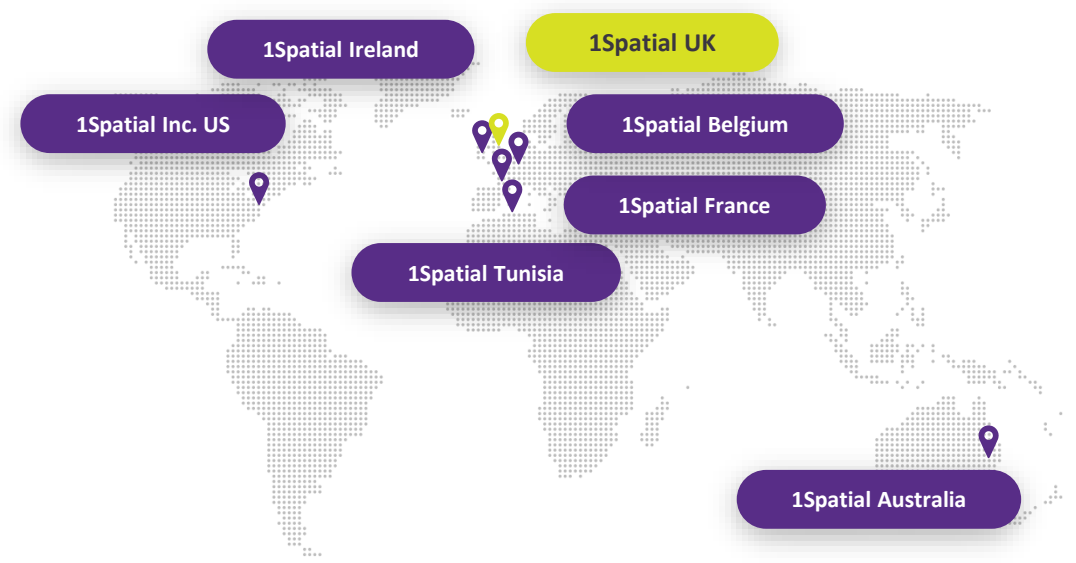


1Spatial AI Future

Seb Lessware, Toby
Jarvis



Global Organisation – 30+ years in Geospatial Industry



GOVERNMENT

UTILITIES

TRANSPORT

PARTNERS

NAT RESOURCES

AEC

Introductions



Toby Jarvis

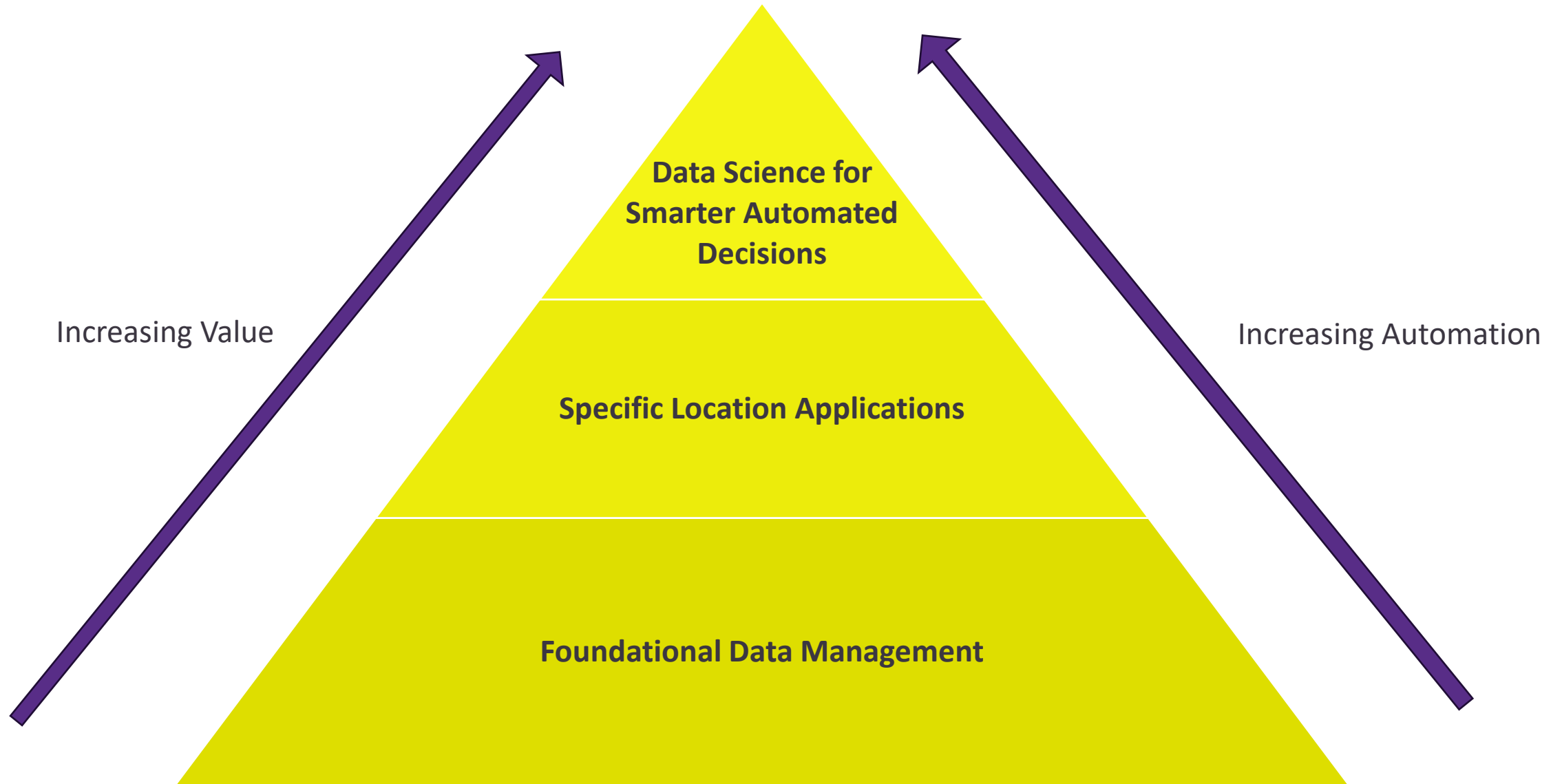
Business Development Manager
Government



Seb Lessware

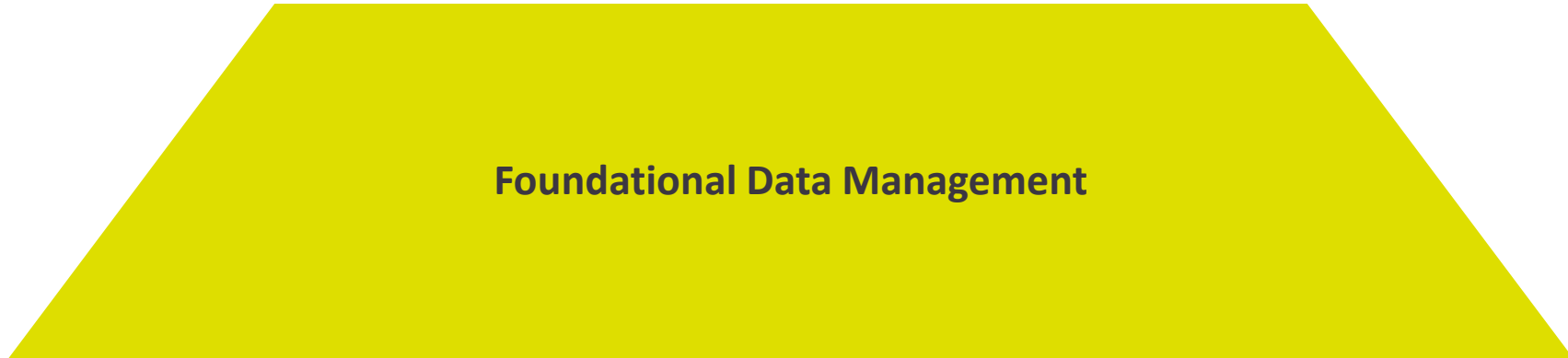
Chief Technology Officer

The value pyramid



Foundational Data Management

Support Humans
writing rules



Foundational Data Management

Foundational Data: Validation Rule writing with LLM

The screenshot shows the 'Rule Author Copilot' interface. On the left is a tree view of project folders, with 'NetworkLink must have NetworkPoints at both start and end of line geometry' selected. The main area displays the rule title 'Network links must have a network point at both ends' and a visual rule tree. The rule tree consists of an AND operator connecting two Existence conditions. Each Existence condition is linked to a Check That operator, which in turn connects to NetworkPoint.geometry. The first Check That operator is linked to an Intersects operator, which connects to start_of (a Built-in Function) and NetworkLink.geometry. The second Check That operator is linked to an Intersects operator, which connects to end_of (a Built-in Function) and NetworkLink.geometry. A large blue callout box at the bottom contains the natural language description of the rule.

1) I type this

2) It generated this

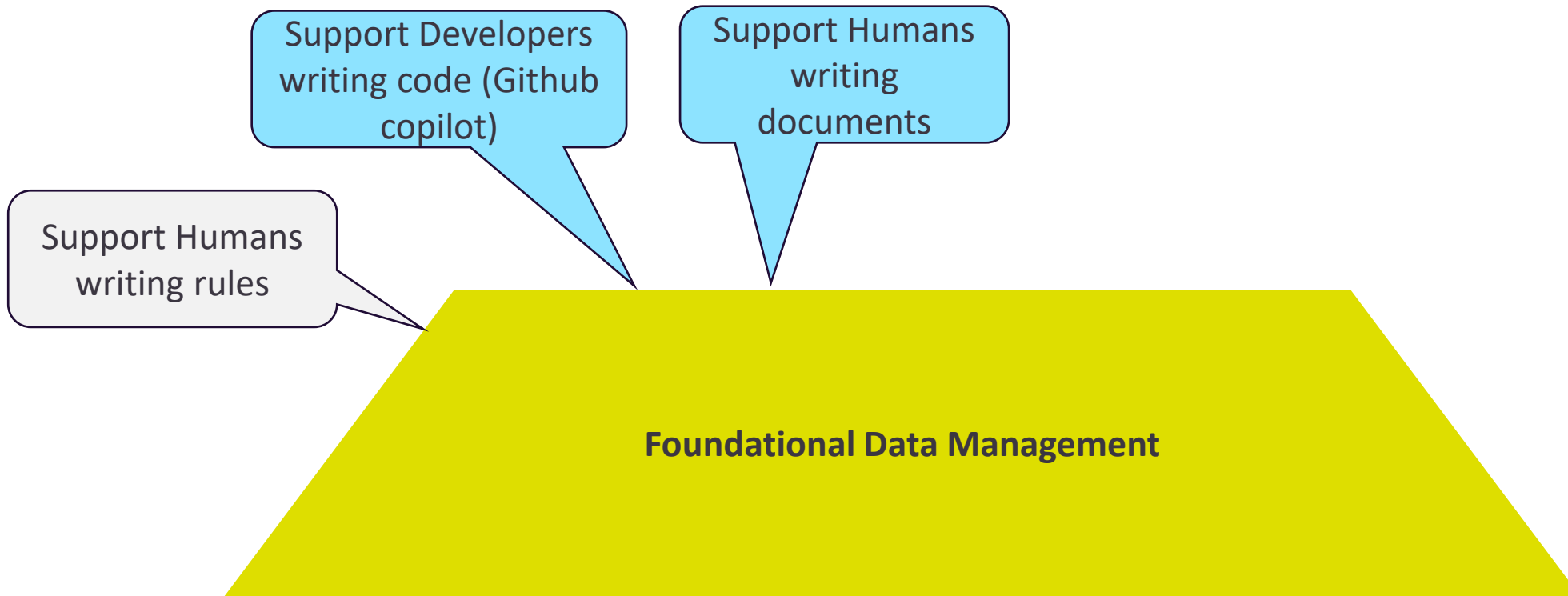
3) And gave it a better name

“NetworkLink must have NetworkPoints at both the start and end of line geometry”

“Network links must have a network point at both ends”

Rule for **NetworkLink**,
There exists at **least one NetworkPoint** For which
NetworkPoint.geometry **intersects start_of**(NetworkPoint.geometry)
AND
There exists at **least one NetworkPoint** For which
NetworkPoint.geometry **intersects end_of**(NetworkPoint.geometry)

Foundational Data Management



Foundational Data Management

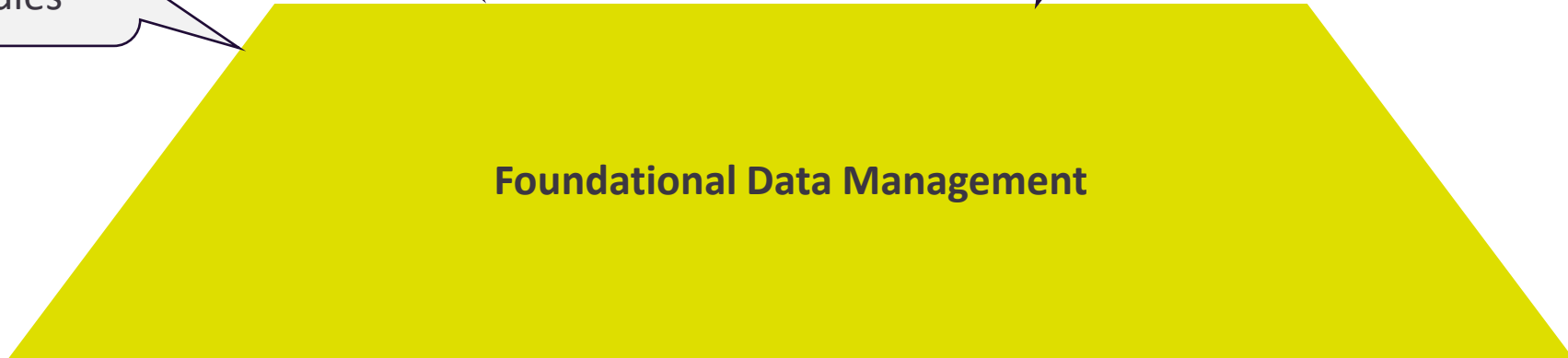


Support Developers writing code (Github copilot)

Support Humans writing documents

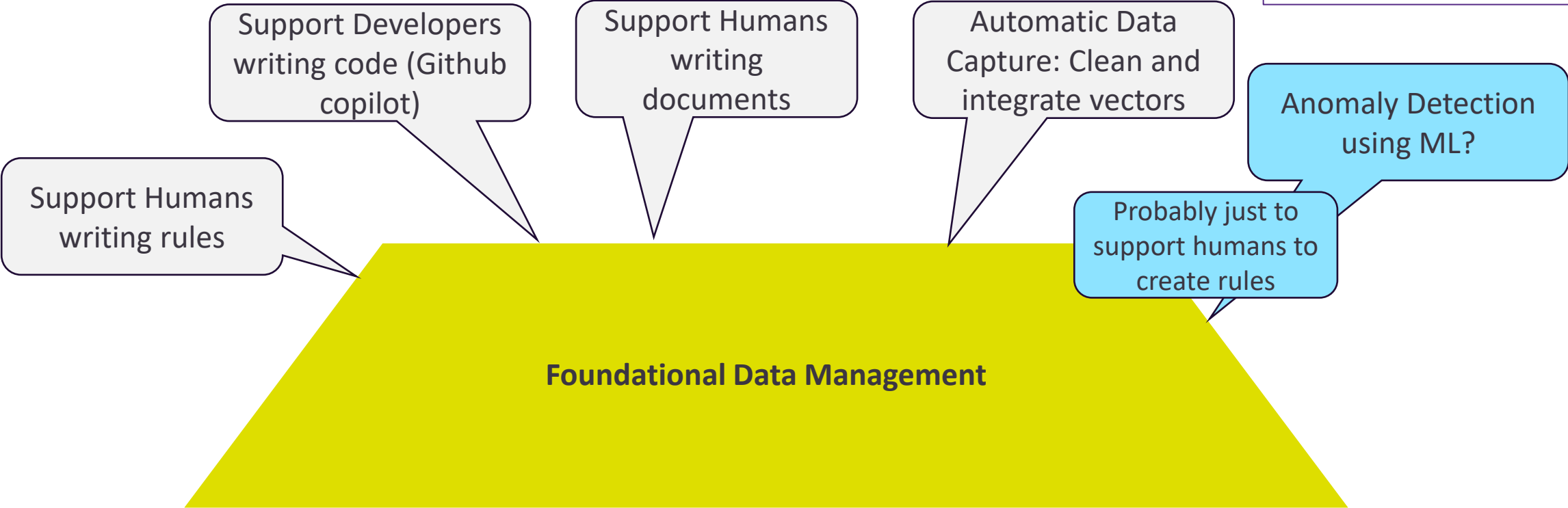
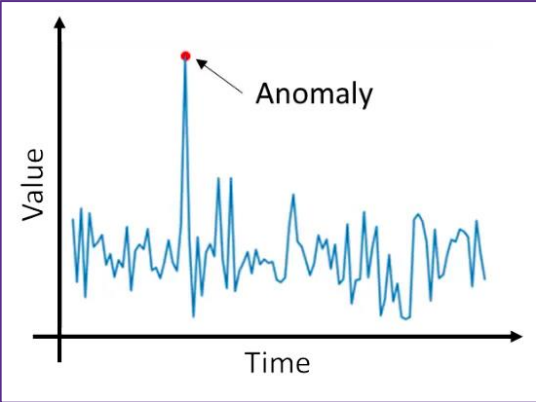
Automatic Data Capture: Clean and integrate vectors

Support Humans writing rules

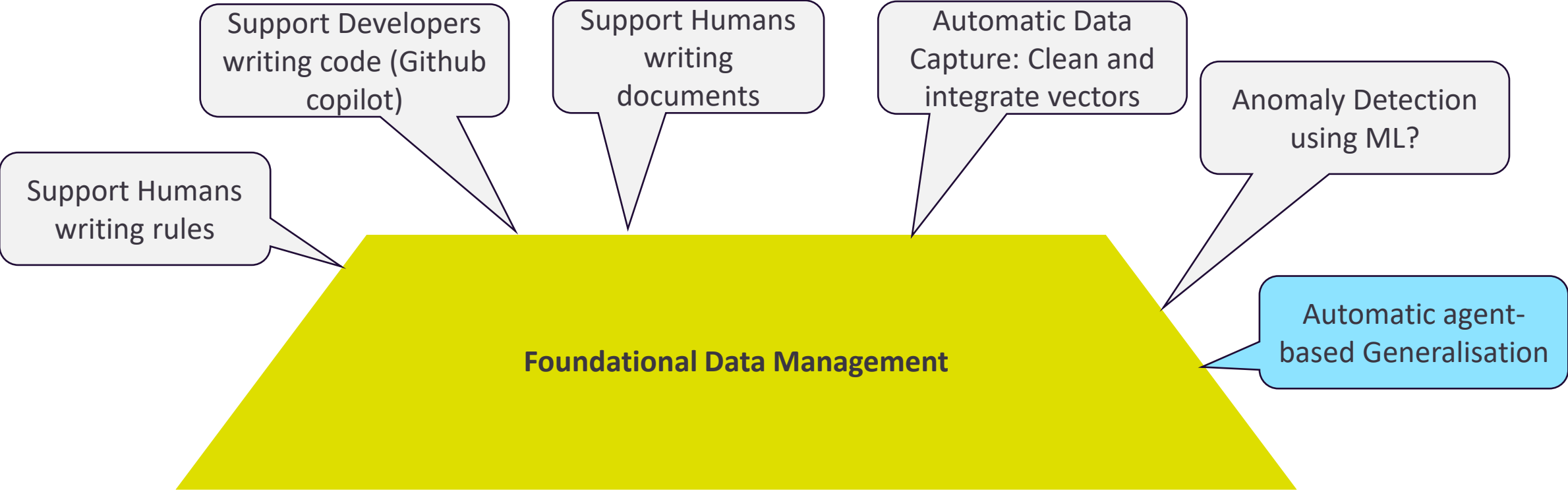


Foundational Data Management

What about ML for anomaly detection in data quality?



What about ML for anomaly detection in data quality?



Specific Location Applications



Pipe Leakage Prediction:
ML

Specific Location Applications

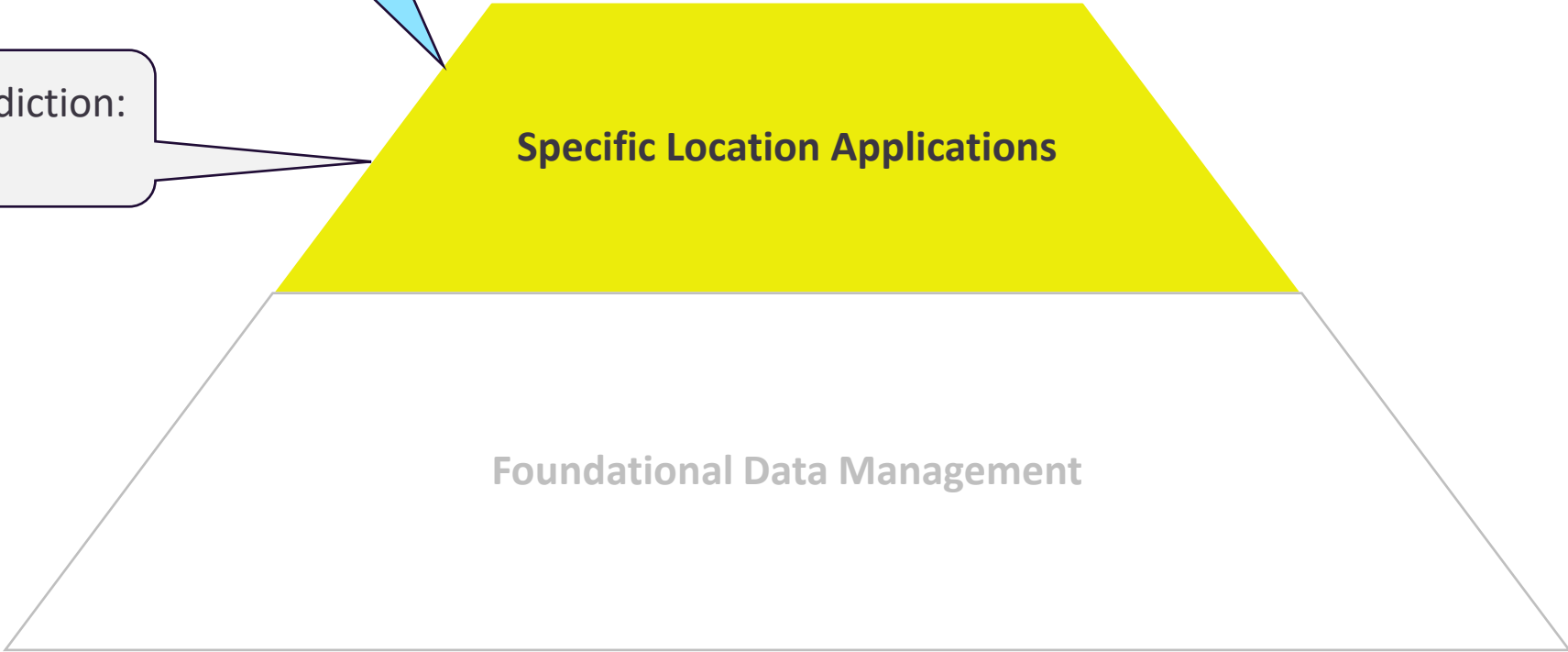
Foundational Data Management

Specific Location Applications

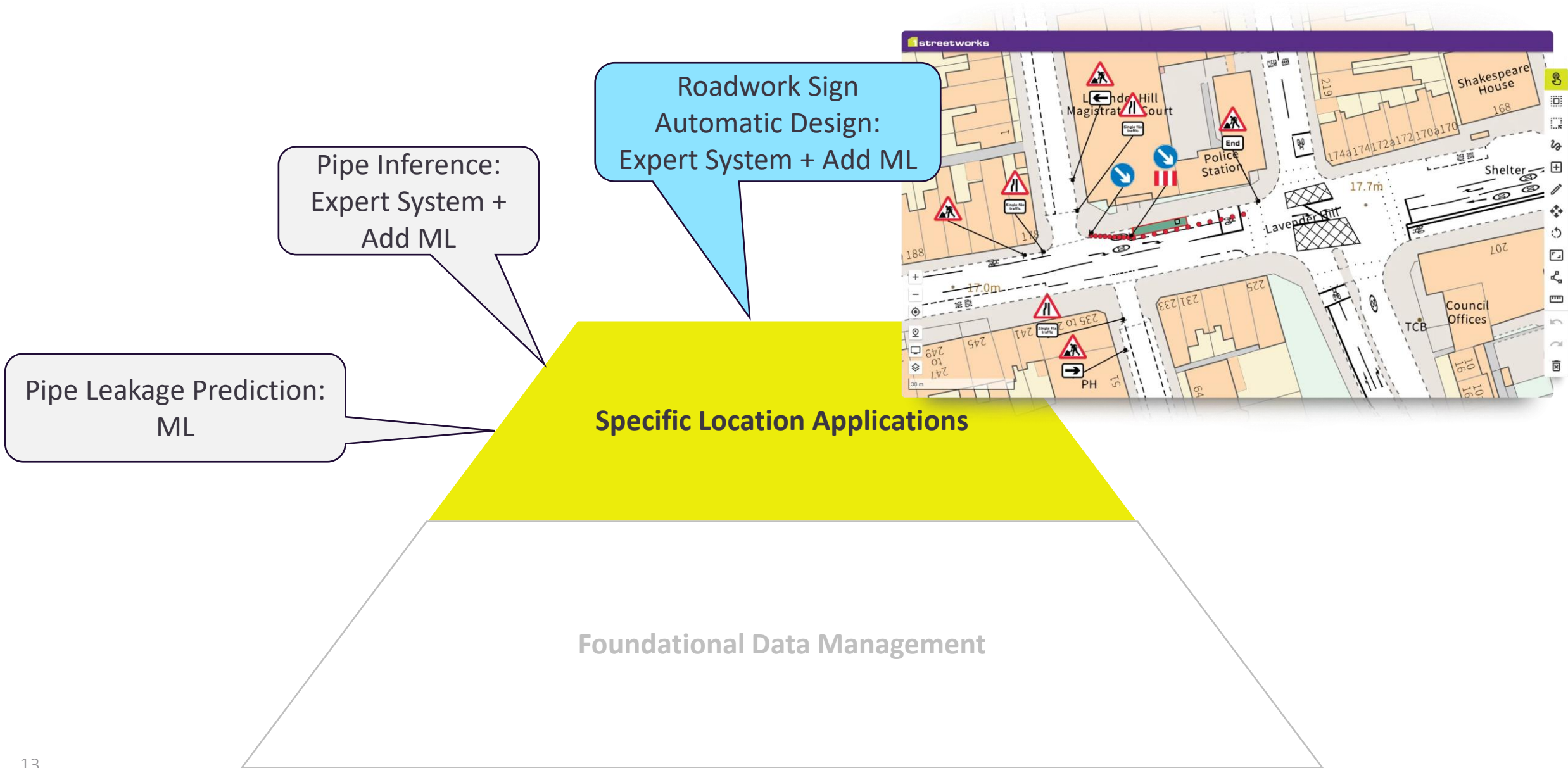


Pipe Inference:
Expert System +
Add ML

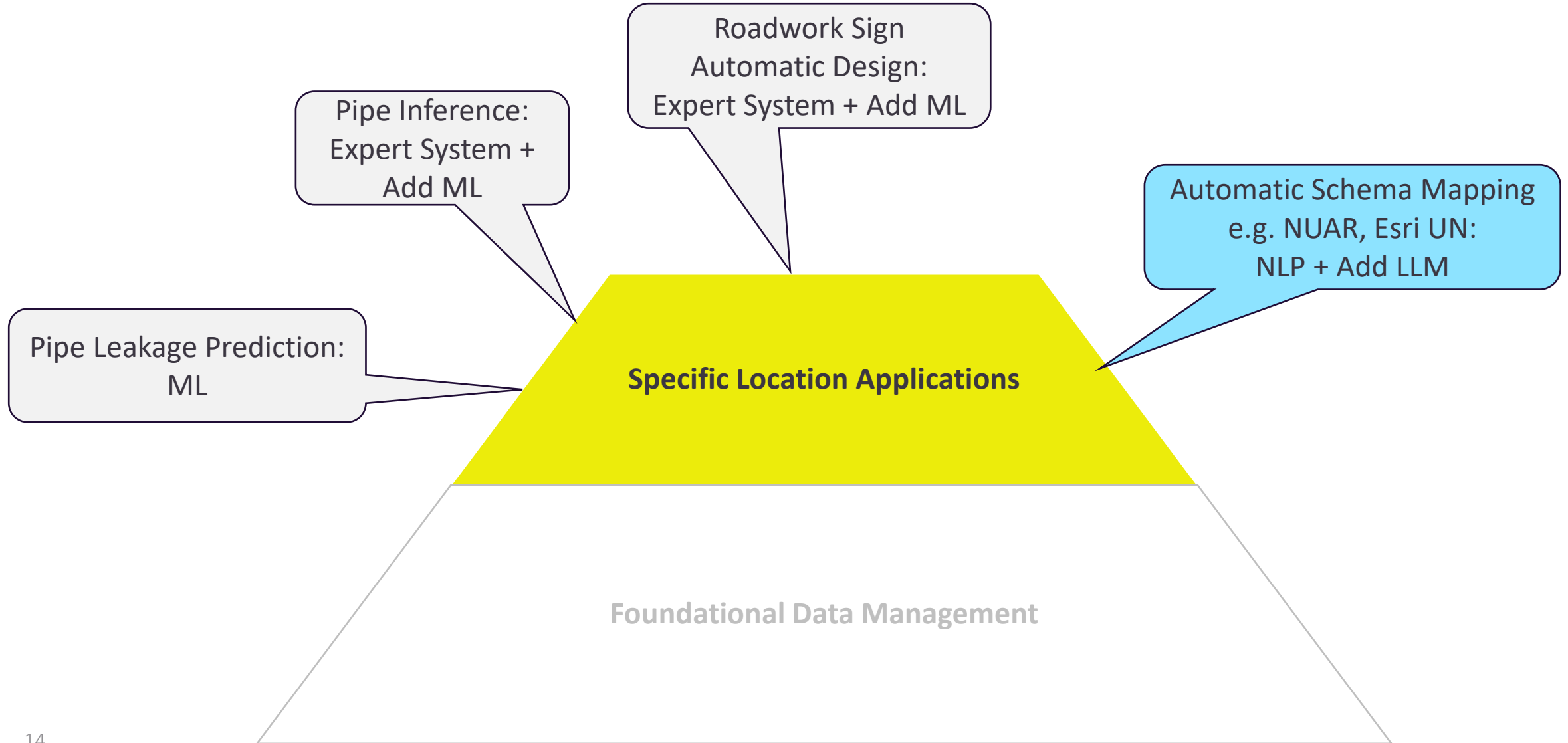
Pipe Leakage Prediction:
ML



Specific Location Applications



Specific Location Applications



The value pyramid

