



**Liberty Hall**  
16 floors - 59m high



**Custom House**  
Flood Risk Med/High

## **AddressLink:** Building a **Single Source API** for **Property Data** in Ireland with **Open Data**

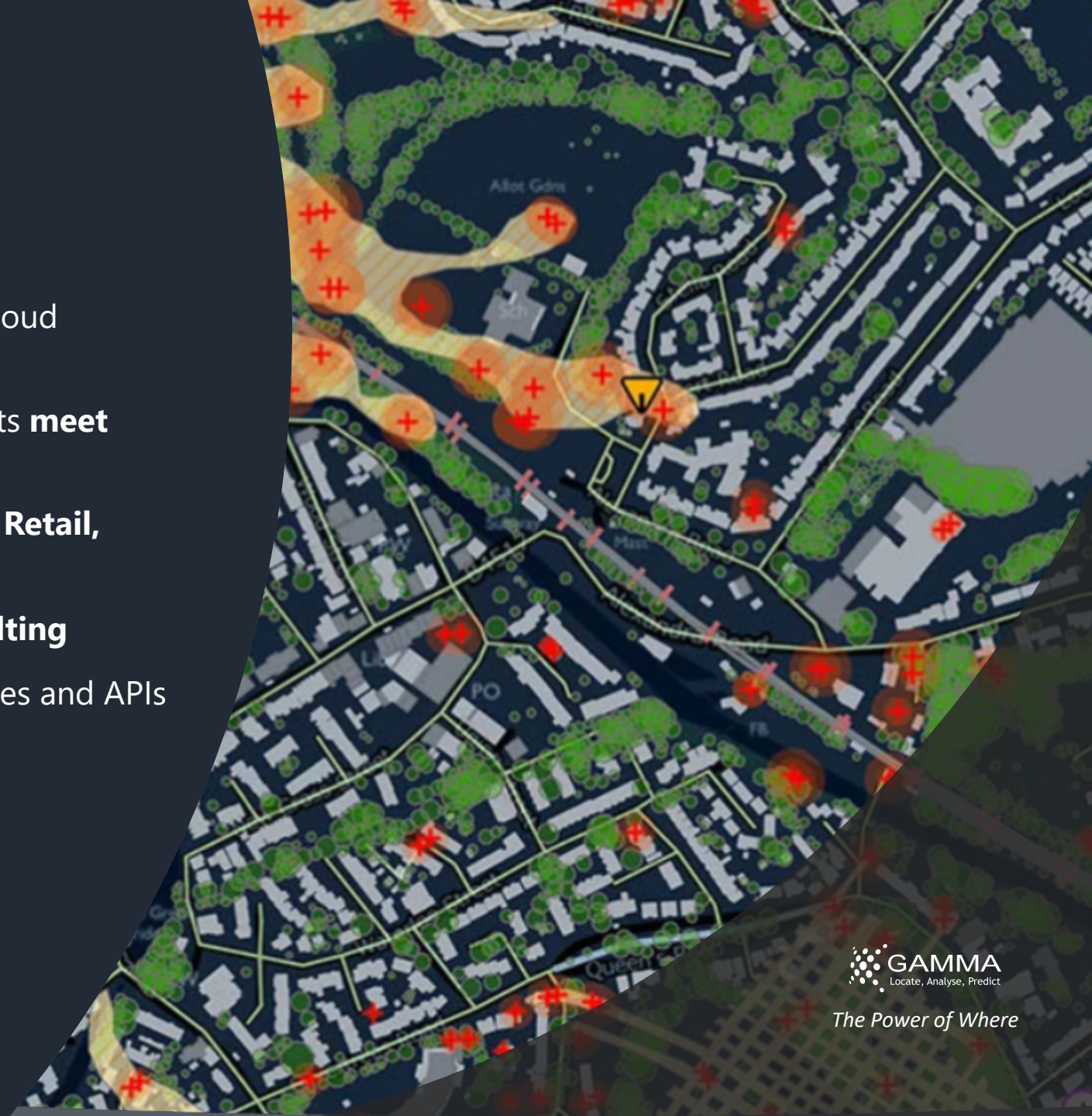




- ▶ Leading provider of location intelligence services and cloud technology solutions
- ▶ Integrates software, data, and services to help our clients **meet challenges with location intelligence**
- ▶ Provide solutions across **Banking, Insurance, Retrofit, Retail, Telecoms, Logistics** and **Public Sector**
- ▶ **Geocoding, Analytics, Data Management** and **Consulting**
- ▶ Delivering data through web mapping tools, web services and APIs using **Resilient Cloud Infrastructure**
- ▶ **ISO Certified** and **GDPR Compliant**



*The Power of Where*





# What is AddressLink?

A single source API for property level data covering the Island of Ireland

- Billions of data points
- Cleaned, verified, managed, hosted, updated
- Metadata at cell, row, column, table and dataset level
- Confidence checks and cross validation
- GDPR Compliance
- Mix of observed and modelled attributes
- Variety of sources; Open and Commercial





# Domains

## Basic information

- Full address, context (rural, suburban, urban), built form (detached, terraced, mixed use)

## The building as a structure

- Heating type and energy efficiency, year of construction, size, roof orientation, garden

## Events at the building

- Purchase history, planning applications, rebuild cost

## Insurable risks and hazards

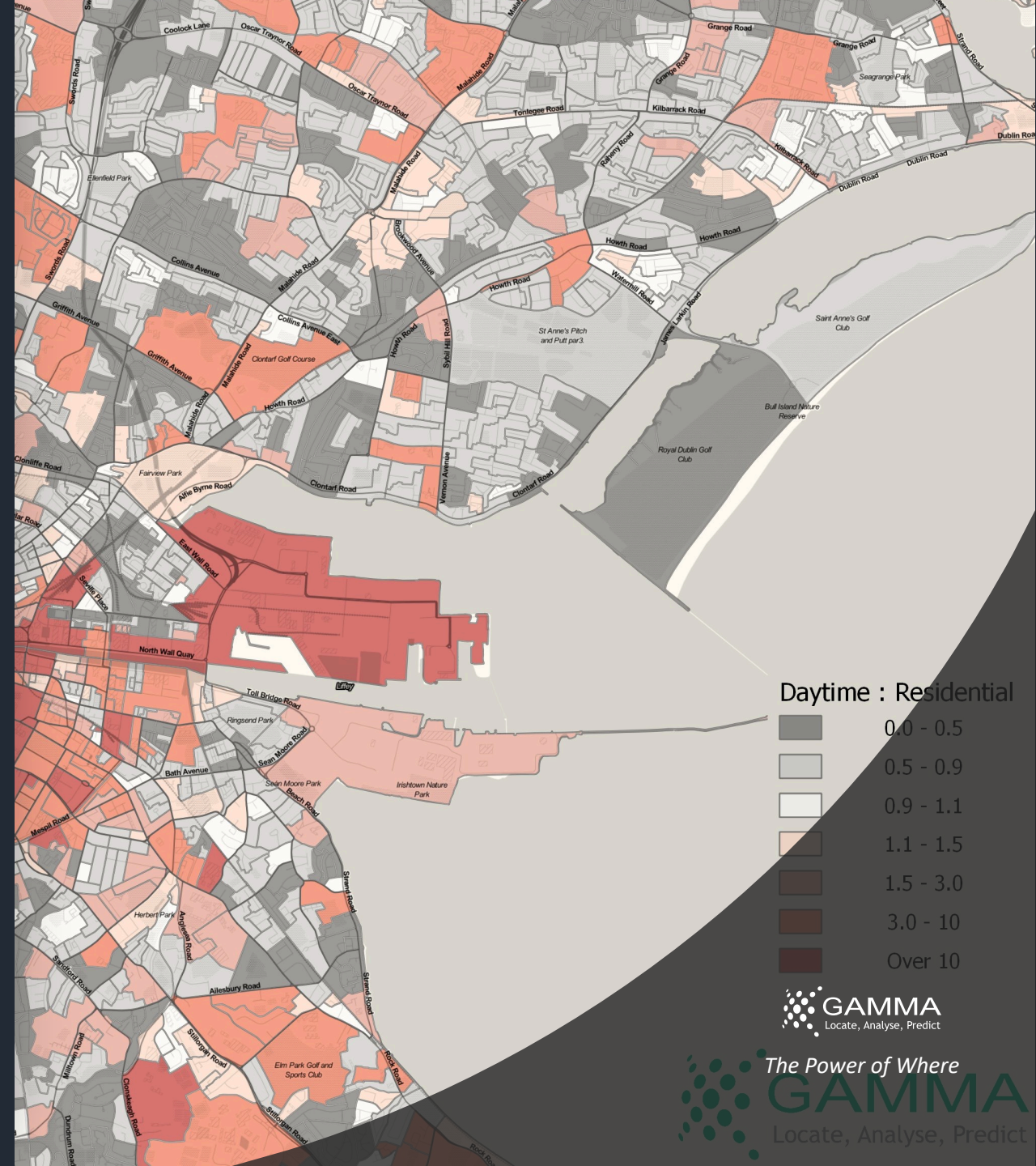
- ❖ Flood, subsidence, wind and storm, climate change
- ❖ Fire, burglary, criminal damage, road traffic accident

## Proximity and position

- Distance to road, nearest neighbour, proximity to emergency services, amenities, retail, brand strength

## Occupancy and usage

- NACE code/SIC code, area in commercial use, commercial use type, rateable valuation



**GAMMA**  
Locate, Analyse, Predict



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**GAMMA**  
 Locate, Analyse, Predict



# About the Building



4 Inns Court  
Winetavern Street  
Dublin 8  
Do8 XY00

## Basic Information

This is a **Commercial** address  
Its context is **Urban Core**  
It is **Occupied**

Planning Application Detail	None since 2013
Number of floors in commercial use	4
Sq. m of commercial use	210 sq m
Daytime to Residential Population Ratio	3.26
Commercial Rateable Valuation	€29,310
Use typology	Office (Own Door)
Number of car parking spaces	2
Listed Building (NIAH)	No
NACE Code	J.62.02 – Computer Consulting
No. of employees	10 - 20
Commercially Leased	No
Lease Renewal Date	n/a



# Perils



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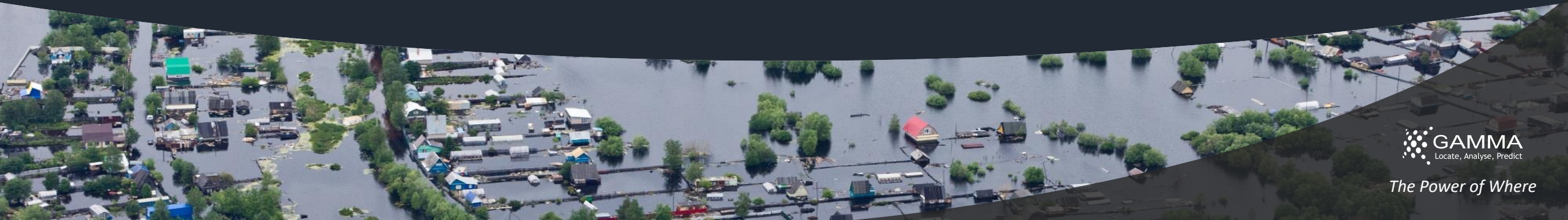
## Variety of Peril Model Types

Built from **Open** Data

Built from **Commercial** Data

**Partner** Data

Flood	Flood score: <b>0</b>
Burglary	Risk score <b>1.66</b> <b>94<sup>th</sup></b> percentile
Subsidence	<b>1</b> (lowest risk)
Wind Speed	Yellow: <b>100%</b> Orange: <b>89%</b> Red: <b>7%</b>
Precipitation	Yellow: <b>61%</b> Orange: <b>5%</b> Red: <b>4%</b>
Temperature	Yellow: <b>99%</b> Orange: <b>68%</b> Red: <b>7%</b>
Fire	Fire risk score: <b>0</b> (Lowest risk)
Climate Change/Sea Level Rise	<b>Not at risk</b>











# Use modelling to fill gaps

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- Rule based
- Nearest Neighbour
- Classic Statistical Methods (Regression etc.)
- Random Forest
- Deep Learning / Computer Vision
- Ensemble Methods

**Attach confidence intervals to modelled data**





# Data Management

- Serverless Infrastructure
- Cloud based ETL
- Automation
- Over 3,000 data checks per dataset
- Consistent across sources
- Ramping up on-site verification



# Takeaways

- ❖ Open Data is a key component
- ❖ Granular data: Eircode across data publishers
- ❖ Consistency from data sources is critical
- ❖ Clients struggling to understand data issues:
  - ❖ Standards, Regulations, Updates,
  - ❖ Weaknesses, Opportunities
- ❖ AddressLink is a single point of contact





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