EarthKnowledge
INTEGRATED PLANETARY INTELLIGENCE

Introducing Earth Knowledge

Microsoft Azure Marketplace

FSI One Commercial Partner

Financial markets represent
what is happening
in the economy.

We are the essential eyes and ears that help you see full contrast in an ever-changing world.

Earth data is beyond ESG.
It’s the foundation that brings full clarity
to economic risk and your investment decisions.

We see things
a little
differently...

Our afternoon sanctuary…
…we predicted raging fire devastation, putting countless homes at risk.

“

$37.3m

invested in managing water
for a growing economy...

...we found hidden leakage
and designed underground wells
to mitigate the devasting economic
and community risks.

A glacier filled lake…

…a forecast of glacier retreat based on a hundred years of data will save investors billions in financial loss from downstream flood risk.

Where you
see soil…
…we see a fragile balance
of microbiome, carbon and water.

A guardian in flight…
…is also an early warning of a decreasing habitat and an ecosystem at risk.

Where you see
KO[nyse]…

…we see certainty in natural
capital diversity risk
just as the holidays are coming.

Where you see
BF.B[nyse]...
...We see a forecasted wheat harvest
that will bring smiles in tennesse.
We've got your back jack!

Earth Knowledge In Action

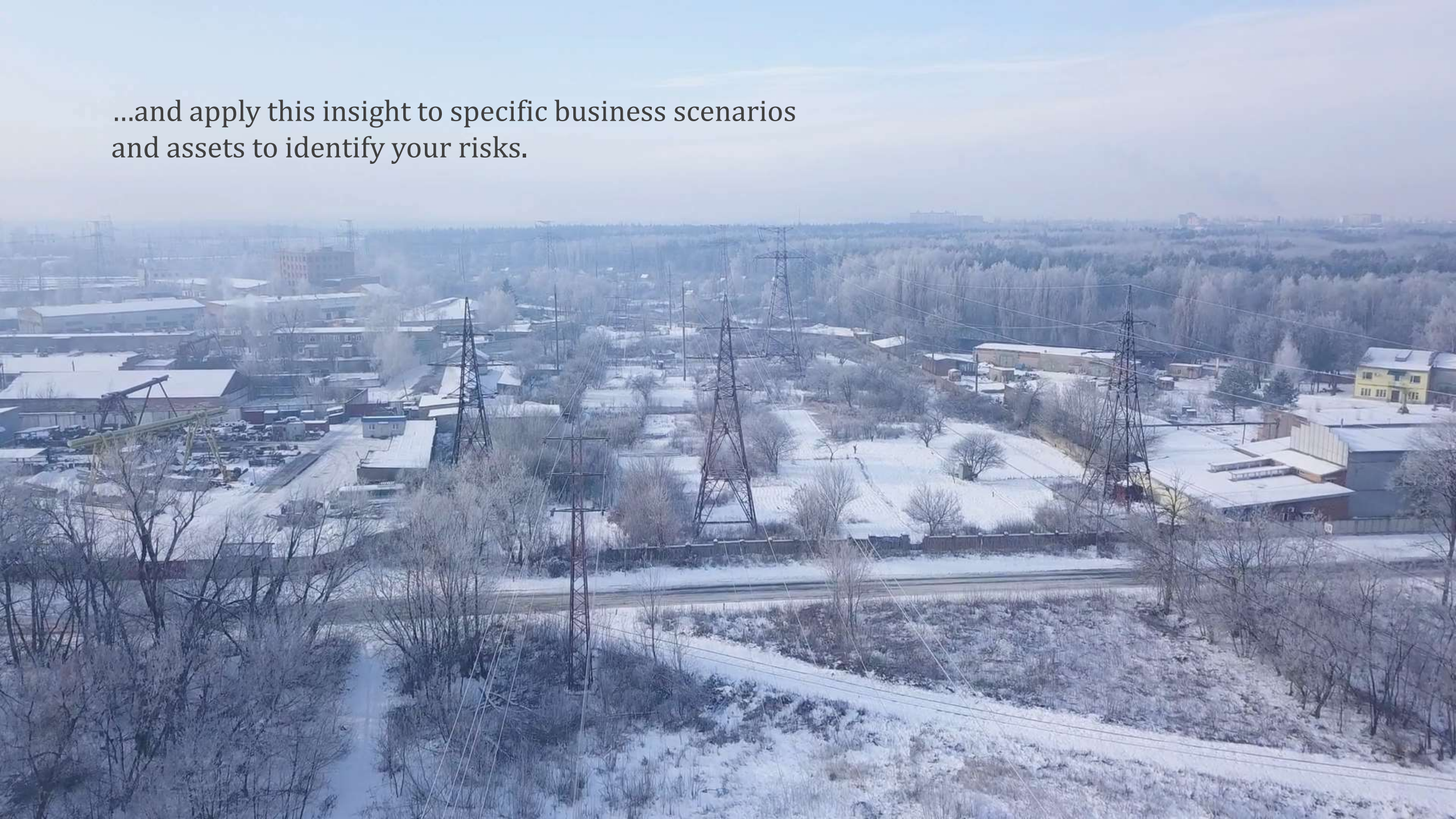
See the world as you've never seen it before.

Our living scientific data network brings clarity to your business and investment decisions.

Understand your sustainability, operational and economic risk through forward-thinking intelligence grounded by historical and current global data patterns.

What We Can Do For You

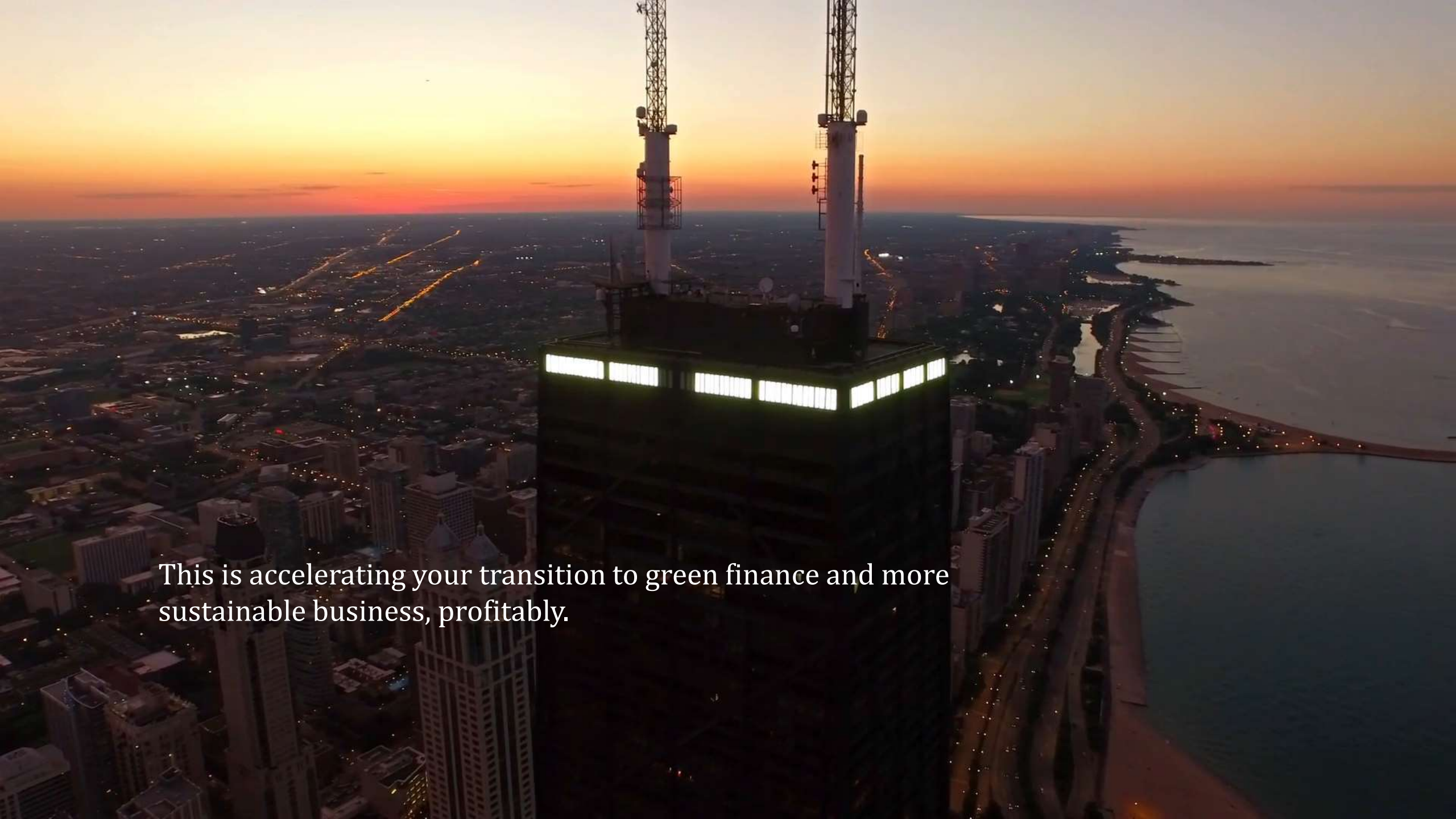
We collect and analyze structured and unstructured data about the planet’s natural systems…



…and apply this insight to specific business scenarios and assets to identify your risks.

We see the interconnected patterns in the way our planet is changing like nobody else can and use this to bring comprehensive context to your decision-making.

Our Earth Knowledge Indicators aggregate decades' worth of planetary data in a single platform to highlight key metrics and flag risks and opportunities you may not have considered to give you the bigger picture.



This is accelerating your transition to green finance and more sustainable business, profitably.

Earth Knowledge In Action:

Climate Risk and Resilience Tool

Earth Knowledge In Action

Climate Risk and Resilience Tool

Organisation

Sonoma Water, Sonoma County, North Bay, California, USA.

Challenge

Determine the potential risks arising from future climate change and provide an interactive and easy-to-use tool that illustrates these risks to agency leaders and elected officials to assist in decision-making to protect the environment, local communities and sustained economic growth.

Solution

EK's unique scientific models were used to develop multi-dimensional Earth system models for Sonoma Water to understand potential climate change risks like extreme storms, floods, droughts and wildfires that may impact the region. This was based on data describing historical through present-day environmental conditions, including mean temperatures, precipitation rates, vegetation and soil type, and watershed measurements. Predictive models evaluated numerous future-climate scenarios to understand the effects of climate change on alternating cycles of wetter and drier periods that cause extreme floods, intense droughts and catastrophic wildfires.

Products Delivered

An interactive climate risk dashboard providing straight-forward narrative describing climate change predictions, how they are developed, and the extent and degree of potential climate risks to the region through 2100.

Impact and Results

Using our predictive models and climate risk tool, Sonoma Water was able to identify areas that were more susceptible to these climate-change caused extreme events. This supported their ongoing efforts to develop management strategies for coping with climate change and other environmental risks.

Why Earth Knowledge?

We bring together a global team of scientists, analysts and leading organizations to collect complex, multi-dimensional, non-linear planetary and environmental data.

Combined with analytics at scale, we see and understand the high interconnectivity between the planet's natural systems and the modern world, and the interacting facets of sustainability and global change.

All the data we collect is peer-reviewed and verified by specialists in their field. We then apply this information to build accurate models that help you measure and mitigate risk.

This isn't simply aggregating data.

This is business resilience built on science.

Our
Living Network

An accomplished global scientific data ecosystem

We collaborate with scientists, analysts, technology firms, industry, non-governmental organizations and federal, regional and international government bodies to continually monitor and derive insights from geospatial and unstructured data.

We use this to detect merging patterns and determine risk exposure from the planet's changing systems, which companies use to assess real impacts to their assets, operations, supply chains or business markets in any location at any point in time.

Our ever-growing data network includes:

- 60+ global corporations
- 50+ government bodies
- 30+ non-governmental organizations
- 25+ academic and research institutions.

Our Products

Sustainability Portal

Free access to Earth Knowledge's publicly available set of software-as a-service (SaaS) tools. Navigate our vast knowledge base about the planet's changing systems.

Indicators

More than 140 Global Change Indicators provide an in-depth understanding of our Earth systems, and the risks and opportunities they provide. Drill through layers of data to access deeper, more detailed insights and analysis covering any location across the globe.

Foresight

SaaS-based predictive analytics developed from Earth systems models delivers historical, current and future data, covering any location worldwide.

Clearsight

SaaS-based analytics of unstructured data and reports, covering current and/or historical data, content and patterns for business and investment planning and decision-making.

Onsight

Foresight and Clearsight SaaS solutions with added platform-as-a-service (PaaS) capabilities.

Insight Services

Our Insight Services help you maximize the use of our SaaS and PaaS tools. Work with our team of global experts to determine your needs, key locations and gain detailed insights specific to your investment and company developments.

Where you see a waterlogged country...

...we see active land management mitigating flood risk.

Indicators in Action

A merger and acquisition event takes place on a portfolio, bringing new assets in the Netherlands into the picture. The fund manager re-evaluates the portfolio's positions to determine the overall impact.

Undertaking a simple climate risk stress test on the new assets would likely flag them as being high risk. Much of the Netherlands sits below sea level, making large parts of the country susceptible to flooding. An analysis based purely on climate change would therefore present bias which, in most cases, would encourage the fund manager to drop the assets in a bid to save costs in the long run.

However, if you take a step back and consider all the other interacting facets of global change at play, it quickly becomes apparent that there is much more to this story.

EK's Indicators give true context and insight to business decision-making, looking far beyond climate change alone. They consider primary direct indicators – **climate, temperature, precipitation, wind** and **sea level rise** – combined with secondary direct and indirect indicators – surface water runoff, chronic flooding, coastal and bay/estuary flooding; and **geology** and **landscape terrain**.

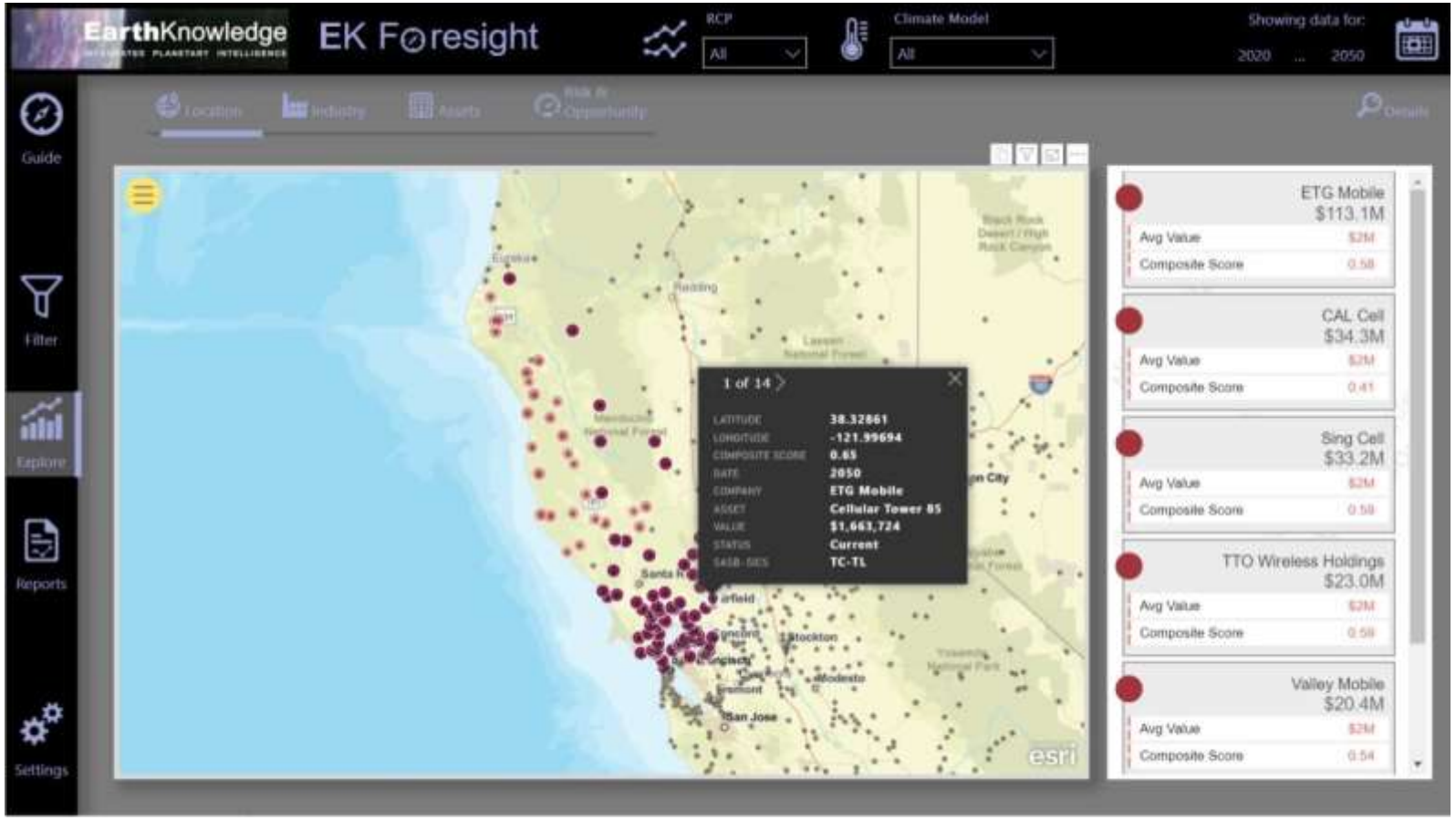
By looking at climate change with enlightening geological and landscape terrain context, the assets in the Netherlands can be seen in a truer light. That's because the indicators show how the land has been redesigned to withstand sea level rise: a result of the ongoing natural solutions being implemented to restore and sustain the country's coastal areas and mitigate damage.

The result is a comprehensive view of exactly how all these factors interconnect to provide an accurate insight into the position of the assets. It allows the fund manager to see past the bias, identify the opportunities and make smarter investment decisions.

Principles At Work

Principles At Work

Principles At Work



Our Release Roadmap

	Currently Available	Spring 2021	Summer 2021
Sustainability Portal		• Initial set of full Indicators • Knowledge articles available	
Indicators	• 200+ Indicators available now • Additionally, accessible from the Azure Marketplace	• Additional ESG, Sustainability, and Global Change frameworks represented and supported	• Further enhancements to ease inclusion into existing risk models
Foresight	• Private preview available now • Bespoke product & services	• Predictive models and analytics • Global Scale (1 km & 5 km) • Coverage– North America, UK, Europe	• Predictive models and analytics • Global Scale (1 km & 5 km) • Coverage– Asia, Australia, Oceania
Clearsight	• Private preview available now • Bespoke product & services		• Analysis of unstructured data such as journals, whitepapers, and other media • Historical trend data available • Predictive analytics
Onsight	• Private preview available now • Bespoke product & services	• Secure integration to restricted data sources to support inclusion of company's proprietary data into Earth Knowledge models and analysis	• Adds APIs/Microservices; Analytics/Modeling Tools; Export Functions; Dashboard Template; Scripting Notebooks
Insight Services	• Consulting & advisory services provided by EK Network of Nobel Laureate and other global subject matter experts.		• Insight Services offered from preferred partners in addition to existing Earth Knowledge delivered engagements.

Our Partners

Collaboration is at the core of what we do.

Help us continue to lead the way and bring together the best minds and resources to understand the planet's natural systems in a way that nobody else can.

esri

ResponsibleRisk
Improvements in Sustainable Finance

Microsoft

Thank you.

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