



API management & Product teams

Leroy Merlin | *Big Cloud Road Show*

September 2019

API MANAGEMENT / MQ / ORCHESTRATOR / ESB / ETL

Vladimir Andreev

Integration architect

Leroy Merlin is biggest brand of Adeo Group



4.5b€

4.5 billion € **turnover** in Russia



101

101 **stores** in Russia



34k

34000 **employers** in Russia



60k

Up to 60k **items** per store

Vladimir Andreev

Integration architect | *Exchange platform team*

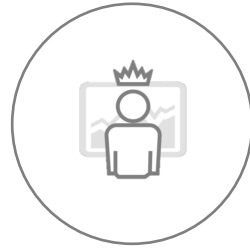
Agenda

- *Platforms & New reality*
- *Product teams & new organization*
- *API management strategy*
- *Leroy Merlin way*
- *Q&A*

World is changing



Customers are changing



Competitors are changing



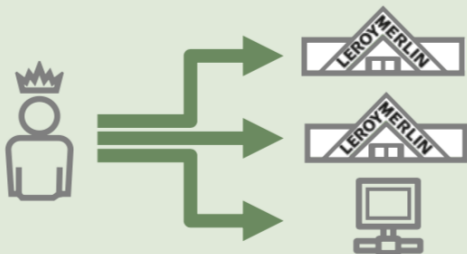
New technological opportunities

Strategy adoption



Multi Channel

Historically we had separated channels ...

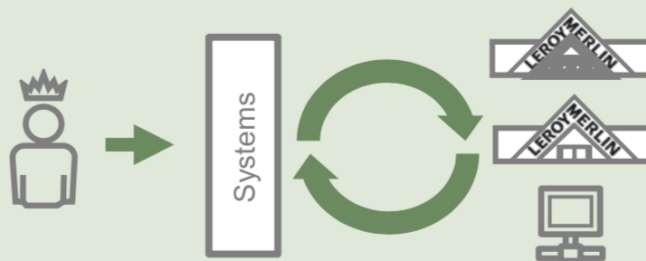


Competition

Each channels make business separately and are in competition to win the sale

Omni Channel

We start to break the border between digital and physical ...

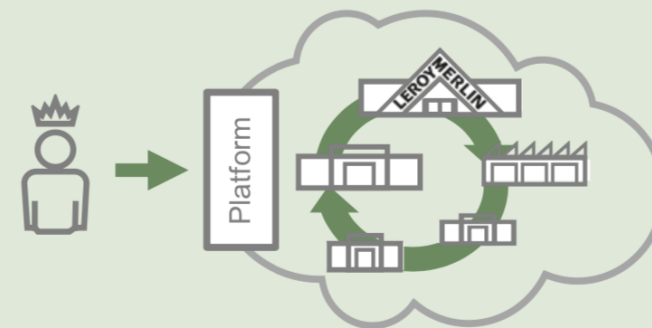


Cooperation

The channels are cooperating because the customer journey is transversal and we care that company win the sale

Platform

We will break the border between companies and partners to serve the customer project with a our ecosystem

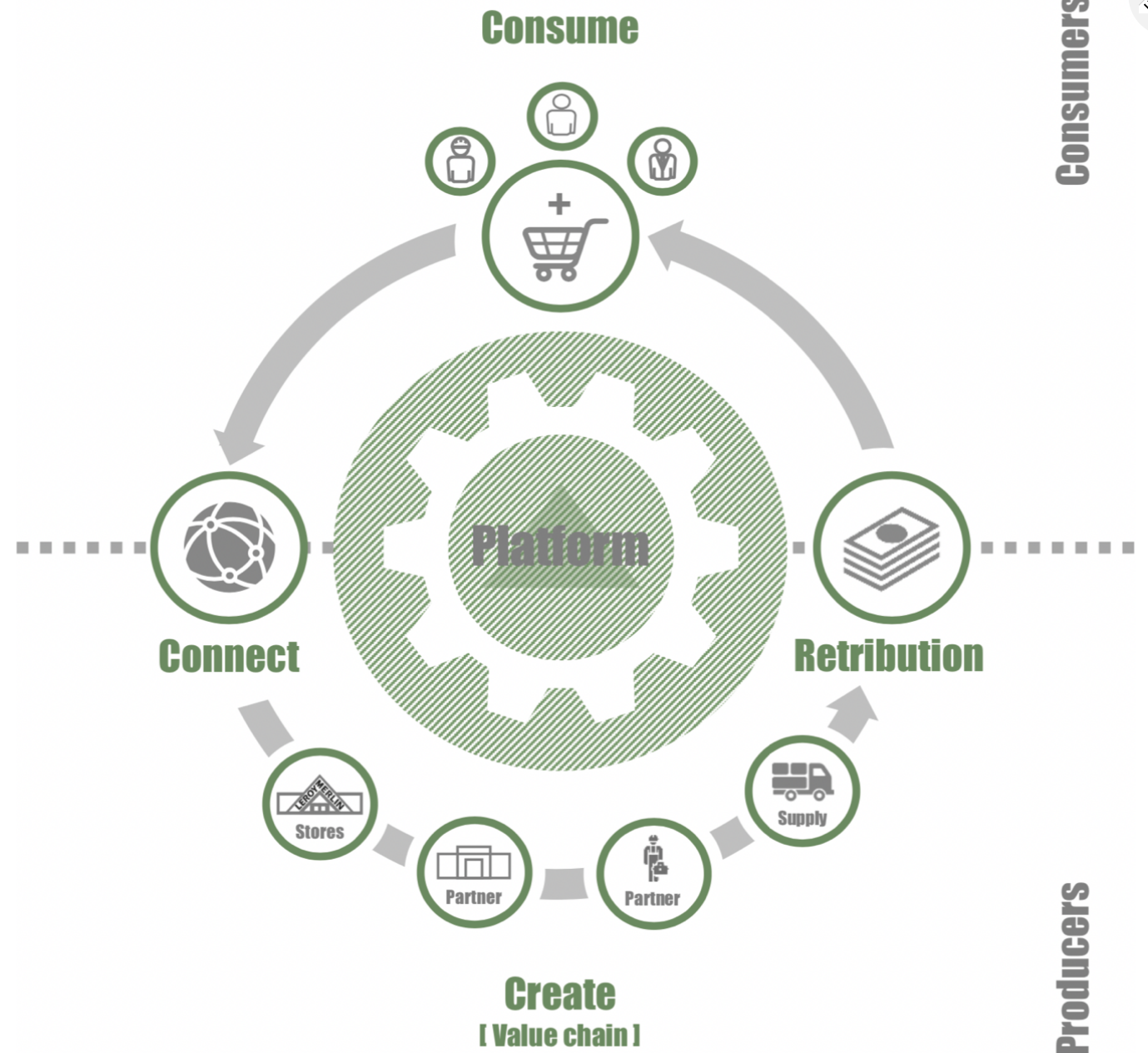


Symbiosis

The company serves the customer with its ecosystem of partners. The trade must be fair for both parts. If not the company is isolated

Platform business model

”We connect consumers to partners
through our platform”

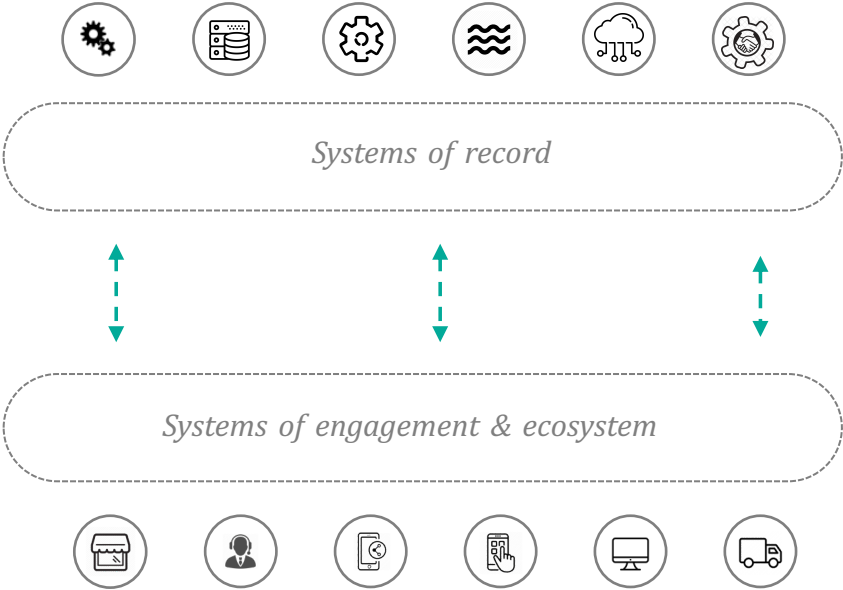


New organization rely on product teams structure

- Focus on particular area of **customer journey**
- Responsible for creating value for customers and business **KPIs**
- Responsible for both changes
- **Business & IT**
- Maintain developed functionality (**you build it you run it**)
- Support **modular** architecture (microservices, flexibility of development)
- The product should be built in a way that it could be **commercialized**



Business has strong expectations from IT in new context



TTM



decrease

RISK



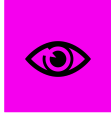
decrease

CAPEX
OPEX



decrease

TRANSPARENCY



increase



Strong stability

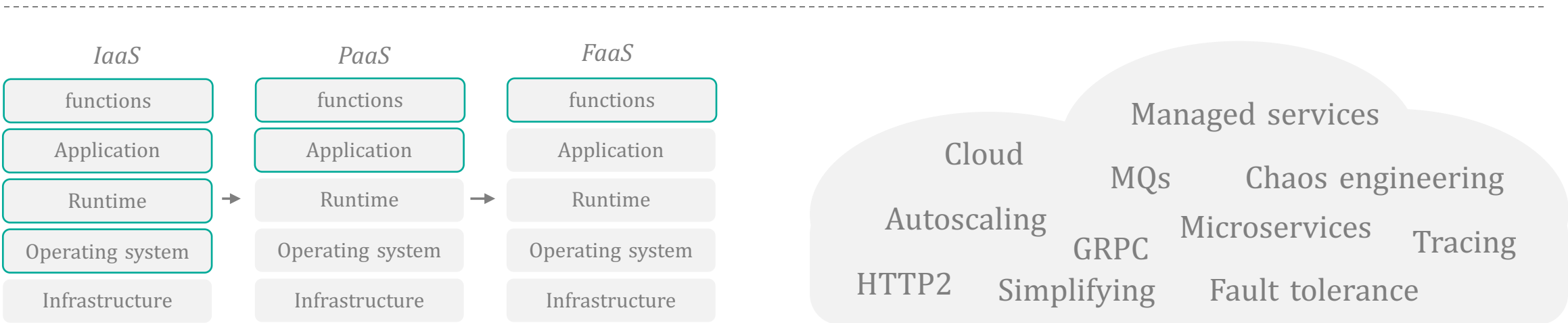
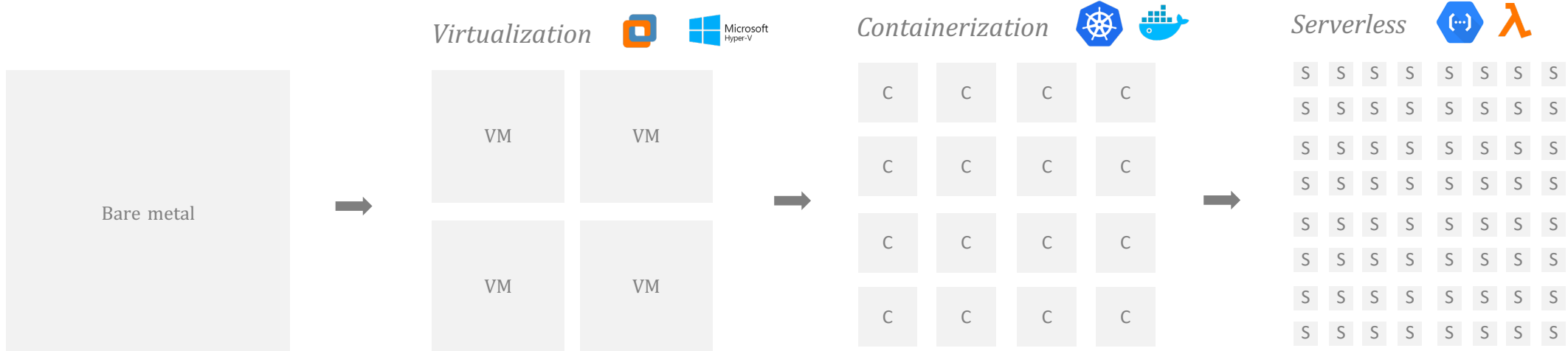


Small tech debt



Short TTM

New reality has raised new technical challenges as well



CONTEXT | API economy is a technical basement for platform business model



A **platform** is a business model that allows multiple participants (producers and consumers) to connect to it, interact with one another, and create and exchange value.



An **ecosystem** is an interconnected set of services that allows users to fulfill a variety of needs in one integrated experience.



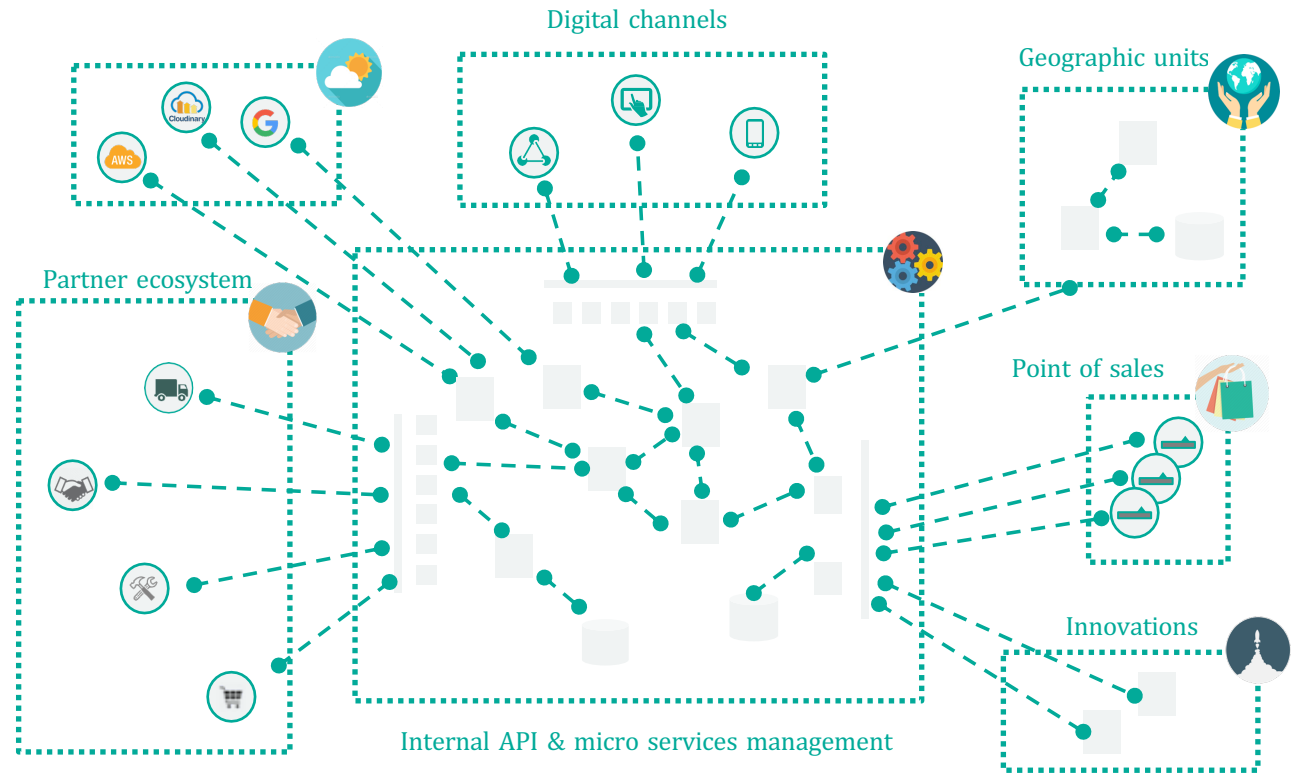
API economy were once largely limited to technical domains but have now become a significant engine of business growth. As the connective tissue linking ecosystems of technologies & organizations, APIs allow businesses to monetize data, forge profitable partnerships, and open new pathways for innovation and growth.

*“Through 2020, integration will consume **60** percent of the time and cost of building a digital platform”*

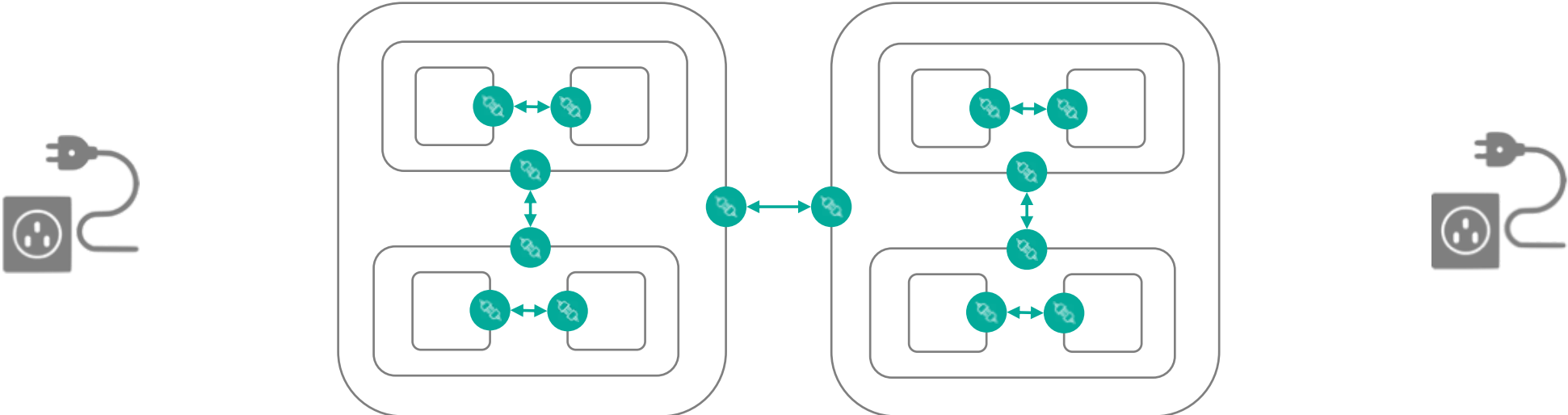
*“Ecosystems will account for **30** percent of global revenues by 2025”*

Gartner

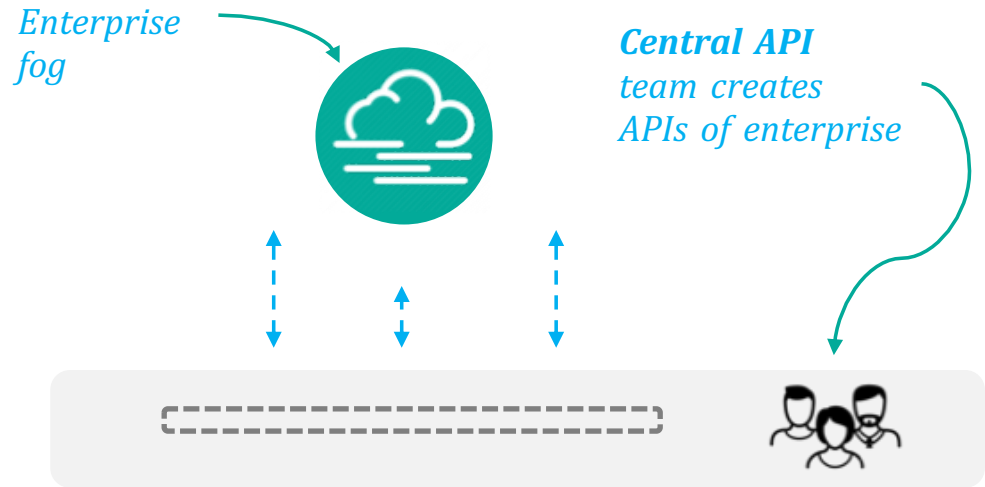
McKinsey & Company



APIs could be not only the interfaces to applications but to business functions as well



API_façade

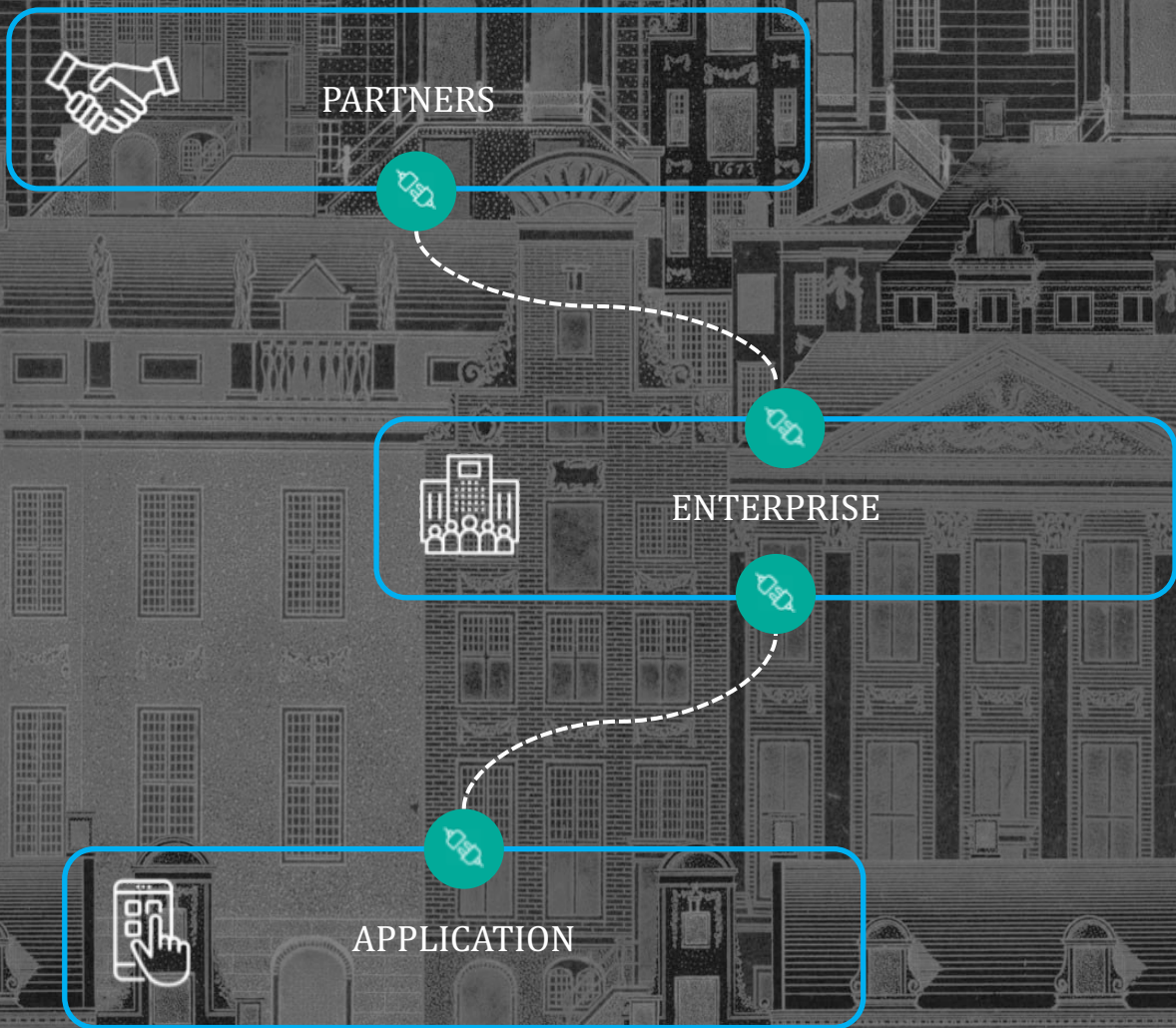


Digital Apps & Partners use APIs to connect to enterprise



API façade is not managing *internal complexity*
Its used to exposed interfaces for *Enterprise*

Central API team managing all the integration



Business **logic** owned
by single integration
team is **not** always a
good idea

Bottlenecks:

- *Organization*
- *Communication*
- *Performance*
- *Release & Operations*
- *Physical*



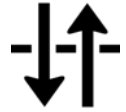
Centralization glue vs Chaos flexibility

'Concrete integration' –
everything is centralized, but its
extremely hard to change
anything



'Managed chaos' –
Requires significant
efforts & skills





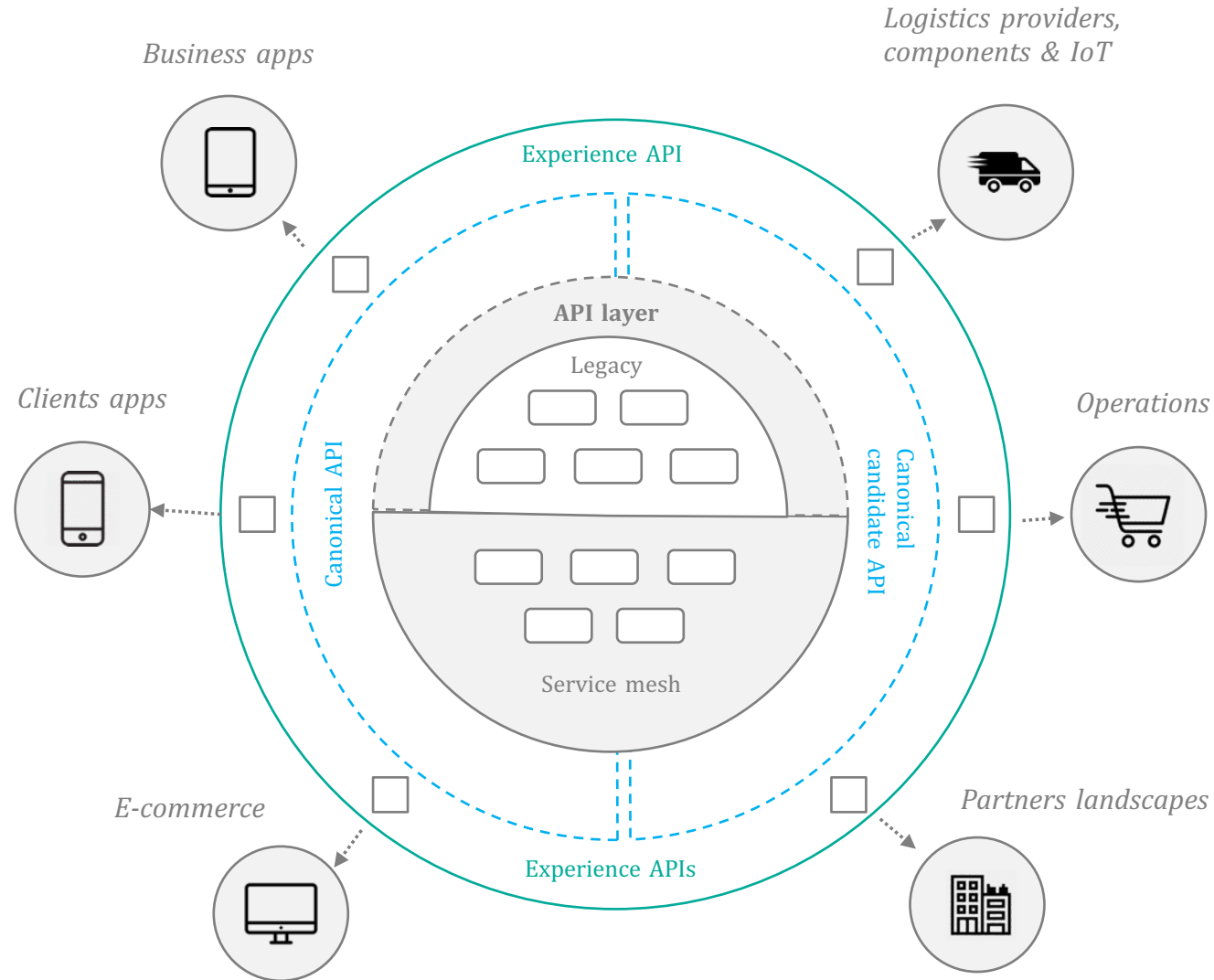
Erasing borders

API economy – basement for digital platform. Enable to seamless integration inside & outside the company IT landscape.



Enterprise map

Reach full **transparency** by controlling all **interconnections** via the interfaces



Black-box

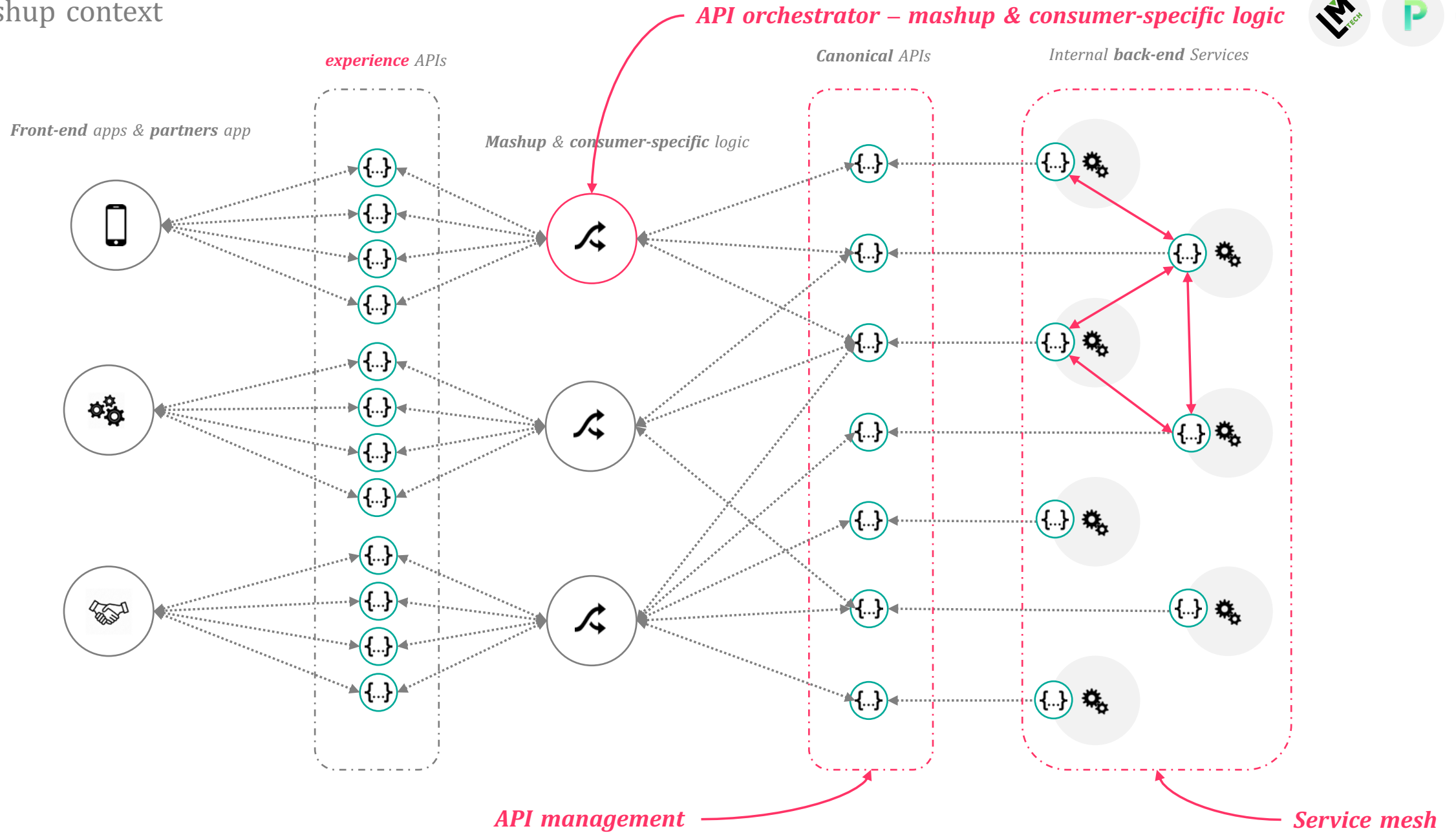
Incapsulate application complexity by **unified interfaces** transparency



Headache free

Platform injection + **self-service**

Mashup context



PRODUCT | Implement mashup workflow via API orchestrator solution



Perform **analysis** on mashup logic

Design logic via drag & drop GUI

Design functional auto **tests** & track results in GUI

Deploy to auto-scaled containers via CI/CD pipeline

Use auto-generated endpoints **documentation**

Track & **monitor** endpoints via monitoring visualization

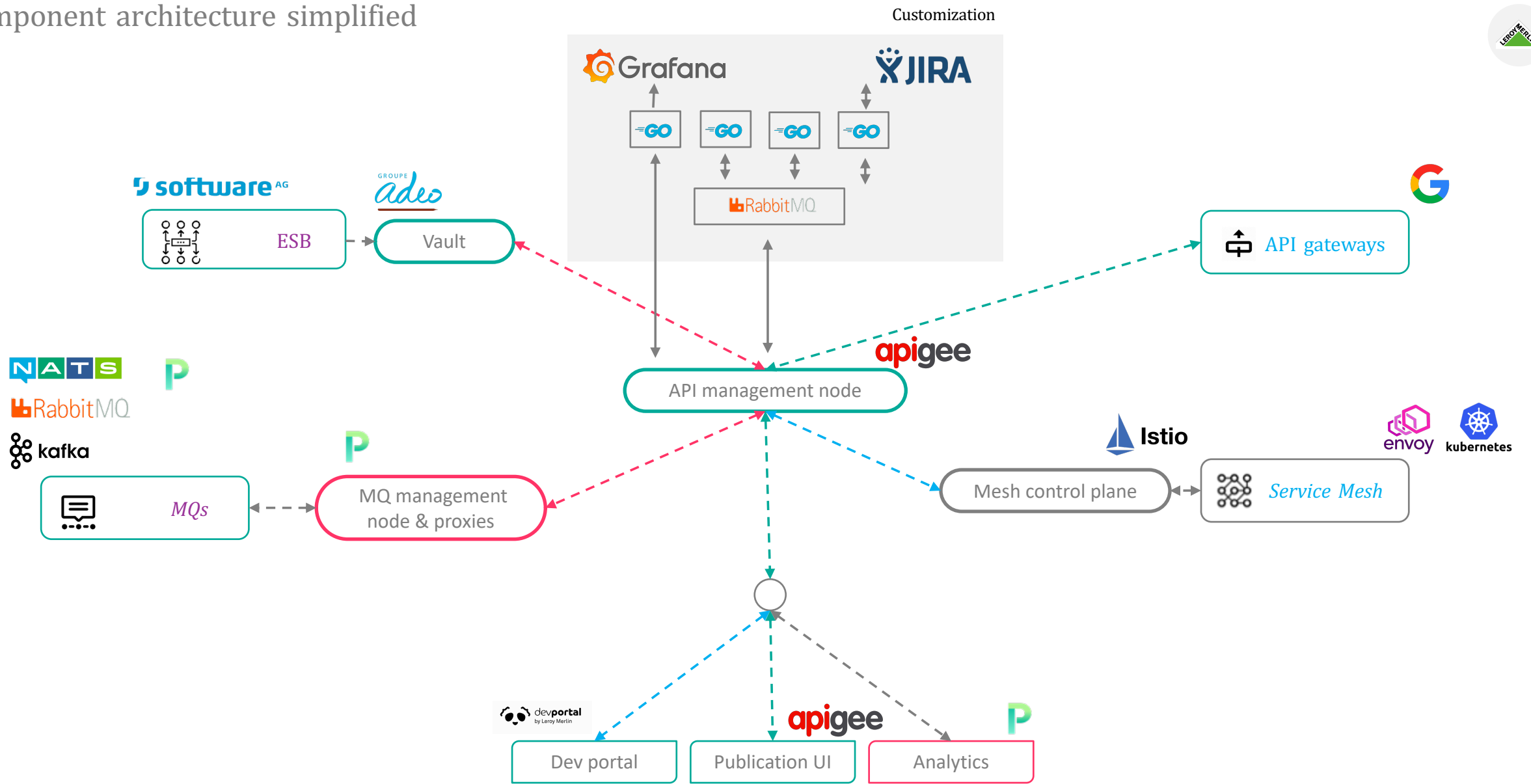
Quickly **investigate** any performance or functional issues via detailed tracing

Service	Max Latency	Average latency
LEGO-ROME0: Lego_Catalog_Similar_Products	3.5 sec	180.48 ms

Service	Max BPS	Average BPS
LEGO-ROME0: Lego_Catalog_Similar_Products	7	2.69

Service	Max Latency	Average latency
LEGO-ROME0: Lego_Catalog_Similar_Products	3.5 sec	180.48 ms

Component architecture simplified



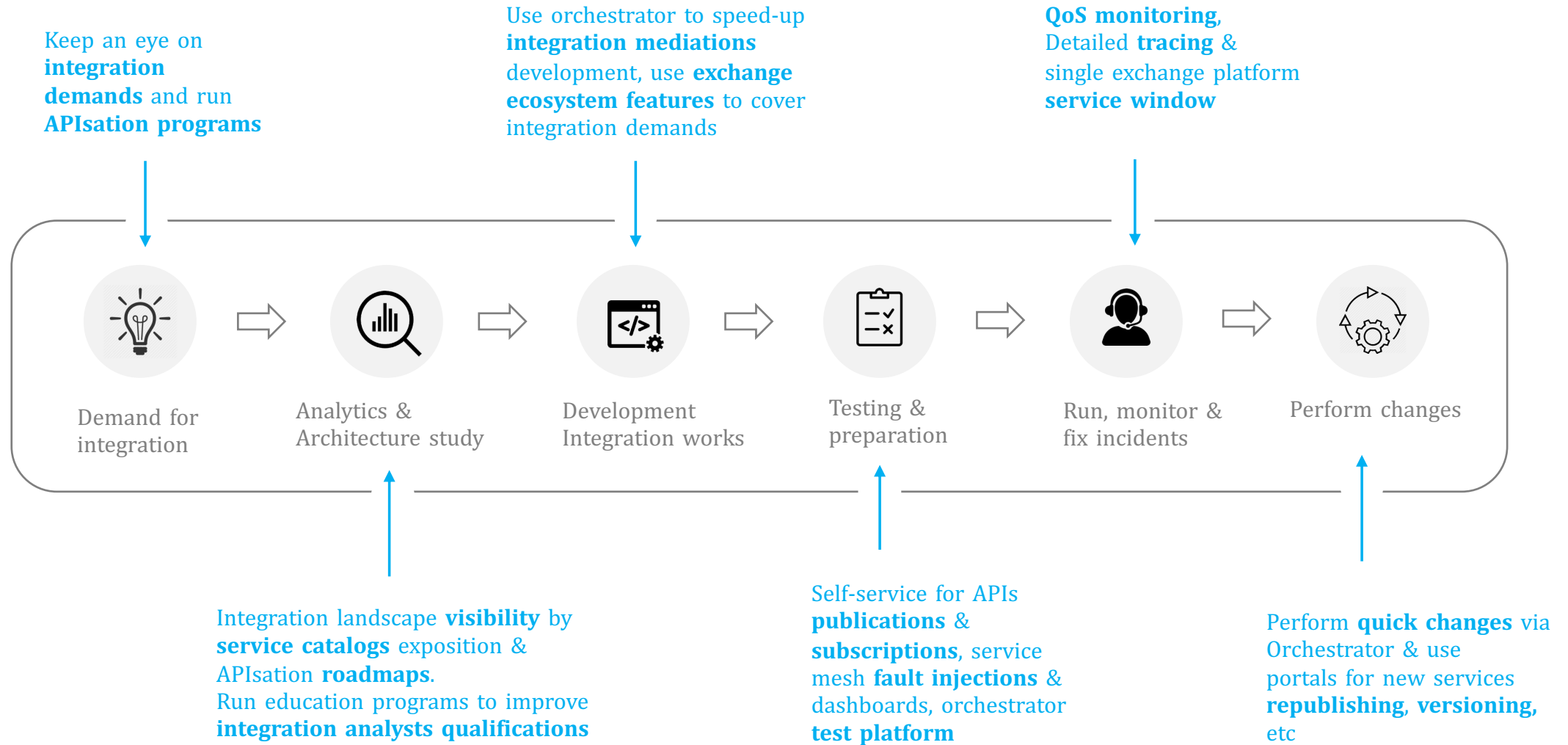


In case of any questions please do not hesitate to contact us:

Api-platform@leroymerlin.ru

appendix

Exchange platform value lifecycle



* - Product application lifecycle ** - Exchange platform values touch points

LMRU exchange platform components & principles



Platform core principles]



- **Interfaces democratization** – all interfaces exposed by a systems should be exposed in standardized formats



- **Catalog transparency** – all interfaces exposed by a systems should be visible in single catalog available for all the API users both potential & actual



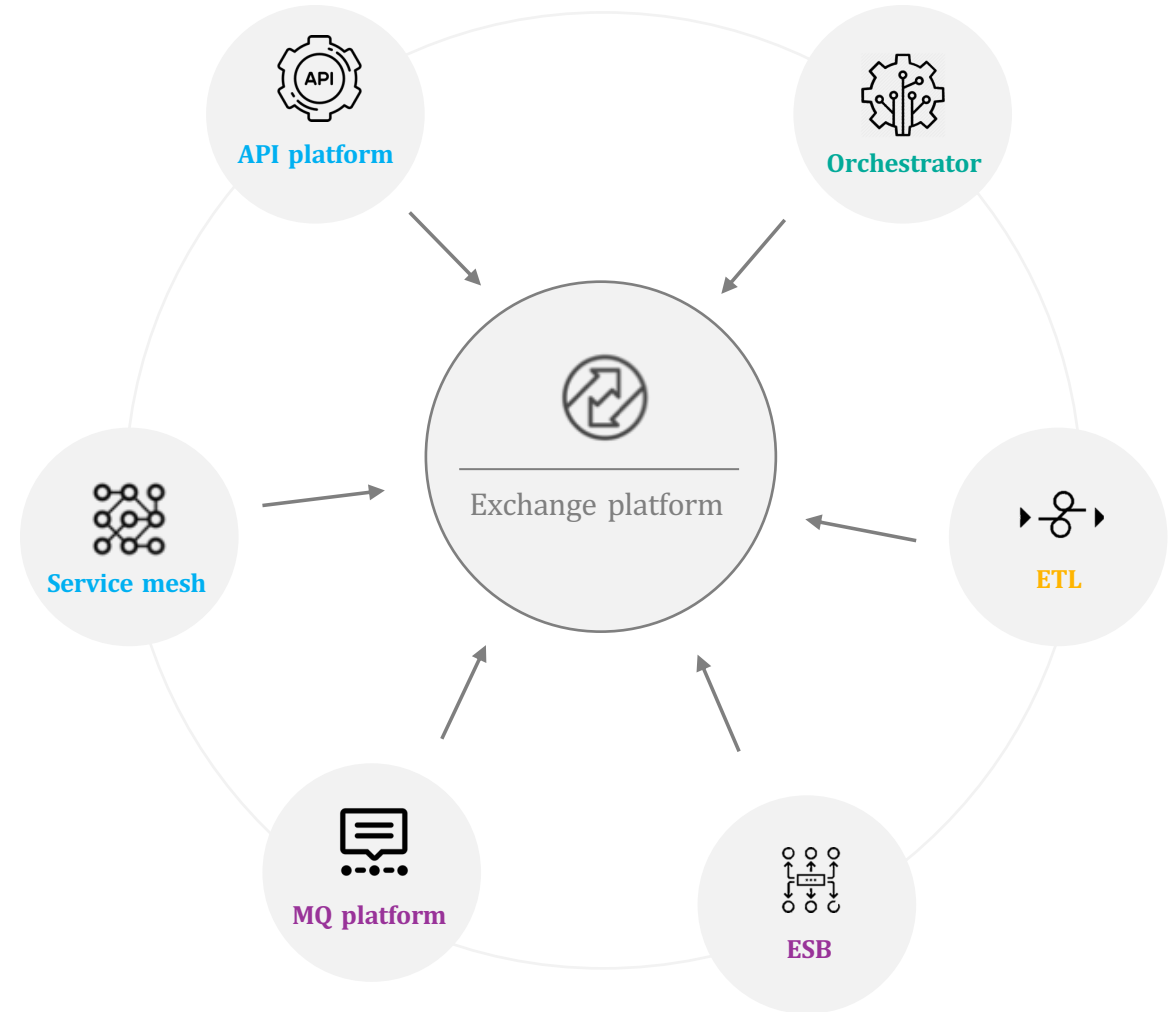
- **Usage transparency** – all systems which are consume interfaces should register the subscription and be tracked on the usage intensity.



- **QoS visibility** – all the interconnections processed within the interfaces should be tracked in success rate, response time & intensity perspective. All the analytics should be available in interface, consumer & time perspective.

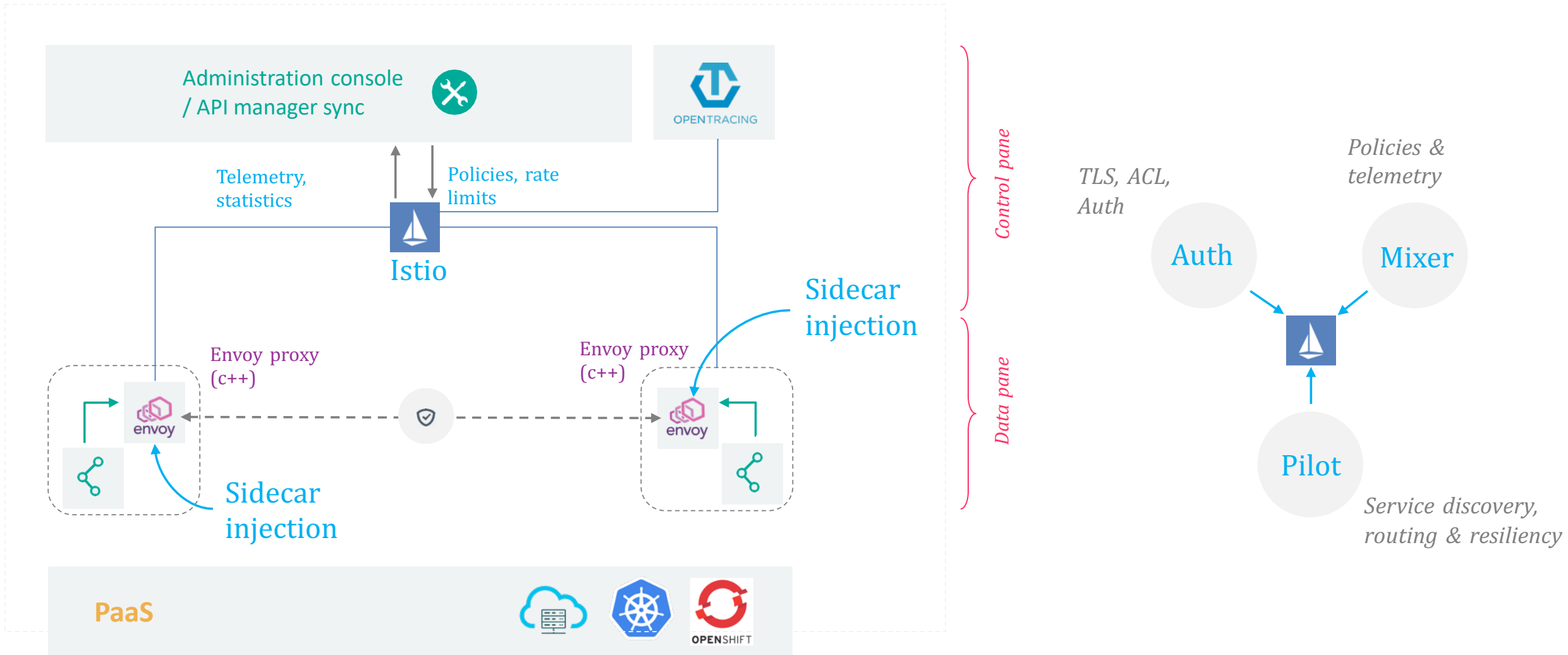


- **Self service** – Provide powers & autonomy to product teams. Safety.



Service Mesh / Istio

Traffic management / Observability / Access control / Policy management / security for internal micro-services interaction / Fault injection



Service mesh – application network based on sidecar pattern, enforces the point to point managed communication between microservices running on PaaS platform.