

# Ecosystem-focused API strategy

WIPO API day 2023

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Marjukka Niinioja, Founding partner at Osaango



@osaangold  
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# Nice to meet you!

## Marjukka Niinioja, Founding partner at Osaango

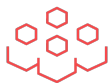
Founder, consultant and trainer at Osaango. The company mentioned as one of the top 20 API management companies in the world. She is co-author of API Economy 101 and co-founder of The API Collective.

### Osaango Ltd

We are a specialized boutique consultancy. We focus on consulting on smart business ecosystems and underlying APIs, data and operational technology

### Our clients

Our customers are medium and large enterprises in fintech, media, legal, education, public sector, technology, building and construction.



Osaango [www.osaango.com](http://www.osaango.com) is part of The API Collective, global API specialist consultants. More details from [www.theapicollective.com](http://www.theapicollective.com)

## What are your strategic goals?

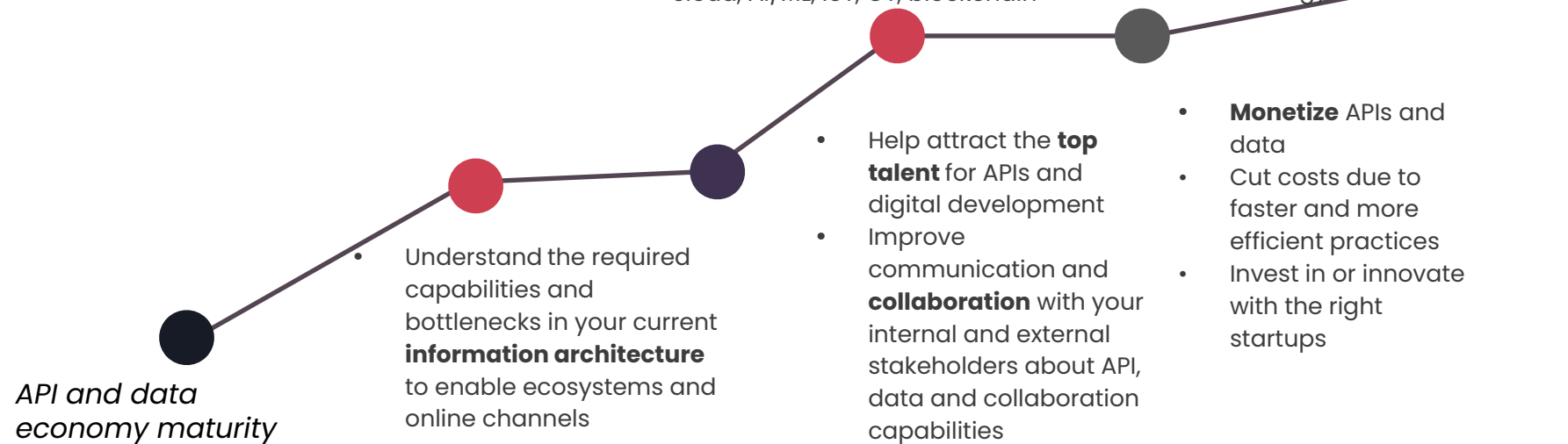
# Enable innovation and data flows

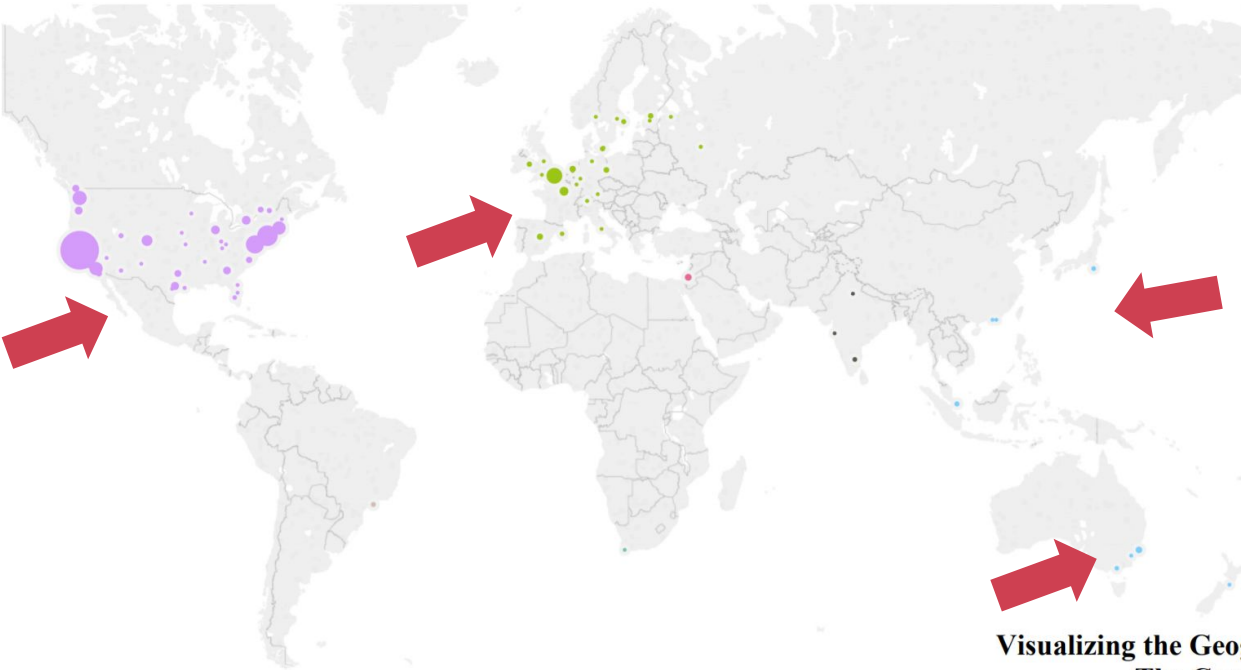
### Your goal: Modernize legacy architectures and organization?

- Improve **API and data quality**
- Improve **development speed** and quality
- Clarify **operating model**: roles, processes and ways of working around APIs and data
- Innovate with **APIs and data**
- Leverage **new technologies** like cloud, AI/ML, IoT, OT, blockchain

### Your goal: Grow business profitably?

- Develop **ecosystems**
- Enable **online and hybrid sales channels**
- Bring more revenue with the right API-enabled business strategy





From a global societal and economy point of view, how can we make APIs more widely adopted? Why should we?

Figure 1. Global API locations

**Visualizing the Geography of Platform Boundary Resources:  
The Case of the Global API Ecosystem**

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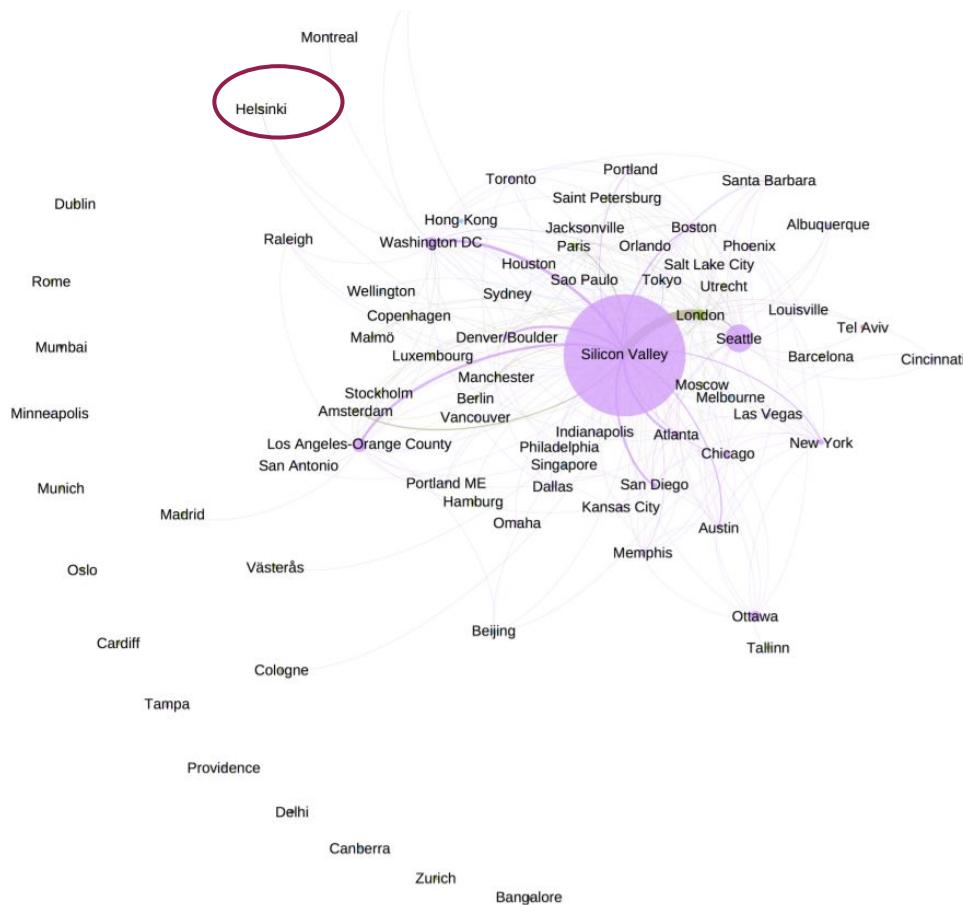


Figure 2. API co-use between entrepreneurial regions

Because:

The amount of APIs correlates with Global Startup Index and economic growth areas.

APIs thrive in cultures where **user-centered design** is dominant.

Mashups combining several APIs require certain amount of **co-location and mindset for marketers and developers to co-create.**

APIs can create co-dependencies between economies - to drive positive or negative impacts

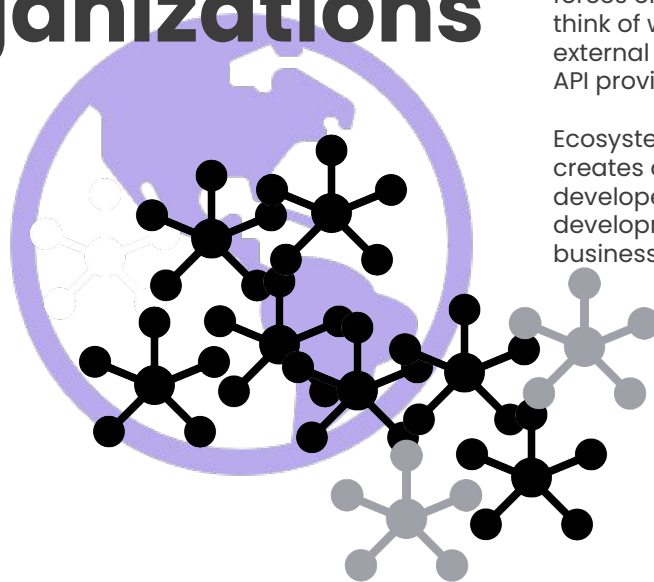
Source: Huhtamäki & al. Visualizing the Geography of Platform Boundary Resources: The Case of the Global API Ecosystem

# APIs enable scaling and distribution of products, services and organizations



## “Integration orientation”

Read more in Chapter 11 of API Economy 101 e.g. Bosch, J. – Bosch-Sijtsema, P. 2010. From integration to composition: On the impact of software product lines, global development and ecosystems. Journal of Systems and Software, 83(1), s. 67-76)



## “Ecosystem and platform orientation”

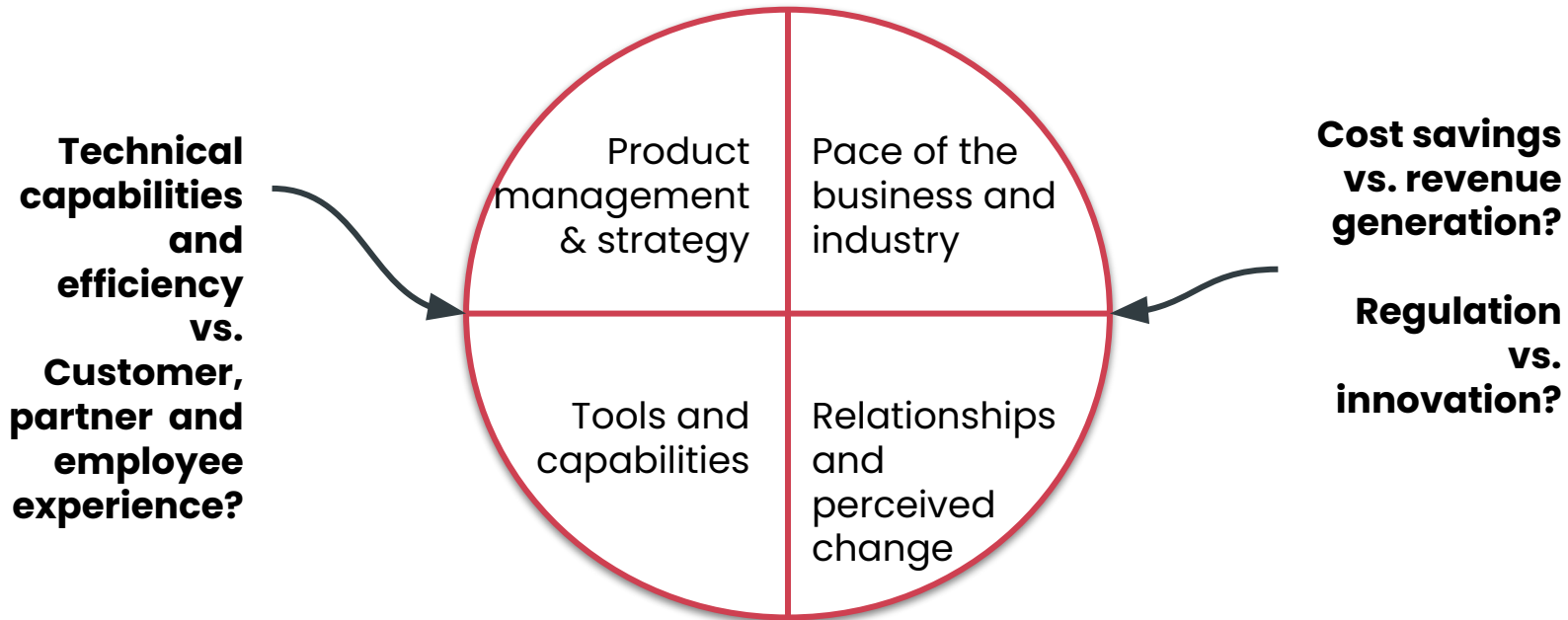
Internal API development causes organizational changes from within.

APIs provide possibilities to use external parties as innovators and service providers. This enables and forces organizations to open up and think of ways to collaborate with external developers, ecosystems and API providers.

Ecosystem and platform orientation creates opportunities for external developers to voice their needs to development roadmaps, both business and technical.

What are we aiming to achieve with our strategy? Who are creating it?

# API strategy or strategy to use APIs?



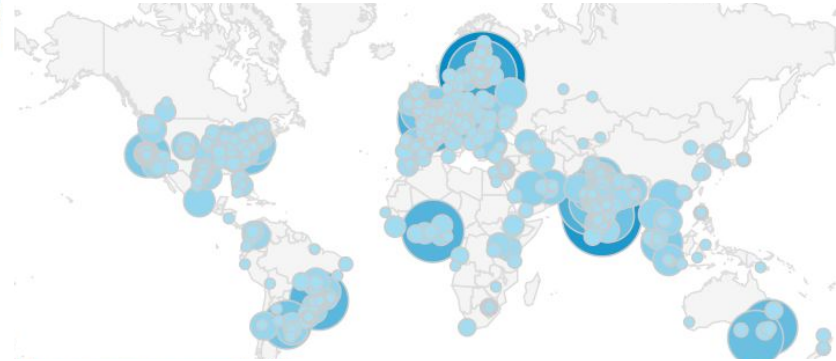
API is...	Description	Example	Type of API
<b>Important feature of a tangible product</b>	API is part of a tangible product or productized service. Customer gets the API as part of the deal when buying the product.	Internet of Things (IoT) APIs for controlling and analyzing state of things like home appliances or sensors	Partner or public, sometimes also private
<b>Productized service</b>	API in itself is a productized service, offered to all customers in the same way	Translation APIs, Payment APIs	Public API
<b>Part of a digital or real-world service</b>	API is part of the service experience, for example maintenance service is ordered with an API, or you can monitor package delivery with an API	Logistics API	Partner or Public API
<b>Customer-specific service</b>	API is part of a service offered to customers as a tailor-made solution including for example an integration to a service providers system.	APIs in customer specific applications	Partner
<b>Interface to resources</b>	API is just a means to access a resource the company is selling	Company info APIs (risk category, owners, contact information). Cognitive APIs etc.	Open data APIs, Partner APIs
<b>Interface to platform (boundary resource)</b>	API is a means to connect with a platform and get added value through participation in the interconnecting relationships of the platform (in Platform Economy business model)	Online auction API, Apartment sharing API	Partner or Public
<b>Part of an integration</b>	API is means to connect in to applications and devices	Product API, Employees API, business transactions API	Internal or partner API





# Collaborative ecosystem-oriented strategy?

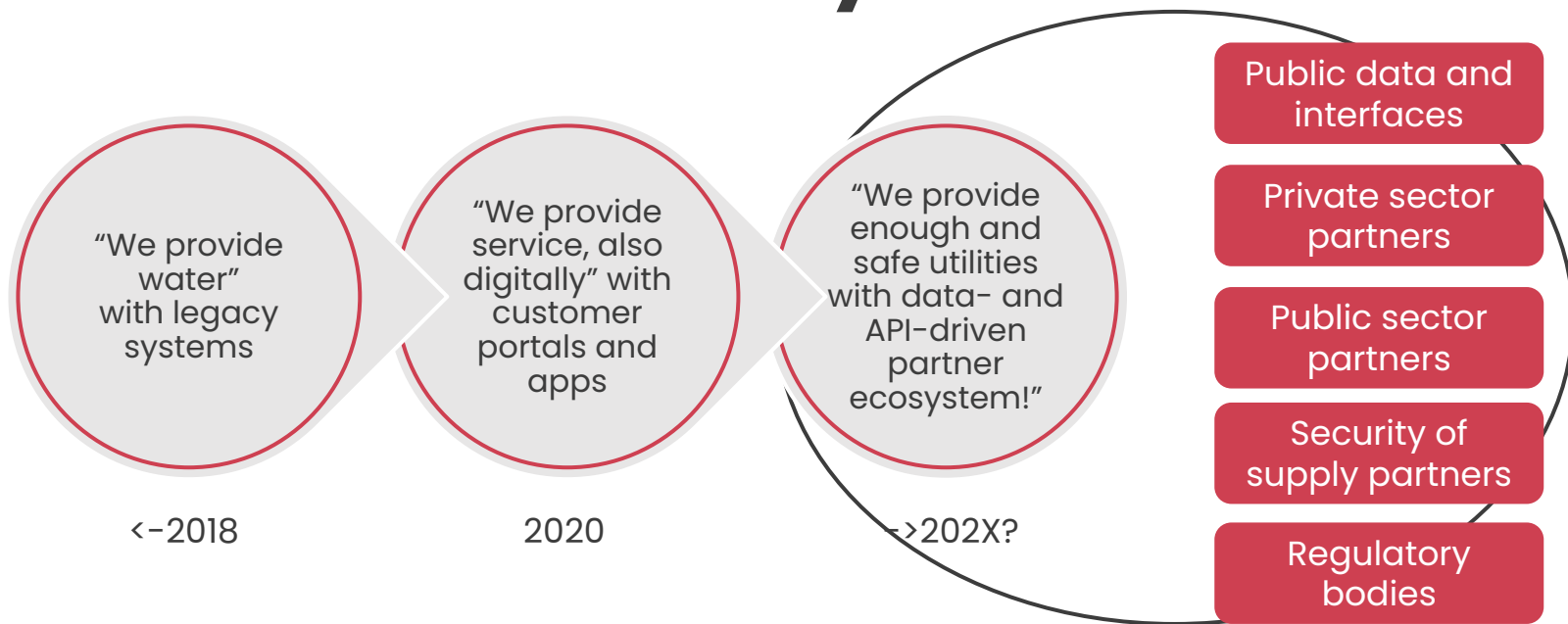
APIOps Cycles is an **openly licensed** (CC-BY-SA 4.0) method of **lean and business-oriented** API development. It promotes **collaboration, easy and fast** methods that enable business, product and technical experts to collaborate and communicate on new API and feature discovery, reuse and improvements.



APIOps Cycles users in 2022

Customer case

# What are the goals of the water services ecosystem?



## API Value Proposition Canvas

API Products and services

Gain enabling features

Pain relieving features

Gains  
Benefits for using API

Pains  
Problems using API



API product market fit

Tasks  
Stop by this task API consumer needs to achieve

Part of API Design Cycle method [www.salsify.com](http://www.salsify.com)  
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## API Business Model Canvas



Some highlights of the method:

**Business models and business model canvases are well known by the business people and designers**



Everyone hates NFRs  
so why not make  
them as easy and  
business user  
friendly

# Prioritize APIs that deliver full ecosystem journey



Become aware of need



Looking for solution



Comparing solutions



Purchase solution



Get solution delivered



Pay and get order confirmation

Customer journey combined from resources provided by individual providers via APIs


+ Gains: things that make the customer happy	+ Product reviews, tutorials and courses easy to find	+ Recommendations for products	+ Ordering with voice (hands-free)	+ Short delivery time (optimized routes)	+ Credit card payments
- Pains: things that make the customer unhappy	- What's the right one for me?	- Too personal offers (privacy)	- Typing a long order form	- Having to call maintenance to fix the product	- Security of the payments needs to be guaranteed

**Developer gains and pains** for using API to implement these touchpoints are added to the API value proposition canvas

- ▶ Awareness APIs
- ▶ Analytics and content APIs
- ▶ Product recommendation APIs
- ▶ Voice recognition APIs
- ▶ Route optimization APIs
- ▶ Fraud detection APIs for payments
- ▶ Sense APIs
- ▶ Loyalty APIs
- ▶ Text-to-speech APIs
- ▶ Voice call APIs
- ▶ Order capture APIs

"The ecosystem together generates value for its end-customers by integrating functionally interdependent subsystems. "(Source: In API Economy 101 book from Mäkinen – Dedehayir, 2013; more specifically Han, J. et al. 2017. Uncovering the conceptual boundaries of the ecosystems: Origins, evolution and future directions.)

Let's make some more dots on the map with the open APIOps Cycles method – for a more **sustainable future** and **more equal growth**



The image shows three devices displaying content related to the APIOps Cycles program. A laptop in the foreground displays a slide titled "Futudemy innovation and learning program". The slide includes the osaango logo, Cisco as a founding member, and logos for LAU REA and AMMATTIKORKEAKOULU. The main content is a circular flow diagram with four stages: 1 Boarding, 2 Ground operations, 3 Take off, and 4 Landing. Each stage has a corresponding icon and a brief description. To the left, a tablet and a smartphone also display the APIOps Cycles logo and program information.

**osaango** Founding members **osaango** **LAU REA** **AMMATTIKORKEAKOULU**  
University of Applied Sciences

## Futudemy innovation and learning program

**Your goals**

- Cultivate data & API innovation
- Power up with benchmarks
- Fit API designs to value propositions
- Raise strategic thinking

**Futudemy sessions**

- 1 Boarding**  
What are the business and technical possibilities with data & APIs? Methods to think outside of the box?
- 2 Ground operations**  
Discover customer needs, data sources, existing APIs from your and other organizations
- 3 Take off**  
Prepare for pitching: How your idea can be realized and validated? What APIs do you need?
- 4 Landing**  
Learn by pitching your data & API business opportunity. Get & give feedback from mentors and team.

The session flow and methods allow for maximum amount of learning on communication, ideation and innovation with APIs that can be used for real product development work. The actual contents, the ideas to be worked are fully customizable and depend on the ideas and interests of the participants / organization.

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Lean more at [www.apioptionscycles.com](http://www.apioptionscycles.com) and [www.osaango.academy](http://www.osaango.academy)  
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