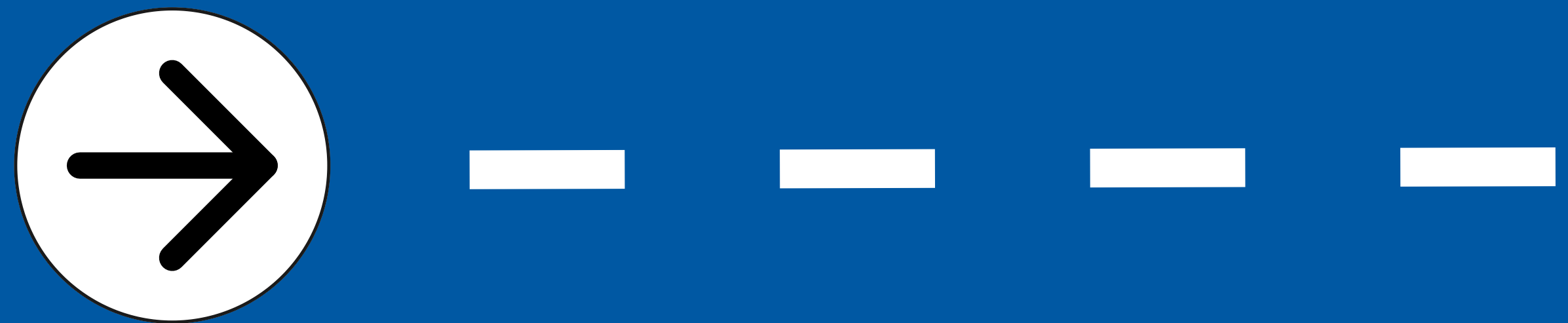


Ingka's Observability Journey

Timothy Mahoney
Senior Systems Engineer
Ikea Retail



Hej!

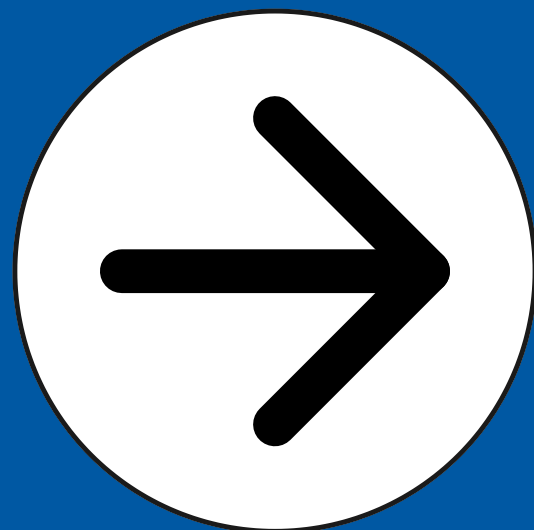
Operational Intelligence

219000
Coworkers

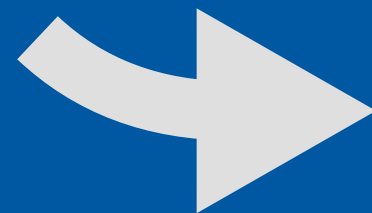
479 Stores
45.1 Billion
Euro



Observability Enablement



Observability Journey



How do we stay relevant to our stakeholders?



How do we grow in maturity?



How do we avoid drowning in technical debt?

A little history...

Ingka Group
IKEA Retail

1982



Security Incident and Event Managment

Security Tooling

Collect as many logs as possible.
With great data comes great insight.



A platform
looking for a
purpose

Junk drawer for
unstructured
data



Write once read
never database

Open ended use
case for
ingesting data

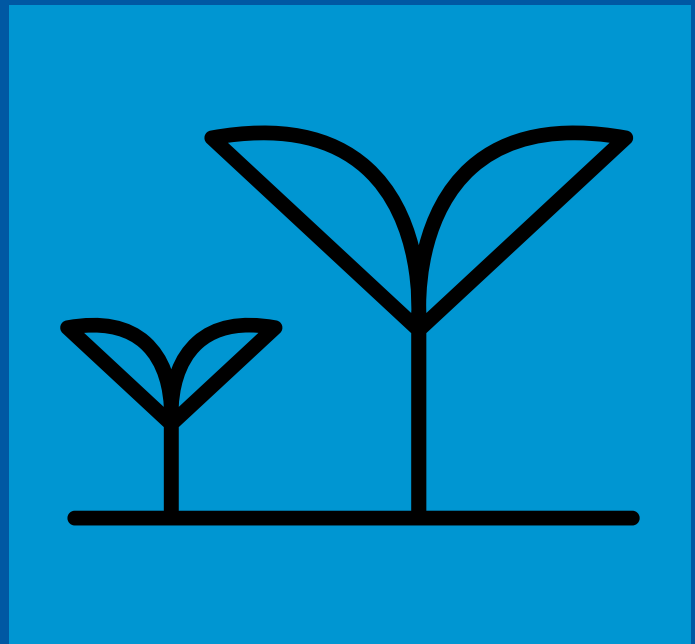
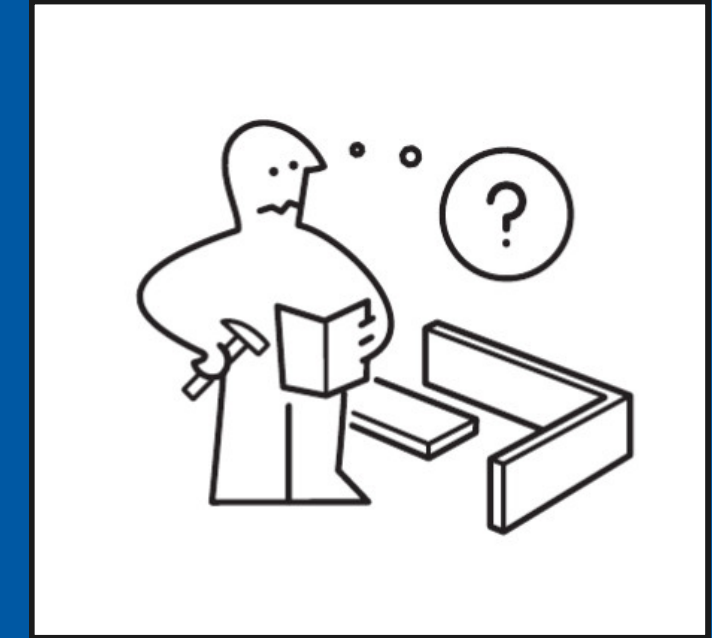
Challenges in Maturity

Silos and
Correlation
Issues

Metrics as
Logs as
Metrics

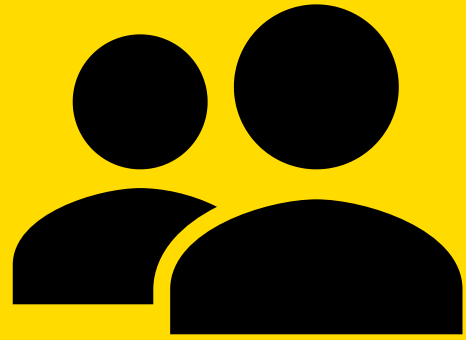
Function
synonymous
with Tooling

Dunning
Kruger



Flygtornet

Control Tower View

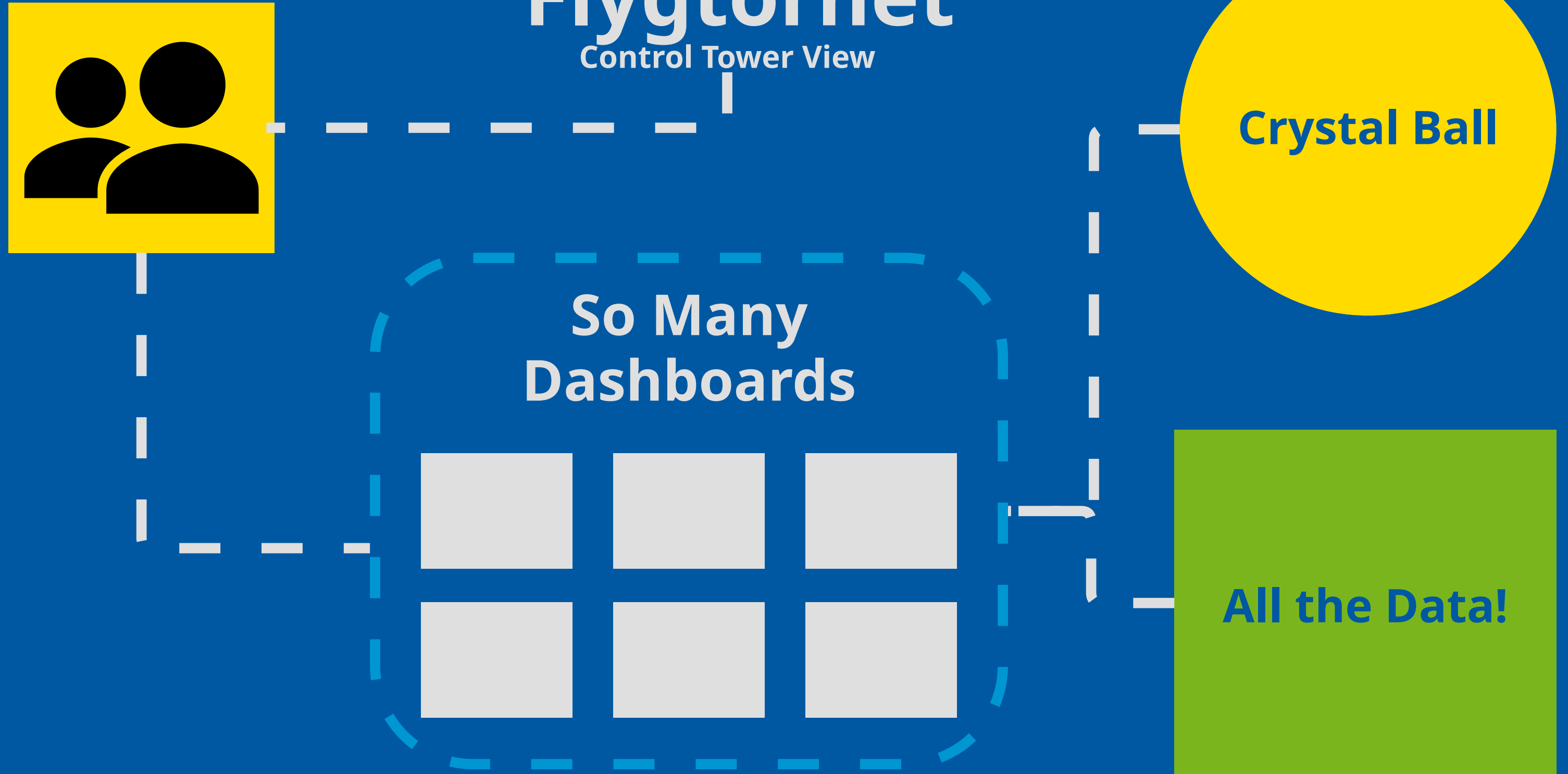


Crystal Ball

So Many
Dashboards



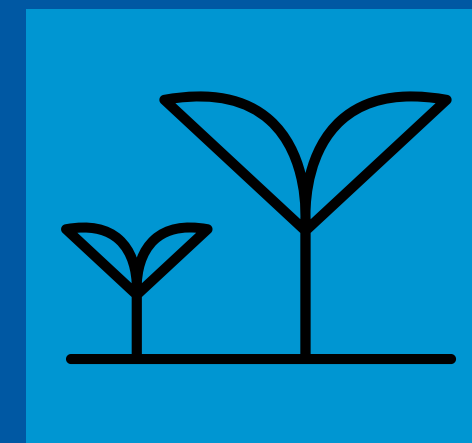
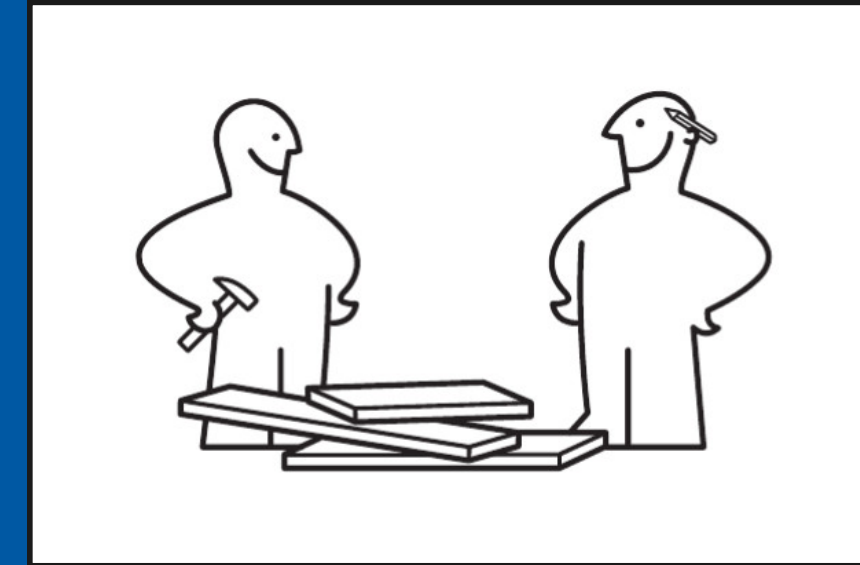
All the Data!



**Observability
Framework**

**Observability
ADRs**

**Observability
1.0**



Aligning with OpenTelemetry

Collector

**Semantic
Conventions**

**Data
Model**

**Mandatory
attributes**

**Single Sources
of Truth**

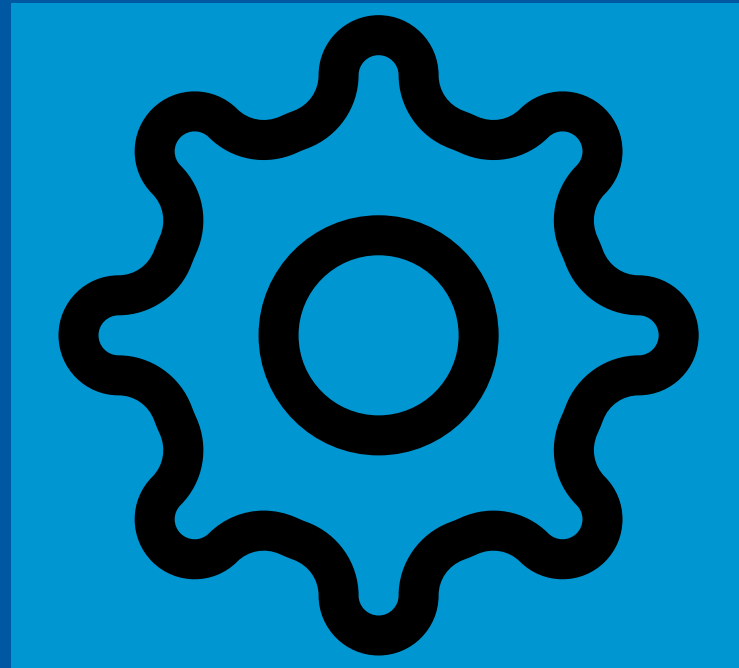
**Business
Glossary**

**System Master
Catalog**

**Data Ownership and
Democratised Data**

**Structured
Events**

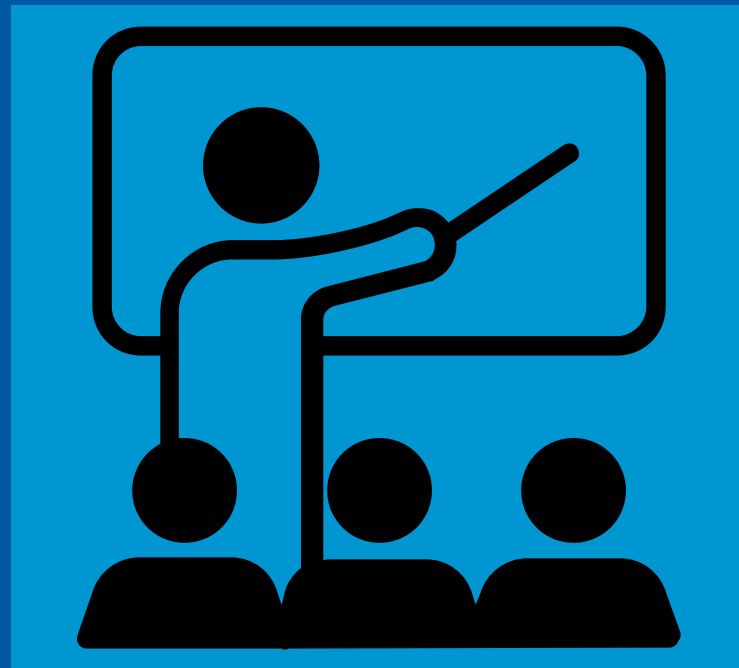




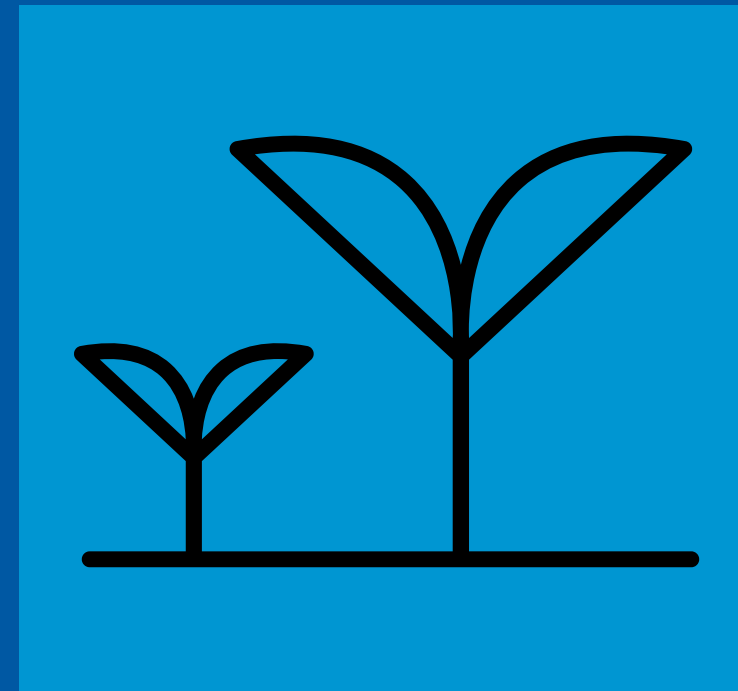
Engineering Baseline



Native Clouders



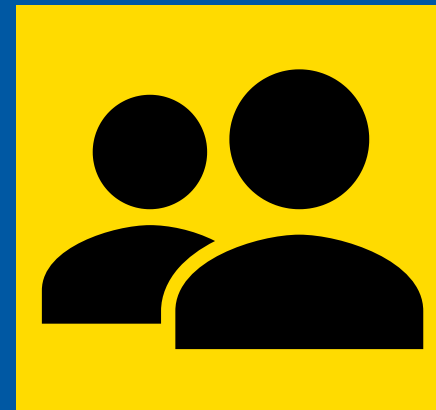
ADR Workshops



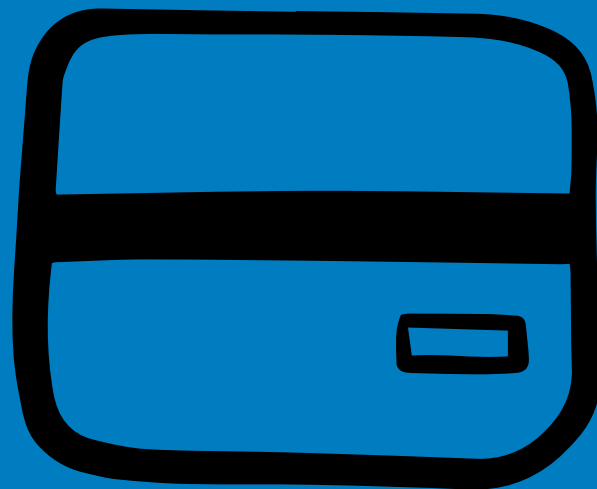
Availability



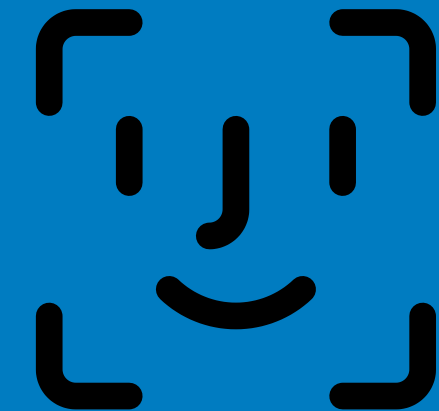
Order Flow



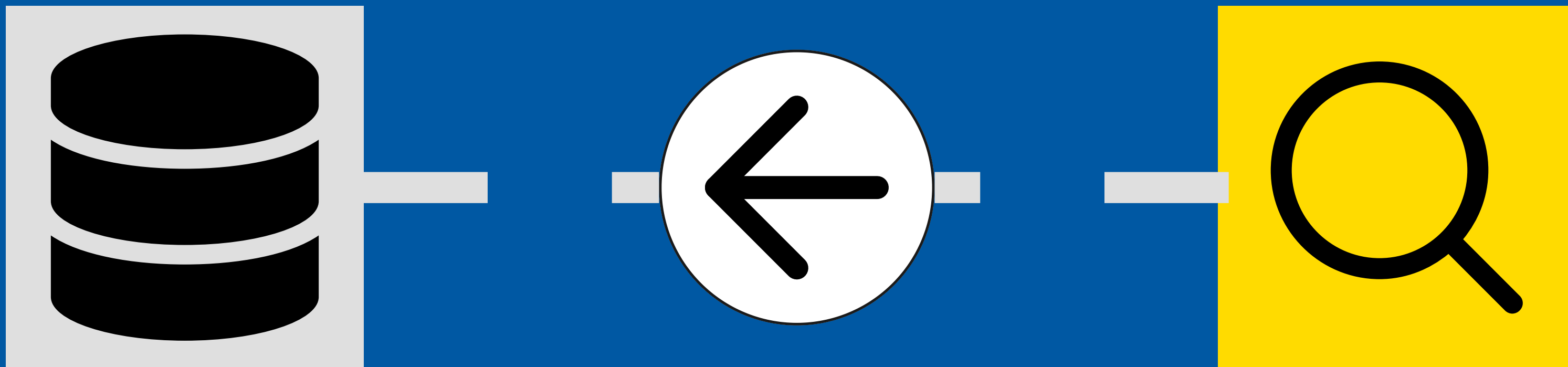
Payment



Privacy



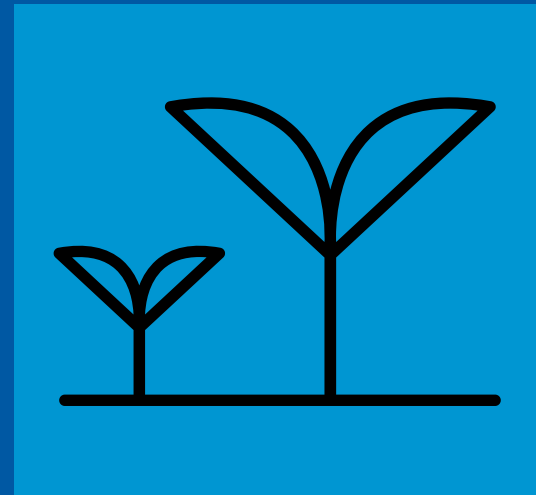
Data Observability



Pillars of Data Observability

- **Quality**
- **Schema**
- **Lineage**
- **Freshness**
- **Volume**

Events can
be fragile!



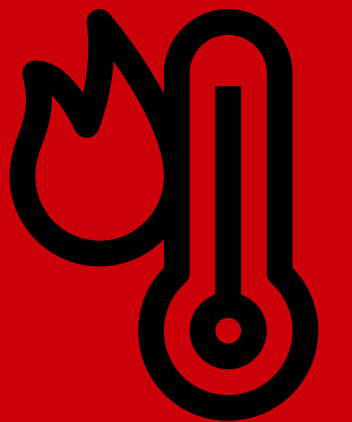
**Most things still remain to be
done - glorious future!**

-Ingvar Kamprad

Towards O11y 3.0

Observability is the process through which one develops the ability to ask meaningful questions, get useful answers, and act effectively on what you learn.

– Hazel Weakly



Observability Data Product

```
graph LR; A[Observability Data] -.-> B[Data Lakehouse]; B -.-> C[Observability Data Product]
```

**Observability
Data**

**Data
Lakehouse**

Schema Driven Observability

**OpenTelemetry
Semantic
Conventions**

**Ingka/IKEA
Schema**

**OpenTelemetry
Weaver and
Resolved
Schema**



Loosely Coupled
Systems not
undocumented
hobby fixes.

A common data
platform instead
of clunky
integrations to
the tooling.

"Giga-chad scale
json parser with
a fancy search
engine"



The future of Observability is secured through the engagement of the organisation and not solely the engineers.

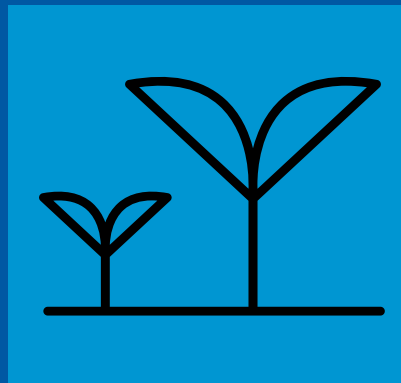
How many Billy
bookshelves is
that?

Data Contracts



**OpenTelemetry Weaver and
Resolved Schema**

Structured Events



**Data Mesh with External
Consumers**

**Coherent Examples from
Instrumentation to
Collection to Visualisation to
Alerting**

Tack!