20TH ANNIVERSARY EDITION

WSO2CON ASIA

PLATFORMLESS MODERNIZATION

# Running a Successful API Program

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Field CTO
WSO2

# Based on a real experience…

CaixaBank

https://www.caixabank.com/en/headlines/news/caixabank-opens-office-algiers

INDITEX

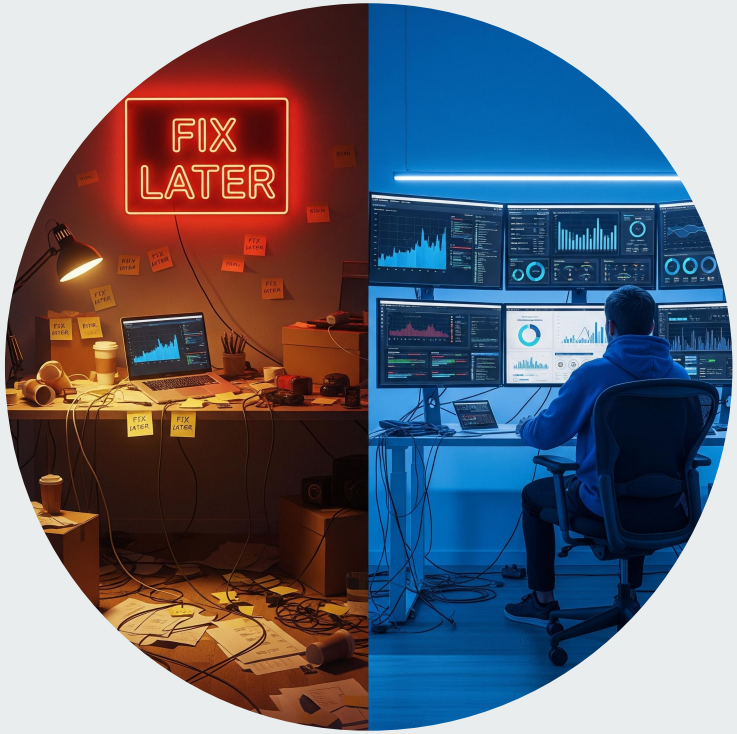
BRANDS 8

200+ MARKETS

5,000+ STORES

# INDITEX

FOSDEM 2025




# Decoding the value API Program

Transform API disorder into organized systems that deliver measurable value

# HUMAN TOWER

## The Ancient Art of Modern System Design

https://castellersdevilafranca.cat/tots-sants/49009455081_e99388408b_k/

# Human Towers

## Why human towers?

It represents the **API BACKBONE** of an organization and teach us something interesting about complex systems:

1. You can't skip levels - each floor must be solid before the next
2. Success depends on perfect coordination, not individual heroism
3. The base determines how high you can go
4. Each floor is a level of organisational maturity in APIs

**The goal is not to make the highest tower, but the most reliable and repeatable**

https://ca.m.wikipedia.org/wiki/Fitxer:Concurs_de_Castells_de_Tarragona_2024_-_20241006_104430_%28cropped%29.jpg

# Building from the Base

## The Human Engine of Transformation

The powerful base of the tower represents the critical mass of people who are passionate about the API-first strategy and drive it enthusiastically from all levels of the organisation. We need them to get success

## Meet the Champions within your base

- Developers who see APIs as exciting products, not just technical tasks
- Architects who evangelise standards out of conviction, not obligation
- Product managers who understand the transformative value of reuse
- Enthusiastic internal early adopters who push for better APIs
- Internal sponsorship (CIO, CEO .. ) who drive the strategy from top

https://www.triangle.cat/pdfs/cas-c.pdf

# Level 2 – Unlock the power of API's

## Building a Strong Foundation for Success

On the second floor we establish the fundamental capabilities to run a successful API program in the company

### Dedicated Protected Time

Ensure that teams have allocated and protected time to execute the API program tasks

### Discovery

Regularly engage teams to identify their needs and challenges.

### API Inventory

Create API inventory documenting purpose and usage.

### Build a Dedicated API Squad

Establish dedicated API squad to manage and evangelize strategy.

https://ca.wikipedia.org/wiki/Castellers_de_Viladecans

# Ignite Change

From here, execution begins and critical decisions are made

# Level 3 – Ignite the change

## Policies, Standards and Training

The organisational API "white paper" (but living, not static)

Active internal communities of practice

Continuous training and mentoring programmes

Internal certification processes that empower

Two-way feedback channels for standards evolution

# Level 4 – API Design and as API First

## API Lifecycle Framework

- Definition of clear stages from design to retirement.
- Standards and guidelines for consistent API design.
- Tools for version management and deprecation.
- Engineering Team -API Team Collaboration

## APIs that Accelerate Time-to-Market

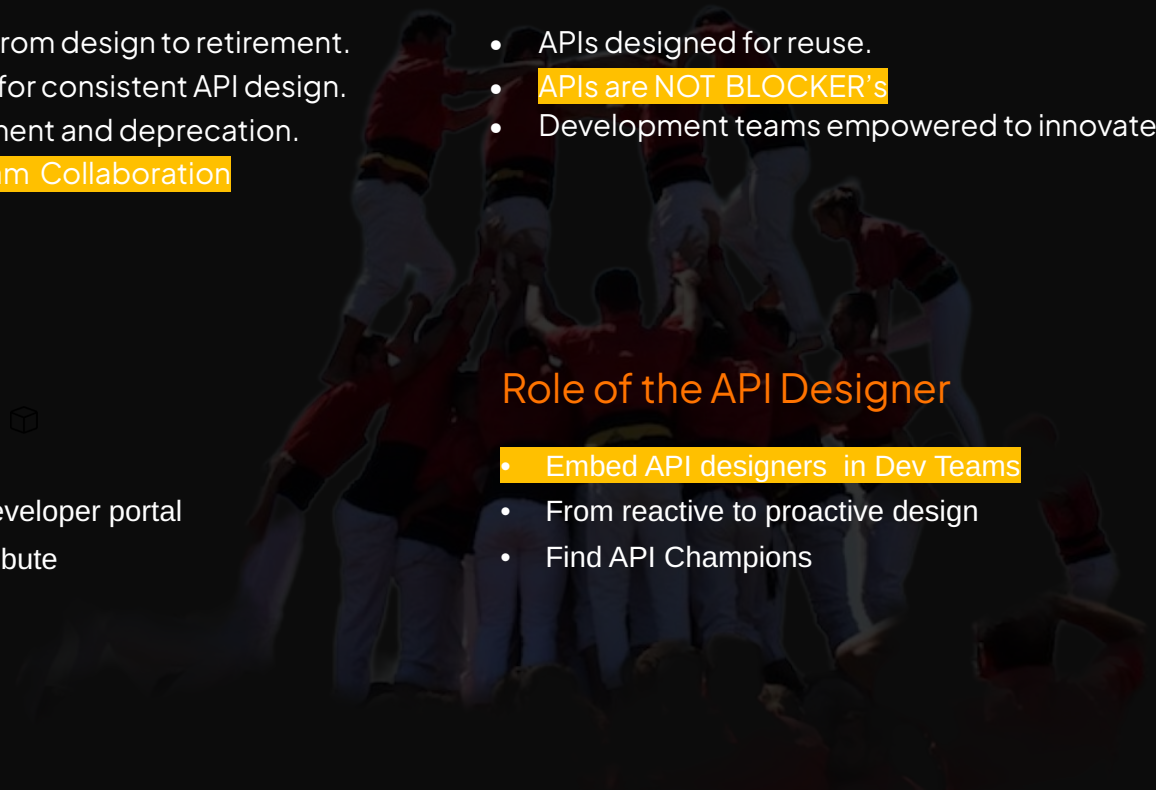
- APIs designed for reuse.
- APIs are NOT BLOCKER's
- Development teams empowered to innovate quickly.

## Easy Discovery

- Internal API PORTAL
- Becomes as the internal developer portal
- All Teams define and contribute

## Role of the API Designer

- Embed API designers in Dev Teams
- From reactive to proactive design
- Find API Champions



# 85K
req/s

## API PROGRAM PERFORMANCE IMPACT AND SYSTEM AFFECTATION DURING 2023 BLACK FRIDAY PEAK TRAFFIC

gRPG

**350K**

req/s

Kafka

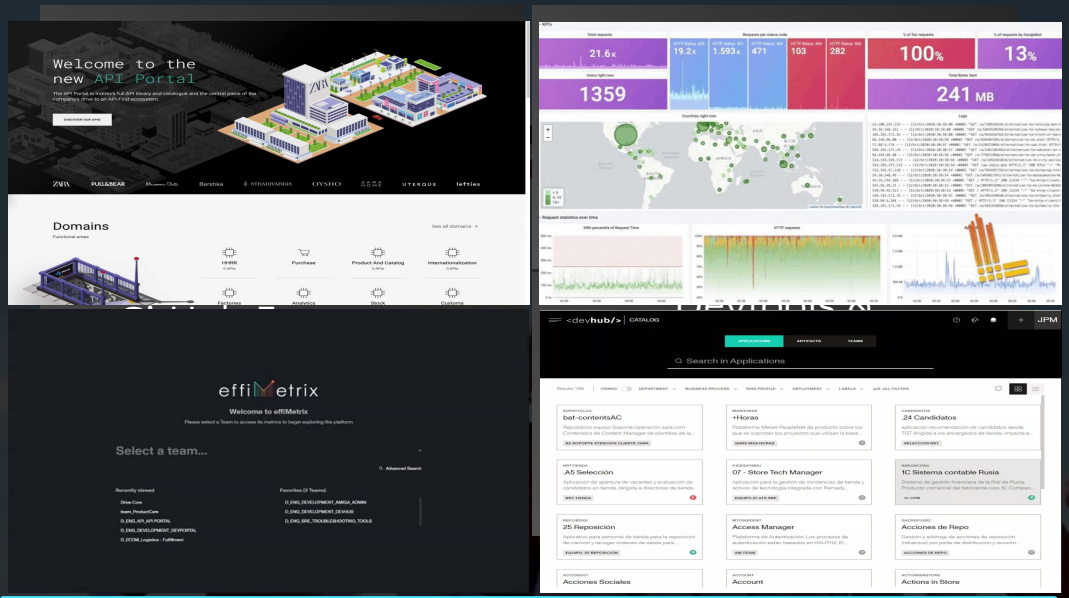
**365K**

EPS

**1.3M**

QPS

# Level 4 – Engineering developer platform




Developer Control Plane

# Level 5 – Automation and Tools

## API OwnerShip

Teams control and customise their own APIs

## Always On Quality

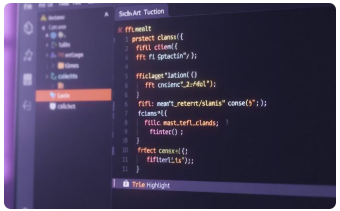
Quality runs in the background

## CI/CD Automation

Ensures the AP governance through an automated pipeline.

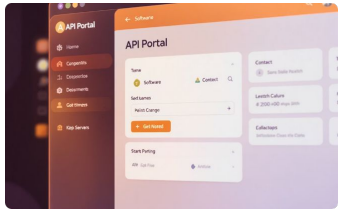
## API Scoring

Auto-checks: docs, security, performance, governance.



## VS Code Extension

Real-time compliance guidance in design phase

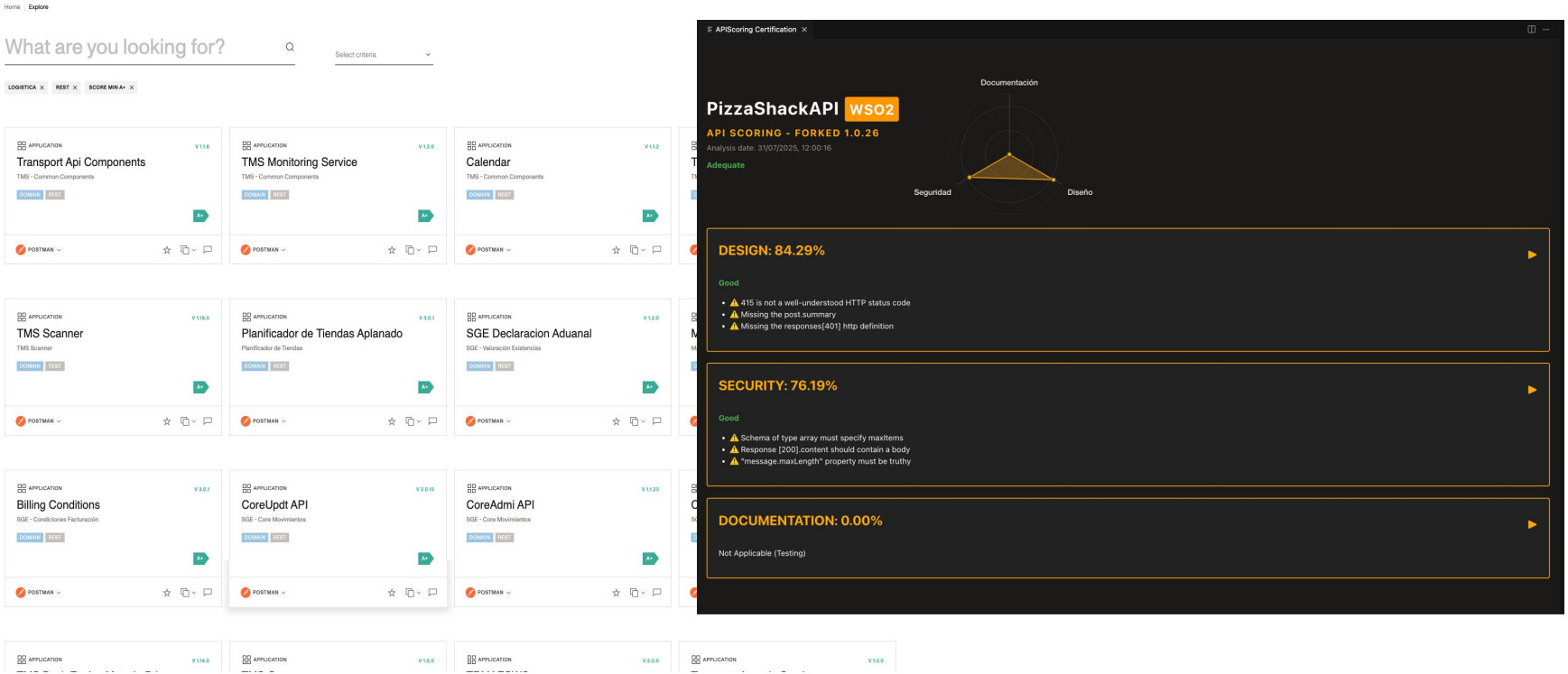


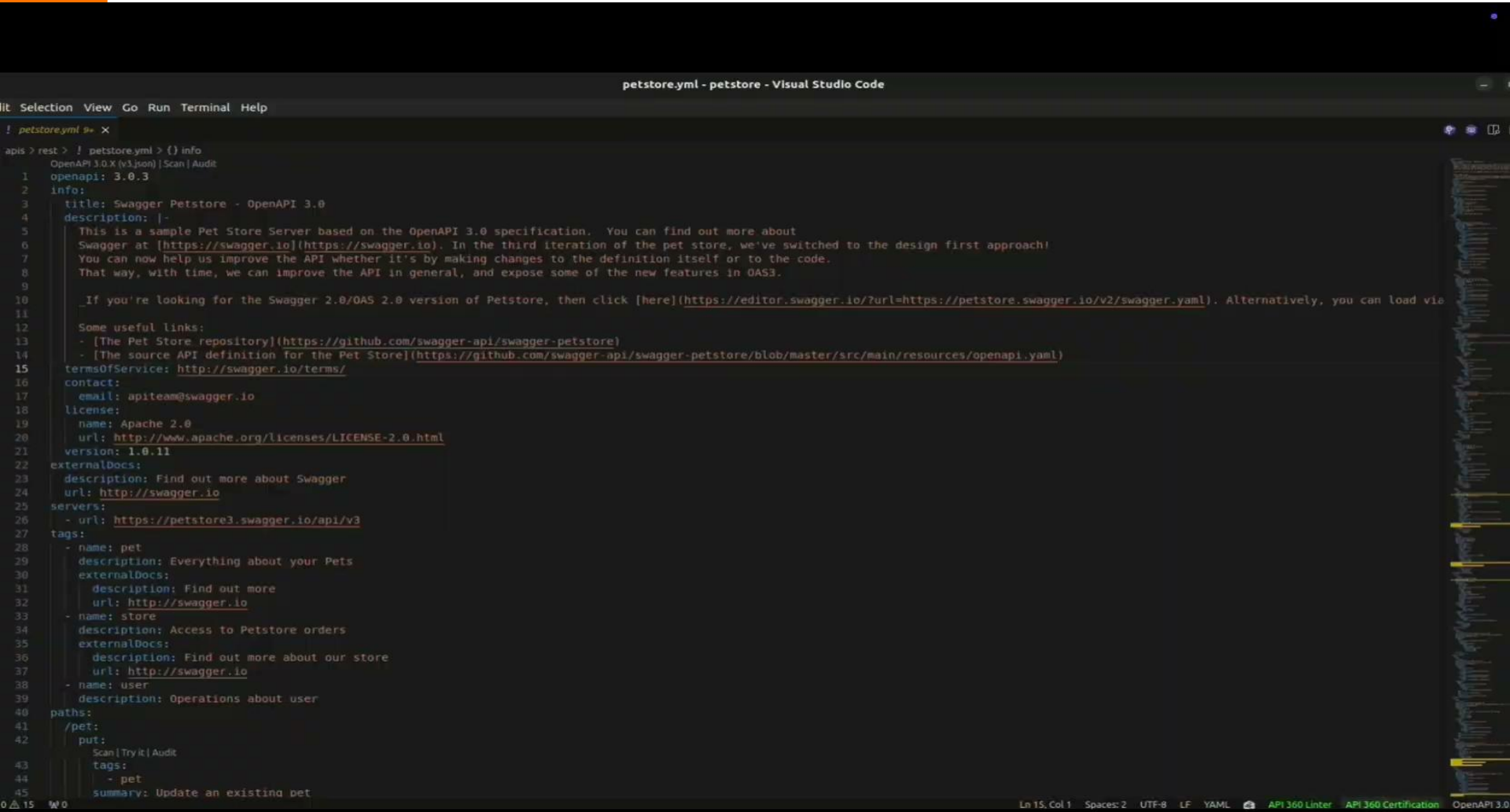

## API Portal Scoring

Public ratings drive teams competition

https://revistacastells.cat/2023/12/macrodiada-a-la-sagrada-familia-amb-un-castell-de-7/

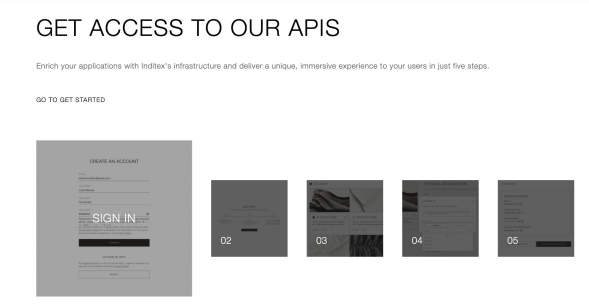
# Exploring the tools that drive API adoption and quality




petstore.yml - petstore - Visual Studio Code
lit Selection View Go Run Terminal Help
! petstore.yml 9+
apis > rest > ! petstore.yml > {} info
OpenAPI 3.0.X (v3.json) | Scan | Audit
openapi: 3.0.3
info:
title: Swagger Petstore - OpenAPI 3.0
description: |-
This is a sample Pet Store Server based on the OpenAPI 3.0 specification. You can find out more about
Swagger at [https://swagger.io](https://swagger.io). In the third iteration of the pet store, we've switched to the design first approach!
You can now help us improve the API whether it's by making changes to the definition itself or to the code.
That way, with time, we can improve the API in general, and expose some of the new features in OAS3.
_If you're looking for the Swagger 2.0/OAS 2.0 version of Petstore, then click [here](https://editor.swagger.io/?url=https://petstore.swagger.io/v2/swagger.yaml). Alternatively, you can load via
Some useful links:
- [The Pet Store repository](https://github.com/swagger-api/swagger-petstore)
- [The source API definition for the Pet Store](https://github.com/swagger-api/swagger-petstore/blob/master/src/main/resources/openapi.yaml)
termsOfService: http://swagger.io/terms/
contact:
email: apiteam@swagger.io
license:
name: Apache 2.0
url: http://www.apache.org/licenses/LICENSE-2.0.html
version: 1.0.11
externalDocs:
description: Find out more about Swagger
url: http://swagger.io
servers:
- url: https://petstore3.swagger.io/api/v3
tags:
- name: pet
description: Everything about your Pets
externalDocs:
description: Find out more
url: http://swagger.io
- name: store
description: Access to Petstore orders
externalDocs:
description: Find out more about our store
url: http://swagger.io
- name: user
description: Operations about user
paths:
/pet:
put:
Scan | Try it | Audit
tags:
- pet
summary: Update an existing pet
0 15 0
Ln 15, Col 1 Spaces: 2 UTF-8 LF YAML API 360 Linter API 360 Certification OpenAPI 3.0

# Level 6 – APIs Marketplaces

## Transforming internal assets into business opportunities




### Internal Catalysts

API designers collaborate with business teams to identify value opportunities. They create internal marketplaces that drive reuse and accelerate innovation.

### Partner Ecosystem

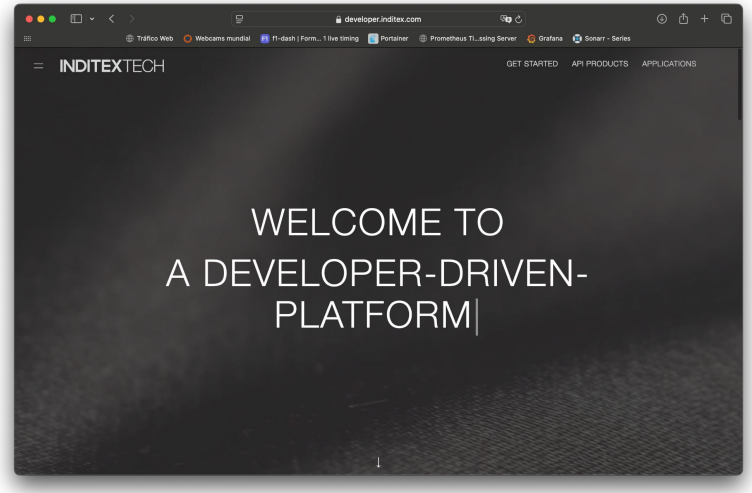
We co-create APIs with strategic partners to maximize mutual value and unlock new joint market opportunities in the B2B World

AI Generated : GEMINI

All service interfaces, without exception, must be designed from the ground up to be externalizable… to developers in the outside world.

– Jeff Bezos, Amazon API Mandate (2002) –

# Level 7 – External API Marketplace




## SECURITY

zero-tolerance each endpoint is rigorously tested.

Real-time monitoring

## PERFORMANCE

Auto-scaling infrastructure without interruption.

Protected with 99.99% uptime guarantee.

## REVENUE

Recruiting tool

Driving Traffic & Generating Value

Font: David Hernández (Castellers de Viladecans)

La imagen seleccionada se mostrará aquí

Seleccionar imagen y buscar

# Question Time!

Thank you!
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