vectorcenter™

AI-POWERED DECISION-GRADE INTELLIGENCE

Helping companies, institutions, and governments navigate and mitigate profound water and systemic risks in an era of unprecedented disruptions.

"Vector Center is using Azure to collect, correlate, and analyze data and produce an overall picture of what's actually happening in real time."
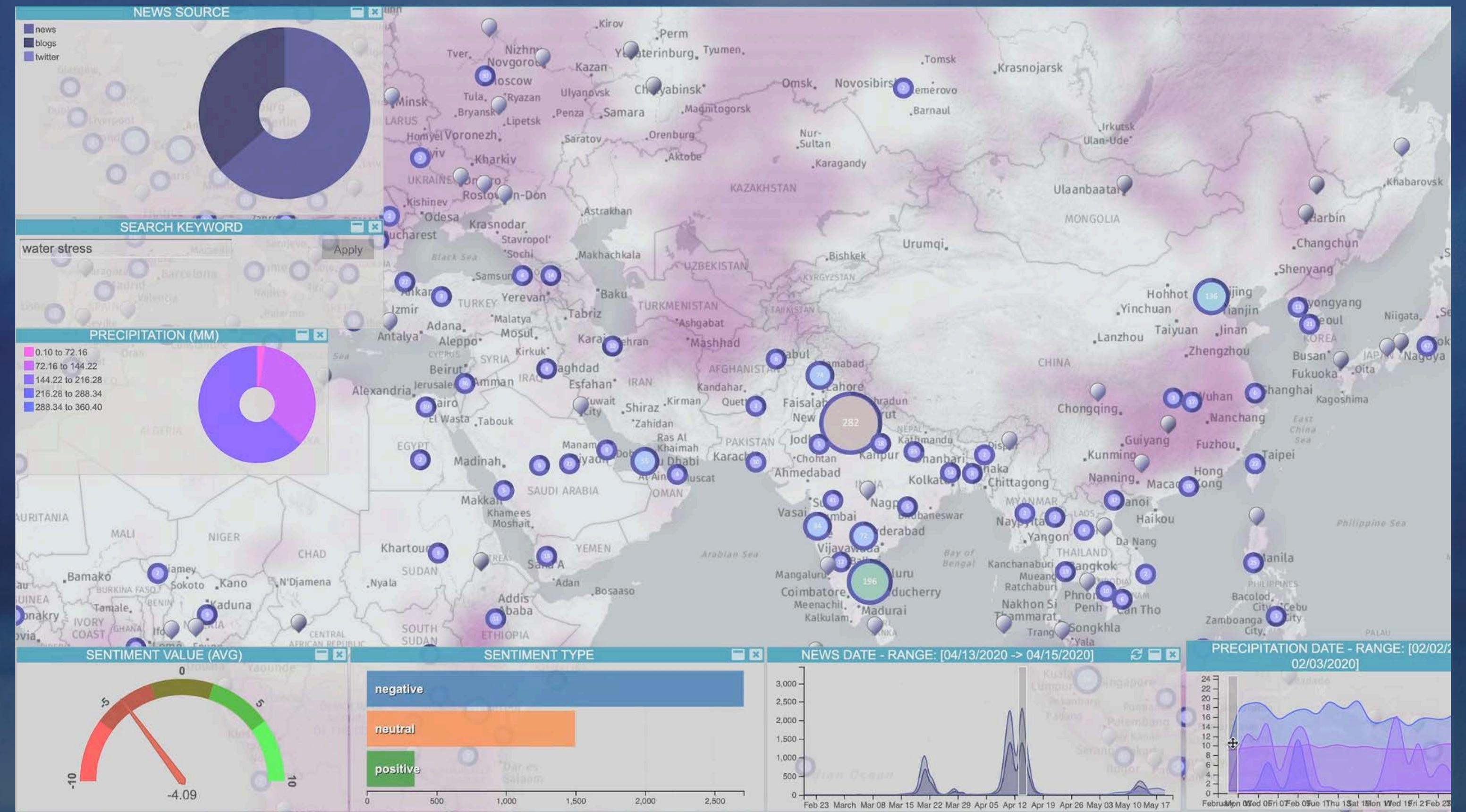
— Brad Smith, President, Microsoft

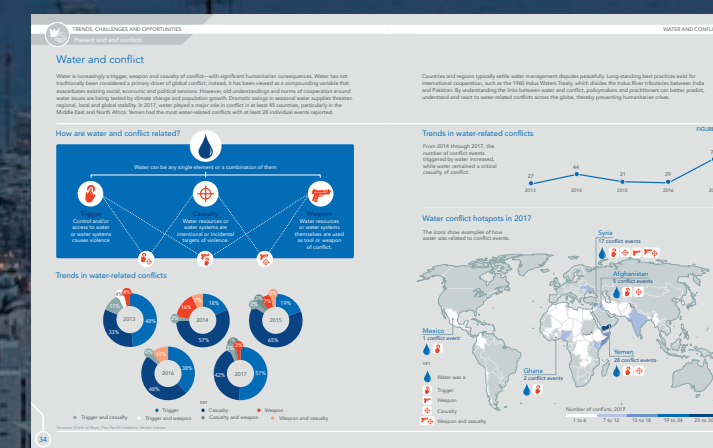# THE ESSENTIAL EDGE: AZURE ON YOUR SIDE

Leveraging our cutting-edge, AI-powered technology, Vector Center provides companies, governments, and institutions with an essential edge to faster identify and mitigate water, food, energy, and climate security risks and impacts on capital investments, production, supply chain resilience, continuity plans, sustainability goals, and ESG and CSR initiatives.

We work closely with our customers to predict and understand how climate change and increasing water disruptions impact their stability, supply chains, and sustainability.

Built on the Azure AI system, Vector Center's Perception Reality Engine™ collects, organizes, and analyzes millions of points of water- and climate-related data globally in real-time using a combination of state-of-the-art satellite data, social sentiment analysis, and on-the-ground context. We deliver what you need most: timely intelligence, scenarios, and contexts to inform near- and long-term strategies.

■ Microsoft Azure

We empower local operational leaders and risk officers to board-level executive teams with the real-time intelligence and foresight necessary for data- and context-based decisions. Water risks are particularly acute for food and beverage, manufacturing, cloud computing, pharmaceutical, energy, agriculture, finance, and insurance industries.

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AN URGENT NEED: CASCADING RISKS

Overallocation, outdated policies, increasing demand, and climate change have resulted in increasingly severe and accelerating water crises that affect food supplies, energy production, and ultimately human well-being globally.

Without rapid access to and an understanding of the latest contextualized data, decisions from the most local to global are often made that perpetuate or exacerbate water issues, affecting geopolitical and economic stability, and causing harm to people and the environment.

Water crises are triggering:

- Catastrophic disruptions at the intersection of food, energy, and economic and political stability

- More volatile, cascading scenarios, from environmental to social and operational

- New regulatory, compliance, and sustainability challenges

- Awareness in every boardroom on the need to act nimbly and systemically

- Fundamental changes in societal, business, and individual attitudes and expectations

As groundwater supplies decline, farmers are turning to alternative sources for irrigation — including raw sewage and industrial waste — creating a catastrophic scenario of food contamination that can impact hundreds of millions of people. The Perception Reality Engine™ monitors groundwater and compares it to plant growth and other indicators to identify and predict supply and demand gaps that can disrupt and contaminate supply chains.

Salinification due to sea level rise is disrupting major water sources for cities and agriculture. The Mekong Delta alone produces 21 million tons of rice each year, which employs 14 million people and generates $2.2 billion in exports. Vector Center's early warning system gives governments, communities, and companies the essential tools to build more resilient systems in the face of climate change.
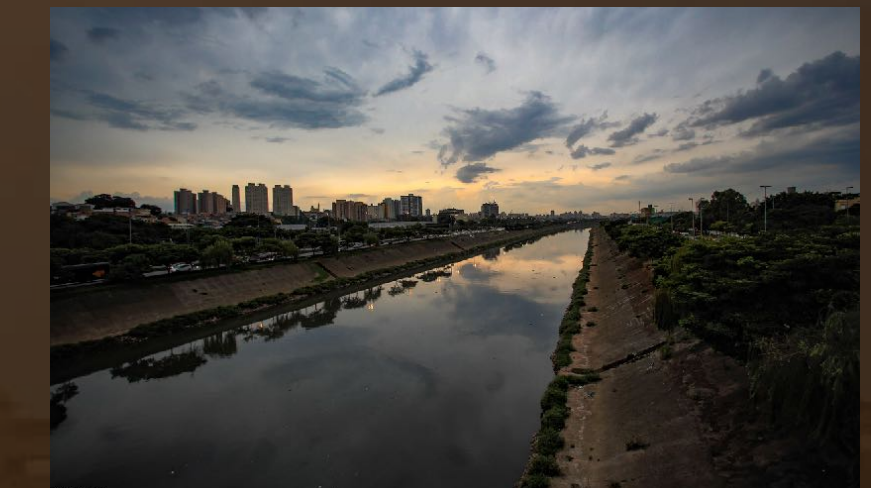

Within just the last decade, water-related issues have caused large-scale mining projects on six continents to be suspended or closed. Production costs soared. A single misstep by Newmont Corporation in Peru cost the company more than $5 billion in lost assets. Vector Center's predictive analytics give insight into real-time reputational and operational risks.

More data streams from satellites and IoT every day than has in entire human history. Yet for water and related risks, data remain fragmented, slow, siloed, and out of context. Vector Center uniquely unites disparate data into a common operating platform where countries, geographies, and specific locations are monitored in real time, providing early indications of disruptions or opportunities for engagement.

For the first time in human history, more people live in urban centers than rural communities. As more people move to cities, stresses due to population pressures, droughts, floods, and pollution are triggering civil unrest and radicalization. Vector Center spots these trends, giving leaders, companies, and their governing structures rapid intelligence, modeling, and context to respond.

When Cape Town's water supplies dwindled to nearly zero, cloud services companies were forced to develop calamity plans to truck water in to keep data centers online. The Perception Reality Engine™ monitors location vulnerabilities, including governance, physical, and infrastructure risks giving customers early warning, in time to prepare and respond.

CLIMATE IMPACTS	LOCATION VULNERABILITIES	WATER OVERUSE	GROWING POPULATION	DROUGHTS/ FLOODS
Operational failures	Political risks	Reputational risks	Civil unrest	Supply chain disruptions

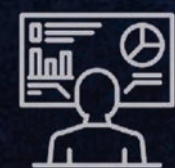vectorcenter

THE
PERCEPTION REALITY ENGINE ™

Vector Center uniquely generates real-time, decision-grade intelligence on water security through continuous analysis, monitoring, and reporting.
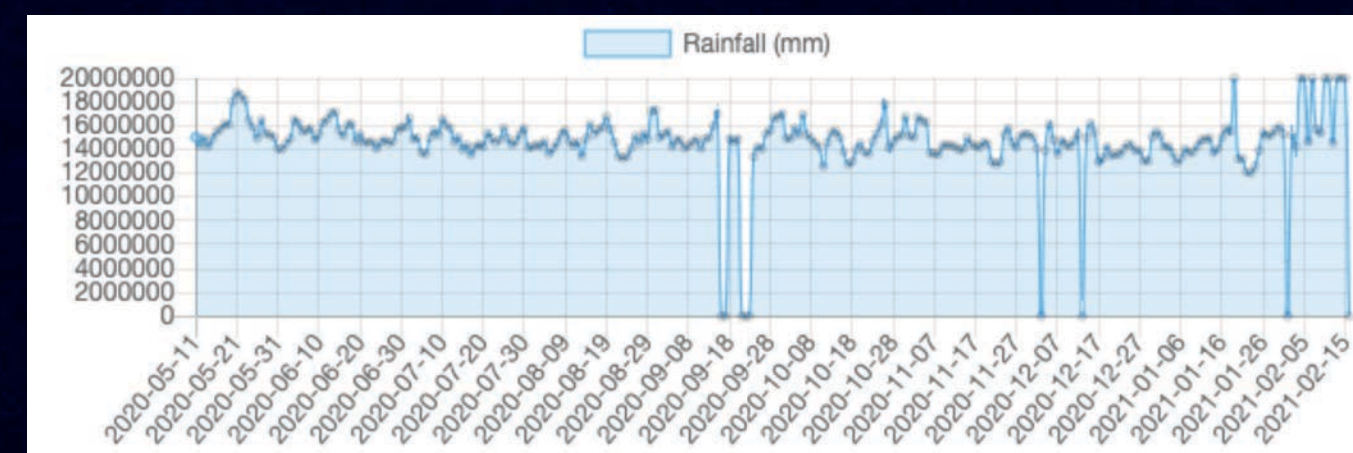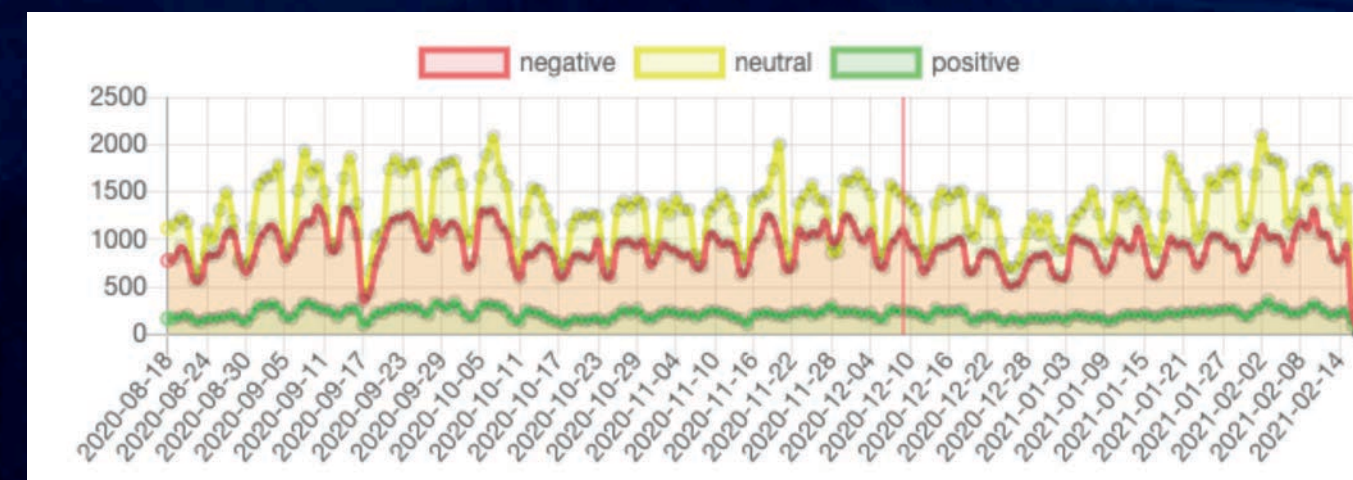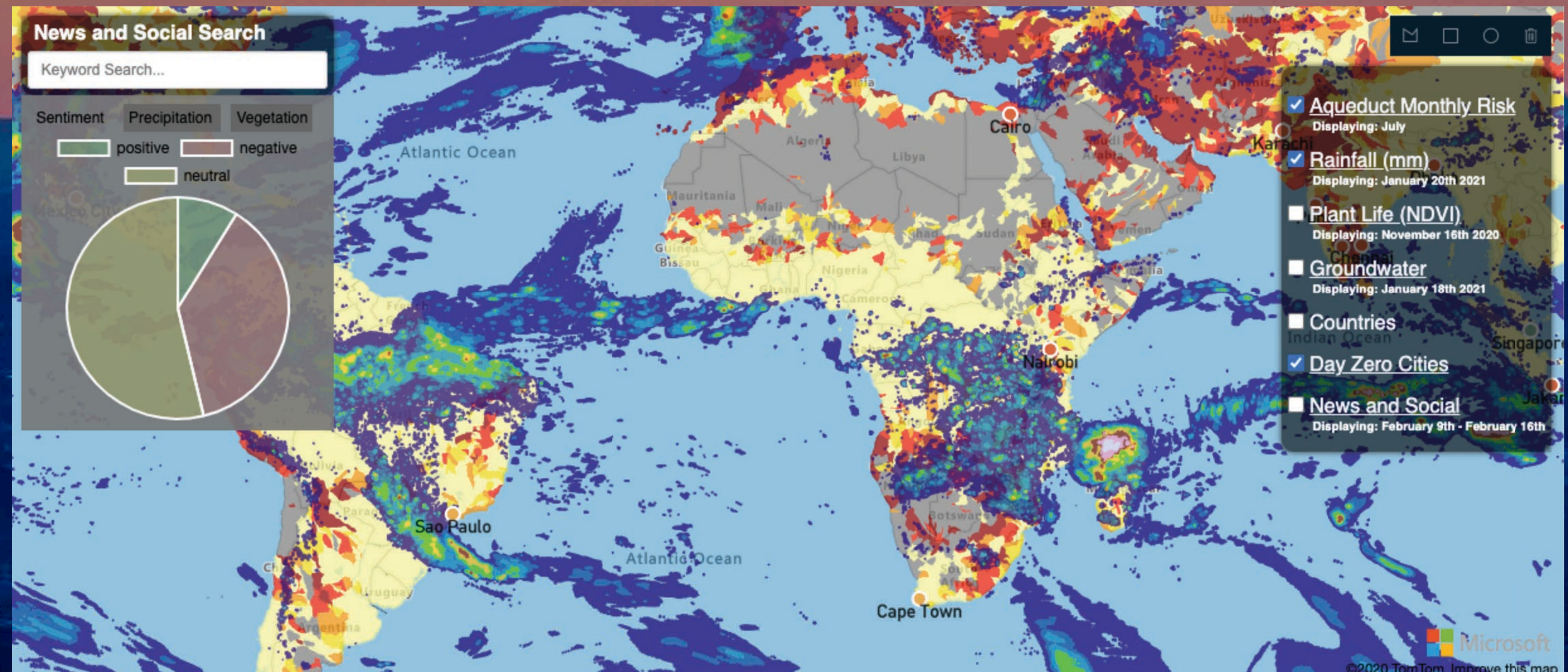
Millions of data points stream into our Perception-Reality Engine to deliver pinpoint analyses and foresight.

Our AI-powered sentiment and semantic analysis — paired with trusted satellite and on-the-ground data — is uniquely trained on water and intersecting issues to give customers faster indicators and actionable intelligence.

Information is delivered through visual dashboards that provide timely status reports and situational awareness for specific geographies, operational regions, and facilities.

News and Social Search

Keyword Search...

Sentiment | Precipitation | Vegetation

positive | negative
neutral

- ☑ Aqueduct Monthly Risk
  Displaying: July
- ☑ Rainfall (mm)
  Displaying: January 20th 2021
- ☐ Plant Life (NDVI)
  Displaying: November 16th 2020
- ☐ Groundwater
  Displaying: January 18th 2021
- ☐ Countries
- ☑ Day Zero Cities
- ☐ News and Social
  Displaying: February 9th - February 16th

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DECISION-GRADE INTELLIGENCE

Clients rely on Vector Center for contextual, predictive, and actionable intelligence.

We are passionate about helping our customers define a better future for themselves, partners, customers, and the planet.

We count among us world-recognized scientists, researchers, data scientists, and journalists with decades of experience and established global networks in data, geopolitical risk, and resource security.

We have served the World Economic Forum, Fortune 50 CEOs, government and industry policy makers, and the Vatican.

We have invested heavily in R&D on cutting-edge AI data technology, data capture, and our team.

We have strategic partnerships with NASA and leading global brands, including Microsoft and APCO Worldwide.

ECONOMIC RESILIENCY AND COST SAVINGS

- Identify hidden economic, social, operational, and supply chain risks

- Daily operational risk and resilience monitoring/forecasting

- Capital investment analysis and protection

LICENSE TO OPERATE

- Protect reputation, brand, and profits

- Identify regulatory risks and engagement opportunities

- Inform environmental, security, and governance policies and metrics

MARKET DEVELOPMENT AND TOP-LINE GROWTH

- Develop innovative sustainability practices and monitor partnerships

- Deliver market intelligence and context

- Thought Leadership

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