentralization. Companies should be transparent in sharing their Web 3.0 roadmap with their community.”

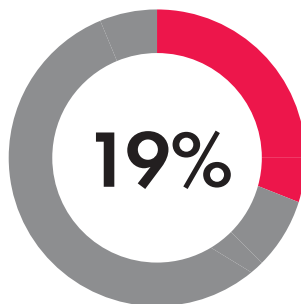
Unlocking a new digital revenue stream

As companies begin to build out and publicize their metaverse and Web 3.0 roadmap, two very important questions surround value generation: What new revenue opportunities can the future internet provide for CP firms, and which use cases should brands be focusing on?

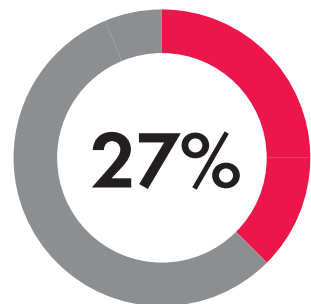
An interesting and unexplored opportunity for many companies is digital asset, or NFT, sales. Younger generations are more open to acquiring digital assets—which are much cheaper to create and sell—than ever before. When it comes to ongoing supply chain challenges, digital assets don't require the same resources that traditional physical assets do.

However, many CP companies can't just create exact digital replicas of their physical products. While many food and beverage brands have already filed for trademarks for digital candy, chips and other snacks, it's unclear how users will interact or whether they'll

purchase virtual items, especially food. Thus far, only 19% of U.S. consumers from age 18–34 have gone shopping in the metaverse, compared to 27% that have played games, according to Publicis Sapient research. The digital asset market is a high-growth space for brands to experiment with, but in these early stages, CP firms shouldn't rely on revenue from direct digital asset sales.



OF U.S. CONSUMERS AGES 18–34 HAVE GONE SHOPPING IN THE METAVERSE



OF U.S. CONSUMERS HAVE PLAYED GAMES IN THE METAVERSE

Instead of pivoting straight to commerce in the metaverse, some brands are using it to build brand engagement and awareness, similar to building engagement on traditional social media.

Heineken, for example, chose to ironically launch a new beer product in Decentraland, playing on the fact that it can't actually be consumed in the metaverse. The brand didn't sell digital assets, but the successful campaign generated traffic and buzz around the accompanying physical product.

Unilever experimented with a virtual "Metathon" event in Decentraland for the Rexona deodorant brand. However, rather than create digital assets of their new adaptive deodorant sticks, they designed digital wheelchairs and running blades for metaverse avatars.

This new potential for a revenue stream from digital assets presents a challenge for brands: What new digital assets can your brand provide that consumers gain value from? For example, a diamond jewelry company might not create exact replicas of diamond earrings. Instead, they could sell diamond tattoos for metaverse avatars. The exact possibilities and plans will vary depending on each brand's values and authentic strategy.

In 2023, companies can prepare for or test digital assets while understanding that until the metaverse is widely adopted, most customers won't be motivated to purchase virtual products.

According to Publicis Sapient research, only 11% of consumers ages 18–34 are currently interested in purchasing NFTs in the metaverse. However, when asked about experiencing a vacation destination, attending events or interacting with friends and family, 20% or more of those consumers want to try these things virtually.

Brands have an opportunity to expand past the trend of virtual games to capitalize on new activities to build buzz and gain insight into what customers want in the form of digital assets.

"In 2022, we saw a gold rush of companies launching non-fungible tokens, or digital assets, and a spike in value," Dalal said. "But now, brands are realizing that they need to offer some type of utility or value proposition within NFTs that answers the question of, 'Why should I own this?'"



Preparing for metaverse partnerships in 2023

In 2023 and beyond, metaverse platforms will continue to host events like the “Metathon” and other one-off games, but they’ll also become home to larger, long-term retail shops, giving CP firms a chance to create activations and partnerships within them.

According to Publicis Sapient research, 17% of U.S. consumers ages 18–34 want to visit their favorite brand’s virtual store in the metaverse. Now is the time for consumer products brands to incorporate collaboration into their Web 3.0 strategy. “How will they create their own positioning within retailer worlds? How will brands play along? These questions are really exciting,” Papasakelariou said.

For example, Carrefour and P&G collaborated to create a game in P&G’s metaverse called “LifeLab” featuring the Mr. Clean mascot. The experience allowed users to compete to clean different areas of a virtual home using P&G products to win a coupon.

While this was just the start of the companies’ experimentation together, the partnership demonstrated what a future retail experience could look like. Just as CPs and retailers connect and



share data for social media campaigns or retail media networks, similar opportunities for collaboration are being built for the metaverse. However, CPs can see the metaverse as a clean slate—and an opportunity to build new ways of working from the ground up.

“How will you share data within new ecosystems and decide what the role of the CP is versus other players? You need to begin building technology to enable that,” Arab said.

As CP brands create new metaverse experiences, Web 3.0 strategies and upskilling programs, they can recognize that this new world isn’t predetermined by old rules, and that authentic brand values combined with customer-centric principles can be built in from the start.

CPs shouldn't think of the metaverse, or any social media, as purely a commerce channel. It's a marketing and buzz channel, and it's about building the followership and the love.

SABA ARAB

Managing Director, Publicis Sapient

“



Next starts now.

To get started, please visit publicissapient.com/consumer-products

Or contact us anytime:



ELIZABETH PAPASAKELARIOU

Consumer Products Lead, North America

elizabeth.papasakelariou@publicissapient.com



SCOTT CLARKE

Consumer Products Lead, EMEA & APAC

scott.clarke@publicissapient.com



publicis
sapien

Publicis Sapient is a digital business transformation partner helping consumer product firms like adidas and Nestlé get digitally enabled, both in the way they work and the way they serve consumers. As digital pioneers with 20,000 people and 50+ offices around the globe, our experience in technology, data sciences, consulting and customer obsession enables us to evolve our clients' businesses to keep them relevant.

© 2022 Publicis Sapient Corporation

2023

RETAIL ISSUE 2

Guide to Next.



publicis
sapient



2023

How retailers can create the most impact
in the coming year—on their business
and their shoppers.

TABLE OF CONTENTS

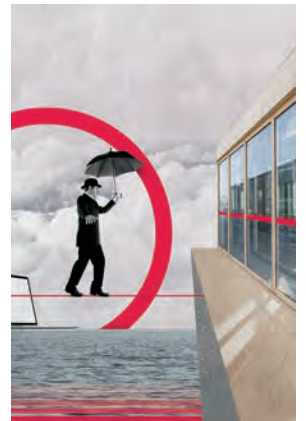


04 The Race for Retail Media Networks

14 Sustainable Supply Chain

24 The Return to In-Store Shopping

33 Retail in Web 3.0





● The Race for Retail Media Networks

AUTOMATION, PERSONALIZATION AND CLOSED-LOOP ACTIVATION: HOW TO STAND OUT IN THE RACE FOR RETAIL MEDIA NETWORKS

Retailers have traditionally relied on product sales for most of their profits. Now, the drastic rise in e-commerce and industry profitability challenges has prompted them to turn digital real estate and customer data into ad sales, providing abnormally high returns for the industry.

While traditional *retail media* has been around since the first brick-and-mortar retail stores, the significance of the term has changed in the last five years to focus on digital *retail media networks* (RMNs), or retail data monetization.

RMNs have already proliferated across the retail industry, but what will determine their future success, and which networks will come out on top?



What is a retail media network?

Retail media refers to any advertising or media that's located near the point of sale (i.e., within a physical store or on an e-commerce platform). This could be a cardboard cutout in a grocery store or a "suggested product" ad on Amazon.

Retail media networks are the digital platforms created by retailers that allow

brands to purchase ads directly through them, either on a retailer's owned e-commerce website, in a physical retail store, or on a third-party like Facebook, Google or even connected TV, which is referred to as off-site advertising.

While retail media networks could include physical ad placements, their growth areas right now are primarily digital, or at the intersection of digital and physical.

How do retail media networks work?

RMNs allow retailers to monetize their customer data through large scale advertising. From Walgreens to Sam's Club to Ulta, many of the largest retailers have recently announced and advanced their own retail media platform offerings.

RMNs range from in-house platforms with unique self-service capabilities to private marketplaces where data from multiple retailers is uniquely available to specific advertisers. Many of these advertisers are already longstanding retailer partners or suppliers, but others are digital natives that can provide a net-new revenue stream.

SELF-SERVICE RETAIL MEDIA NETWORKS

Self-service retail media networks allow brands to choose their own advertising campaign parameters—including location and audience attributes—based on an internal pricing algorithm.

For example, Albertsons Media Collective created its own self-service offering, and Walmart Connect's partnership with The Trade Desk allows it to do the same.

"The self-service capability is a huge shift and change," said Ray Velez, global chief technology officer at Publicis Sapient. "You don't have to meet with the team. You don't have to make advertising consistent with a predefined set of activities for the year, but rather run campaigns much more fluidly."

According to Velez, over time, RMNs will continue to migrate toward more in-house and self-service models that aid both local and national advertisers. It's more efficient for ad buyers as they get full control of their spend—including closed-loop reporting—while also allowing retailers to scale.



Why are retail media networks growing?

In the past, retailers were very hesitant to monetize their transaction and loyalty data, creating a gap in an advertiser's ability to deterministically measure the efficacy of a campaign.

The market shift away from cookie-based audiences corresponds with retailers' increasing comfort with using their first-party data for advertising. This creates a unique opportunity for retailers to become publishers, directly capturing more ad dollars through strategic data monetization via retail media networks. The result is a major uptick in the overall number of networks themselves, with several new networks created every year.

And despite a slower growth in retail media ad spend in 2022, eMarketer is still predicting \$80 billion dollars in spend for 2024.

On many platforms, including Apple's, marketers' ability to track consumers via third-party cookies has already been diminished. In 2023, Google will follow

in the footsteps of most other platforms. These changes create a higher emphasis on first-party customer data—both for the retailer and the advertiser—increasing the value of a retailer's data monetization opportunities for their owned and operated properties.

Deterministic closed-loop measurement is the biggest perk driving the value of retail media networks compared to other digital advertising. RMNs can connect digital advertising campaigns to actual purchases at an individual level, which Google and Facebook can't inherently offer without the retailer sending their transaction files to those third parties.

Another retail media network benefit is the retailer's ability to bridge customer in-store shopping habits with their online purchasing patterns, offering another unique differentiation from other channels.

“

There are three things that are really driving this resurgence in retail media. The impact of third-party cookies and signal loss, the potential for closed-loop measurement and the linkage of online and offline purchases with a digital persona.

”

**RAY VELEZ, GLOBAL CHIEF
TECHNOLOGY OFFICER**

For example, as digital signage continues to grow within physical channels, retailers are striving to monetize those screens by using their first-party data assets. Many retailers are adding in-store digital signage as a media network channel option to their offering, expanding their ability to speak to customers at critical decision moments.

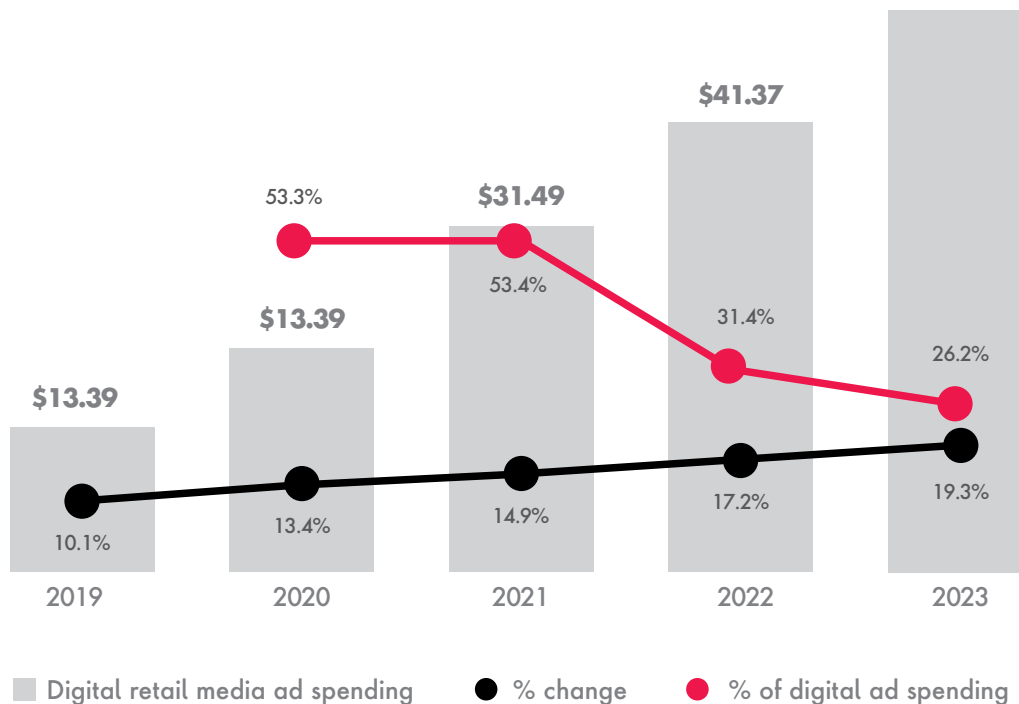
“How do I automate the sales of digital signage in my stores as part of a retail media network? How do I ensure consistent customer experiences in-

store and online with signage in a way that’s intuitive for customers? These are questions clients will continue to ask,” Velez said.

The future of retail media is no longer about defining the value or creation of retail media networks—it’s about taking them to the next level through digital transformation.

How will retailers make their networks stand out in 2023 and beyond?

US DIGITAL RETAIL MEDIA AD SPENDING, 2019–2023



NOTE: digital advertising that appears on websites or apps that are primarily engaged in retail ecommerce or is bought through a retailer’s media network or demand-side platform (DSP); examples of websites or apps primarily engaged in retail media networks include Amazon’s DSP and Etsy’s Offsite Ads; includes ads purchased through retail media networks that may not appear on ecommerce sites or apps.

Source” eMarketer, Oct 2021

The top six retail media trends for 2023



Using loyalty programs to create better value for retail media networks

Facing a drop in brand loyalty after the emergence of COVID-19, consumer packaged goods (CPG) brands are looking for solutions to stand out to customers in any way they can.

While initially RMNs could stand out with the quantity of customers and traffic to their e-commerce sites, retail media quality is becoming the best way to lure in marketers.

Retailers like Ulta and Sam's Club, with strong legacy loyalty programs that store years of high-value customer purchase data, can offer advertisers information to personalize ad placement and content.

"The digital ads that brands were buying are not as effective anymore," Velez said. "Third-party cookies have depreciated, and it's going to get worse. If you build a media network, the revenue gain is amplified by reversing signal loss and creating more signal through additional impression opportunities with customers. The increased impressions improve customer understanding and make loyalty more effective."



Expanding into larger retail media marketplaces

There are many different channels that retailers haven't yet integrated into their networks, like digital signage, connected TV, Google, TikTok and many others.

"Many retailers are prioritizing on-site because of the ability to maintain control over their first-party audience data, creative and destination.

However, when retailers run an off-site advertising campaign that drives more traffic back to their owned and operated properties, it increases their monetizable inventory and adds more signal into their customer identity graph," Velez said.

Walmart recently partnered with Roku to offer TV commerce, or shoppable ads, on their programs. Although this isn't yet a major channel for retail media networks, it's a future avenue that other retailers will soon follow—bringing more data to personalize the customer experience.

"Consumers are getting more and more demanding. They don't have time to come in and browse around your site. They want things very specific to them," said Sudip Mazumder, senior vice president and retail industry lead at Publicis Sapient.



Offering programmatic sell-side retail media inventory

Often, RMNs have not yet connected on-site and off-site audiences to programmatic demand-side platforms (DSPs). However, as retailers are increasing their self-service platform capabilities, some are considering opening a portion of their retail media inventory to programmatic buys. This means the process of buying ad space will be fully automated for some advertisers on most successful RMNs moving forward.

According to Mazumder, the gold standard after self-service will be AI and machine learning algorithms that can determine the "next best step" for consumers through ad recommendations.

So far, Amazon's recommendation algorithm is the most advanced when it comes to personalization, and other successful retailers will continue to advance their platforms in this direction.



Transitioning to retail media network platforms led in-house

For over a decade, retailers outside of Amazon have slowly transitioned to in-house models to create networks with staying power instead of relying on third-party companies to run their networks. This gives retailers more control and capability to scale their networks for the future.

According to Velez, if you outsource your network to a third party, they don't build out your internal capabilities, and it might put you in a hole when it comes to advanced functionality.

In the short term, outsourcing can help build, launch and operate retail media networks. As RMNs advance along the maturity model and become a core part of the business, retailers can think about decoupling from their outsourced relationship to own the entire end-to-end solution. Successful in-house integrated technology stacks and organizations can ensure that your personalized offers are synchronized with media network impressions across all customer touchpoints.



Creating closed-loop measurements for retail media by adding in-store touchpoints

While in-store retail media has traditionally ranged from cardboard displays to video screens, RMNs are working to integrate interactive digital touchpoints to create a closed-loop omnichannel measurement system for networks.

These touchpoints range from interactive kiosks, Wi-Fi tracking, smart end caps or any type of physical ad unit that can connect to a customer profile. They allow retailers to track customer behavior and purchases through more interactive data exchanges and connect them to online purchases and profiles.

"Solving for identity in-store is still a challenge that retailers are striving to overcome. Even being able to match credit cards or other attributes with identity at the physical point of sale makes a huge difference," Velez said.



Improving customer data quality through customer data platforms (CDPs) and customer 360 profiles

Retail media networks are built on customer data, and retailers will continue to improve the quality of this data.

This effort will increase the value of advertising real estate for CPG companies and other marketers that are using RMN data to connect with their customers.

Retailers that don't already have consolidated CDPs with 360-degree customer profiles will look to create them. Those that do will further integrate their data into a golden customer record and connect it to their retail media offerings. CDPs that have 360-degree customer profiles will have the data co-ops and technologies to future-proof against signal and cookie loss.

This is also an important opportunity to look at the connection between customer data and modern privacy, progressive consent, and preference management technology. This is critical to continuing to hold customer trust and stay compliant with the changing privacy and regulatory landscape.

The shift from advertising to personalization in retail media RMNs will continue to evolve with trends through investing in their digital capabilities, especially as more networks enter a saturated market.

So, what's the key for retailers to stand out among other networks? Personalization. RMNs that can get the right product in front of the right consumer at the right time will prove much more valuable to brand advertisers.

"You might be selling your own branded products against advertiser products as well. So, what's important is thinking about your advertising as a personalized experience for the consumer, not just ad units," Velez said.





Sustainable Supply Chain

THE KEY TO RETAILERS' SUSTAINABILITY GOALS

In the past, supply chain sustainability was a “nice-to-have” for many retailers. Understanding the origins of every product and material was certainly optimal but not always realistic or necessary.

Today, mounting consumer interest and regulatory pressure around sustainability mean retailers are investing in technology to provide accurate supplier disclosures, reduce emissions and decrease waste.

But the road to meeting consumer and regulatory standards isn't perfectly clear. There are many ways to achieve the elusive idea of “sustainability,” and each retailer has unique challenges regarding environmental, social and governance (ESG) goals.

How are top retailers getting closer to their net-zero goals through supply chains in 2023? It starts with increasing supply chain visibility.

What is supply chain visibility?

Supply chain visibility is an accurate view of the entire supply chain from end to end. This means seeing where individual products and materials are in the supply chain journey and where they come from, including all external partners.



It starts with raw sourcing, and it doesn't end when the customer purchases the product. For example, what do consumers do with the packaging? If consumers return products, where do they end up?

The entire lifespan of the product and packaging itself has become increasingly relevant to retailers and consumers alike.

Increased visibility, especially real-time visibility, is a top concern for the retail industry in 2023.

Internal supply chain visibility vs. external supply chain visibility

In the past, supply chain visibility focused on internal oversight of the end-to-end supply chain, but it's now taken on a much broader meaning that includes external stakeholders, like consumers.

INTERNAL VISIBILITY THROUGH SUPPLY CHAIN CONTROL TOWERS

Pre-COVID, many retailers had less visibility over the supply chain journey, and major disruptions weren't as frequent.

Now, retailers have the impetus to gain greater control and knowledge of the entire supply chain through technology and overall digitization.

IoT technologies like RFID tags, supply chain control towers, blockchains and data platforms have given retailers more visibility than ever before.

EXTERNAL SUPPLY CHAIN VISIBILITY THROUGH TRANSPARENCY TO CONSUMERS

Consumers and regulatory bodies are also interested in the end-to-end supply chain, especially when it comes to sourcing. Customers want to know if the products they're buying are coming from sustainable suppliers that practice ethical labor standards.

Not only are retailers focusing on tracking products in the first place, but they also have to figure out the best way to communicate that information to consumers.

Why is supply chain visibility important now?

From ESG targets to supply chain volatility, there are a variety of emerging external conditions creating pressure and incentive for retailers to gain end-to-end visibility in 2023.

In the past year, U.S. state and federal governments have considered regulations related to supplier and carbon emissions disclosures for CPG companies and retailers.

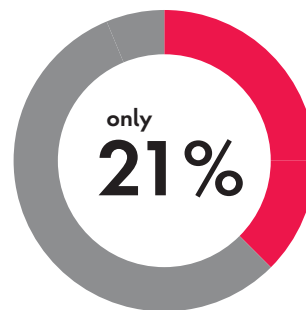
THE SEC'S CORPORATE CLIMATE RISK DISCLOSURE RULE

In March 2022, the U.S. Securities and Exchange Commission (SEC) proposed a rule requiring all publicly traded companies to disclose materials emissions made by a company's suppliers, detailed plans for meeting emissions offset pledges, and reliance on offsets.

While this rule is not currently in effect, it could require emissions data from Tier 1 and Tier 2, 3, 4 or 5 suppliers. This means that not only would retailers need to have accurate supplier information, but emissions information as well.

THE FASHION SUSTAINABILITY AND SOCIAL ACCOUNTABILITY ACT

In January 2022, the New York State Senate unveiled an act requiring fashion retailers or manufacturers doing business in the state to conduct "good faith" supply chain mapping and disclose at least 50% of their suppliers across all tiers of production.



OF FASHION FIRMS CURRENTLY NAME THEIR SUPPLIERS PUBLICLY SINCE JUNE 2022.

The act would also require these businesses to publicly set and track ESG targets, including employee wages, greenhouse gas emissions, and the use of recycled materials.

These proposals represent a growing push for retailers to verify ethical and sustainable labor practices across the board—and a need for them to pick up the pace.

RETAILER NET-ZERO EMISSIONS GOALS

Many retailers are chasing ambitious “net-zero” carbon emissions goals through lowering carbon emissions and buying offset credits by 2030, 2040 or 2050.

According to the Science-Based Targets initiative (SBTi), 45 major global retailers have committed to a net-zero target, up from just 13 in 2021.

Other retailers are focused on different sustainability targets, such as reducing greenhouse gas (GHG) emissions by a certain percentage within a set timeframe. Fifty-two retailers have committed to non-net-zero targets as of 2022, up from 40 in 2021.

However, only a small portion of retailers are on track to meet those goals. The rest are looking for tangible ways to make progress in the coming year.

CONSUMER DEMAND FOR SUSTAINABLE SOURCING

Consumers are growing wary of “greenwashing,” empty promises or green labels with no action behind them.

They want to know where products are coming from and how they can be reused or recycled to reduce waste.

Research shows that consumers do care about ethical sourcing and would even pay more for it.

In the next year, it’s time for companies to combine innovation, sustainability, and profit goals, starting with supply chain visibility and transparency with consumers.



“

Customers and companies want to know where products are coming from—and if they’re being produced using non-standard practices. There’s an element of ‘react or act’ before it’s too late. ”

**SATYENDRA PAL, GLOBAL OMNI FULFILLMENT
PRACTICE LEAD AT PUBLICIS SAPIENT**



Three ways retailers will improve supply chain visibility in 2023

Retailers will continue to make strides in supply chain visibility this year through technology and transparency alike.

While significant near-term production changes are overwhelming, efforts to analyze and disclose supply chain practices can make an arguably greater impact.



Supplier transparency through blockchain and cryptocurrency

With growing regulatory and consumer concern toward reporting emissions, retailers are looking past their own ESGs and into their suppliers' sustainability. Both blockchain and cryptocurrency technology are growing tools that can power end-to-end visibility, by allowing external parties, like vendors and suppliers, to plug in data.

“Blockchain is essentially a decentralized trust agent,” said Erid Haderaj, Product Manager at Publicis Sapient and Web3 consultant. “You can, in real time, track your data and ensure there’s no kind of misconduct or malicious actors, because once it’s on the blockchain, it can’t be tampered with.”

For example, in a grocery supply chain, farmers, shipping agents, packers and retailers could input quality product data into a cloud-based system, offering more protection over food perishability and helping avoid food waste.

While many people think that cryptocurrency needs a monetary value, it can also be used to tokenize physical products on the blockchain. Every single product moving through the supply chain could be attached to certain digital tokens.

“Retailers can create a digital twin of their inventory—or some type of API—that can grab product information and transfer it into a Web 3.0 environment,” said AJ Dalal, Managing Director, Data & Web3 Strategy at Publicis Sapient. “Using a cryptocurrency to tokenize and move things across the supply chain allows you to have real-time inventory updates.”

In the future, the supply chain verification process could become even more automatic—through geospatial information using satellite imagery of a particular deforestation area, or the provenance of raw materials, which would all be represented in these digital tokens.



Artificial intelligence and machine learning for demand forecasting

A key part of the end-to-end supply chain is what happens to the products when they're sitting on shelves.

Retailers were weighed down by excess inventory in 2022 and are looking for permanent solutions to better forecast demand in 2023. Not only is food and other product waste unsustainable, but it's also not profitable.

Artificial intelligence (AI) will be a crucial element of accurate demand forecasting for retailers in the future, and more and more retailers will begin to invest once they've implemented better tracking across the supply chain.

Walmart, for example, has invested in technology to automatically scan and count stock as soon as it arrives at consolidation centers.

"In the past, retailers had supply chain visibility from external vendors, purchase orders and more," Pal said. "But if you only care about when things are landing, you only know if something is going to be delayed when it's actually delayed. And by then, it's too late."

The sooner retailers invest in this technology, the better the algorithms will become for the future—and the more sustainable supply chains will become.





Consumer transparency and involvement with circular supply chains

In 2023, circular supply chains will become the norm—starting with consumer transparency. A circular supply chain ends with recycling or reusing a product instead of throwing it away. This can happen through the retailer, through the consumer or through a joint effort.

Companies can build better relationships with their consumers by telling “product stories” and involving their consumers in the entire journey of the product—from suppliers to sustainable disposal.

Many retailers have pledged to design their own branded products with sustainable packaging as part of a circular economy. While the shift in packaging design is crucial, it’s also important that retailers communicate recycling options to consumers in a meaningful way.

“Companies can use blockchain to reward customers for certain actions,” Haderaj said. “A retailer’s app can verify that a product has been recycled by using AI to analyze

a picture that a customer submits. For example, for every five bottles a customer recycles, they could receive a token for a 10% discount on the next product. By employing blockchain technology, the retailer can easily see how many tokens each person holds in real time.”

Retailers can use this technology to collect more meaningful data on where products go at the end of their supply chains—and work with customers to become more sustainable together and remain relevant through the entire customer journey. While visibility and transparency alone will not immediately reduce carbon emissions next year, they are essential in determining future production changes that will achieve ESG goals.





● The Return to In-Store Shopping

THE RETURN TO IN-STORE SHOPPING: HOW TECHNOLOGY IS FUELING CUSTOMER EXPERIENCE

Today, a consumer has access to an infinite number of products right at their fingertips. With a computer or phone, they can shop for hours without leaving home, so why would they?

Interestingly enough, the end of COVID-19 lockdowns led to a departure from couch surfing and return to in-store shopping. According to Publicis Sapient research, almost nine in 10 (88%) of consumers prefer to shop in-store for some items.

The top three customer reasons for shopping in-store instead of online are to browse products, touch products and try on clothing. But one thing is clear: Now that online shopping has brought new expectations of convenience, the next era of in-store retail has a higher standard to meet.

A proliferation of new commerce channels has prompted many retailers to go back to the drawing board and re-evaluate what the original in-store channel should look like.

“You need to create something that engages customers in a new way in order to draw them into the store when they could just buy online,” said Sara Alloy, North America Retail Experience Industry Lead at Publicis Sapient. “Retailers are going to have to think bigger and consider what’s important to customers now to engage them and give them a reason to shop in-person.”

How will top retailers meet customers’ appetites for the in-store experience? Behind the flashy pop-ups and buzzworthy concepts is a strong foundation of interconnected technology.

“

Brands recognize they are competing on experience. When a customer has a really good in-store shopping experience with a brand, that sets the bar higher for everywhere else they shop. ”

JACKIE WALKER, RETAIL
EXPERIENCE STRATEGY LEAD
PUBLICIS SAPIENT

What will a best-in-class store experience look like in 2023?

At the end of the day, customers still enjoy going to the store—they just have higher expectations. Certain well-accepted frustrations of the past, like long checkout lines, confusing store layouts or carpets from the 1980s may be reason enough to find a new retailer or switch to Amazon. 62% of customers say they would stop shopping at a retailer if the experience is unpleasant.

Often, these best-in-class store experiences do one of two things: **create efficiency** or **create engagement**.

MAKING THE IN-STORE RETAIL EXPERIENCE MORE EFFICIENT

Customers are now browsing, buying, picking up and returning merchandise through various interaction points, and their choices are often made based on what is most convenient in that particular circumstance. Target's drive-up pickup option is seamless for customers and has been scaled to all their store locations. Customers can rely on it, and it makes their shopping journey simpler.

A key bottleneck point when shopping brick-and-mortar is the point of sale, and with e-commerce, customers have gotten used to a faster and easier checkout. At most grocery stores today, customers or checkout clerks still have to scan each item individually—and for produce, even enter in each product code themselves. Many grocery retailers are testing a checkout-free system that would allow customers to just walk out or scan their entire cart at once, providing an experience almost as seamless as hitting the “Deliver” button after grocery shopping online.

MAKING THE IN-STORE RETAIL EXPERIENCE MORE ENGAGING

There are also many opportunities for retail stores to up their game on engagement compared to e-commerce shopping. In the past, stores have relied on associate-led or conversation-based engagement strategies. Today, with staff shortages, many stores are turning toward more technology-based experiences to connect with customers in-store. According to Publicis Sapient research, 76% of customers engage with retailer apps in-store to locate products and look for reviews, deals or clothing fit information.

For example, Home Depot's mobile app allows users to see store maps to navigate to different items, scan product barcodes to read product reviews, take photos of items in their home that they need to replace and reverse image search to find the same products in-store. The app also integrates AR, so customers can visualize how certain furniture items would fit in their own space.

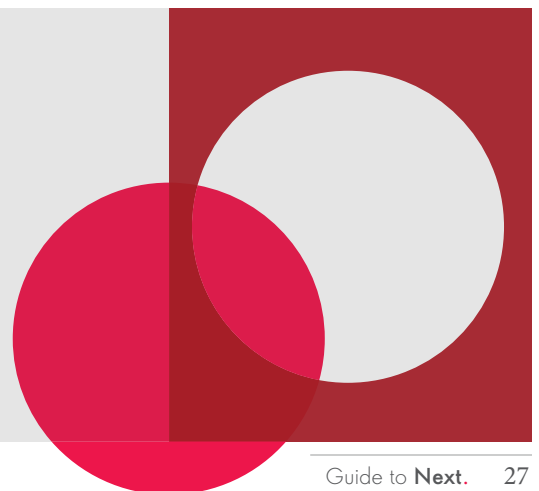
Wawa is another retailer that's mastered in-store engagement with its ordering kiosks. The kiosks allow customers to quickly and easily browse through menu options to build custom hoagies, get prompted to add certain items to their order and see seasonal promotions.

The PetSmart app goes even further through personalized content and an in-app game called “Treat Trail” that allows users to rack up coupons and rewards. After uploading personal pet information, the app curates customized checklists and articles based on the type of pet to deeply engage users.

Some brands have looked to larger-scale experiential installations in physical retail. And while some of these experimental flagship store experiences can be incredibly engaging for customers, most of them are difficult to scale.

“When retailers are thinking about activations in their stores, they have to consider how to impact the largest number of customers possible. It really has to be a deliberate choice to heavily invest in experiences that can only ever scale to a small subset of stores.”

**JACKIE WALKER, RETAIL EXPERIENCE STRATEGY LEAD
PUBLICIS SAPIENT**



"The longer we can keep customers engaged with a brand, the more likely it becomes that the customer will not only convert once but will become a repeat customer," Alloy said. "Retailers have improved tactics to re-engage customers who abandon carts online, but there is more work to be done to extend high-touch customer service in an automated and scalable way when customers are engaging with retailers through multiple channels."



CONNECTING PHYSICAL AND DIGITAL SHOPPING EXPERIENCES TOGETHER

The best retail in-store experiences are both efficient and engaging when e-commerce and brick-and-mortar blend together. This means that at each stage of the customer journey, whether that's browsing on social media, entering a retail store or shopping on a retailer's website, customers have a blend of personalized shopping offers and experiences that are fully cohesive.

One piece of this is consistent branding across channels—from the website, to the app, to the print marketing and merchandising in the store. Keeping consistent, authentic branding in-store and online creates a better customer experience.

This relates to marketing offers, too. Customers that normally shop at a retailer online still expect to be known as customers when they enter a new channel, like the store. The key to building loyalty for retailers is matching experiences across channels to amplify the strengths of each and unify the brand. RFID technology embedded in loyalty cards, like store credit cards, retains customer information and allows retailers to identify when a customer is in a store and prompt in-store kiosks to display relevant ads.



Five areas of the in-store experience that deliver the most value

From store layout, to point of sale, to checkout, retailers are working to modernize their technology and improve every touchpoint for the customer. There are five key interaction points where retailers can re-think standard methods of operating in a new era of in-store shopping—and which will bring the most value:



Replicating digital shopping behavior

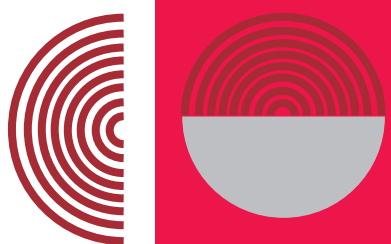
The rise in popularity of e-commerce has provided an interesting view into customer shopping behavior and needs that retailers have never had access to. While certain aspects of online shopping don't need to be replicated in an in-store setting, others are worth experimenting with.

For example, many customers use their online shopping carts as virtual wish lists. They will fill a cart with items, basically bookmarking them to go sift through them later to determine which items they'll actually purchase.

"When customers are shopping in-store and physically loading a shopping cart, it is very different than online 'Add to Cart' behavior," Alloy said. "In an online cart, it's a bit easier to compare and discard items—and watch the order total—than it is with physical merchandise."

Another example of this customer behavior is influencer interaction and styling when it comes to clothing. Online, customers can easily see different outfit options for certain products styled by different models and influencers. In stores, retailers are still relying on mannequins to show off products.

Retailers have the opportunity to use mobile apps, as well as cart or dressing room design, to enable customers to replicate this online behavior in-store. By connecting a mobile app to in-store inventory, customers could build their "cart" on their mobile phone and even get a fitting room started, which would allow them to see their cost total, save their cart history and see clothing on real body types.





Digital product information

In the age of the internet, customers are used to being more informed than ever before. E-commerce sites, online forums and news articles alike offer customer reviews and feedback to factor into purchase decisions.

While in-store shopping relies on instant gratification as a sales tactic, many customers still look for a higher level of product information and social proof.

Retailers can use different technology pieces such as digital kiosks, QR codes or even AR mobile apps to provide product details.



**OF CUSTOMERS SAY
THEY'VE CHECKED
STORE INVENTORY
ONLINE BEFORE
VISITING LOCATION.**



Smart inventory

Smart, or intelligent, inventory is an often-overlooked aspect of the back-end store experience that becomes really important at the intersection of physical and digital shopping. Today, many customers want to look at real-time e-commerce and in-store inventory at the same time.

In fact, 72% of customers say they've checked store inventory online before visiting to ensure the location has what they want. One of the biggest advantages of in-store shopping is speed and immediacy, so a customer might choose to come to a store because they're looking for a specific product right then and there, and they don't have to pay for shipping.

"How annoying is it when you as a customer look on the website, see you can order something for pickup, and then two hours later, the retailer emails you canceling your order because they didn't actually have the item at the store?" Walker said.

Also, many customers will make an additional, unplanned purchase while they are in the store to pick up their buy online, pick up in-store (BOPIS) order, and the same is true of their online shopping habits. While 46% of customers shop with something specific in mind and only buy that item, 36% will get inspired to purchase more while shopping.



Sales associate interactions

Many products, like running shoes or sports equipment, could be sold better with an explanation from a human expert. However, modern technology has the ability to elevate those interactions for both the sales associate and the customer.

"We have reached a point where we can make it much easier for employees to better serve customers with digital tools," Alloy said. "Armed with the right data, employees can have much better interactions with customers and create far more value."

Some retailers are integrating tablets into the sales experience, providing sales associates with key customer information. This not only helps customers make more informed decisions, but also makes it easier for any sales associate to continue a conversation with a customer based on previous interactions, especially as retailers struggle with staffing.



Returns optimization

Online shopping has much higher return rates than in-store shopping, and many customers are taking those returns in-store, creating disruption. While many retailers are improving the in-store return experience for customers, it's still a key area that's ripe for change.

"The interplay between the online experience and the store experience when it comes to buy online, pick up in-store (BOPIS) and buy online, return in-store (BORIS) still has a lot of room for improvement, especially when combined with the rise of in-store traffic and staffing shortages," Walker said. "There is more work for employees to deal with the needs of customers coming in from online, and the tools and processes in place don't make those interactions seamless, which can have a negative effect on experience for all customers in-store."

At the very least, it's key for retailers to allow customers to return products to stores even if they've purchased them

online, with no added cost, and vice versa. Over 70% of customers say they'd be likely to stop shopping at a retailer that charged for shipping back return items. On top of that, customers no longer expect to wait in a long line for returns. Contactless returns or quick drop-offs are better alternatives.

As we look to the future of brick-and-mortar retail, there is more value to be found at the intersection of physical and digital. Many experiences are better in-store, and retailers need to embrace the natural propensity of customers to browse, experience products tangibly and be inspired in ways that just aren't possible when shopping online. There is also plenty of work to be done to improve the store associate experience, which directly impacts the ability to better serve customers.

"It's not really about thinking of the next big, cool thing," says Walker. "It's about application at scale and better meeting customer needs."



Retail in Web 3.0

**WHAT DOES RETAIL LOOK LIKE IN WEB 3.0?
HOW RETAILERS ARE APPROACHING NFTs,
VIRTUAL REALITY AND AI**

As we head into 2023, some retailers are wondering: Is the metaverse/Web 3.0 hype dying down? When Mark Zuckerberg announced Facebook's name change to "Meta" and shared his vision for a "metaverse," the buzz and excitement around virtual societies and decentralized technology dominated industry conversations.

Now, as most consumers still have yet to explore the space, the initial hype is waning. According to recent Publicis Sapient research, about half of U.S. consumers ages 18–34 have accessed the metaverse, but nearly half of the younger demographic is still unfamiliar with the concept. However, that doesn't mean that investment or business opportunities are dying with it. In fact, now is the time that the biggest players in the metaverse and Web 3.0 space are testing virtual experiences, improving baseline technology and building talent to dominate the future internet.

It's time to test different experiences, evaluate Web 3.0 applications and look for friction points in their customer experience that these applications could solve.

The metaverse of the present is not the metaverse of the future

According to AJ Dalal, Managing Director, Data & Web3 Strategy at Publicis Sapient, in five to seven years, the metaverse will not be tied to a specific world, like Decentraland or Roblox. Instead, the metaverse will be an extension of any experience layer. Any website or digital experience will have an augmented reality/virtual reality (AR/VR) component and will exist on the new Web 3.0 iteration of internet technology.

“Right now, we are seeing the first wave of innovation—of companies risking it all to solve a problem,” Dalal said. “The death of this wave, like the death of AOL or MyVista, for example, opens the door for the second wave, where innovation will have sustainable growth.”

What does this mean for retailers? Rather than investing too heavily in any one metaverse or blockchain platform, it's time to test different experiences, evaluate Web 3.0 applications and look for friction points in their customer experience that these applications could solve.

Retailers can expect to grow exponentially in three key areas in 2023 when it comes to Web 3.0 and the metaverse: non-fungible tokens (NFTs), AR/VR and artificial intelligence/machine learning (AI/ML).



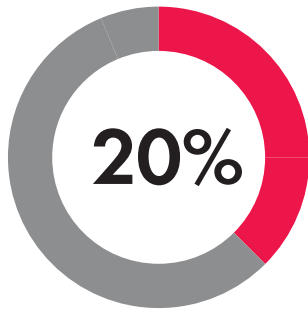
What does Web 3.0 mean for retailers?

The third era of the web, or Web 3.0, doesn't currently exist today and, in fact, is still just an idea of what a different, improved internet could look like. While many experts have thoughts on exactly what problems exist with shopping today that could be fixed in Web 3.0, broad solutions have yet to be actualized.

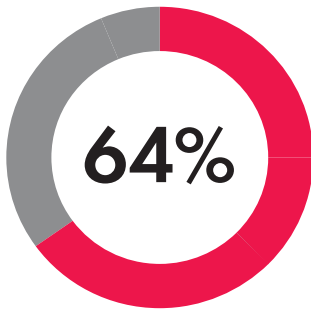
Most ideas for Web 3.0 are based on two principles: ownership and decentralized authority. Today, digital assets, as well as personal data, are

owned by large media and tech companies. While these companies rely on selling this data to advertisers, creators and consumers alike who contribute the data have little say in how any of this system works. In a decentralized model, they would take more control, or ownership, of this data.

Similarly, media conglomerates have become “walled gardens,” meaning that they don't interact with each other, creating friction between different siloed monopolies. Many experts currently building Web 3.0 are attempting to use NFTs, blockchains and AI/ML to decrease this friction and spread out ownership and authority among users.



**OF CONSUMERS
PREDICT THEY'LL
SOON BE ABLE TO
TAKE THEIR PROFILES
AND DATA BETWEEN
METAVERSE GAMES**



**OF CONSUMERS WORRY
THAT THEIR DATA AND
INFORMATION WILL BE
COLLECTED IF THEY USE
THE METAVERSE.**

What could Web 3.0 solve for retail?

Shopping will likely become more seamless for shoppers, making products more findable. For example, internet searchability could be improved in Web 3.0 using blockchain-based search engines. Currently, when a consumer starts a product search on Amazon and doesn't find what they're looking for, they have to start the same product search over again on Google Shopping or Walmart.com, for example. In the future, it's possible that consumers could save their searches and carry them through the different retailer websites they're browsing. In fact, 20% of consumers predict they'll soon be able to take their profiles and data between metaverse games, according to Publicis Sapient research. Another potential application of Web 3.0 could improve the management of customer data. Content creators and casual users alike aren't currently

compensated for videos or personal data by social media networks—at least not in a meaningful way. In addition, 64% of consumers also worry that their data and information will be collected if they use the metaverse. One proposition for Web 3.0 social networks is the ability to choose when and how users share their data with companies in exchange for some sort of value, including payment for content creators.

However, Web 3.0 is still just a nebulous collection of these specific use cases, nascent technology and idealistic projections. Retailers can find it difficult to determine exactly how their business should change and how to prepare for it.

How can retailers visualize the future Web 3.0?

One way to think about the future Web 3.0 is a comparison with the creation of the iPhone and its subsequent influence on society.

Just as the Nokia of the past doesn't compare to the iPhone of the present, the future of shopping will look quite different than the emergent Web3 use cases that retailers are experimenting with today. But that doesn't mean that experimentation and investments aren't important.

Retailers can prepare for several aspects of the future of shopping that will also see significant growth in the next year.



“In that announcement, Steve Jobs explained how the iPhone basically took what 10 devices could do and combined it into one,” Dalal said. “Think of everything that the iPhone has unlocked in our lives over the last two decades. It impacts how we do everything. What we are exploring right now with Web3 could be comparable to that innovation.”



“

Consumers and brands have realized that NFTs need to offer some type of value proposition. What are customers currently engaging with that could be improved with Web3? ”

AJ DALAL, MANAGING
DIRECTOR, DATA & WEB3
STRATEGY

How the use of NFTs will change for retail

Currently, only a small percentage of the population owns NFTs. NFTs became popular through specific digital art and currency uses, which haven't yet translated to broader applications. Most people aren't paying for goods and services with Bitcoin or Ethereum either, and they haven't purchased tokenized collectibles. Only 14% of U.S. consumers ages 18–34 own NFTs, and the percentage lowers to 7% for the general population, according to Publicis Sapient research.

While retailers should still prepare to accept cryptocurrency for purchases and develop digital tokens for physical products, NFTs will become much more useful in loyalty programs and inventory management. In fact, one quarter of consumers in the same study believe that brands will soon embed loyalty points and rewards within NFTs.

Loyalty programs are a major effort carried out by most retailers. Loyalty points exist as a debt— as owed products or services to customers. Currently, tracking and securely validating loyalty points and rewards

across e-commerce and physical stores in real time can be quite difficult. This is a space where blockchain technology would be especially helpful, and many retailers are starting to jump in. Starbucks, for example, has one of the world's largest and most successful loyalty programs. The chain recently announced its foray into NFTs through its loyalty programs, where members will be able to redeem NFTs for special products and experiences.

However, it's important to note that using NFTs to build out a loyalty program can't solve every problem.

“If your loyalty program is not delivering A+ results, what will change with Web3 technology that will deliver A+ results? And is that underpinned by a proper strategy and utility?” Dalal said.

25%

of consumers believe that brands will soon embed loyalty points and rewards within NFTs.

NFTs are also gaining traction in inventory management. With NFTs, retailers can code all physical products as digital twins in Web 3.0, tying online inventory with warehouse inventory and cross-store inventory to see where physical products are at all times.

Before diving in, retailers should carefully consider which blockchain technology to use. Because Web 3.0 technology is still in its early days, it's possible certain companies will develop faster and end up dominating others. Brands should test multiple blockchains by setting objectives and testing performance before choosing a blockchain and fully investing in it.

How AR/VR wearables will develop

Another Web3 space that should see significant growth over the next year is AR/VR, which will be especially relevant to the retail shopping experience. Two of the biggest obstacles to the wide-scale adoption of this technology are the hardware and experience, which still aren't up to par with many consumer standards. Often

metaverse worlds and AR experiences can be glitchy with poor image quality. Most VR headsets are also a bit too bulky for daily wear.

Luckily, the technology is drastically improving. Apple is rumored to release its first VR headset next year, and Sony's PSVR 2 is heading down the pipeline as well. As this hardware and its accompanying experiences improve, AR and VR can begin to influence how customers purchase products. 20% of U.S. consumers between ages 18 and 34 currently own a virtual reality device, and 40% said they'd be likely to purchase one within the next year, according to Publicis Sapient research.

Some retailers, like luxury clothing house Hugo Boss, have already started to dive in. The company is testing AR to create digital mannequins with customers' exact body measurements to try on clothing virtually. Amazon has launched a similar feature for shoe try-on, where customers can use their phone camera to see how a pair of shoes would look on their feet from different angles. This use is also applicable to furniture. About 40% of U.S. consumers between ages 18 and 34 are interested in trying on clothes in the metaverse and visualizing other 3D products before making purchases.

"We are at the beginning of the journey in mass producing AR and VR hardware at affordable prices, which means retailers should prepare to double down on this technology," Dalal said.

While the technology isn't fully optimized, retailers can experiment with app features and other experiences to see what works best and how customers engage. This will help them prepare for a future where AR/VR is the norm in a shopping experience.

How AI/ML will impact the future of Web 2.0

While much of the work dedicated to improving the web experience is focused on Web 3.0, the use of AI/ML has the ability to drastically impact the current state of Web2, and it's something retailers should invest in moving forward. Before Web3 becomes a reality, we'll likely experience a hybrid version of Web2, like Web2.5, and AI/ML will likely be able to take on work faster with limited resources.

One of the biggest use cases for AI already is targeted advertising, where automation is already efficiently powering thousands of minor decisions to personalize ad experiences online. Other uses for AI are currently still in their beginning stages but are steadily improving.

For example, while most advanced AI-powered chatbots can hold conversations with customers, they still haven't reached the level of service of a human employee. Similarly, AI writers or content generators can help optimize content and even generate copy for them in some instances. Still, these chatbots can't yet create longer stories or articles on their own.

While most retailers shouldn't rely on AI to generate photos, text or hold all conversations with customers, the technology will likely improve enough to be able to take over the majority of these responsibilities in the future.

However, many retailers and tech startups have already started to experiment in the AI space with personalized shopping. Pinterest acquired a shopping app called THE YES, which allows customers to browse through pieces by swiping right or left while a supporting AI learns customer preferences and curates better selections. Rather than creating increasingly complex filters to facilitate the shopping experience, retailers could rely on AI to create intelligent shopping algorithms to deliver individualized experiences.

According to Dalal, while AI is helping to support functions like this in Web 2.0, much of the workforce could then transition to building out new shopping experiences fit for Web 3.0.

"There are a lot of AI applications that can be used to foster growth in Web3 and maintain the existing world of Web2. People talk about how their jobs will be at risk, but that's not really the case. Your job may just shift to focus on Web3, and AI/ML can continue content for Web2," Dalal said.

Retailers can embrace this innovation by testing and experimenting with NFTs, AR/VR, metaverse experiences and AI/ML today while still knowing that these technologies are in their infancy and will continue to evolve.

Preparing your company for Web 3.0

Just as e-commerce and Web 2.0 have transformed the retail industry, Web 3.0 is poised to do the same more excitingly. While many experts are focused on the initial hype—and even fear—surrounding the buzzword, a significant opportunity to make the shopping experience better lies ahead.

“It’s like rolling a snowball down Mount Everest. Shoppers won’t be limited to a phone, laptop or other device, and we can take digital shopping across all of our senses, including touch, hearing and sight. This is a monumental opportunity in our world,” Dalal said.

Retailers can embrace this innovation by testing and experimenting with NFTs, AR/VR, metaverse experiences and AI/ML today while still knowing that these technologies are in their infancy and will continue to evolve.

What’s most important for retailers is understanding the current limitations of Web3 technology yet still choosing to solve a business use case and build a new architecture around it.





Next starts now.

To get started, please visit publicissapient.com/retail

Or contact us anytime:



SUDIP MAZUMDER

Retail Industry Lead, North America

sudip.mazumder@publicissapient.com



GUY ELLIOTT

Retail Industry Lead, EMEA & APAC

guy.elliott@publicissapient.com



publicis
sapien

Publicis Sapient is a digital business transformation partner helping retailers like Carrefour, Pandora and Falabella get digitally enabled, both in the way they work and the way they serve their customers. As digital pioneers with 20,000 people and 50+ offices around the globe, our experience in technology, data sciences, consulting and customer obsession enables us to evolve our clients' businesses with products and services that put shoppers first.

© 2022 Publicis Sapient Corporation