

Five Steps to Operationalize Sustainability

Integrated Asset Investment Planning for Sustainability



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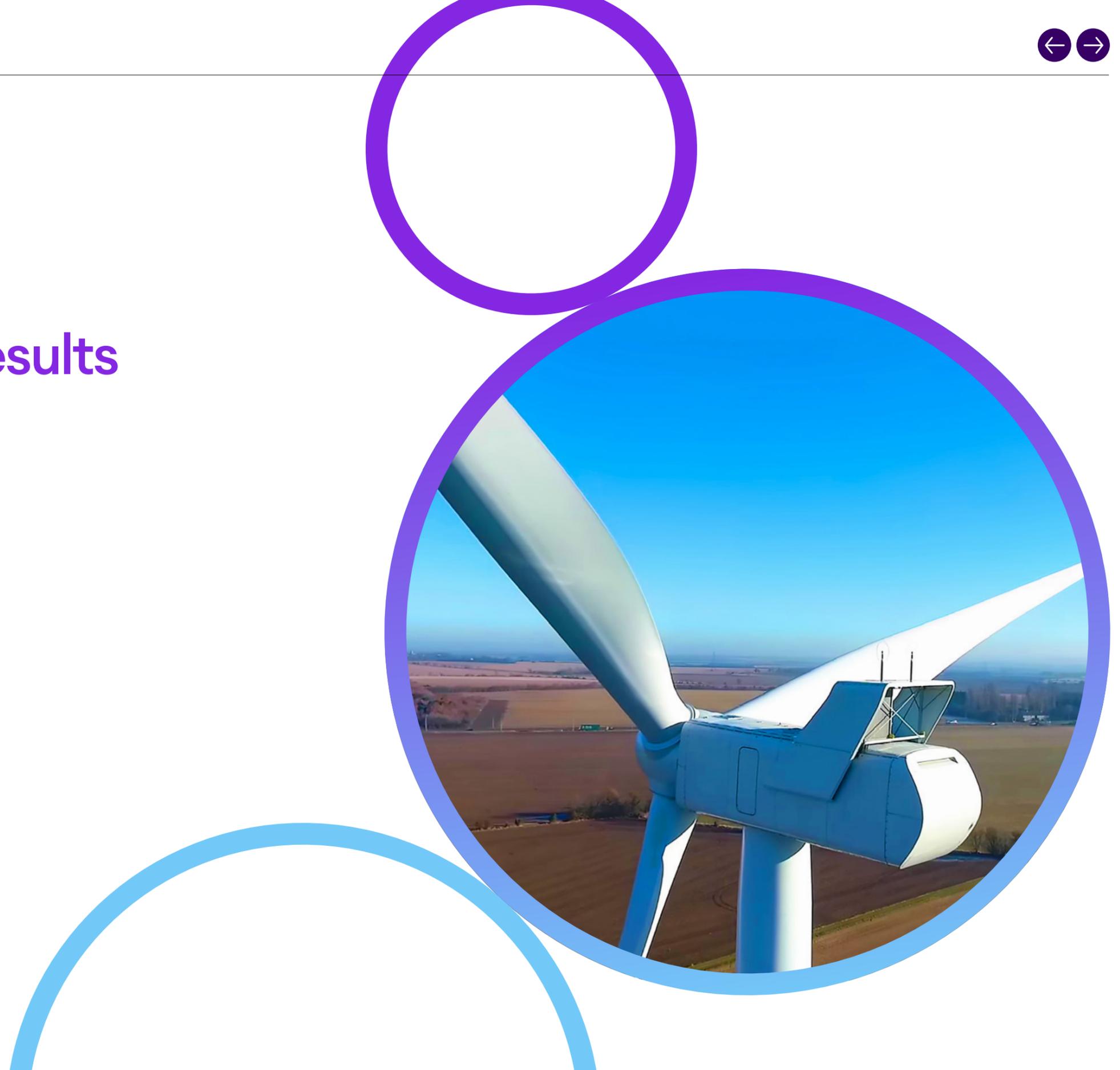
E **SG is no longer a “nice-to-have” strategy.** The direct relationship between critical infrastructure, environmental protection, and societal wellbeing continues to drive the case for including Environmental, Social, and Governance (ESG) considerations in investment planning. As stakeholders, investors, and customers demand positive change for their communities and the environment, the way organizations approach asset investment planning and decision making must also evolve.

Companies must expand their evaluation of investments beyond the traditional safety, reliability, and financial metrics, to analyze and understand environmental and social impact across all communities they serve. Portfolios must comprise the

right combination of investments to cost-effectively manage the current business while investing strategically for the future.

Organizations across the globe are in the spotlight, and the potential risks and consequences of investment decisions carry much more weight today than in the past.

To look beyond the surface-level benefits and gain a holistic view of investment impact, organizations need an **integrated, data-driven approach** to create robust and defensible asset investment plans that deliver on operational and ESG objectives.



Five Steps to Operationalize Sustainability and Deliver Results

Using the right Asset Investment Planning (AIP) technology solution, organizations with critical infrastructure can redefine investment planning, and turn sustainability goals into operational plans.

With the AI-powered IFS Copperleaf® AIP solution, organizations can confidently build realistic, robust, and data-driven

investment plans that are aligned with strategic objectives. These plans are deliverable, defensible, and agile—so companies can deliver on ESG commitments, and provide safe, reliable, and affordable services.

Here are five key steps to evolve the planning process, and create plans that deliver on operational, environmental, and societal objectives:

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01 Embed ESG in your company DNA
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02 Quantify investment value
- >



03 Understand community impact
- >



04 Prepare for change
- >



05 Embrace continuous improvement
- >



Ongoing process



01 Embed ESG in your company DNA

Ensure strategic objectives drive day-to-day decisions

How do you know your investment decisions are delivering the most value to your organization, the communities it serves, and the environment? To what extent can you increase capacity and efficiency without compromising the climate resilience of your assets?

To answer questions like these, organizations need a process that connects the dots between strategic objectives and investment planning to provide transparency into how and why decisions are made.

This process begins with a clear definition of organizational objectives, including financial and operational goals side-by-side with ESG priorities:

- Environment** → Decarbonization, net zero, emissions planning, biodiversity, environmental risk management, water and wastewater management
- Reliability** → Infrastructure modernization, capacity building, climate resilience, energy efficiency
- Equity** → Environmental justice, community and social impact, regulatory and public scrutiny, investor and customer values

“Sustainability has to be embedded into your organization and the only way to truly do that is by operationalizing sustainability goals. This sends a message from the top that sustainability is an important part of corporate strategy and other groups need to think about that, as a matter of doing business every day.”

Marc Campbell
Manager of Sustainability Policy and Programs
Salt River Project (SRP)
Source: Webinar Recap: Operationalizing ESG for Sustainability Success, 2022





01 Embed ESG in your company DNA

A well-defined value framework provides organizations with the foundation required to adopt a **more rigorous, transparent, and defensible decision-making process**—

enabling them to compare investments on a common scale, and operationalize plans that drive both ESG and financial results.

NATURAL	SOCIAL	MANUFACTURED	FINANCIAL	PEOPLE	INTELLECTUAL
Pollution Category 1-4 Permit Failures & Discharges WRC Quality Compliance WRC Volumetric Compliance WTW Discharge Compliance Water Resources Over-Abstraction Aquifer Protection Environmental Quality Bathing Waters River Water Quality Biodiversity Net Gain Air Quality Carbon & Emissions Capital Carbon Operational Carbon Process Emissions	Water Supply Supply Deficit Interruptions to Supply Low Pressure Water Quality Notices Health & Regulatory Impact Aesthetic Impact DWI Prosecution Flooding Internal External Public Areas Dam Failure Customer (BAU and Construction) PR (Only for one off cases) Visual Noise Odour Traffic Disruption Amenity Access Customer Experience	Water Efficiency Potable Water Leakage Raw Water Leakage Consumption Reduction First Time Connections Developer Request Water Developer Request Water Recycling Section 101a Request Business Enablers Information Services Security Operational Security Cyber Security Resilience to Climate Change Resilience to Climate Change	Income Income Protection Renewable Generation Bioresources Non-Domestic Income Domestic Income OPEX Increase Additional Activity Indicators	Health, Safety and Wellbeing Physical Safety (Staff and Public) Employee Wellbeing	New/Different Ways of Working Employee Productivity Intellectual Property Utilisation

Anglian Water’s value framework integrates the six capitals model in its investment decision-making process. This approach ensures asset investment planning includes measures related to the UN’s Sustainable Development Goals, and is aligned with organizational values and strategic goals.

02 Quantify investment impact

Estimating and comparing the environmental and social impact of investments is a challenge for many organizations. Failing to adequately evaluate these factors can be costly. Finding a way to express this value in economic terms can help different departments align on the cumulative cost-benefit of projects.

What gets measured gets done

With a value framework, organizations can quantify the environmental, social, and financial impacts of all potential investments on a common economic scale—providing the means to compare projects with very different benefits and make objective trade-off decisions.

The impact of investments on climate resilience can be quantified by considering questions, such as:

- Which assets are vulnerable to floods or other environmental threats?
- What is the cost to repair or replace? How many tons of carbon dioxide (CO₂) does an investment eliminate?
- What is the value of abated CO₂?
- How much additional capacity does an investment contribute via renewable or distributed generation?

“

We assessed and incorporated factors that were not on our radar before, and translated these into value for our customers. IFS Copperleaf has helped us understand and quantify the impact of our operations on the environment, as well as the impact of downtime on our customers.”

Endeavour Energy

Source: Case Study: Sustainable Asset Investment Planning at Endeavour Energy, 2024

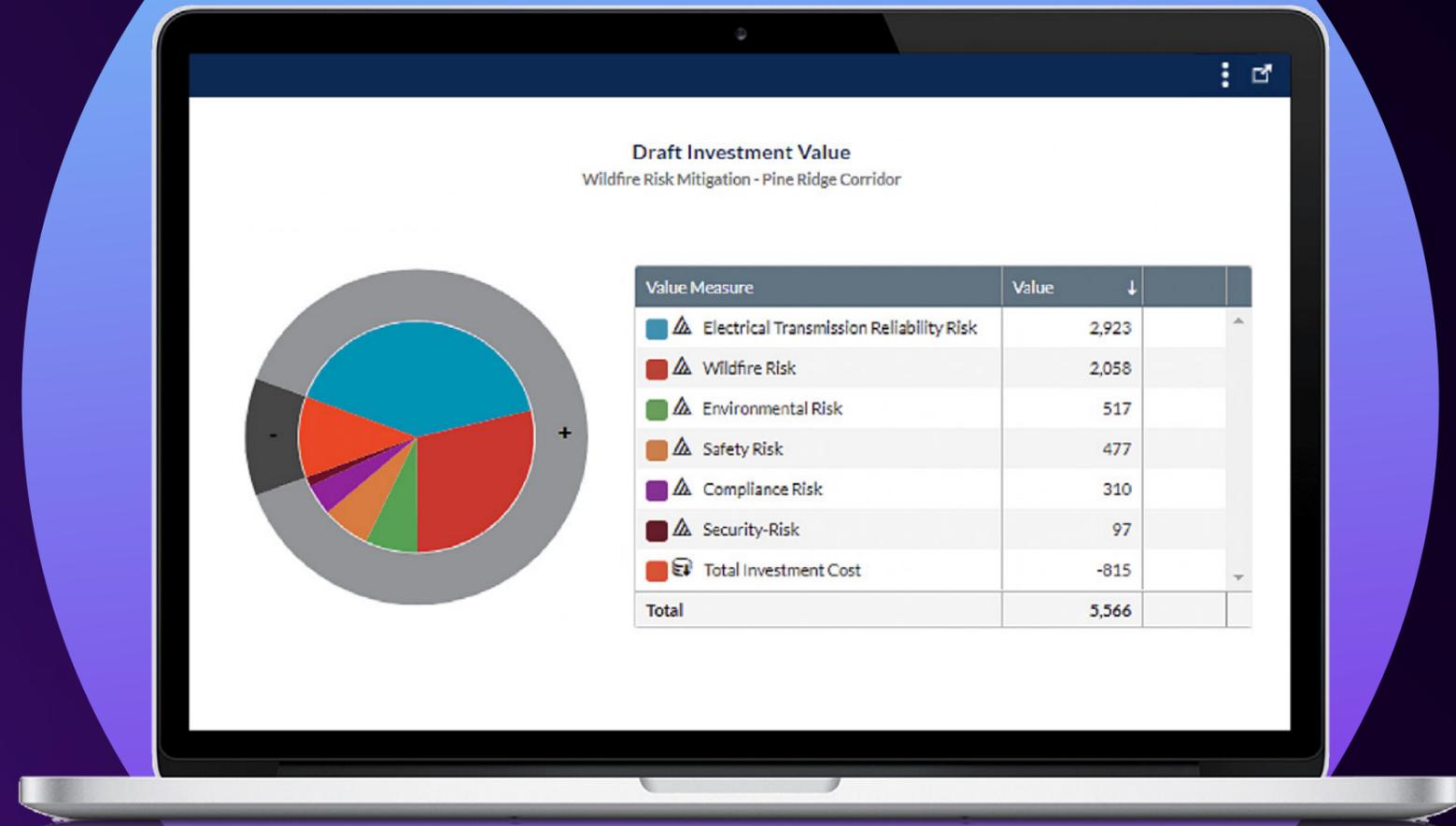


02 Quantify investment impact (cont'd)

Many regulatory frameworks include performance-based incentives that reward utilities for achieving specific outcomes, such as reducing energy consumption or improving customer satisfaction. The ability to demonstrate delivery outcomes and outperform regulatory commitments will enable leading utilities to qualify for performance rewards and incentives from rate case submissions.

Using industry-proven models, organizations can assess the financial, sustainability, and social impact of investment candidates.

When you also store quantified investment value information in a central, enterprise-wide repository, you can ensure **every investment decision is based on a single source of truth.**



Examples of ESG-related value measures within the IFS Copperleaf solution

03 Understand community impact

Increasingly, critical infrastructure organizations are being asked to explain the distribution of investment benefits across the communities they serve. As the world navigates the energy transition, the concept of Environmental and Social Justice (ESJ) is top-of-mind for companies striving to do well by their customers, communities, and stakeholders.

In the U.S., federal and state **policy makers and regulators are requiring consideration of equity and environmental justice** as an explicit objective. Already, we have seen capital projects denied due to inadequate consideration of investment impact on vulnerable populations. In 2022, the **European Environmental Bureau published a report** that called to attention the impact of disparity and lack of equity in the distribution of energy-related capital.

Using GIS data for environmental and social justice

Organizations can build greater trust and social capital through equitable investment planning. Integrating geographic information system (GIS) data directly into the planning process provides a better understanding of the environmental and socioeconomic impact of potential investments. Using GIS, planners can visualize the distribution of their assets and services layered with data like population income or education levels, along with health and environmental data such as pollution burden.

ESJ considerations that can inform your planning:

- How is risk exposure distributed across different communities?
- What is the impact of the plan on risk exposure?
- How does service access differ by area?
- What are the comparative outage rates across different communities?
- How will asset upgrades affect surrounding communities?

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Our view of value is truly expanding beyond operational risks. We’re broadening our view of value to look at impacts to our communities. When we ascribe value to and measure these things, we can incorporate them into investment decision making.”

Brian Fletcher

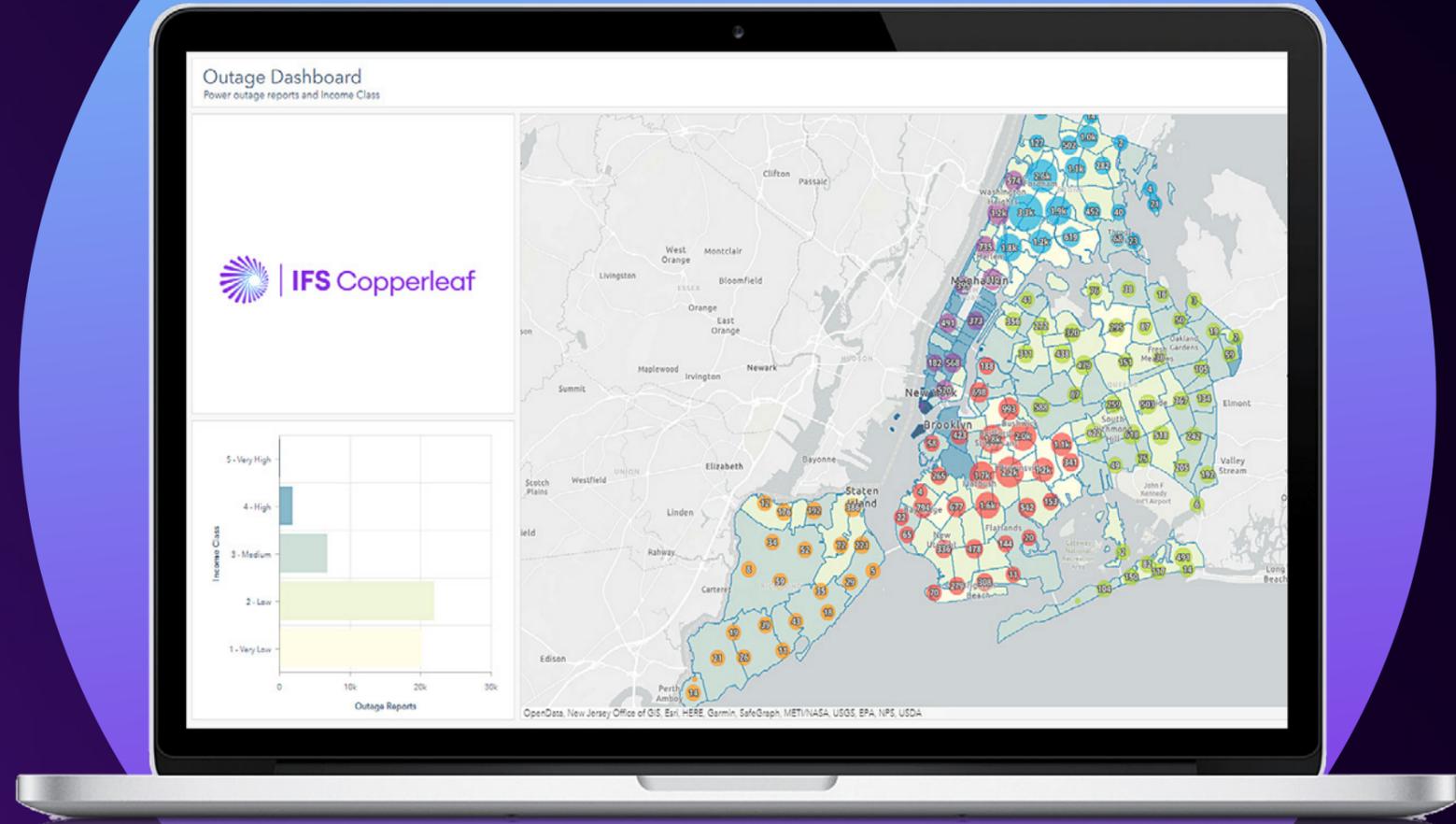
Utilities Strategy Senior Manager
Accenture



03 Understand community impact (cont'd)

Correlating population data with the environmental and operational impact of existing assets and potential investments can inform concrete plans to achieve ESG objectives and ensure a fair outcome for all communities. Strategies to mitigate environmental impacts might include replacing natural gas with hydrogen or electrification, or building more electric vehicle infrastructure in specific areas.

Using the right AIP solution, organizations can visualize the distribution of investment benefits and impact across the communities they serve. This view provides a greater understanding of where and when to intervene to **reduce interruptions, improve customer experience, and minimize environmental and social impacts.**



The IFS Copperleaf GIS dashboard displays the population-adjusted rate of reported power outages in relation to income level.

04 Prepare for change

Equipped with a holistic view of investment impact, organizations can use advanced decision analytics software to create a portfolio that delivers the most value for all stakeholders. Powerful optimization capabilities allow companies to prioritize hundreds–to hundreds of thousands–of projects, understanding where and when to spend to maximize resources and deliver on financial, social, and environmental objectives.

But even the best plans aren't written in stone. With environmental targets and operational horizons stretching from years to decades, planners must ensure today's investment decisions are fit for the future—and be ready to react quickly and confidently when circumstances change.

Account for uncertainties

Predicting future business, climate, and social conditions is a near-impossible task. However, “what-if” scenarios can help organizations prepare for different eventualities, and gain insights on

how environmental, regulatory, and operational changes will impact progress toward objectives in the short, medium, and long term.

Planners can adjust parameters and assumptions to test different scenarios. What if a climate scenario causes assets to degrade faster than anticipated or a service area experiences a catastrophic event, such as a wildfire? What if regulators introduce new targets or incentives?

What-if scenarios allow organizations to explore the plan's sensitivities to a variety of factors, including:

- New regulatory requirements and incentives
- Multiple time horizons
- Supply and demand projections
- Climate-related scenarios
- Stakeholder and investor priorities
- Customer needs in different communities

What-if scenario planning and powerful optimization capabilities make it easy to select the combination of investments and timing that will deliver the most value and drive ESG and financial results.

Decision makers can **run multiple scenarios to understand the trade-offs of different investment strategies**, agree on a recommended plan, and be ready to adapt quickly to shifting priorities.



05 Embrace continuous improvement

Re-optimize plans to continuously improve

Investment planning is no longer an annual event. A capital plan that was approved three months ago may require significant changes during the delivery phase due to a multitude of internal and external factors. Companies need to monitor and measure performance against their plans continuously and re-optimize as changes occur—and be ready to explain to stakeholders if, how, and why outcomes differed from the original plan.

When equipped with a process that facilitates continuous, real-time planning, organizations can quickly assess alternate options, adapt investment portfolios confidently, and provide credible evidence to regulators, investors, and customers.

This ability to make high-value decisions on the fly not only yields significant time savings during planning, but also increases trust with stakeholders and regulatory bodies.

When organizations use AIP solutions that can build a complete audit trail of all decisions, scenarios, and changes made over time, they can better communicate and defend investments plans with accurate and complete information.



IFS Copperleaf AIP

IFS Copperleaf plays an important role in helping companies achieve strategic and sustainability goals, and operate in the most efficient way possible. IFS Copperleaf has been working at the forefront of asset management best practices for more than 20 years, delivering best-in-class solutions to asset-intensive organizations across the globe. Every IFS Copperleaf client to date has recovered their investment within their first planning cycle—and organizations that have implemented our solution continue to use it successfully today. Business benefits include:



HIGHER-VALUE PLANS

20% Increase in portfolio Value



ENHANCED RISK MANAGEMENT

30% reduction in risk exposure



IMPROVED PLANNING EFFICIENCY

50% reduction in planning time



ORGANIZATIONAL STRATEGIC BENEFITS

Align decisions to drive strategic outcomes



About IFS



IFS is the world's leading provider of Industrial AI and enterprise software for hardcore businesses that service, power, and protect our planet. Our technology enables businesses which manufacture goods, maintain complex assets, and manage service-focused operations to unlock the transformative power of Industrial AI™ to enhance productivity, efficiency, and sustainability.

Within our single platform, our industry specific products are innately connected to a single data model and use embedded digital innovation so that our customers can be their best when it really matters to their customers—at the Moment of Service™.

The industry expertise of our people and of our growing ecosystem, together with a commitment to deliver value at every single step, has made IFS a recognized leader and the most recommended supplier in our sector. Our global team of over 7,000 employees every day live our values of agility, trustworthiness, grit and collaboration in how we support thousands of customers.

Learn more about how our enterprise software solutions can help your business today at ifs.com.

#MomentOfService

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