

# Event-driven architecture ... Why, and why now?

Current 2022 - Meetup Hub  
4 October 2022

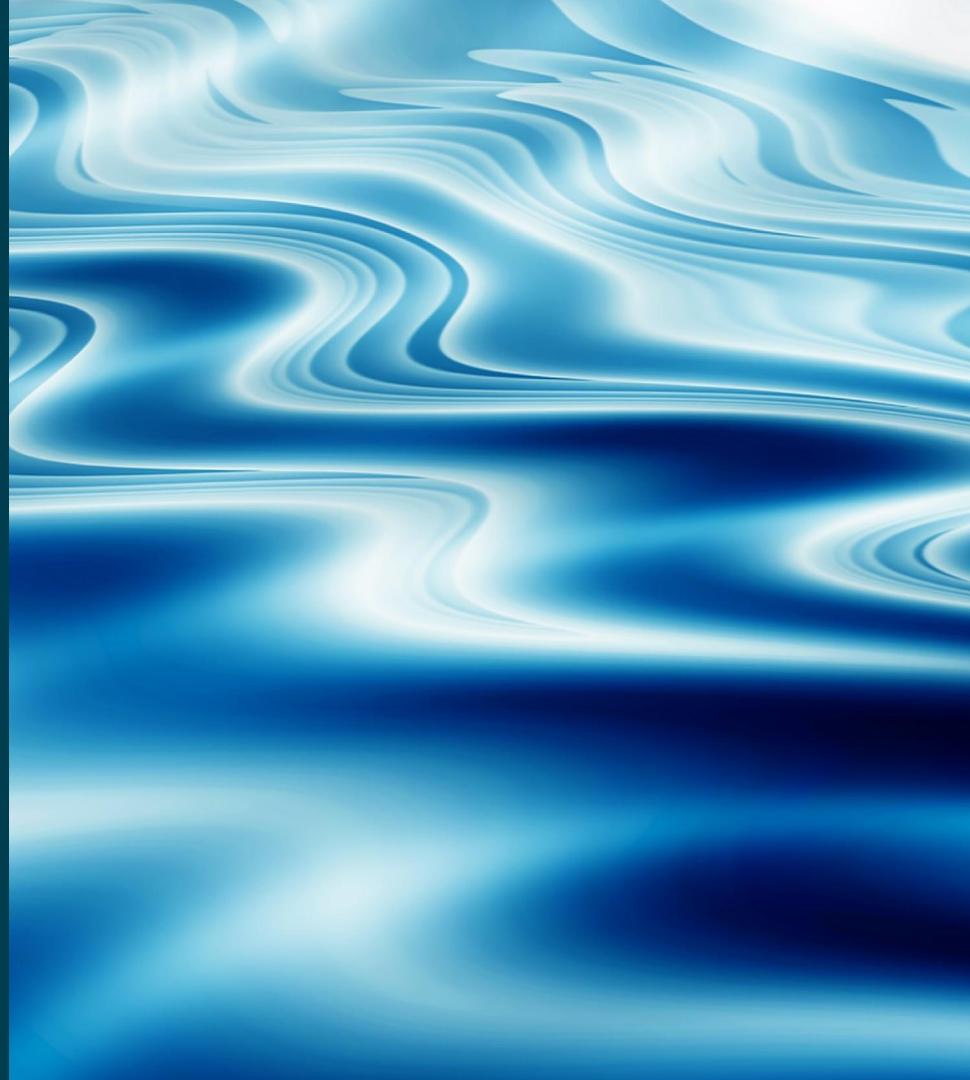
/thoughtworks



Simon Aubury

# Why event streaming?

/thoughtworks



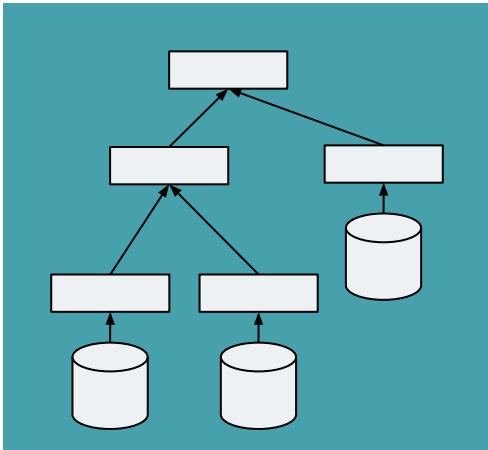
A wide-angle photograph of a mountainous landscape. In the foreground, a river flows through a valley with patches of green and brown vegetation. The middle ground shows a vast, open field. In the background, majestic mountains rise, their peaks covered in white snow. The sky is a clear blue with scattered white clouds.

**Life isn't lived in batches**

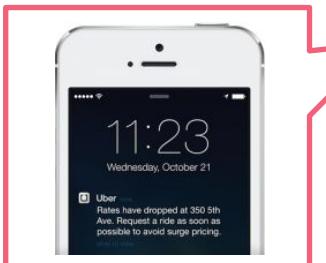
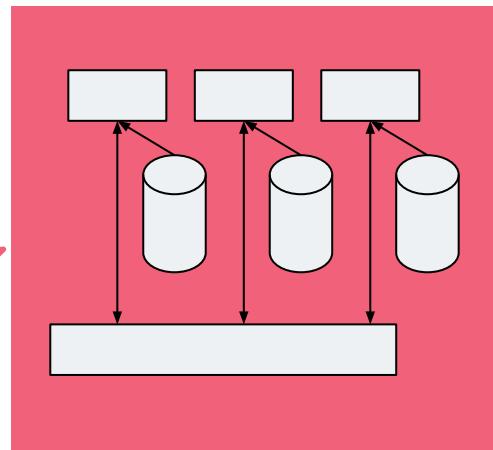
**Life is really a stream of events ...**

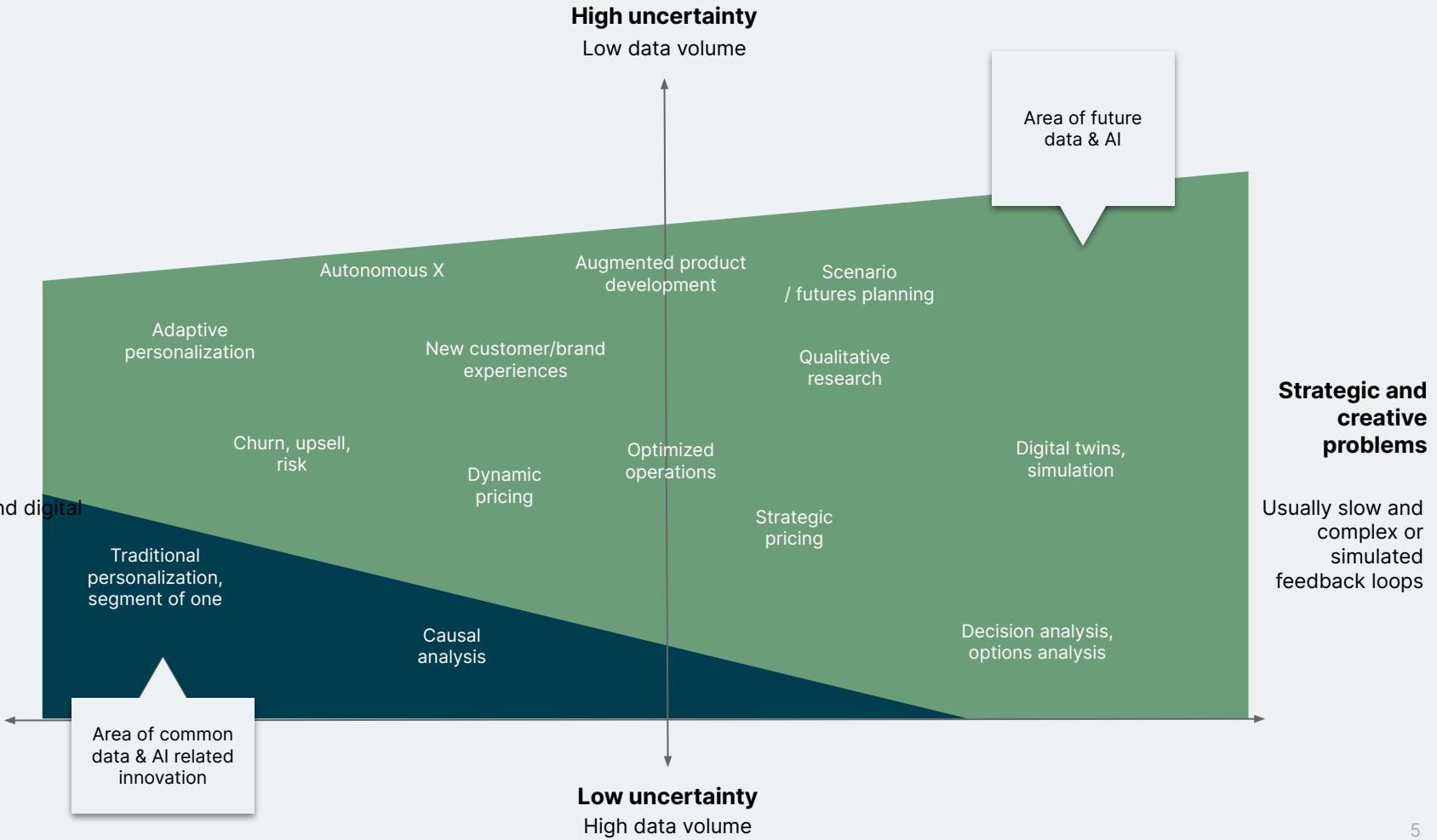
# Take a bunch of events

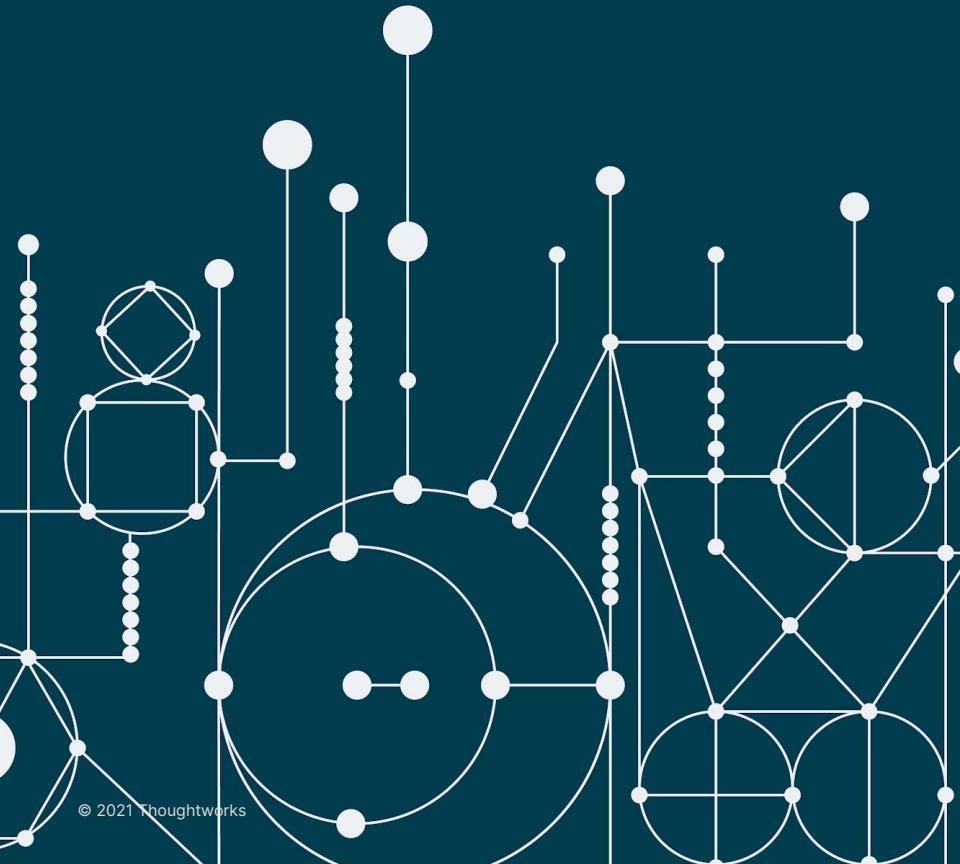
Monolith / Microservices



Microservices + Events



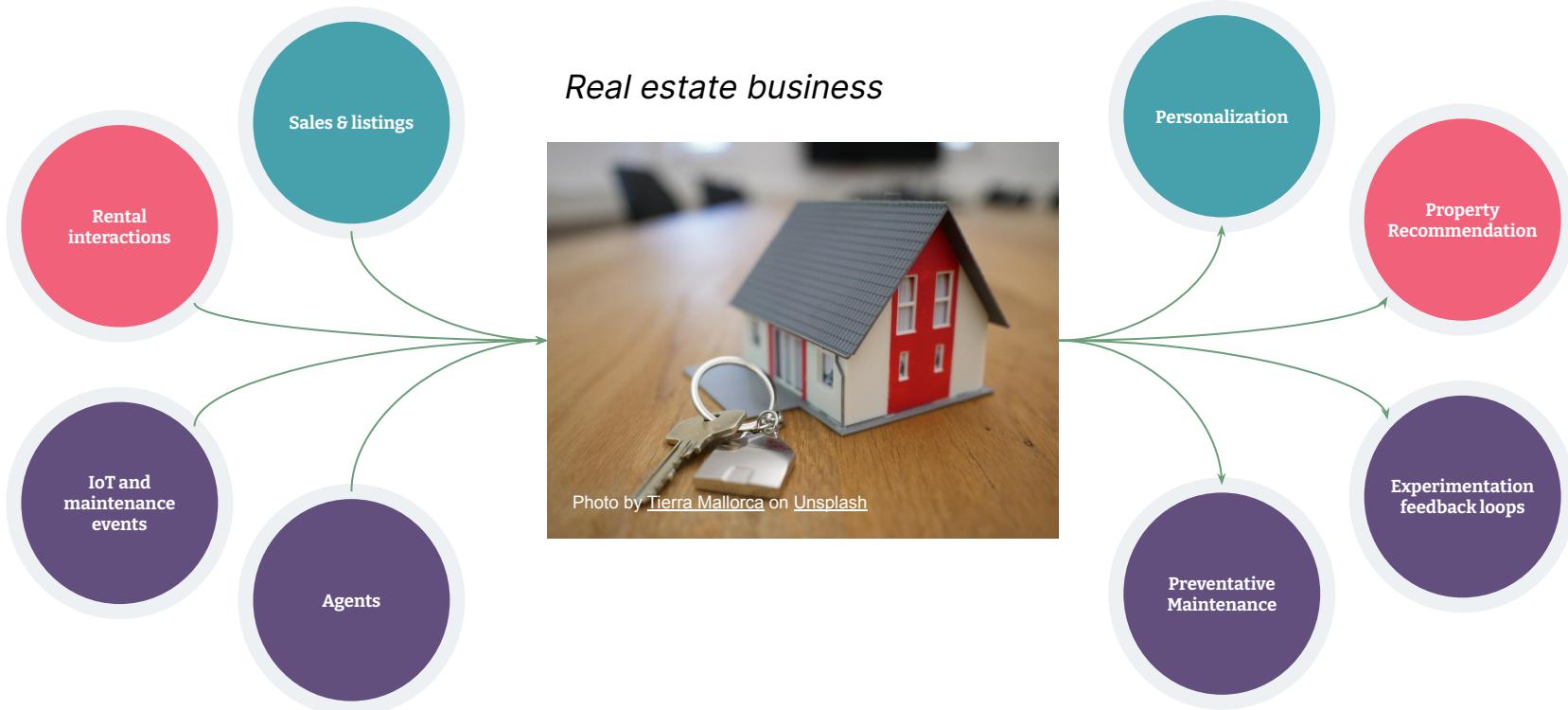




**Event-driven architecture is a software architecture paradigm promoting the production.. consumption and reaction to events.**

[https://en.wikipedia.org/wiki/Event-driven\\_architecture](https://en.wikipedia.org/wiki/Event-driven_architecture)

# The business event



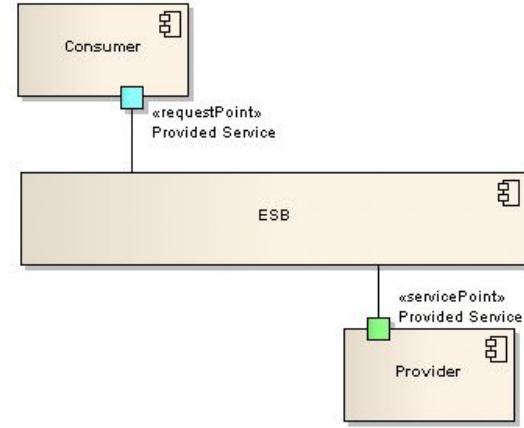
# How?

/thoughtworks

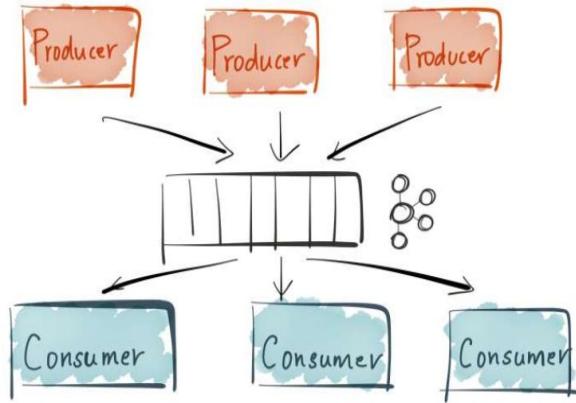
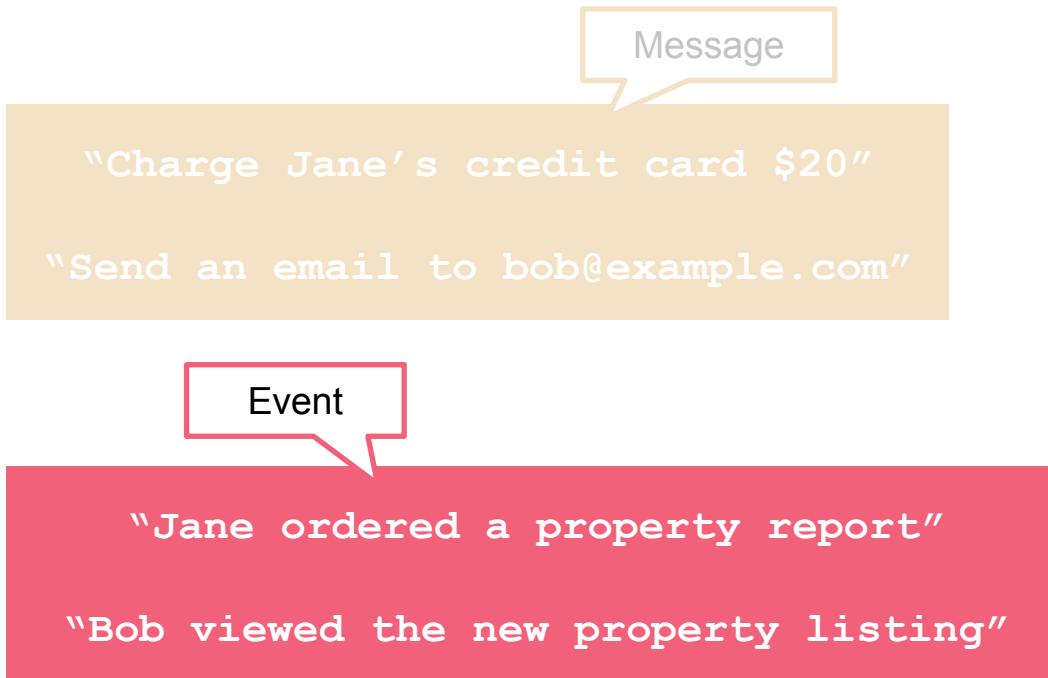
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# Messages are not events!

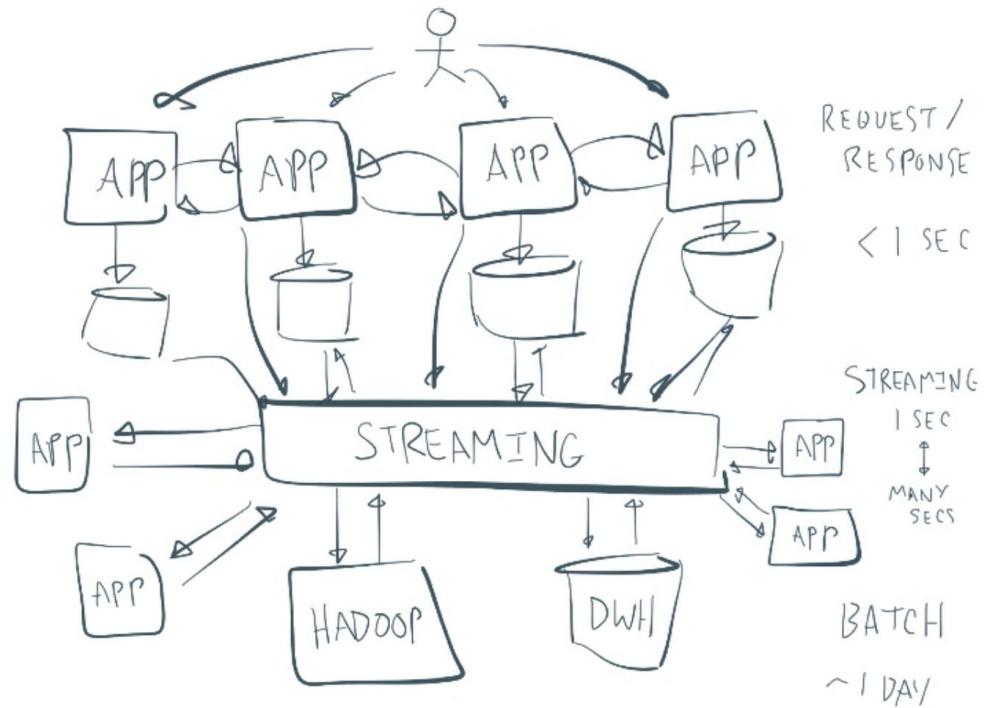


# Messages are not events!



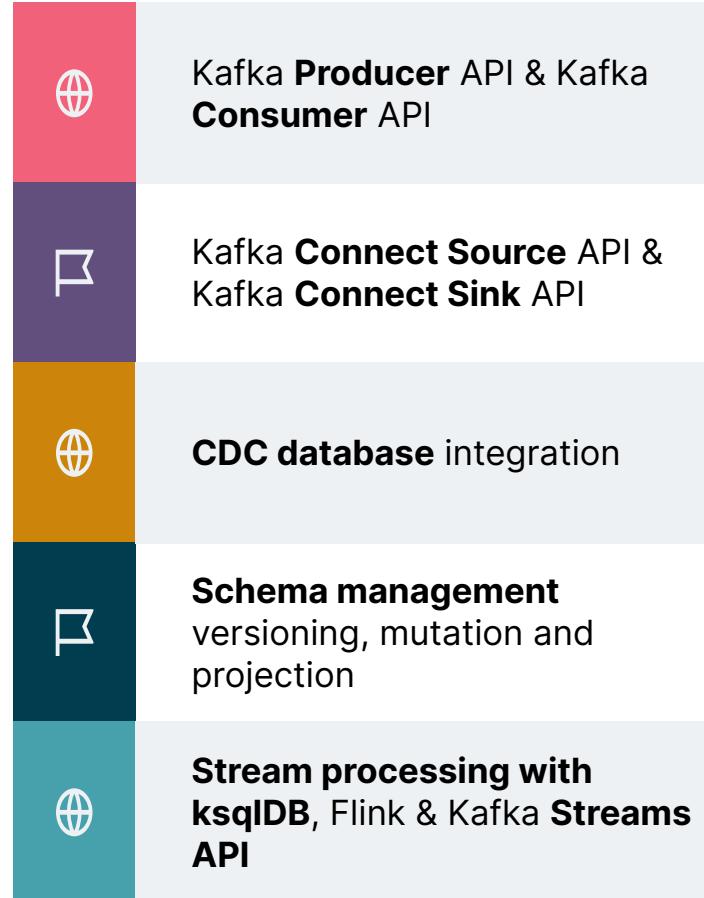
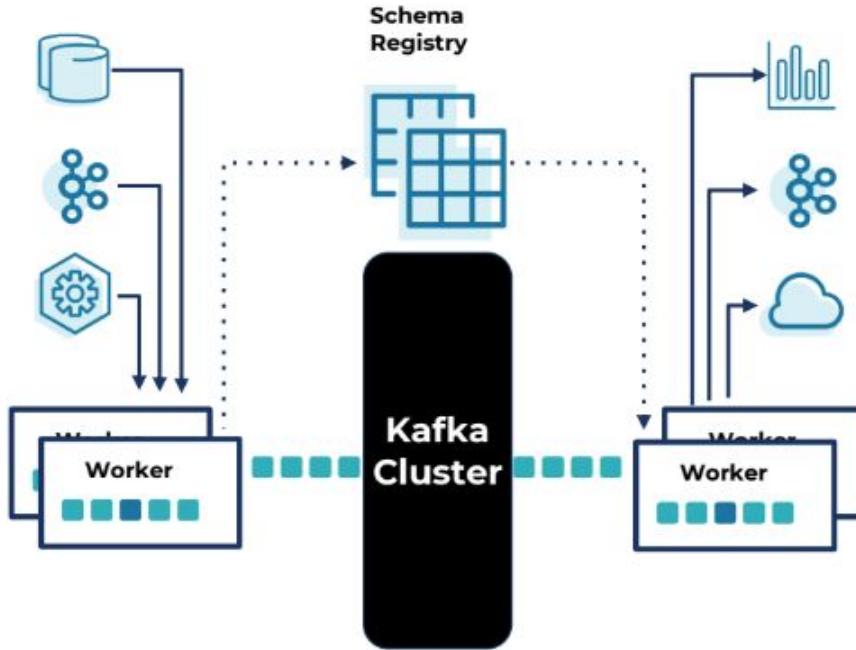


# Many options



# Kafka \*

\* Including flavours of



# Is event driven for you?

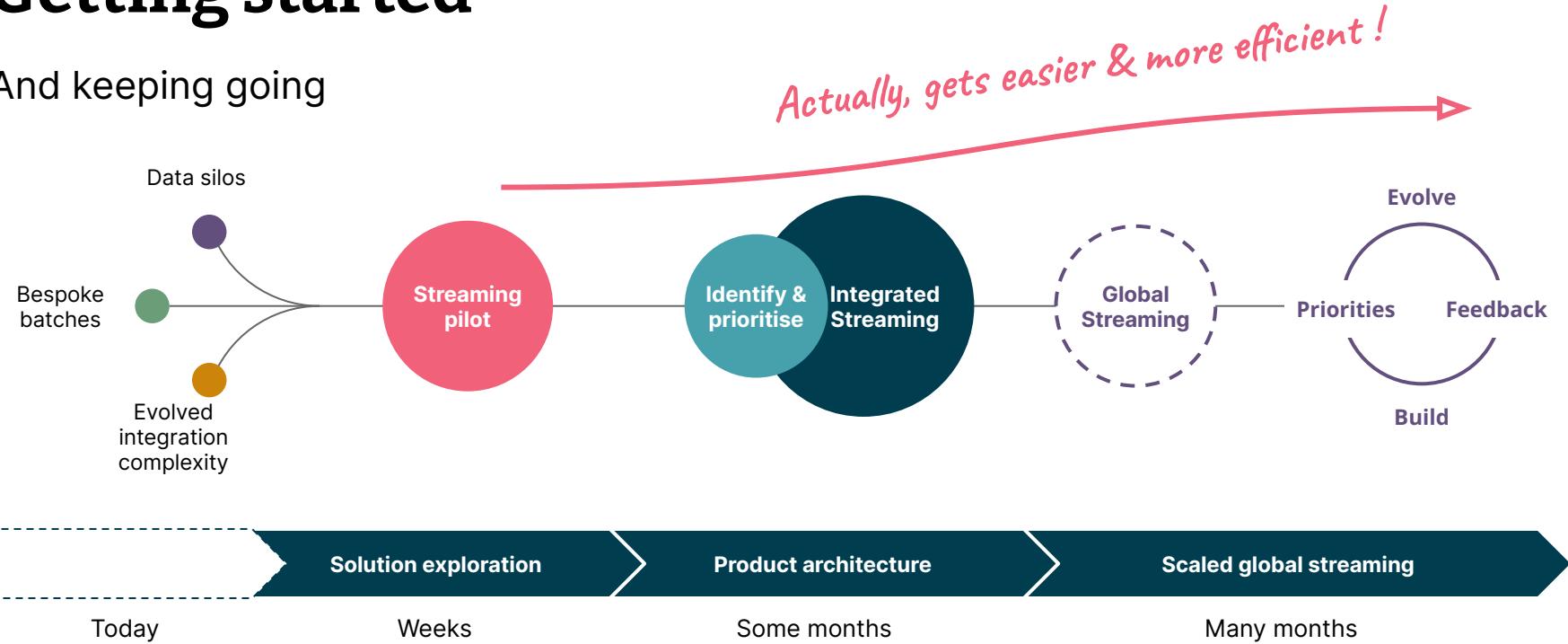
## Event Streaming Paradigm

To rethink data as not stored records or transient messages, but instead as a continually updating stream of events



# Getting started

And keeping going



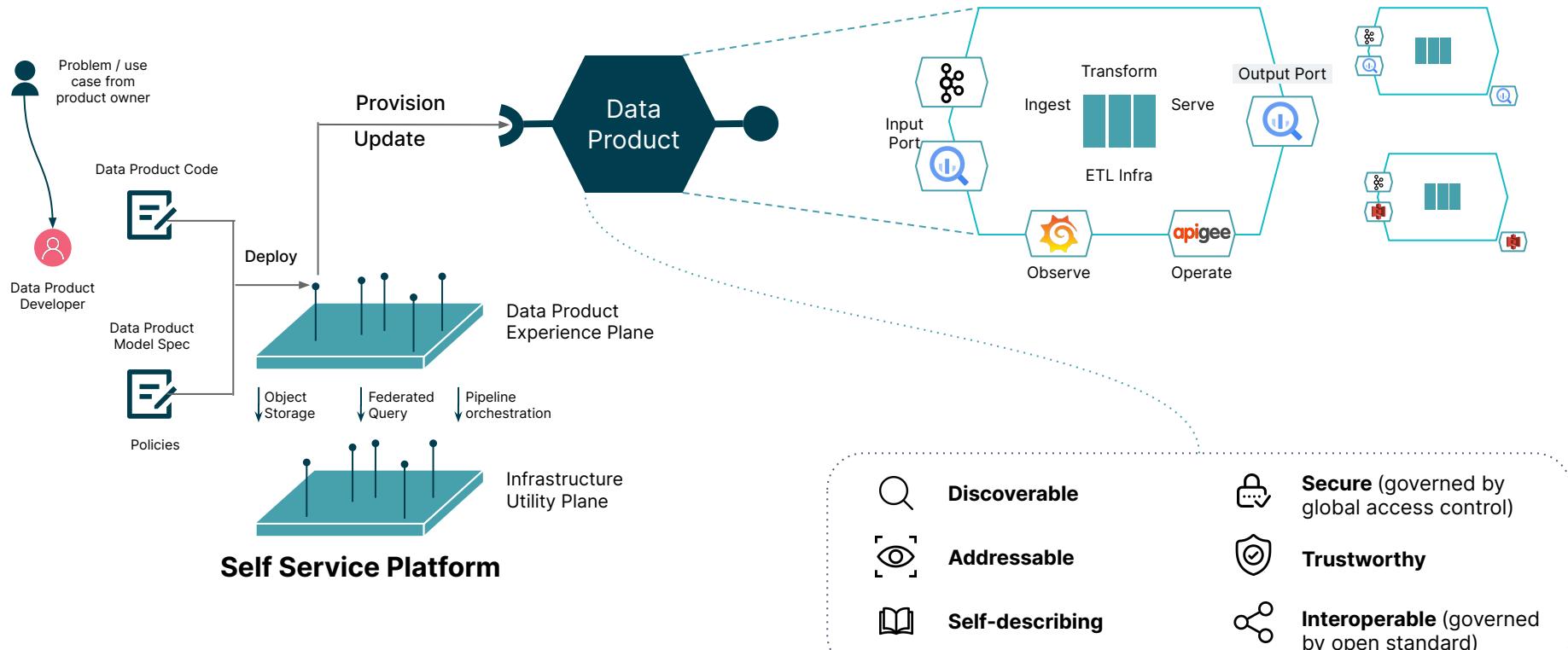
# What does good look like?

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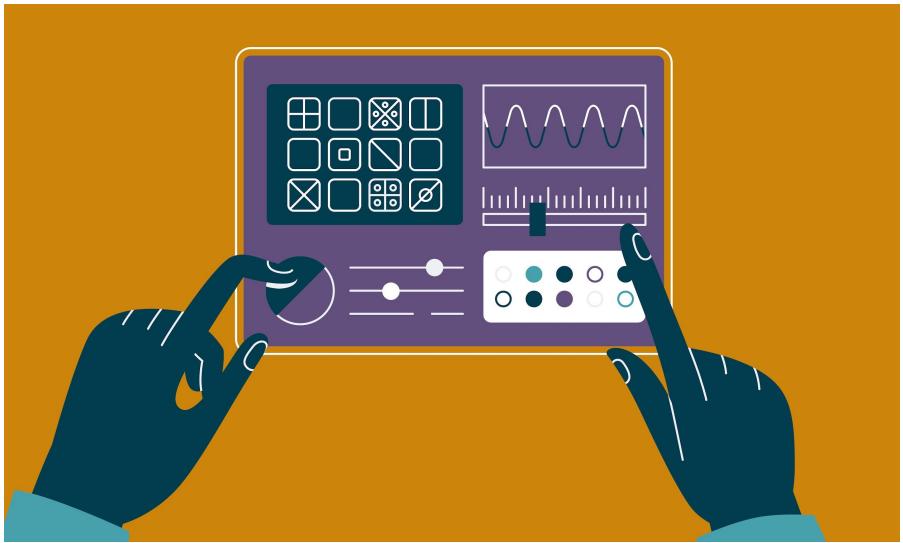


# Complex data problem solving



# What good looks like

Going from good to great



Brokers, compaction, **retention, lifecycle management** - and **cloud options**; partitions segments & partitioning strategies



**Integration** - sources, sinks, change data capture



**Schema management** - AVRO, ProtoBuf - version management, schema mutation and projection



Producer guarantees, **delivery guarantees**, exactly once semantics, consumer rebalancing, groups and offsets, cluster linking



Stream **processing architecture**; stream processing frameworks



**Security**, governance, sharing, lineage, management

A photograph of a large Saguaro cactus in a desert landscape. The cactus is tall and has several arms. The background shows rolling hills and a sky with scattered clouds.

## Building EDA systems around a stream of events

Start now

# Thanks - questions?

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AND OTHER ANIMALS

## Counting Koalas with Kafka

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@saubury

/thoughtworks



### Koala Counting with Kafka



1:00 pm - 1:45 pm Wed 5 Oct  
Exhibit Hall 5