



# ADB E-MARKETPLACE

*for a Water-Secure and Resilient Asia and the Pacific*

Spotlighting **innovative solutions**, **latest technologies**, and **best practices**.

## From Data to Decisions

Harnessing UK Digital Solutions for More Resilient Water Management

Co-presented by:



Department for  
Business & Trade

Delivered in partnership with:



Urban Resilience  
Trust Fund



UK International  
Development  
Partnership | Progress | Prosperity

30 September 2025, 4:00 – 5:00 p.m. (Manila, GMT+8)

# Introduction



**Kristina Katich** (Moderator)  
Senior Urban Development Specialist  
ADB

# Welcome Remarks

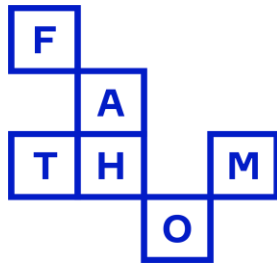


**Shantanu Mitra**

Alternate Executive Director  
ADB

# Launchpad

**Three (3) technology pitches** followed by **insights from our Architects**, ADB experts who will help shape how proven technologies can take root and thrive in the context of Asia and the Pacific



**Use the Q&A function** (not the chat box!) to enter your questions. These will be addressed by the innovators after the session.



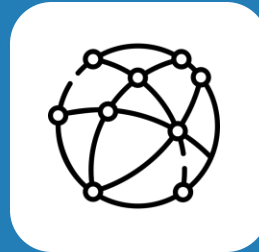
# Launchpad

Apart from insights, our Architects may offer guidance related to the following:



## Time

advisory support, or a follow-up conversation to discuss how to best engage with developing member countries



## Connections

recommend relevant platforms, or partner organizations that could help scale or pilot the idea



## Visibility

help spread the word—whether through a LinkedIn post, a mention in a newsletter, or inviting the idea into another forum

# FATHOM



**Victor Nekhay**  
Senior Business Development  
Manager



**Stefan Rau**  
Senior Urban Development Specialist,  
ADB





# Introduction to Fathom





Fathom is a Swiss Re subsidiary

Formed out of the University of Bristol

Co-founded by a team of world-leading scientists

Aiming to provide comprehensive water risk intelligence for the entire planet

Research has always been a critically important part of our company's development



# Our research output

We publish cutting-edge research in industry-leading publications, subjecting our work to critical testing and academic peer review, while helping support the advancement of flood risk research through the transparency of our methodologies and results.

## 60+

Research papers  
underpinning  
Fathom's products

## 88,000

























Academic citations  
for research written  
by Fathom's experts



# Replicating the success:

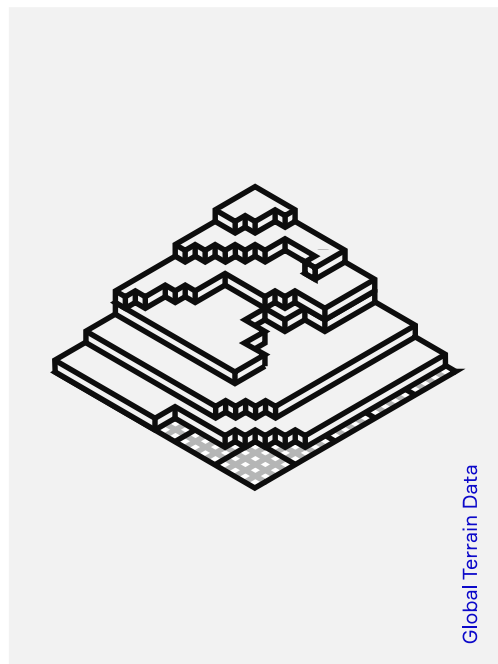
Our clients are anyone who needs to understand flood risk:

- Inland or on the coast
- Now or in the future
- Anywhere in the world

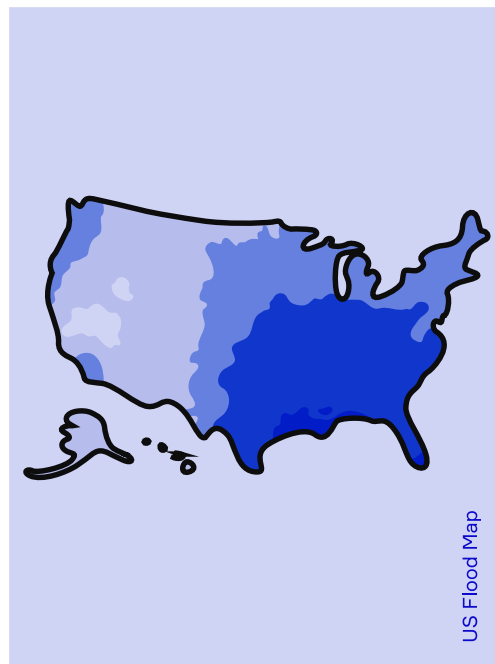
Insurance	Financial Markets & ESG	Engineering	Public Sector & International Development
     	     	     	     



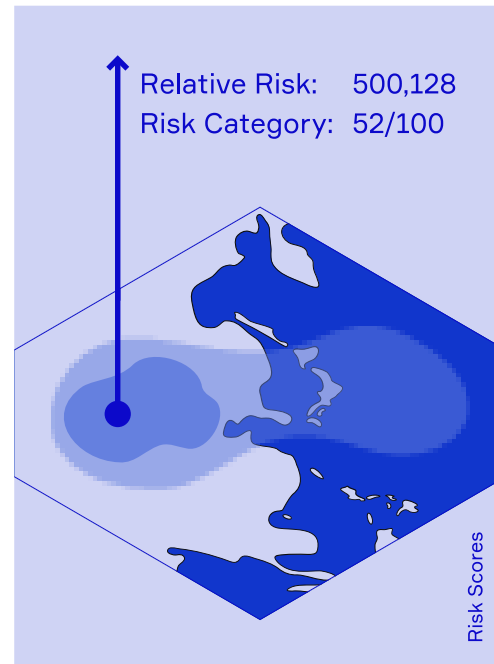
# Our datasets



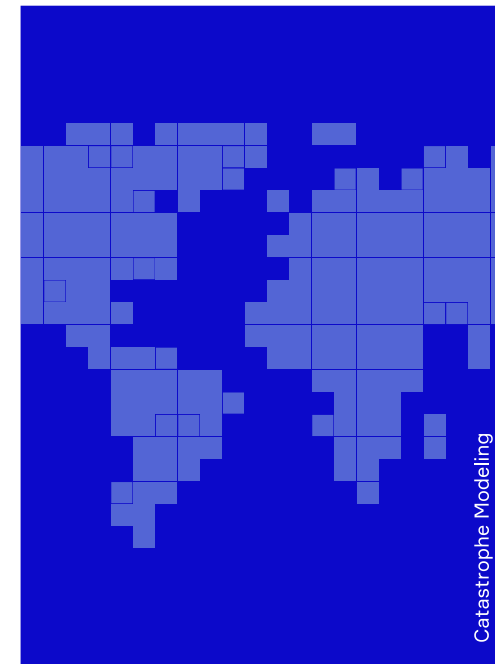
Global Terrain Data



Flood Maps



Risk Scores



Catastrophe Models



Fathom API



Direct provision

# Risk Scores

Two main forms:

- Relative Risk
- Risk Category

Scan portfolios at scale to identify sites at risk of flooding

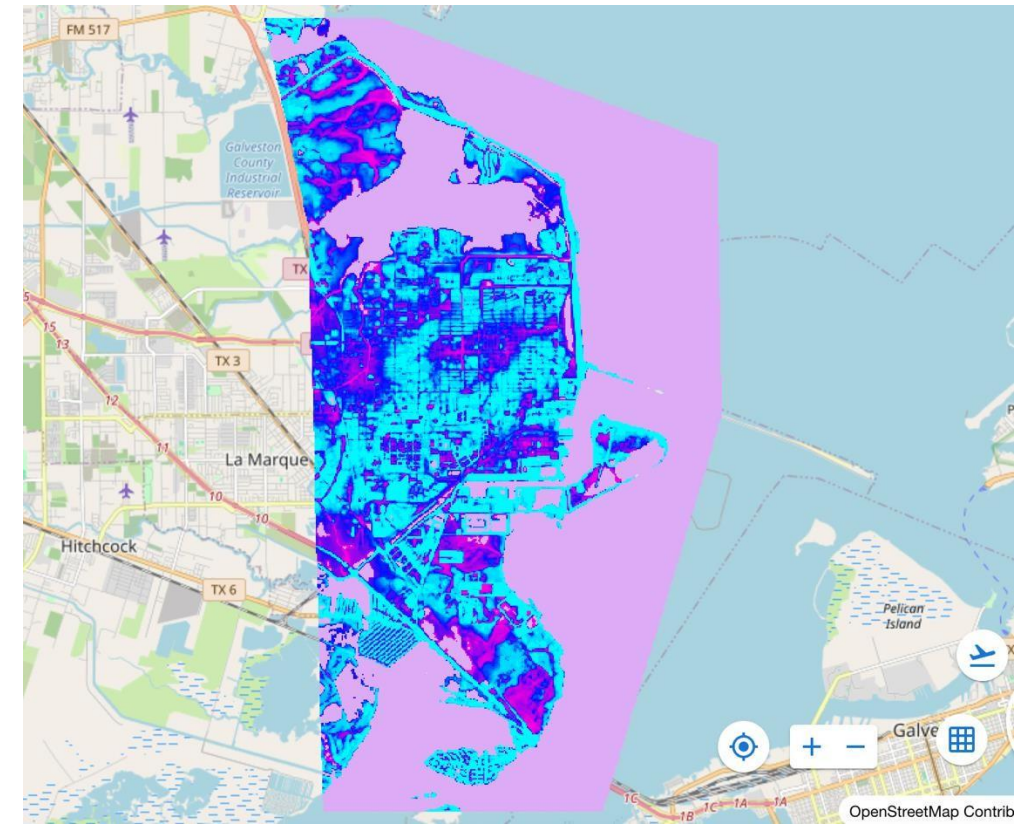
Visualise flood risk using Geotiff data

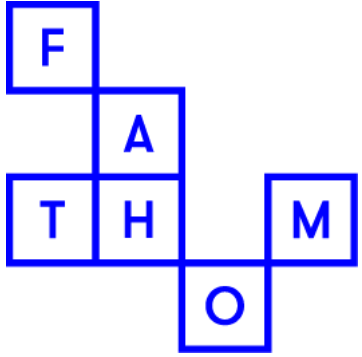
	Relative Risk	Risk Category
Range	0 – 1,000,000	0 – 100
Represents	<p>Granular quantification of risk inside the extreme flood plain</p> <p>Average Annual Loss (AAL) for uniform exposure</p>	<p>Categorization of risk inside <b>and outside</b> the extreme flood plain</p> <p>1 – 5: Proximate risk to extreme flood 6 – 100: Categorization of Relative Risk</p>
Usage	<p>Where a (roughly) linear relationship with expected loss is required</p> <p>Inside the flood plain</p>	<p>Where a categorized score is needed inside and outside the flood plain</p> <p><b>Over 90% of global land area is within Risk Categories 1 - 100</b></p>
Type	<p>Fluvial, Pluvial, Coastal</p> <p>Inland (fluvial &amp; pluvial), Flood (inland and coastal)</p> <p>Global excluding Greenland and Antarctica</p>	

# Rapid Portfolio Scan

Site	Relative Risk	Risk Category	Interpretation
Site 1	980,000	98	Extremely high risk, deep in floodplain. Significant expected loss.
Site 2	750,000	95	Very high risk in floodplain. Likely to flood during extreme events.
Site 3	420,000	80	High relative risk with consistent flood exposure.
Site 4	180,000	55	Moderate risk, within floodplain but not in deepest areas.
Site 5	120,000	40	Lower floodplain risk, likely protected or in elevated zones.
Site 6	65,000	25	Marginal flood exposure. Inside floodplain but low expected loss.
Site 7	3,000	5	Outside floodplain, near its boundary. Proximate risk.
Site 8	1,000	3	Well outside the floodplain. Very low hazard, but nearby river system.
Site 9	0	1	No meaningful flood risk under modelled conditions.
Site 10	500,000	70	Solidly at risk, within a defended flood zone.

## Visualised Impact





# Fathom's Global Flood Map — The first high-resolution global flood map covering all flood perils and climate futures.



## Global coverage

Fathom's data cover the entire planet, including all the world's river channels.



## High resolution data

~30 m resolution globally, with ~10 m data across multiple countries.



## All flood perils

Riverine flooding, flash flooding and coastal flooding comprehensively represented.  
Defended and undefended layers

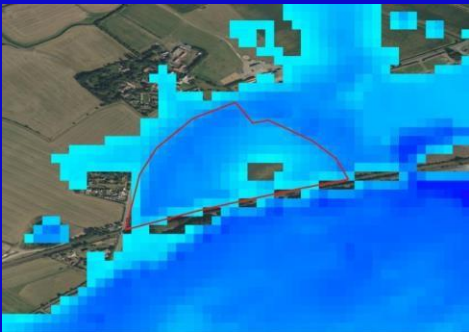
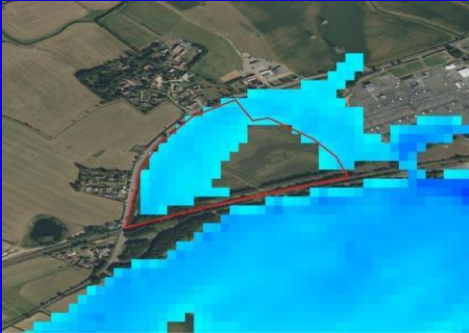


## Climate change

Complete representation of all future climate scenarios, out to 2100.

# Analysis

Get a deep-dive analysis into sites at risk of flooding



## Fluvial (Defended Areas)

- Severity increasing: Max depth rises from 60 cm to 73 cm; mean depth more than doubles.
- Wider exposure: Flooded area increases from 40% to 49%.
- Implication: Defences are increasingly under pressure—risk is growing even in protected areas.

## Fluvial (Un defended Areas)

- Persistently high exposure: Flooded area remains flat at ~89%.
- Severe but stable hazard: Depth metrics show only marginal increases, indicating saturation of risk.
- Implication: These areas remain high-risk and potentially uninsurable without intervention.

## Pluvial (Surface Water Flooding)

- Rapid escalation: Mean depth rises 77% (22 cm → 39 cm); max depth climbs to 95 cm by 2070.
- Urban vulnerability: Site flood extent increases from 55% to 60%.
- Implication: Pluvial risk is emerging as a critical concern, especially in dense urban settings.

## Strategic Insight

Flood risk is intensifying across all categories. Defended areas may no longer offer sufficient protection, while pluvial flood risk is rising fastest. Investment, insurance, and infrastructure decisions must reflect this new baseline.

## Site Assessment - Modified Flood Depths Over Time: Comparison

Perils	Metric	2020	2030 SSP2_4.5	2050 SSP2_4.5	2070 SSP2_4.5
Fluvial defended	Maximum depth	60	64	68	73
Fluvial defended	Percentage of site flooded	40	42	46	49
Fluvial defended	Mean depth	10	13	17	21
Fluvial undefended	Maximum depth	160	161	163	165
Fluvial undefended	Percentage of site flooded	88	88	89	89
Fluvial undefended	Mean depth	85	86	87	88
Pluvial	Maximum depth	70	82	90	95
Pluvial	Percentage of site flooded	55	56	58	60
Pluvial	Mean depth	22	29	34	39

# Fathom's Global Flood Cat – The first truly global flood catastrophe model to consider both inland and coastal perils.



## Globally consistent

Flood coverage at 30m resolution for all major flood perils



## Sophisticated risk differentiation

Including custom flood defenses and risk modifiers



## Transparent and customizable

Download hazard and vulnerability  
Use your own vulnerability



## Major asset types / coverages

Residential, commercial and industrial  
Buildings, contents and business interruption coverages



## Aggregated data and coarse geocoding

Using different spatial distributions for different asset types

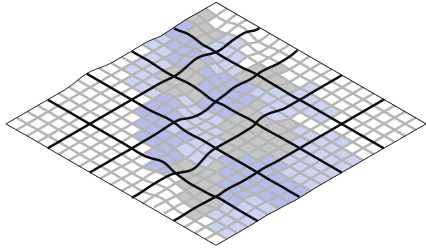


## Comprehensive uncertainty representation

Detailed Monte Carlo sampling  
Nil and total losses  
'within-event' uncertainty correlation



# From hazard to risk

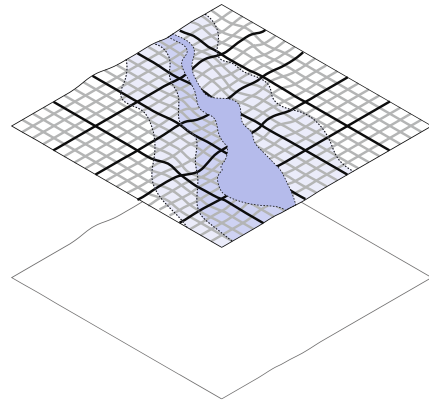


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## Event set

Spatial extent of events

- Characterized by size, location, and return period of flooding per grid cell.
- Millions of events representing 10,000 years of activity.

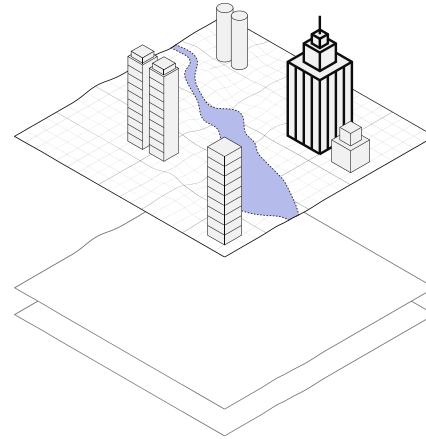


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## Hazard

Physical intensity for each location for each event

- A flood footprint represents flood depth for each grid cell for each event.
- Used to represent the varying impact and intensities of one event on different locations.

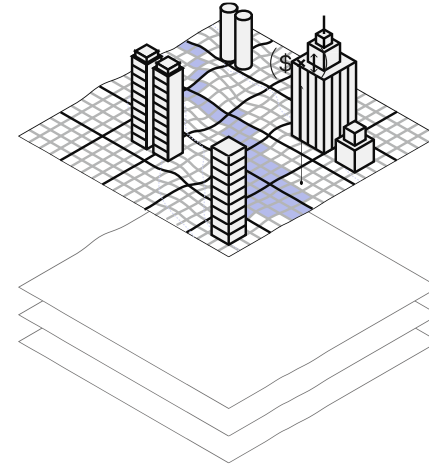


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## Exposure

Global asset value distributions

- Spatial distribution of asset values and building heights.
- For residential, commercial and industrial assets.

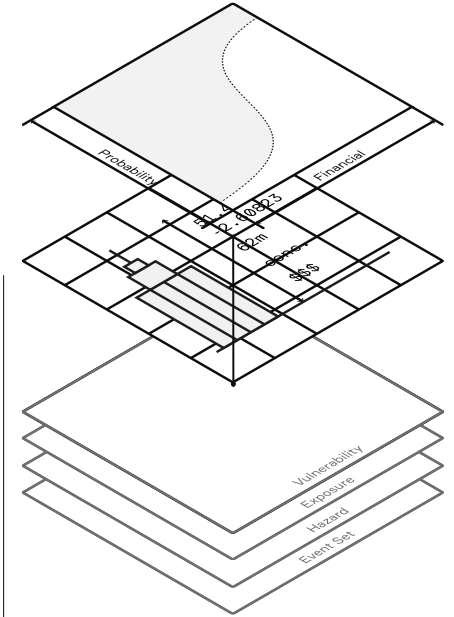


04 →

## Vulnerability

Relating hazard to damage per asset type

- Links the hazard metric to a damage ratio.
- Quantifies the extent of damage to a building caused by an event, based on the characteristics expressed within the exposure dataset.



05 →

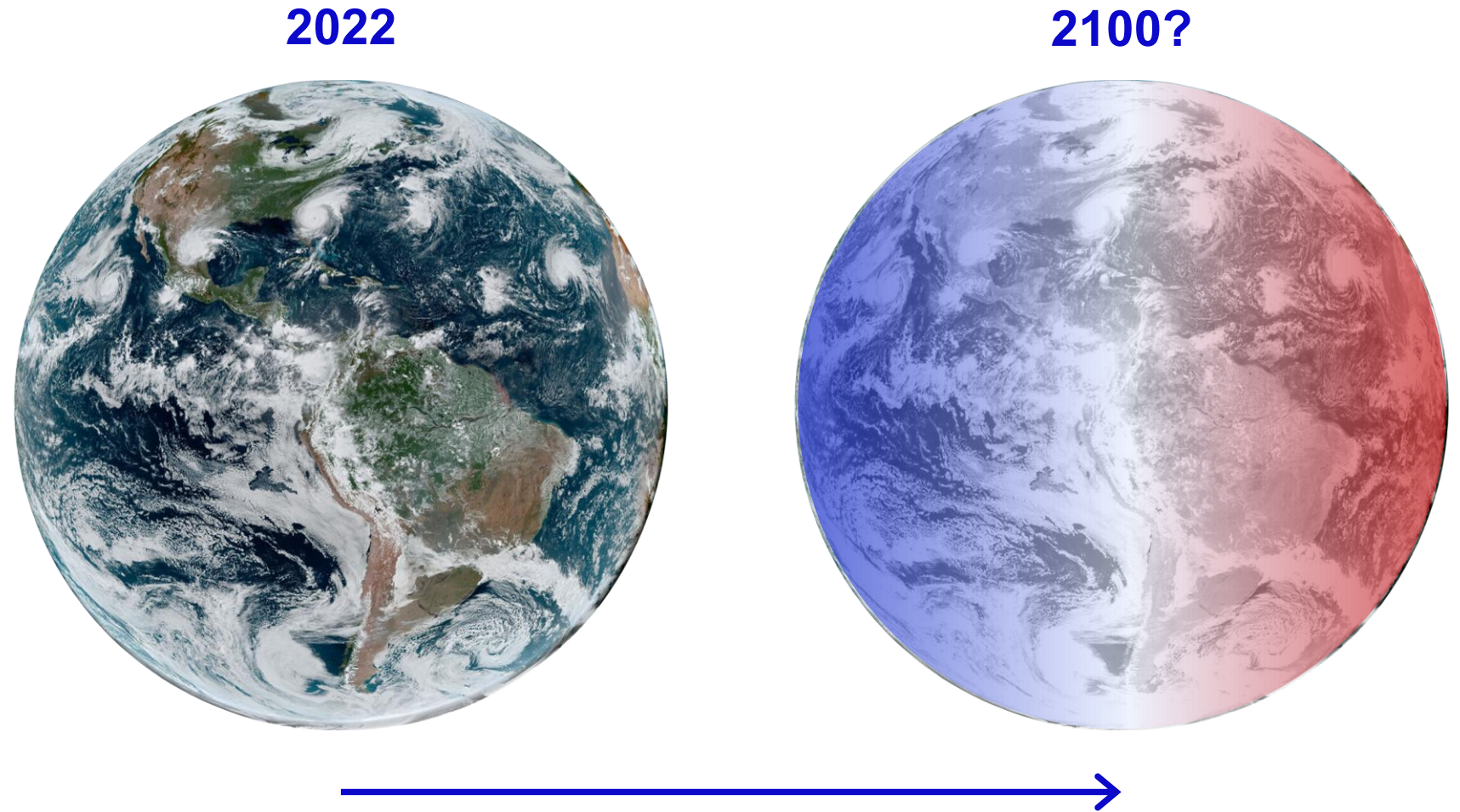
## Financial module

Calculating a range of loss metrics for different financial perspectives

- Calculates losses based on conditions provided by the user.
- Produces a loss table for every simulated event within each year for the user's portfolio. Metrics, such as loss exceedance probabilities and average annual loss can be calculated from this for different perspectives and output resolutions.

# Climate change

- Global warming is already altering the Earth's climate, including extreme events.



But understanding future risk is extremely difficult, owing to the spatial complexity of flood risk and the mechanisms that drive it.

# Future climate options

- Our Climate Dynamics framework allows a flexible range of climate options.
- Our default 'current' set of maps represents 2020.

Option	Range
Year	2011 - 2100
DeltaT	1°C – 5°C
Climate scenario	SSP1-1.9 SSP1-2.6 SSP2-4.5 SSP3-7.0 SSP5-8.5 RCP2.6 RCP4.5 RCP6.0 RCP8.5 NGFS scenarios
Uncertainty	17 <sup>th</sup> , 50 <sup>th</sup> and 83 <sup>rd</sup> percentile as standard

# Flood hazard maps for efficient site selection

## EDF Renewables US

- **Background:** EDF Renewables, a leading player in the renewable energy sector, constantly seeks innovative solutions to enhance the efficiency and cost-effectiveness of their project development & site vulnerability assessment processes.
- **Challenge:** Traditionally, the development of renewable energy projects necessitated bespoke dedicated flood assessments for many potential sites. This process was time consuming, costly, and often delayed project timelines.
- **Solution:** The introduction of a Fathom's US Flood Map has revolutionized EDF Renewables' site selection process. This map provides a detailed overview of flood risks across various the US, enabling the EDF team to quickly assess potential sites without the need for individual flood assessments



### Benefits:

- Time savings
- Cost reduction
- Enhanced project pipeline

**Future:** As EDF Renewables continues to refine and enhance their use of Fathom's US Flood Map, they anticipate further optimization of their site selection process.



Fluvial 1-in-10 year flood

Fluvial 1-in-100 year flood

Fluvial 1-in-1,000 year flood



# Data centre vulnerability assessment

## Microsoft

**Background:** Microsoft, a leading global IT organization, constantly seeks innovative solutions to reduce vulnerability of its data centres to the risks of climate change.



**Challenge:** Traditionally, establishing a consistent understanding of climate related flood risk for high value, dispersed assets required bespoke flood and climate assessments. This requires significant cost and time to achieve on a global scale.

**Solution:** The introduction of a Fathom's Global Flood Map, with full climate scenario coverage, has revolutionized Microsoft's understanding of data centre vulnerability. This map provides a detailed view of flood risk, anywhere in the world across multiple climate scenarios up to the year 2100.

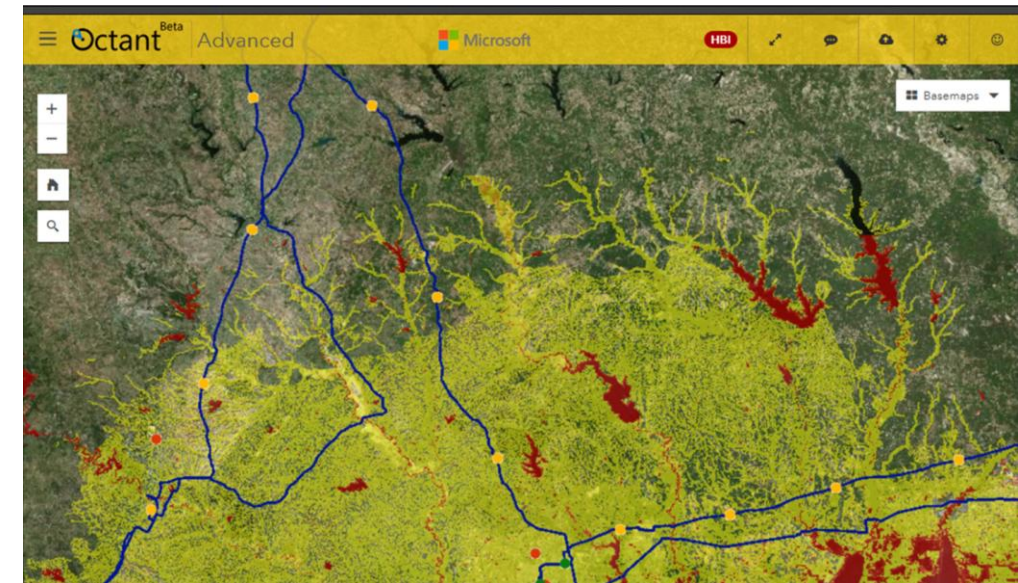
### Benefits:

Consistent view of risk now and in the future

Time savings

Cost reduction

**Future:** As Microsoft continues to expand its data centre portfolio it looks to combine Fathom data with additional physical risk datasets from Swiss Re (heat/wind etc).



Global flood hazard dataset integrated against data centre locations for multiple climate scenarios

# Engineering climate resilience into the UK rail network

Network Rail, ARUP & Jacobs

- **Background:** Network Rail manages railway infrastructure across England, Scotland and Wales. The Weather Resilience and Climate Change Adaptation (WRCCA) strategy was set up to address this growing risk caused by increasingly severe weather events and build more climate resilience into the network.
- **Challenge:** Open-source data for England (EA), Scotland (SEPA) and Wales (NRW) use different flood modeling methods, and not all included future climate risk, resulting in inconsistent data across the countries.

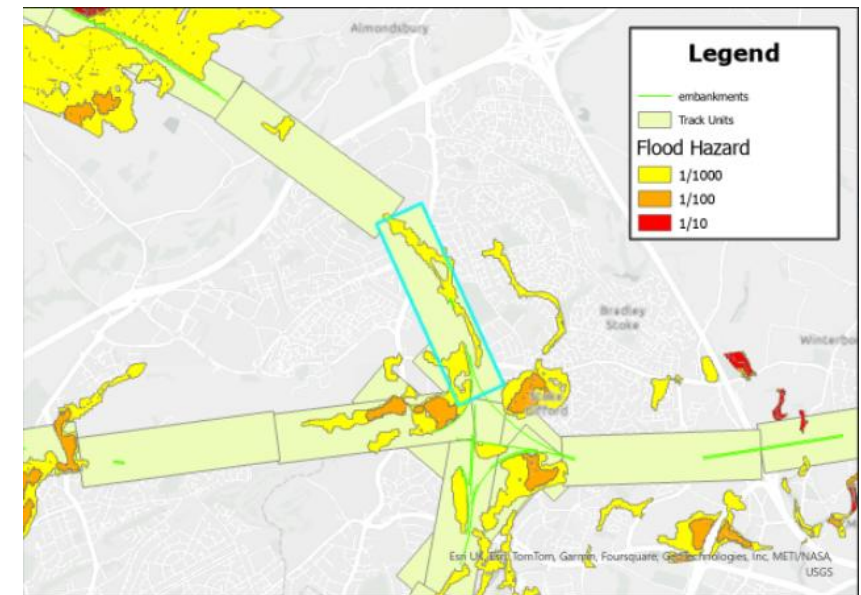
**Solution:** Fathom provided pluvial, fluvial and coastal flood data including bespoke climate scenarios and return periods. This data was integrated into Network Rail's methodology and asset data to create hazard indicators and flood hazard layers for the network, giving a consistent view of present and future flood risk.

## Benefits:

- Consistent and detailed view of risk
- Time savings
- Cost reduction

## Future:

With Fathom's data and Arup and Jacobs' methodology, Network Rail is developing a risk-mapping tool to identify asset risks and guide decisions on asset strategies and investment for climate adaptation.



Change Adaptation Pathways risk assessment tool

High-level outputs showing the combined climate risk assessments for each section of the network combined with Fathom's flood data to show flooding categorized by risk bandings



# Statewide flood assessment

## Virginia Department of Conservation and Recreation

**Background:** The Virginia Department of Conservation and Recreation, in partnership with Arcadis, was tasked with the development of a statewide flood management master plan. Only 3% of Virginians have flood insurance despite the increasing risk to homeowners.



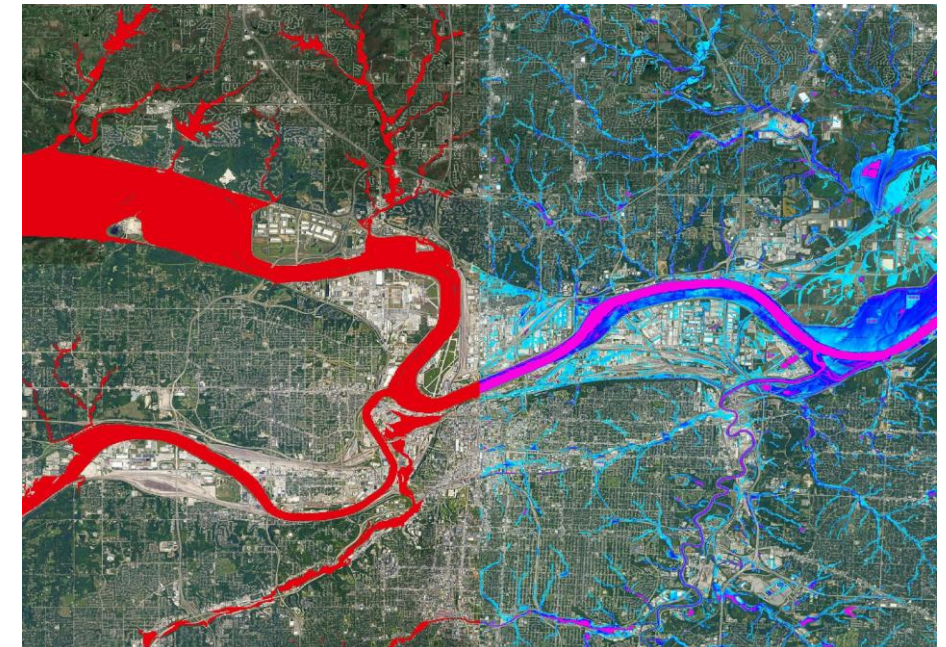
**Challenge:** In lieu of a comprehensive consistent view of flood risk across the state VDCR had to innovate. Traditional methods for modelling flood risk were cost and time-prohibitive, which would result in the delay of critical mitigation measures being implemented.

**Solution:** Fathom delivered current and future flood hazard and terrain data for Virginia. Covering pluvial, fluvial and coastal perils for current and future climate scenarios, this dataset underpins the engineering assessments and advisory services which Arcadis deliver for the VFPMF.

### Benefits:

- Consistent view of risk now and in the future
- Time savings
- Cost reduction

**Future:** The VFPMF will set in stone evidence-based mitigation measures and powerful communication tools to support public adoption of insurance.



Example of Fathom fluvial event (right) compared to existing publicly available fluvial event from FEMA (left) in the US

# • Emergency management Australian government

## Geoscience Australia & Australian Government agencies

**Background:** The 2019-20 Black Summer bushfire events and 2022-23 Australian east coast flooding events highlighted the increasingly multi-jurisdictional nature of hazards and their impact.

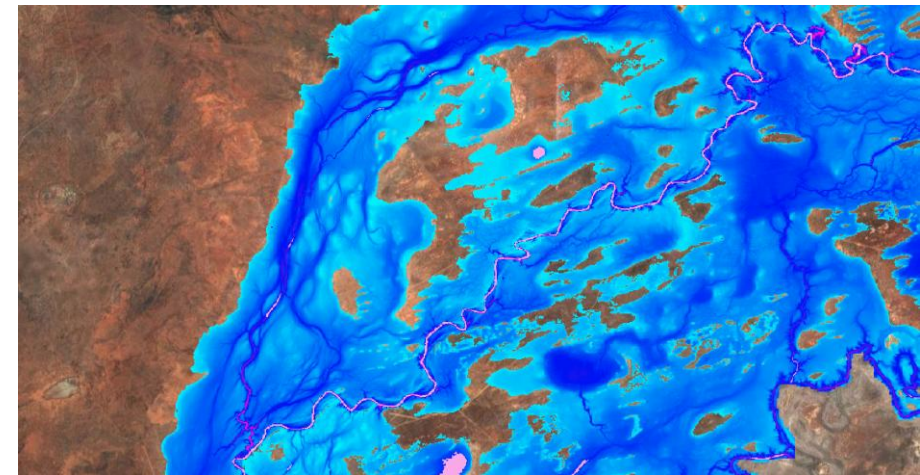
**Challenge:** Broadly, gaps currently exist at the Commonwealth level in terms of access to multi-hazard intelligence services to inform agencies of the extent and impacts of disaster events.

**Solution:** Following a competitive selection process, Fathom was named a preferred supplier to the Australian Government, with other agencies able to access the flood risk intelligence via Geoscience Australia's four-year agreement with Fathom. Interested public sector parties can access nationwide data from Fathom's award-winning Global Flood Map, which offers a defended and undefended view of event extents across rainfall, river and coastal flooding.

### Benefits:

- Efficient disaster management planning
- Time savings
- Cost reduction

**Future:** Geoscience intends to increase the scope of data review to include future climate scenarios and other perils to contribute to a comprehensive emergency planning programme.



Current climate scenario flood hazard dataset for fluvial 1-in-100 year event in Australia



# Measuring the impact of nature-based solutions

## ARUP & the World Bank

**Background:** Dar es Salaam, Tanzania's fast-growing coastal city, faces flooding, erosion and water scarcity. The World Bank engaged Arup to assess nature-based solutions for resilience, flood risk reduction and improved quality of life.

# ARUP

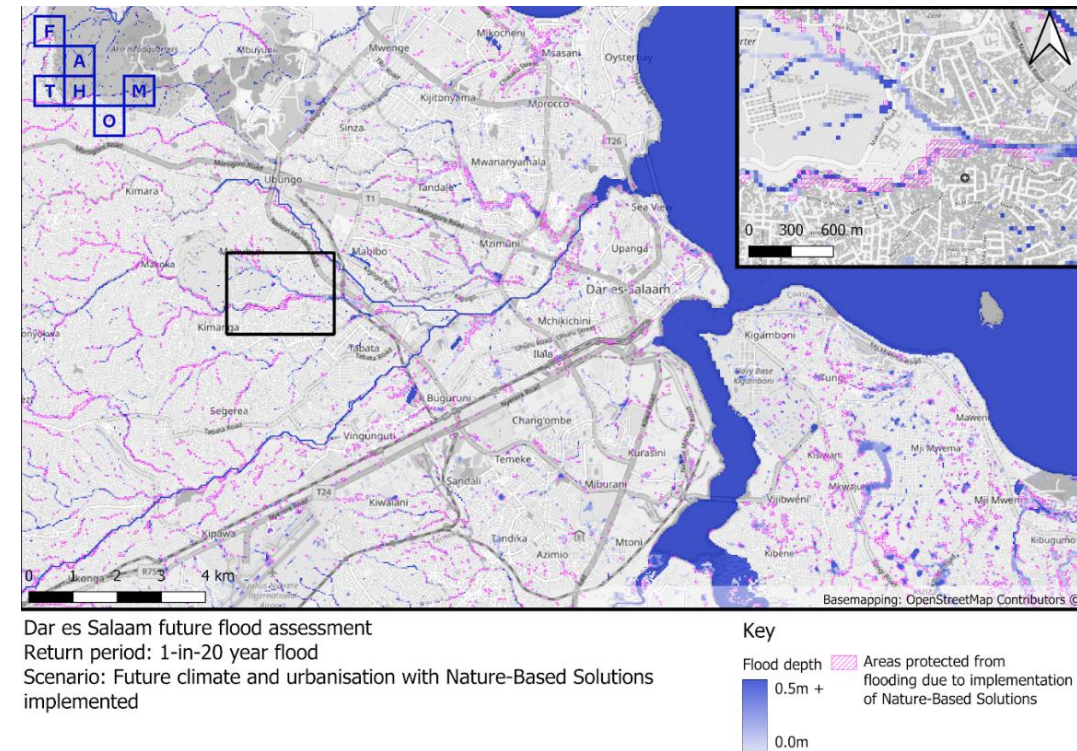
**Challenge:** Nature-based solutions like tree planting and rain gardens offer cost-effective flood management. However, their impacts are rarely quantified. Arup partnered with Fathom to demonstrate how greening interventions reduce flooding.

**Solution:** Fathom ran its 30m Global Flood Map with Arup's urbanization and NBS data to model present and future flood risk in Dar es Salaam. This rapid, machine learning-driven approach assessed scenarios with and without NBS, delivering results in days.

### Benefits:

- Consistent view of risk now and in the future
- Time savings
- Cost reduction

**Future:** Arup and Fathom showed data-driven nature-based solutions in Dar es Salaam reduce flood risk, absorb rainfall, lower urban heat and limit soil loss—supporting faster, informed planning for climate-resilient infrastructure.



Data-driven, nature-based interventions could make **17,000** buildings less flood-prone, absorb **730,000 m<sup>3</sup>** of rainfall, reduce urban heat by **1–5 °C** and cut soil loss by **~4%**.

# Statewide climate conditioned flood hazard assessment

## Florida Department of Environmental Protection

**Background:** The Resilient Florida Program, within the Office of Resilience and Coastal Protection of the Florida Department of Environmental Protection (FDEP), was tasked with the development of a comprehensive statewide flood vulnerability and sea level rise assessment.

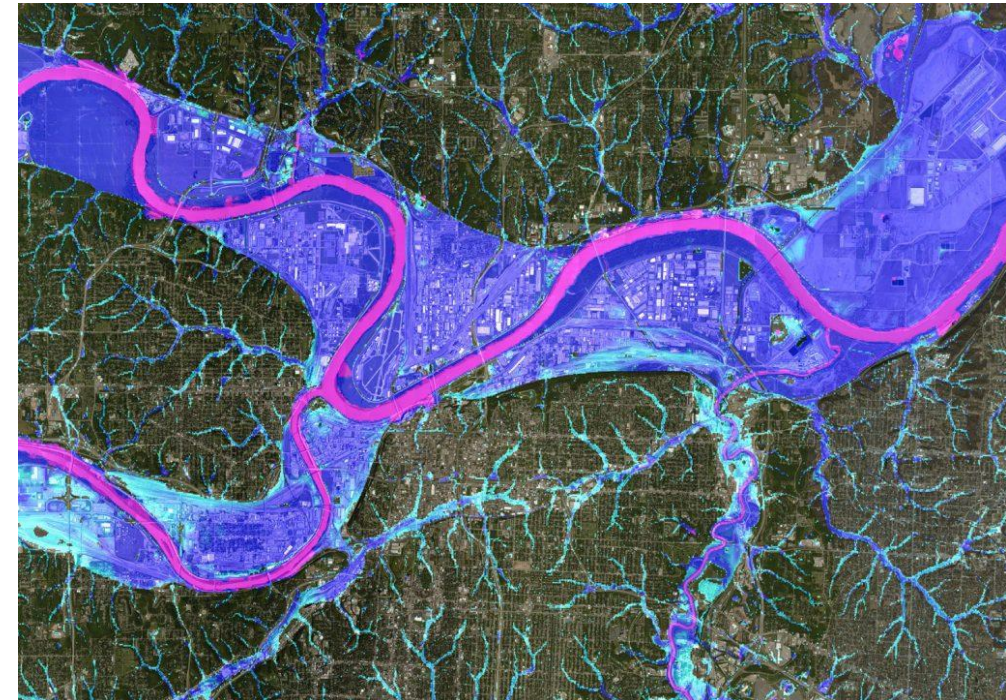
**Challenge:** The work to identify and map the critical assets across the state had been completed last year however the FDEP did not have access to a consistent view of flood risk across the state which incorporated flood risk under future climate scenarios.

**Solution:** Fathom, in partnership two local engineering companies Taylor Engineering and Jones Edmunds scoped the project and developed a new bespoke country-wide flood map. The data is being used to; A) Reduce financial and physical vulnerability to flooding across the country, B) Development of a statewide flood insurance program, C) Create a national action plan and Raise public awareness of flood risk

### Benefits:

- Time savings
- Cost reduction
- Improved investment planning

**Future:** Project partners continue to collaborate with FDEP and project partners to enhance the current and future view of flood risk across Florida.



Example of the fluvial flood profile from statewide flood hazard map showing extents and depths for current climate scenario

[Find out more](#)

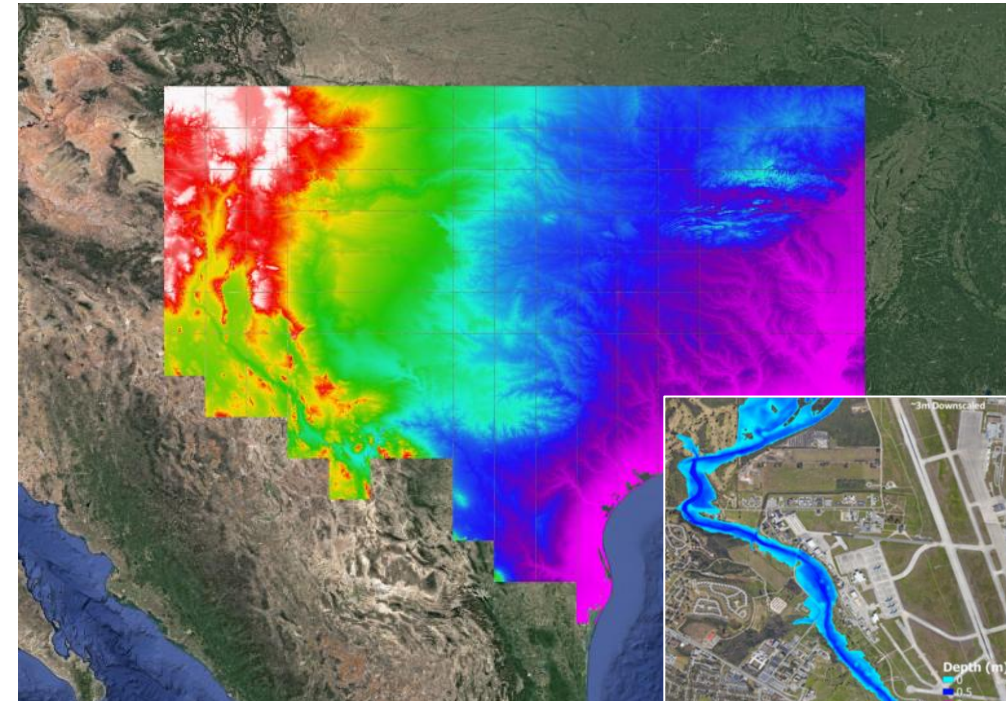


# The first statewide flood mapping programme

## Texas Water Development Board

- **Background:** In 2019, the Texas Legislature tasked the Texas Water Development Board (TWDB) with delivering the first-ever statewide flood plan for the state of Texas.
- **Challenge:** There were gaps in the publicly available data as approximately 60+ counties (63% of state) did not have any existing flood maps. The estimated cost of developing BLE for the state using traditional means was \$45M.
- **Solution:** Fathom developed a bespoke 3m resolution terrain model for Texas and generated a state-wide flood hazard map for pluvial, fluvial and coastal flood hazards. This was integrated into a Flood Hazard Hub for the state, containing additional critical built and natural environment data layers to support multi-agency collaboration and public communication.
- **Benefits:**
  - Time savings
  - Cost reduction
  - Improved investment planning
- **Future:** Texas and Fathom are now generating statewide flood hazard map data for future climate scenarios to improve long-term investment planning.

[Find out more](#)



Texas terrain elevation map with inset of local fluvial 1 in 100 flood

# National climate conditioned flood hazard assessment

## Public Safety Canada and Aon Impact Forecasting

**Background:** With the frequency and severity of these natural disasters expected to increase under climate change, Public Safety Canada initiated an open procurement process to license flood hazard information for all of Canada.

**Challenge:** Flooding is the most common and costly natural hazard in Canada, causing billions in direct damage to dwellings, property and infrastructure, and affecting thousands of Canadians each year. However, there is no current consistent, climate conditioned dataset of flood hazard for Canada.

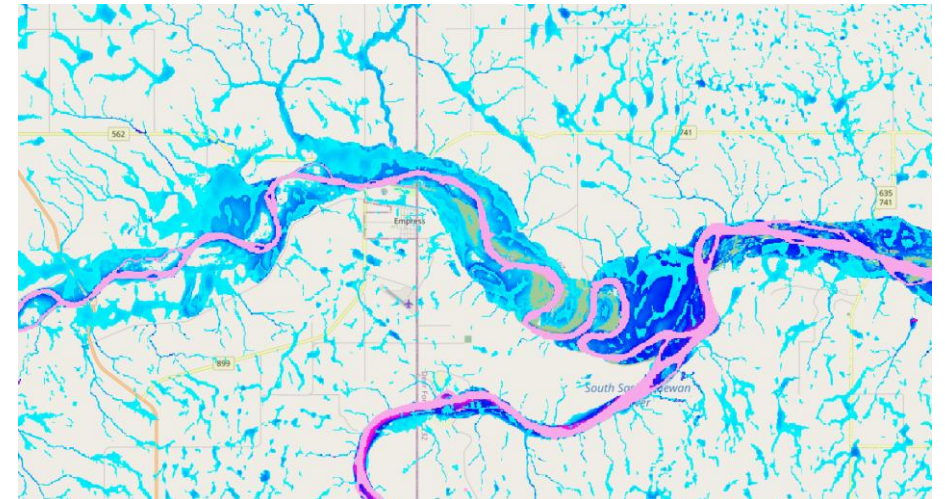
**Solution:** Led by Fathom, the combined team will provide the Government of Canada with a flood hazard dataset that depicts flood extents and depths for several return periods, flood generating mechanisms and climate change scenarios.

### Benefits:

- Consistent view of risk now and in the future
- Time savings
- Cost reduction

**Future:** Public Safety Canada will use this information to inform a variety of public initiatives to protect the natural and built environment, including policy, digital awareness tools and investment plans.

[Find out more](#)



Example of Fathom fluvial and pluvial 1-in-100 year flood for Canada, east of Calgary



# • Epidemiology research in Africa

## The Kids Research Institute Australia – Malaria Atlas Project

**Background:** The Malaria Atlas Project is investigating the impact of flooding and climate change on malaria control in Africa including transport infrastructure, disruption to malaria control efforts and the evolution of mosquito breeding-site distribution.

**Challenge:** With little climate conditioned flood hazard data available for Africa, the cost and time constraints were becoming prohibitive. A consistent view using up-to-date data is critical to establishing evidence-based continent-wide mitigation strategies.

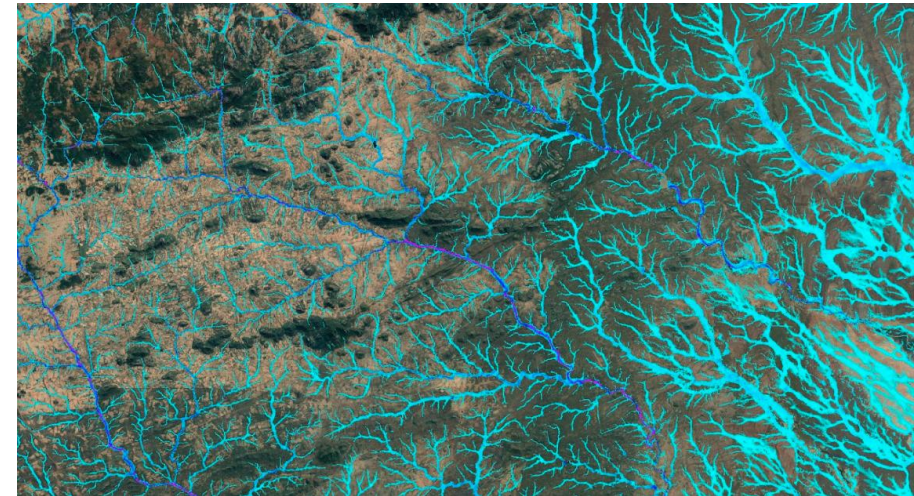
**Solution:** The introduction of Fathom's Global Flood Map, with full climate scenario coverage, has enabled rapid analysis of multiple current and future flooding scenarios. The data has been integrated with infrastructure and epidemiological datasets across Africa to derive concrete evidence of impacts, and prioritization of where to implement mitigations.

### Benefits:

- Consistent view of risk now and in the future
- Time savings
- Cost reduction

**Future:** As The Kids Research Institute Australia continues to develop solutions to the problem additional datasets will be integrated into the GIS system to derive further solutions.

[Read more](#)



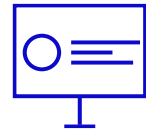
Global flood hazard dataset for fluvial 1-in-100 year event in 2030, Zimbabwe

# Access



## Fathom API

- Fathom-hosted API
- Full flexibility of climate options
- No need to host large data



## Fathom Portal

- Fathom's new interactive platform
- Allows users to host, view and analyze data, without the need for an in-house platform



## Direct provision

- Data provided as a set of GeoTIFF files
- Useful where API integration is not feasible
- Climate options need to be pre-defined
- Large data volumes – multiple TB



## Partners

- Access via third-party platforms
- Quick adoption if already using partner system

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Explore Fathom's Product Stack

<https://www.fathom.global/product-stack>

Upcoming events —

<https://www.fathom.global/events/>

# Thank you



# HR WALLINGFORD



**Lucia Costa**  
Engineer, Software



**Mian Shaukat Shafi**  
Head, Urban, Water, and Disaster Risk  
Management Unit, Pakistan Resident Mission,  
ADB





Need help finding  
new leaks?

**Sim-On Water is your  
digital assistant**

Lucia Costa  
Engineer, HR Wallingford



# About me

Lucia Costa  
Engineer at HR Wallingford



- Degree in Environmental Engineering University of Bologna, Italy
- At HR Wallingford since 2005
- Focus on water supply systems
- Modelling, support, training, consultancy, technical software development
- International experience

## Contacts:



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# About HR Wallingford

## Global reach



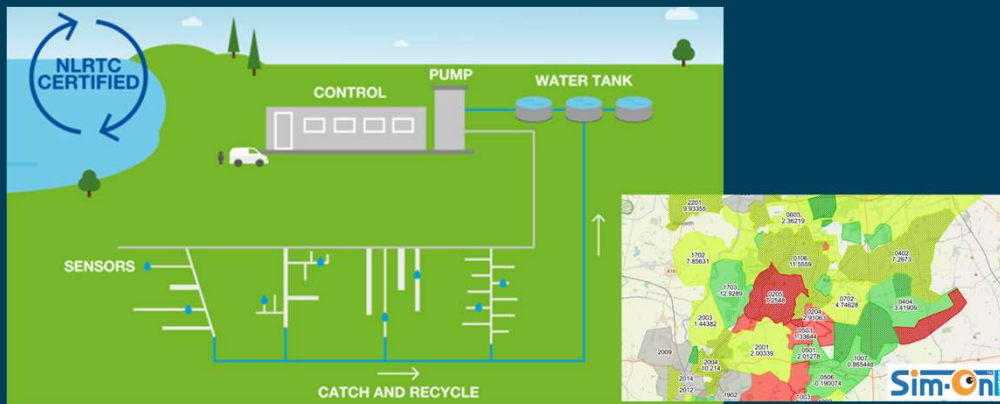
## World leading expertise



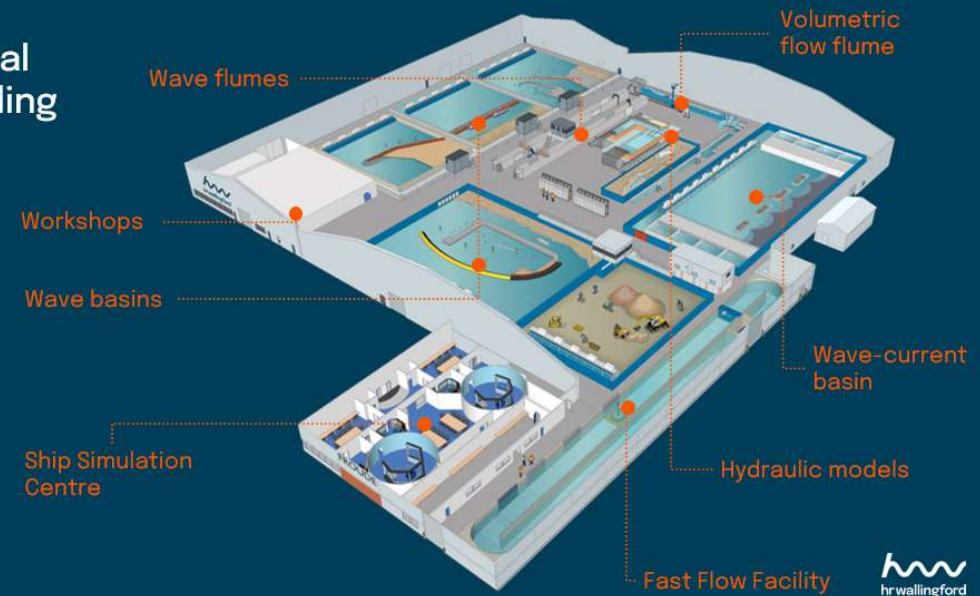
Underpinned by research and innovation



## NLRTC - National Leakage Research and Test Centre



## Physical modelling







Leakage  
identification

Leakage  
prioritization

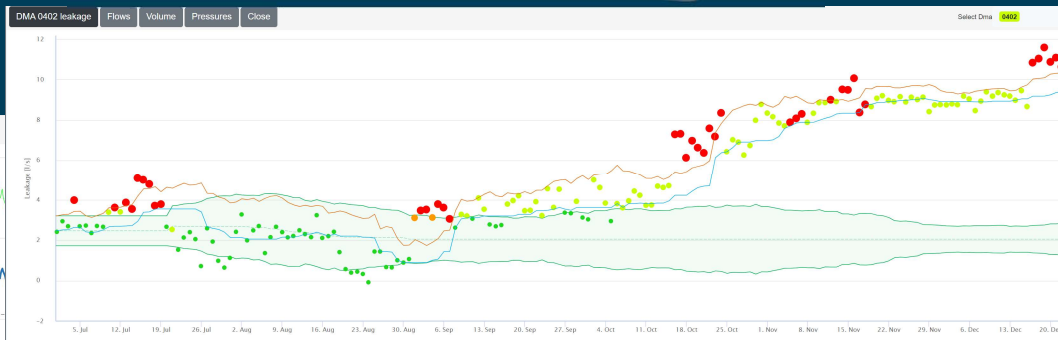
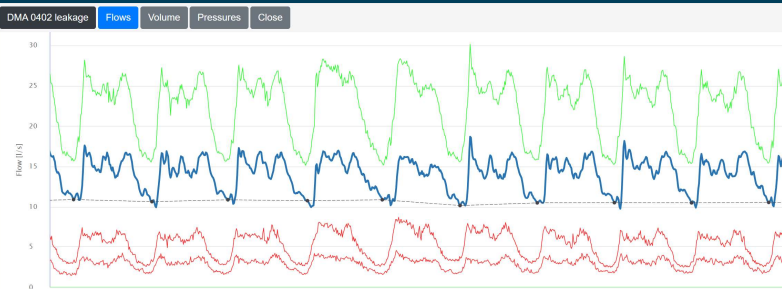
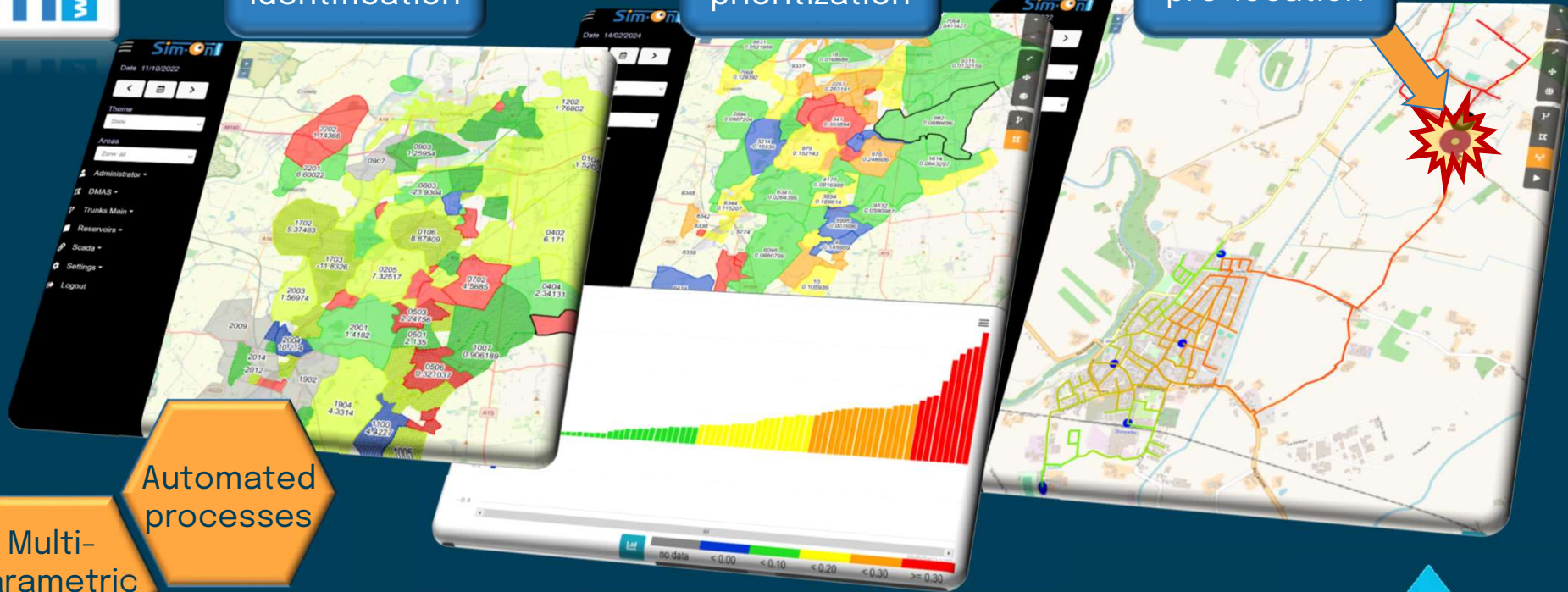
Leakage  
pre-location

Simple  
interface

Tools for  
strategic  
analysis

Multi-  
parametric  
algorithms

Automated  
processes



Less time  
Less leakage  
Less energy

# Platform objectives

Provide a permanent monitoring of piped systems

Promptly identify potential new leaks

Optimise intervention strategies

Quantify maintenance effects

Have an integrated overview of all flow data series





# Main features

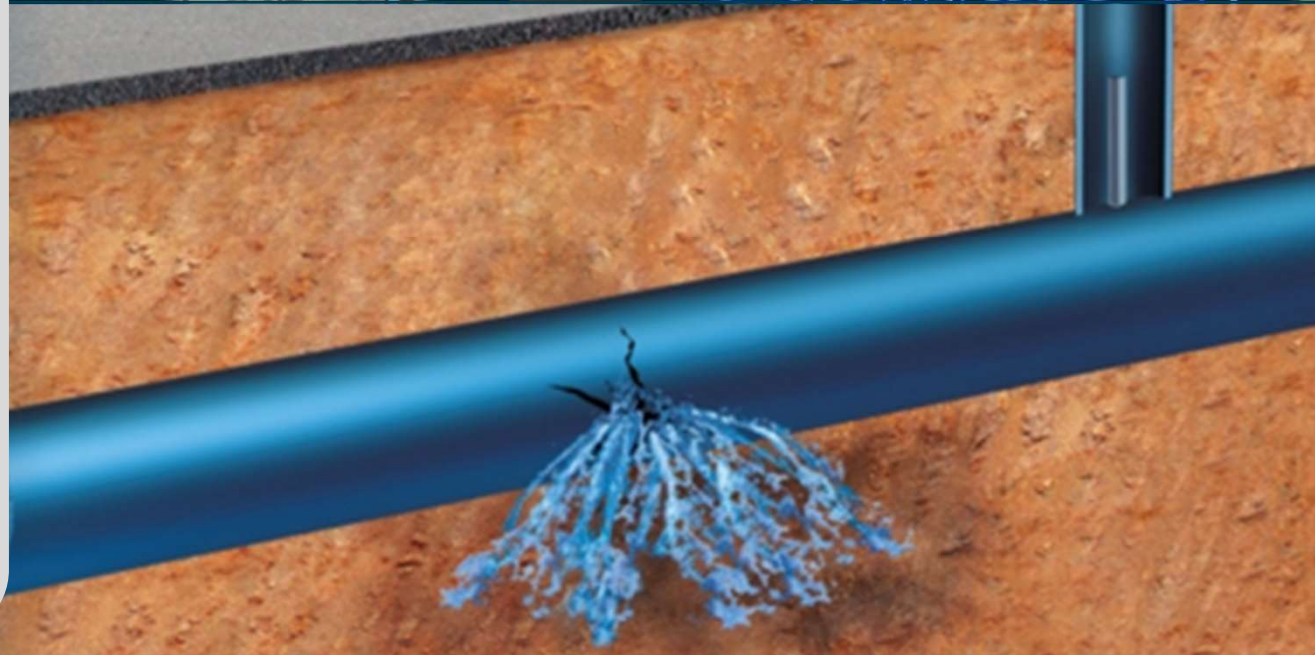
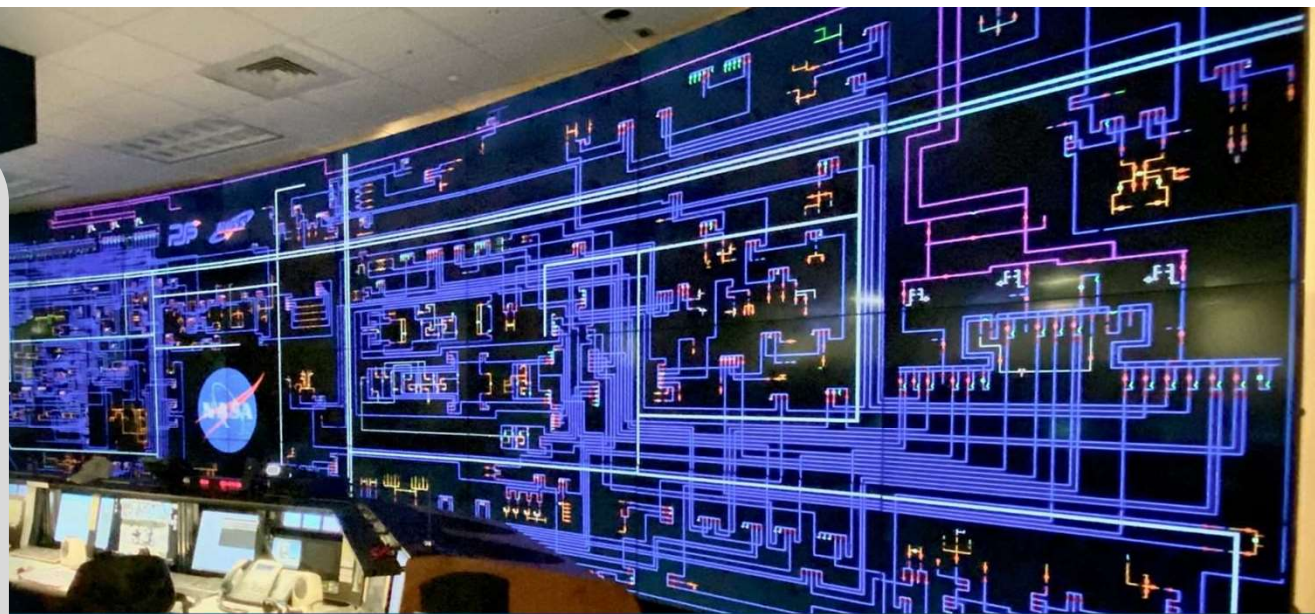
Simple and intuitive interface

Easy access web application

Sophisticated multi-parametric algorithms

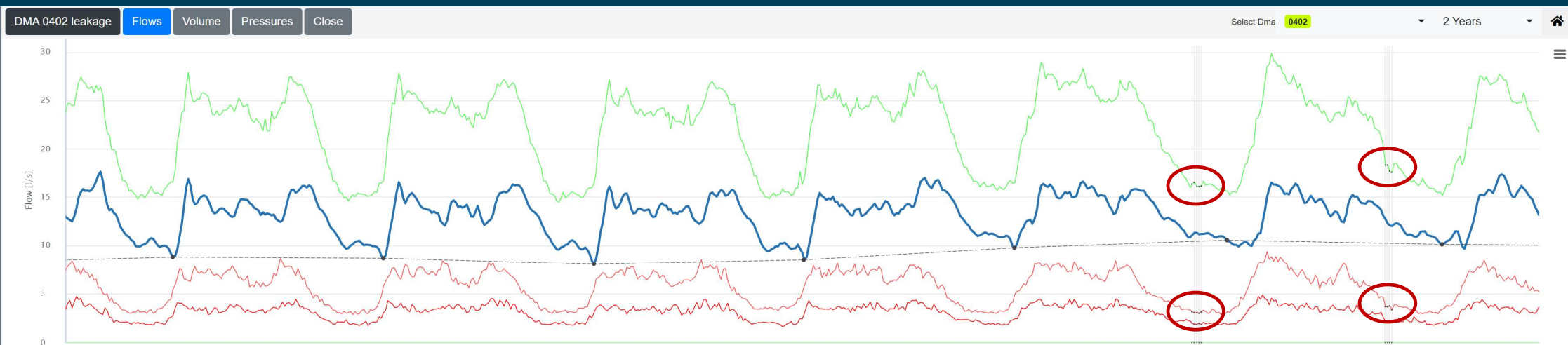
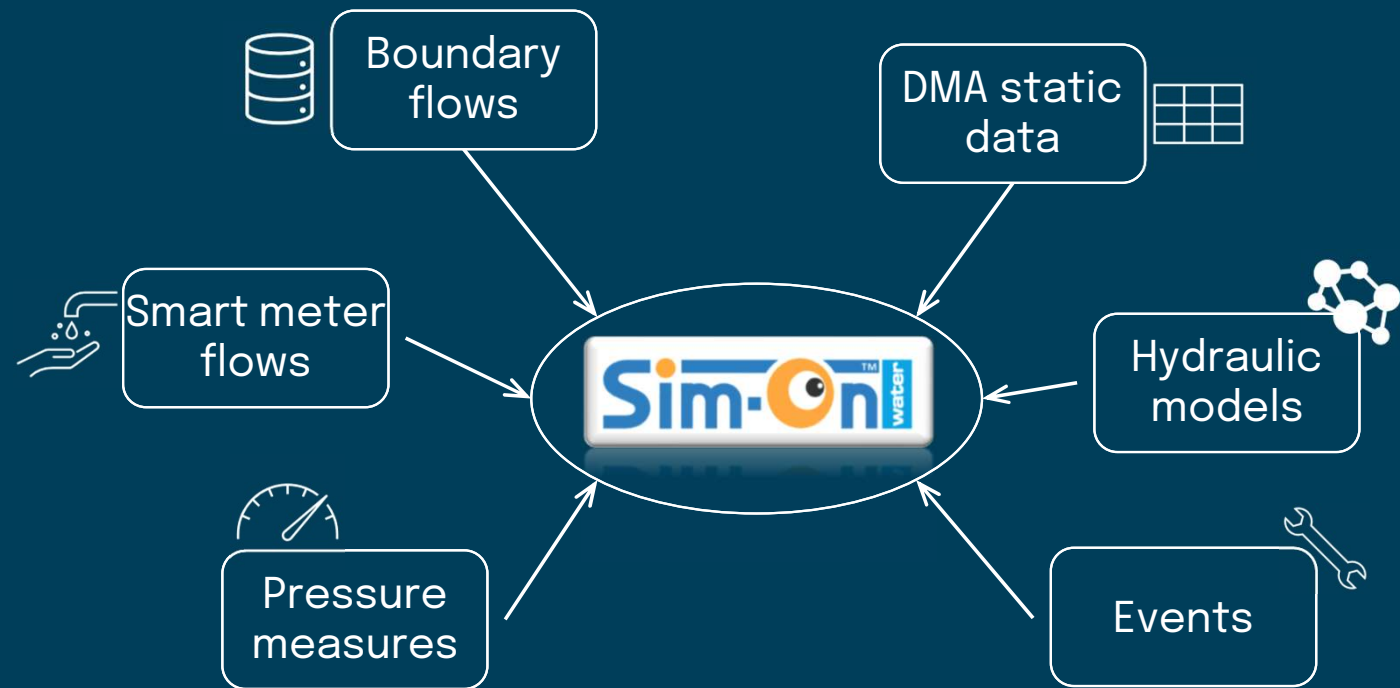
Automated processes

Real-time alerting system



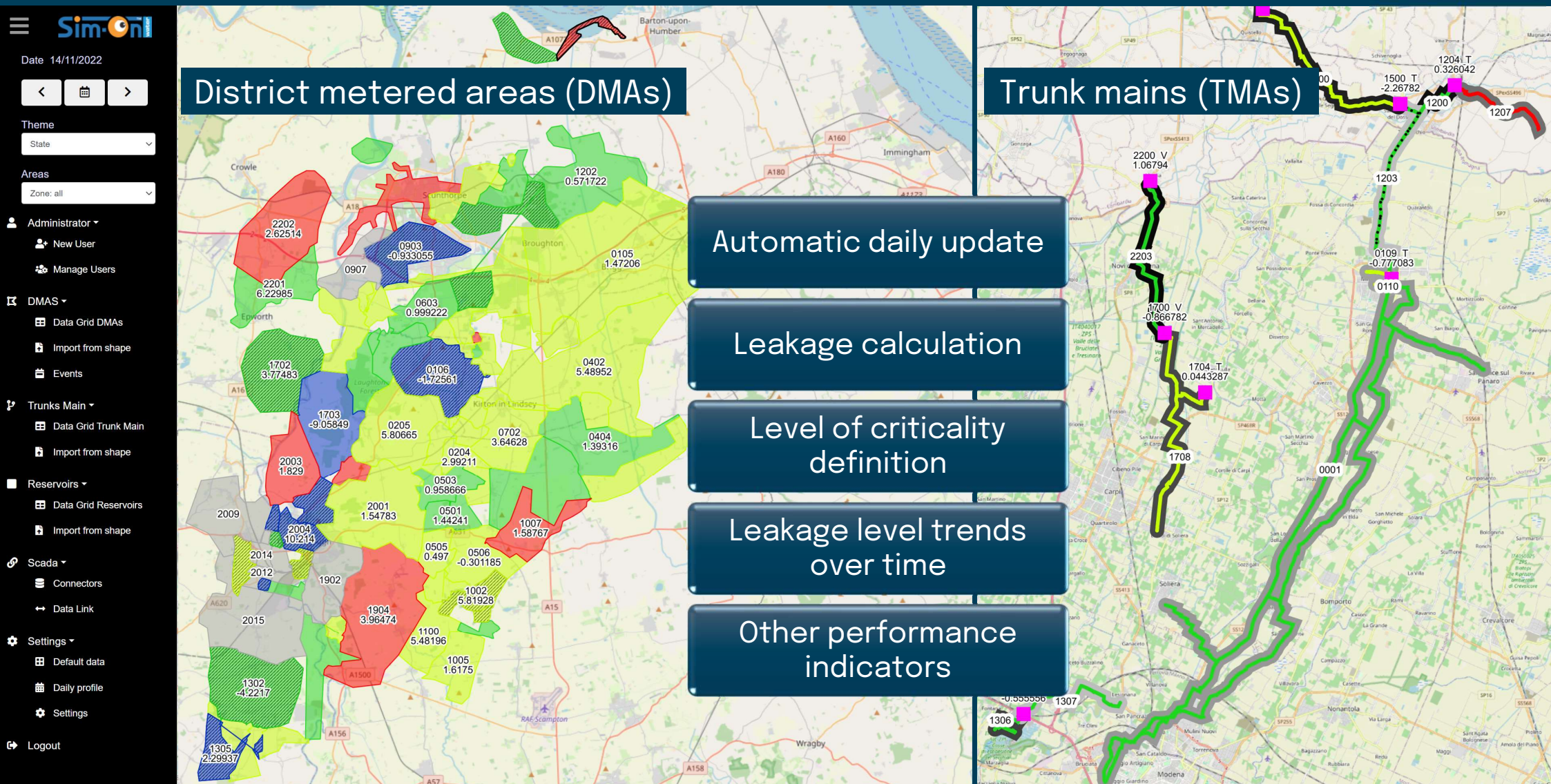
# Data integration

- Databases in different formats
- Permanent connection with source databases
- Data continuity with infilling





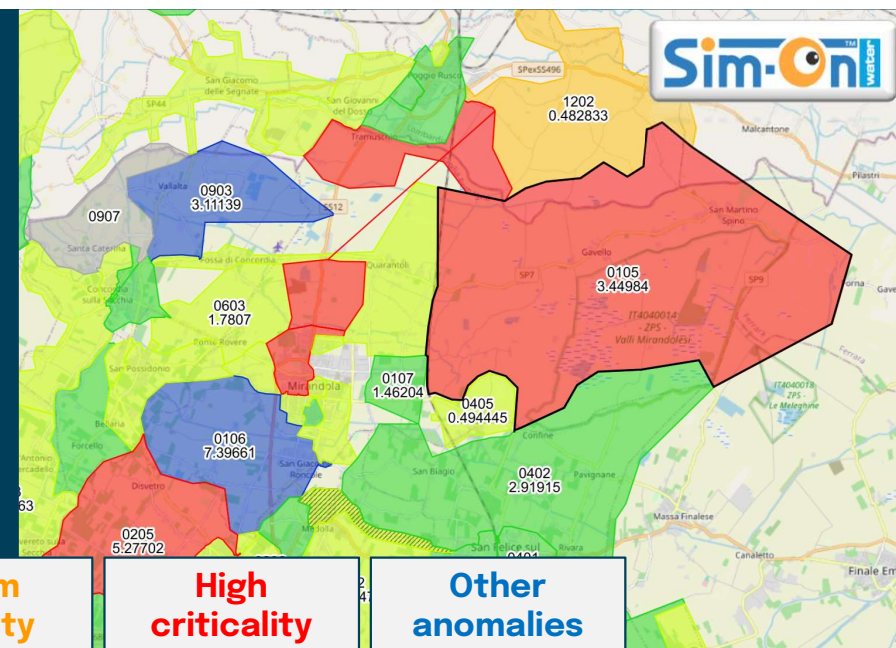
# Status dashboard for DMAs and TMAs





# Criticality alerts

- Daily calculation of flows and volumes
- Leakage calculation and statistical analyses
- Evaluation of potential criticalities



Short term  
analysis

Best  
performance  
analysis

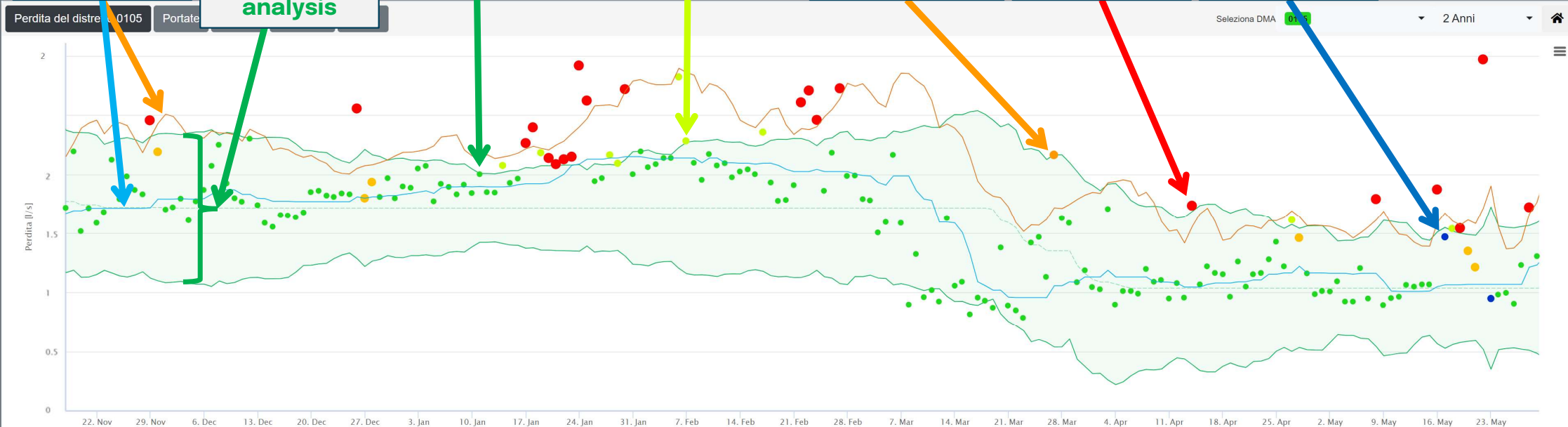
No warnings

Low criticality

Medium  
criticality

High  
criticality

Other  
anomalies



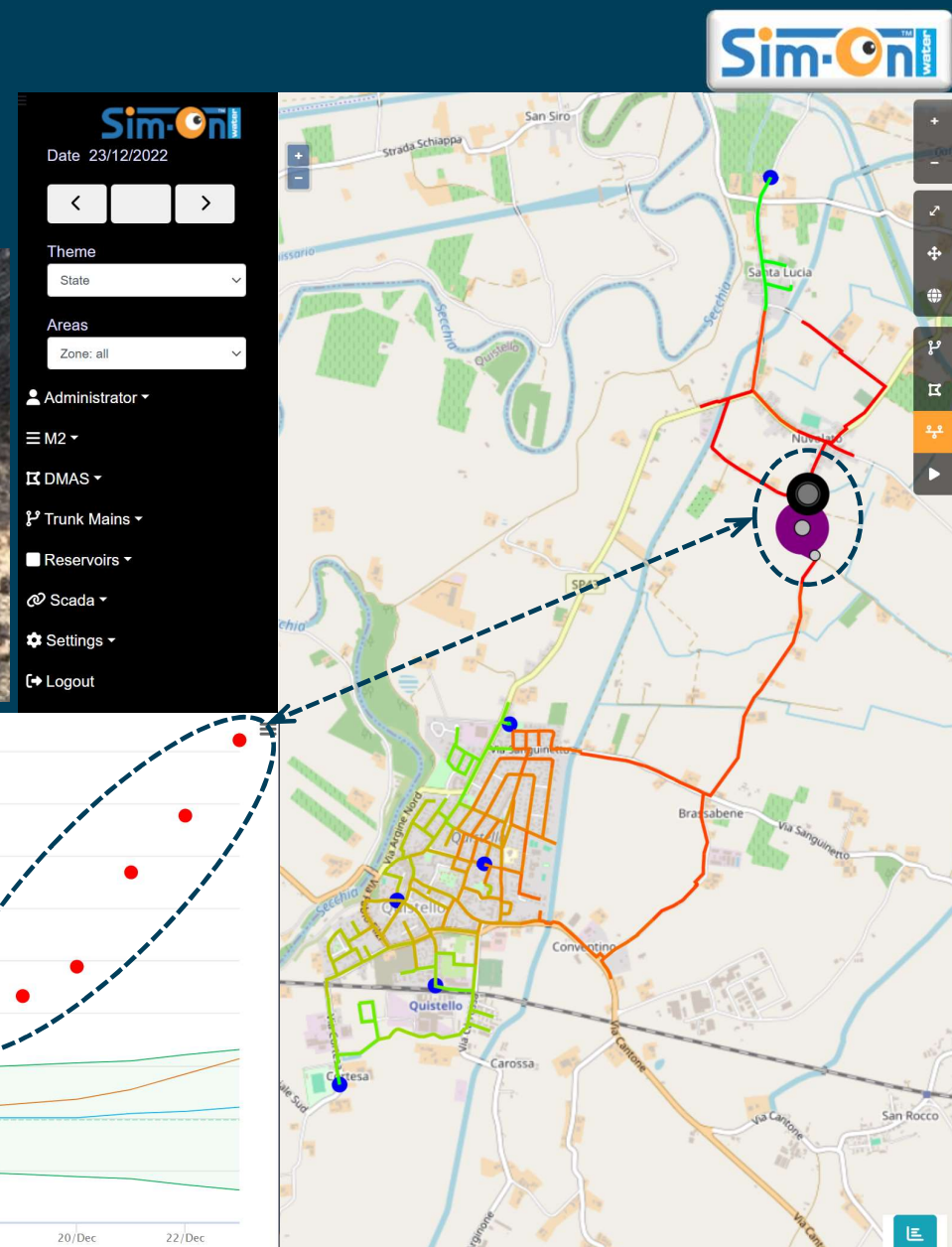
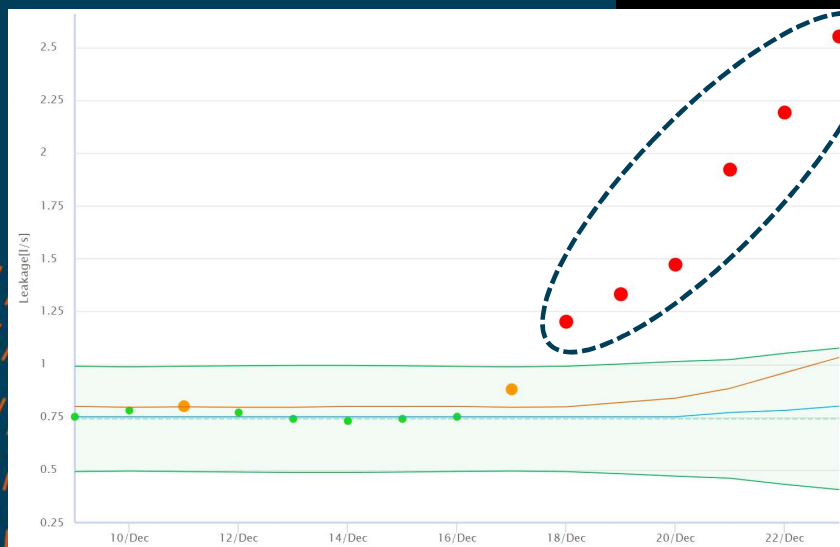
# Leakage pre-location

Automatically triggered processes

Hydraulic modelling and iterative statistical calculations

Reduced number of pressure sensors needed in the field

Possibility to identify small leaks





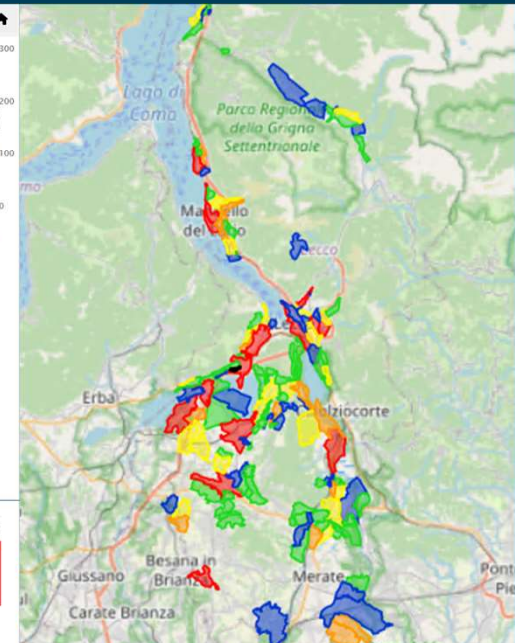
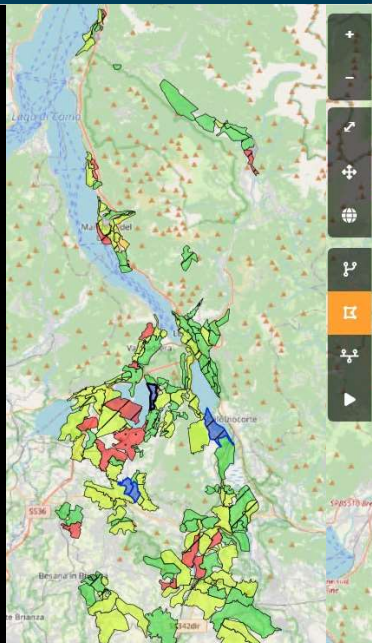
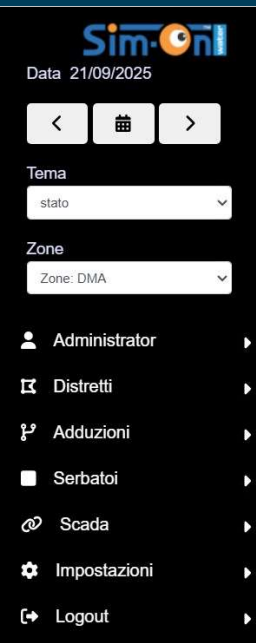
# Real case example

## Metrics:

- Number of DMAs: 206
- Number of flow feeds: 388
- Smart meter integration with 7181 households  
577 non-households

## Modular costing scheme:

- Leakage calculation:  
number of flow feeds
- Leakage pre-location
- Smart meter integration



# International application





# Sim-On Water in a nutshell

## WHY

Support decision tool for piped systems managers

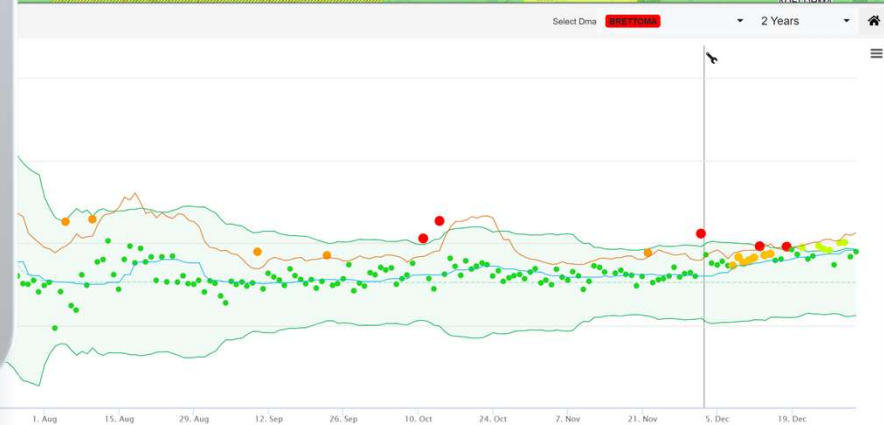
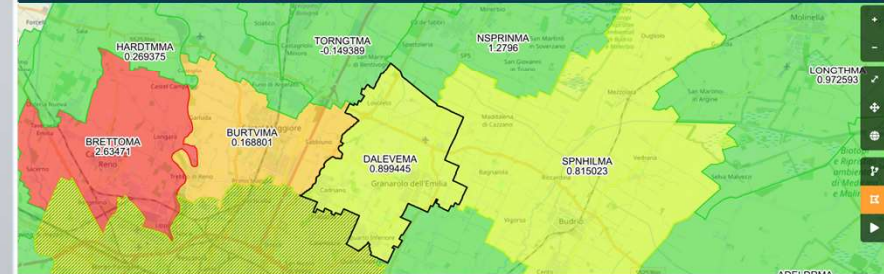
Optimise resources allocated to leakage repair

Identify the impacts of maintenance

## HOW

Immediately applicable software tool

Simple to install, configure, use and maintain







<https://simondigitaltwin.com/sim-on-water>

Thank you

Lucia Costa

[l.costa@hrwallingford.com](mailto:l.costa@hrwallingford.com)



# DETECTRONIC



**Mark Pritchard**  
Commercial Director



**Jitendra Kumar Singh**  
Water Supply and Sanitation Specialist,  
ADB



Winner of the 2025 King's Award for Enterprise & Innovation, Detectronic Ltd is a UK-based designer and manufacturer of advanced level and flow monitoring solutions for Stormwater, Wastewater, and Surface Water applications. Trusted globally by utilities and environmental partners for our high performance and accurate monitoring capabilities



## Mark Pritchard – Commercial Director

Founded in 2007, Detectronic is part of the Adler & Adler Group, their head office is located in the NW of England, with satellite offices in South & Northeast of UK, office in Germany and operating through certified channel partners globally.

Our innovative portfolio includes patented Ultrasonic, Radar, and Pressure-based sensors—engineered to deliver precise, reliable data across a wide range of monitoring environments.



# Advanced Flow & Level Monitoring

**Reliable and Cost Effective IoT devices Utilising Radar & Ultrasonic Measurement**



Patented Technology,  
recognised by winning  
Kings Award for  
Innovation



All devices ATEX0,  
providing intrinsically  
safe operation



OTA remote alarm  
adjustments /  
firmware updates



Up to 7 years battery  
life with daily  
heartbeat messages



1mm accuracy, with  
user definable  
alarm thresholds





# Suitable for Stormwater & Wastewater Applications

## Level

- Large scale deployment for sewer network monitoring programs
- Combined sewer overflows (CSO)
- Event Duration Monitoring (EDM), providing high accuracy
- Ground water monitoring
- Rivers & Canals
- Syphons
- Wet wells
- Stormwater networks
- Airports
- Mining

## Flow

- Open channels
- Sewers
- Rain retention basins
- Flow Surveys
- Hydraulic model validation
- CSO
- SSSO
- Stormwater networks
- Inflow & Infiltration
- SUDS



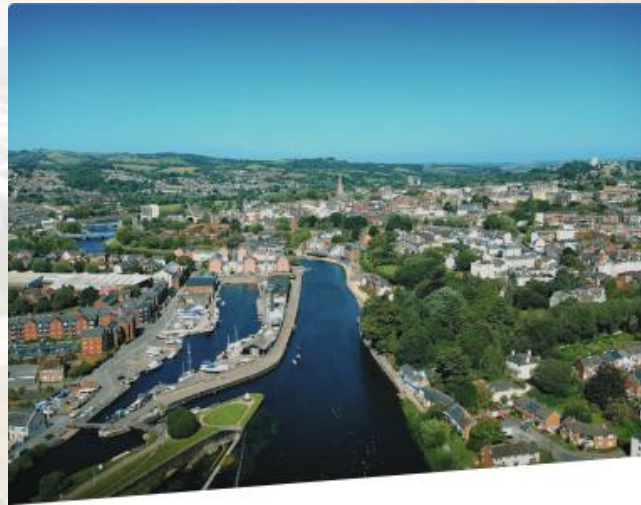




An Adler and Allan company

## Case Studies

<https://detectronic.org/case-studies>



Featured Products: LIDoTT Smart, LIDoTT Alarm, LIDoTT Sensor U, LIDoTT Smart,

### Transforming Sewer Network Monitoring with South West Water

In collaboration with South West Water, Detectronic has delivered a proactive sewer level monitoring solution that's helping to reduce pollution incidents and improve network performance. By deploying LIDoTT Smart Sensors and Dataloggers across targeted sites, the project enables real-time data [...]

[Continue Reading](#)



Featured Products: MSFM Ultrasonic Flow Meter, Raingauge,

### Transforming Pollution Mitigation through Real-Time Data – The WINEP Overflow Programme

Client: Severn Trent WaterProject Duration: 3 yearsProducts Used: 450 x MSFM Flow Meters, 100 x Raingauges Overview In response to increasing environmental and regulatory pressures, Severn Trent Water (STW), in partnership with Detectronic, launched the WINEP Overflow Programme—a pioneering initiative aimed at reducing pollution from [...]

[Continue Reading](#)

# Thank You

For further information:

[mpritchard@detectronic.org](mailto:mpritchard@detectronic.org) / [thibbert@detectronic.org](mailto:thibbert@detectronic.org)

[www.detectronic.org](http://www.detectronic.org)



# Partner's Remarks



**Tom Kirkham**

Water Manager, Infrastructure and Technology Directorate  
UK Department for Business and Trade





**Visit the Hub4R website  
for more information**



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# ADB E-MARKETPLACE

*for a Water-Secure and Resilient Asia and the Pacific*

Spotlighting **innovative solutions**, **latest technologies**, and **best practices**.

**Thank you for joining us today!**