

### WEARE SPECIALISTS IN... Studying and developing of new **Digital Products**.

WE PROMOTE TECHNOLOGICAL DEMOCRACY All projects have **specific needs**. We use the **right technology** to tackle them, not the other way around.

www.load.digital

# WE ARE LOAD 10 YEARS



LOAD is founded with a focus on customized web and mobile solutions. Affiliation to Masters in Innovation Group.

2013

2014

Creation of the Digital Product Research department. 2015

Creation of R&D Department.

### 2016

ISO 13485 Certification.

Focus on eHealth solutions. First digital medical device introduced.



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2017	2018	2019	2020	2021
Creation of the IT Consulting department, which provides nearshoring and on-site consulting services.	R&D focus on emerging technology trends: Blockchain, Artificial Intelligence and Virtual Reality.	Consolidation as Digital Innovation Specialists	Becoming a medical device software specialist manufacturer with ISO 13485:2016 certification with global accreditation.	Creation of an innovation department with a focus on international partnerships.
13	15	17	23	29







## **OUR CUSTOMERS**

### PORTUGAL



**II TEIXEIRA DUARTE** 





**BENELUX** 





SIEMENS

Abbott

A Promise for Life



SANOFI

**OTHER GEOGRAPHICAL AREAS** 





net one







Digital Products & Case Studies











### Maintenance management software aimed at reducing costs and extending equipment lifecycle.

UX/UI Design

The client challenged LOAD to develop the mobile version (smartphone & tablet) of their product, a standard and outdated desktop application. To this end, we proposed to start the project with a UX /UI assessment of its software to understand all the features and what users value most.

After a few brainstorming and design sprint sessions, we started from scratch to develop the initial flow and wireframing for an A/B testing of the look and feel. To date, we have created both a smartphone and tablet MVP version. We are currently in the usability testing phase.

In addition to the design efforts, we have also identified new opportunities within the software development that the client would like to improve, from a web app to new features such as SSO.



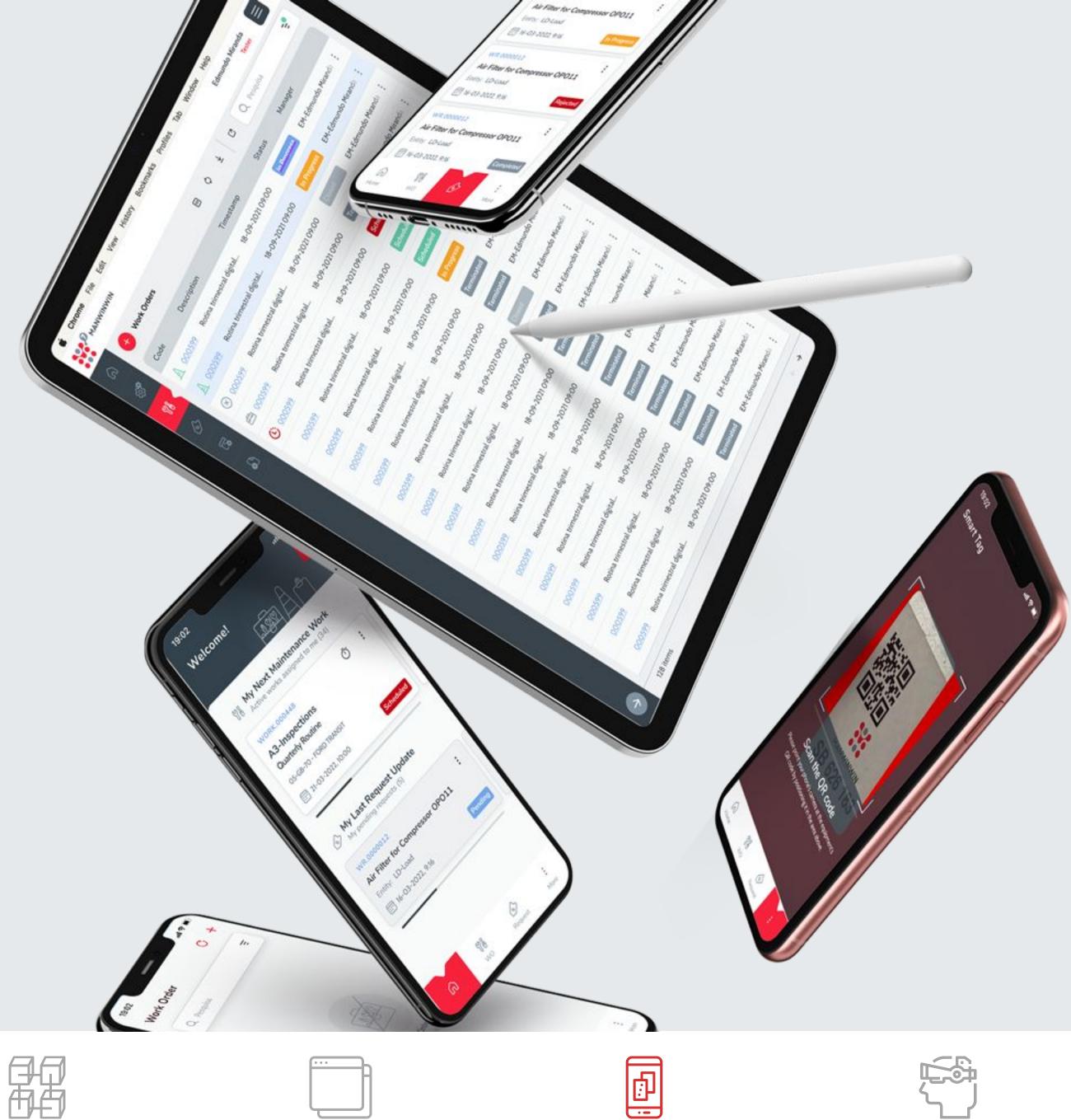




Big Data

IoT & Connected

Artificial Intelligence



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Blockchain



Web App





Mobile Apps

**Extended Reality** 



#### CEFALY

## Releasing the pain of migraine on the palm of your hands

UX/UI Design

Development

A European medical company that manufactures a device that is placed on the patient's forehead and performs neurostimulation of the trigeminal nerve. This nerve is involved in most headaches and migraines, and its upper branch ends at the exit of the eye socket under the skin of the forehead.

LOAD is developing a mobile app to interact with this device that manages two different migraine control programs and also collects device usage statistics;

This app will also interact with a back office to manage access to the app and manage the data collected from the device.





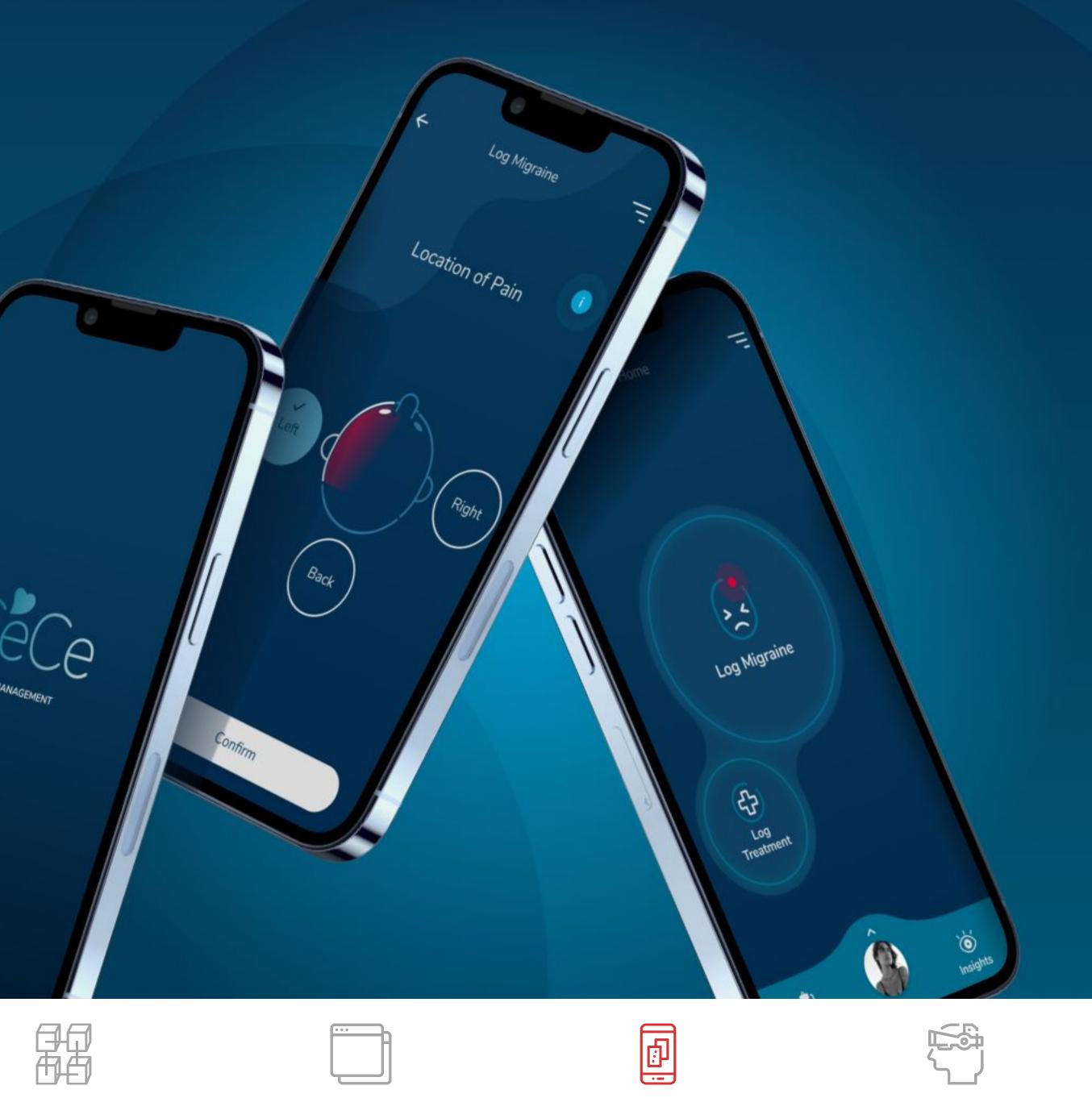


#### Internet of Things



Artificial Intelligence

Data Representation





Blockchain

Web Apps & Solutions



Mobile Apps

3D & Mixed Reality AR/VR

#### MAAPP

### All relevant information on innovative medicines.

UX/UI Design

Development

MAAPP - Market Access APP - is a mobile or web application that collects up-to-date information on regulatory aspects, public funding, access and clinical trials of innovative drugs.

With MAAPP, you are always up-to-date on approved innovative medicines, those awaiting marketing authorization (MAA), and those under review by the EMA. The product also provides important information on innovative medicines funded by the Portuguese government, according to therapeutic indications, subgroups and other conditions of use. In addition, you will find important data on ongoing and planned clinical trials, as well as those that have supported the assessment of therapeutic benefit. Check the conditions for participation in a clinical trial or find a clinical trial suitable for your patient.

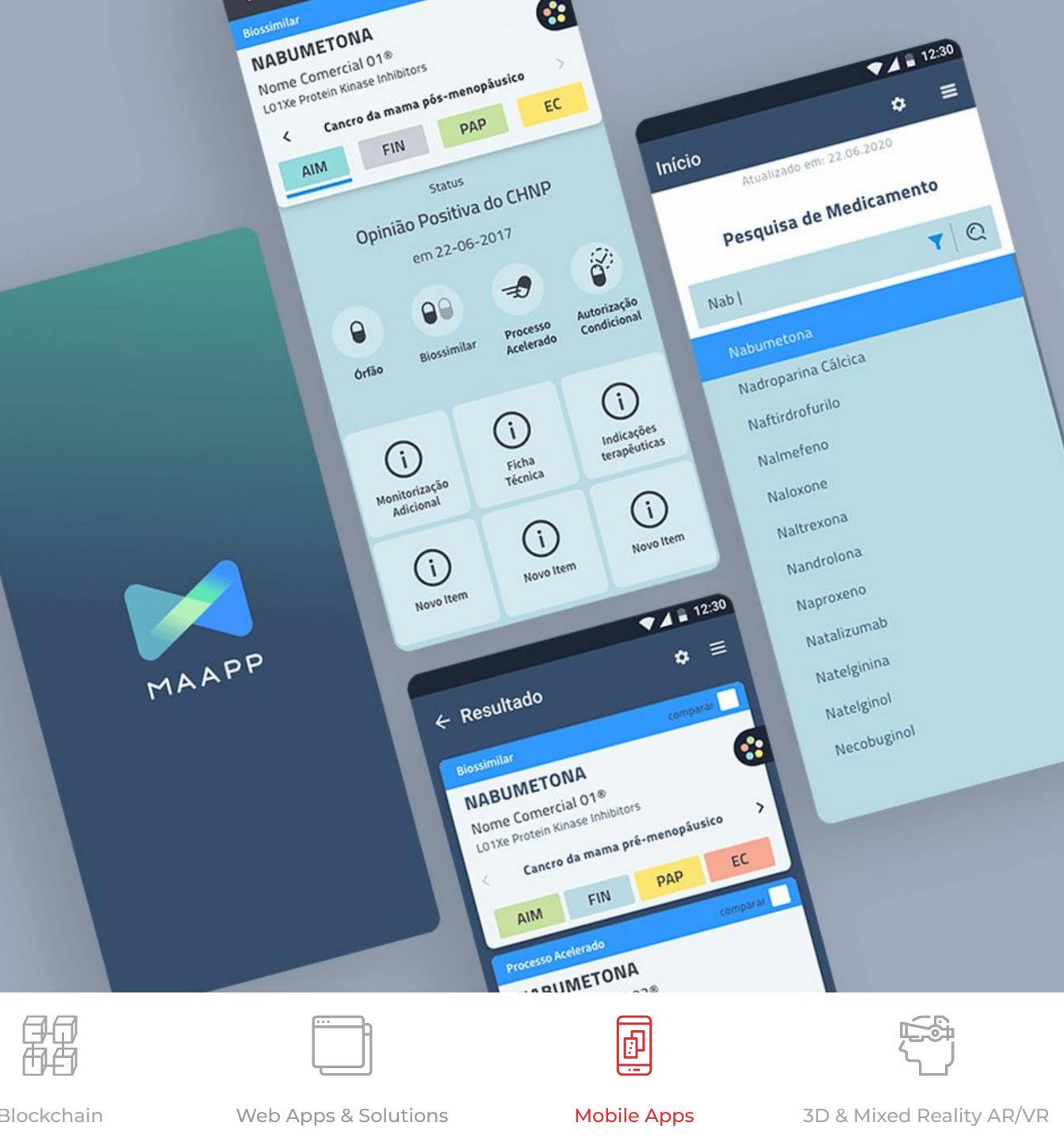




Big Data

IoT & Connected

Artificial Intelligence



Blockchain

#### AOF APP

### Manage & optimize operations time in construction & rehabilitation projects.

UX/UI Design

Development

AOF is a Portuguese construction company specialized in the rehabilitation of monuments for over 50 years. LOAD was asked to develop a digital solution for the management and monitoring of works at all levels and at all times. The goal was to monitor and support all ongoing projects, from personnel to materials. In addition, but no less important, we were asked to support AOF in managing these projects remotely, as there is currently a pandemic.

We use Progressive Web Apps (PWA) to develop this solution, which results in significant cost reductions for our client. It can be used by both on-site managers and technicians specialized in the different areas of work related to historic preservation.



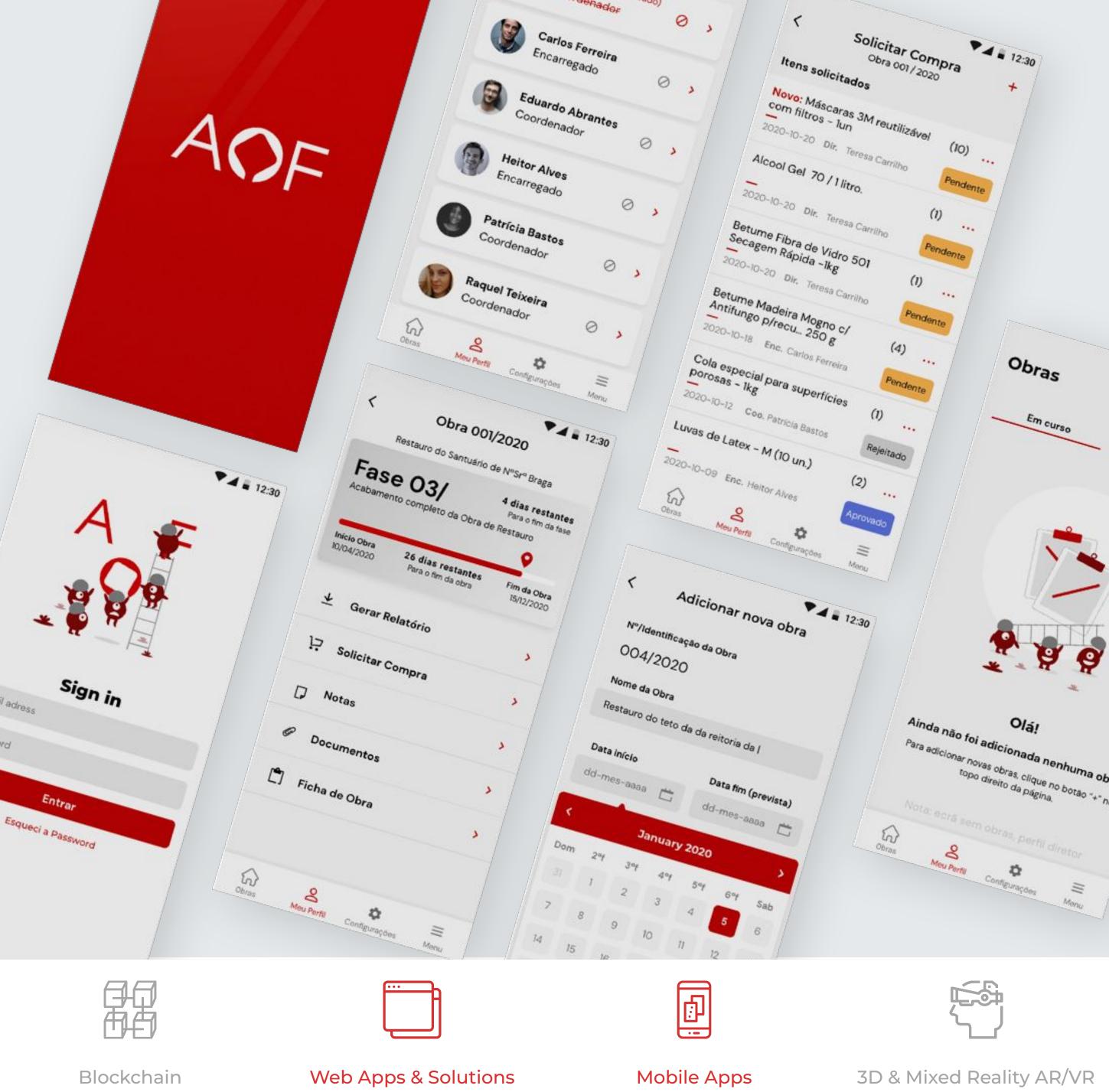


IoT & Connected



Artificial Intelligence

Big Data









#### PROFITNET

### A groundbreaking model that drives innovation and supports collaborative learning between universities.

UX/UI Design

Development

Profitnet was originally developed as part of a 10-year academic research program at the Center for Research in Innovation Management (CENTRIM) at the University of Brighton and has been in operation since 2004. Today, however, the program is being developed by LOAD (UoB) as a digital venue to support the program across all universities in the UK.

We have worked with UoB to develop the Profitnet platform which, among other things, allows subscribed facilitators and members to collaborate in complete confidentiality to find solutions to real business problems and help each other identify and develop opportunities.







Big Data

IoT & Connected

Artificial Intelligence

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Blockchain

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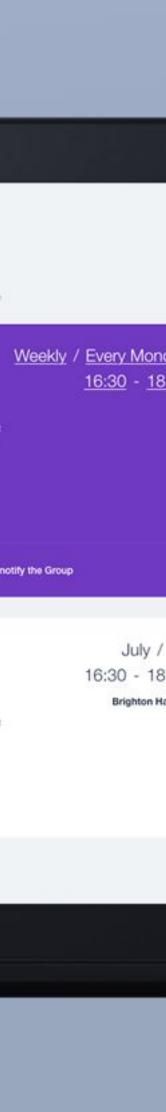
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Web Apps & Solutions

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Mobile Apps

3D & Mixed Reality AR/VR



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#### CLIMAR

### A B2B solution to improve product display and on-the-fly documentation.

UX/UI Design

Development

Climar is a company focused on producing the best custom lighting solution. They approached LOAD with the goal of developing a differentiated web solution for their business.

Before we could begin development, we first had to figure out exactly what services the company wanted to improve. We found more than one goal in their expectations, namely to develop a unique customer experience alongside the indispensable integration with the PHC system.

Therefore, LOAD developed a website that is much more than an ordinary one, because it is complex enough to work and integrate with third-party systems, and it is also customer-centric, improving their business activities and products.







Big Data

IoT & Connected

Artificial Intelligence

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Clima





Web Apps & Solutions

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Mobile Apps

3D & Mixed Reality AR/VR





#### Digital Twin

### How to train specialized operations in order to be prepared for different scenarios at the operation and maintenance needs?

3D Design

Development

This project was about creating an immersive 3D environment in virtual reality by recreating the inside of a wind turbine (at the top of the tower).

Using the HTC Vive and the appropriate hand controllers, the user must disassemble all the components of the wind turbine, identify the problem, and reassemble it.

With this digital replica and in a training environment, professionals can prepare for the real and most adverse scenarios.

Among the many benefits offered by such a solution, flexibility in creating scenarios has been identified as the most important feature for reducing training time and costs without sacrificing maintenance quality.







Big Data

IoT & Connected

Artificial Intelligence











Blockchain

Web Apps & Solutions

Mobile Apps

**3D & Virtual Reality** 



#### VS - VERSUS

# An endless mobile runner game.

3D Design

Development

LOAD has developed Versus, a third-person perspective game in which the player must maneuver his avatar to avoid obstacles and complete laps around a planet using his abilities (jumping, lowering, and shooting), increasing his speed and the difficulty of the obstacles with each lap.

Besides, the game has a multiplayer mode called "versus", in which the user must carry out a simultaneous competition between two players, where both try to defeat the opponent in the same world. Besides, there is the possibility of setting QUDO (Proof-of-Gameplay reward mechanism) on multiplayer games, in which the winner gets the QUDO of the loser.







IoT & Connected



Artificial Intelligence

Big Data







Blockchain

Web Apps & Solutions

Mobile Apps

Real-time 3D



Galp - Sales Support App

### Helping employees install gas tanks at customers' premises using AR.

UX/UI Design

Development

LOAD has helped Galp improve a mundane engineering task of placing the gas tank on the customer's facility to meet all measurements and safety conditions on-site with AR.

With this product, virtual safety zones can be visualized around the tanks to ensure that the tank is placed correctly according to regional laws and guidelines. In addition, the AR (Augmented Reality) application allows customers to share images of the setup each year to verify that the original setup has not been altered in a bad way. Apart from the fact that this product can save costs and time for both parties, it also supports the required annual audit standards.

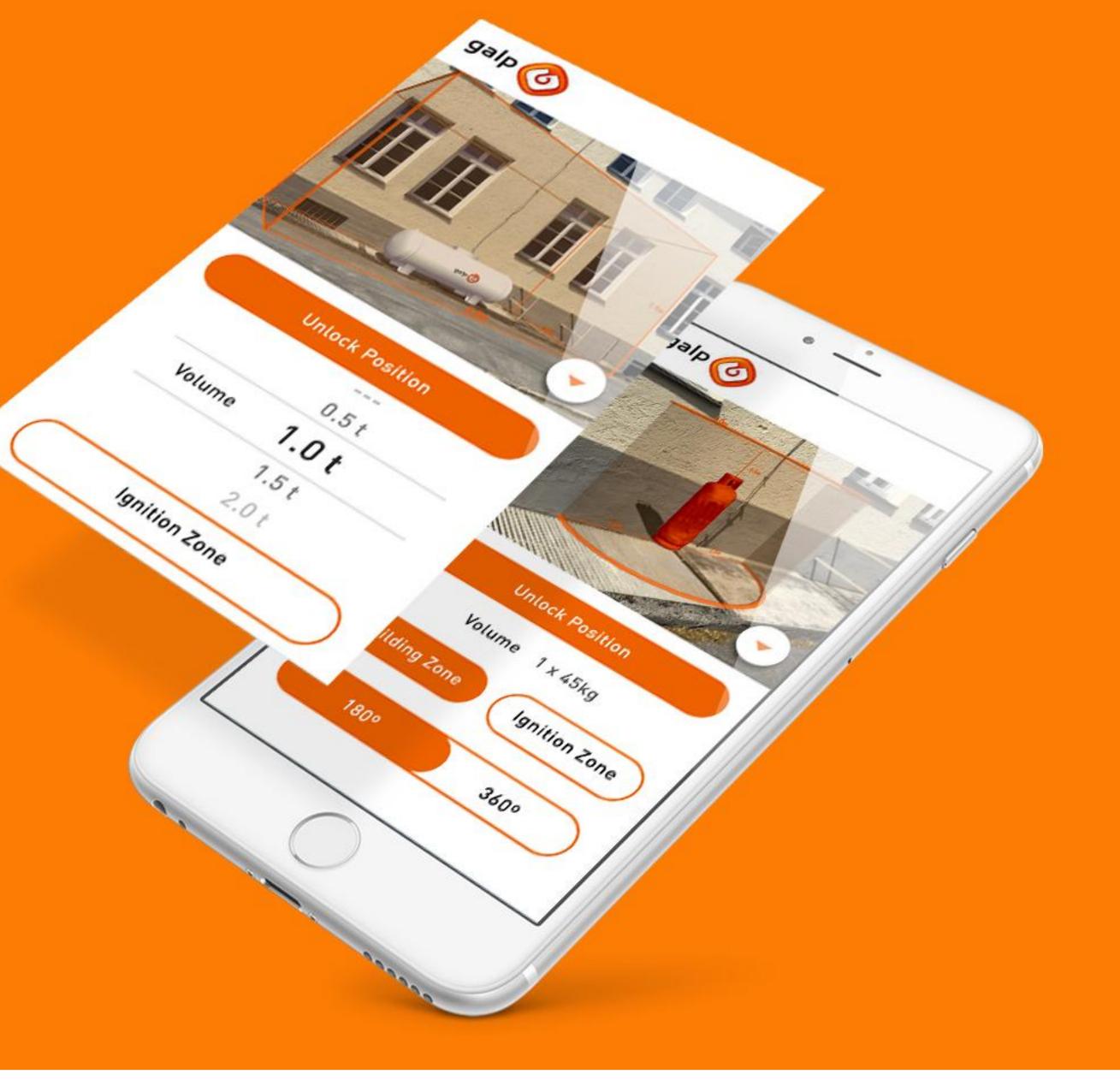




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Artificial Intelligence





Blockchain



Web Apps & Solutions



Mobile Apps

Augmented Reality



Digital Consulting





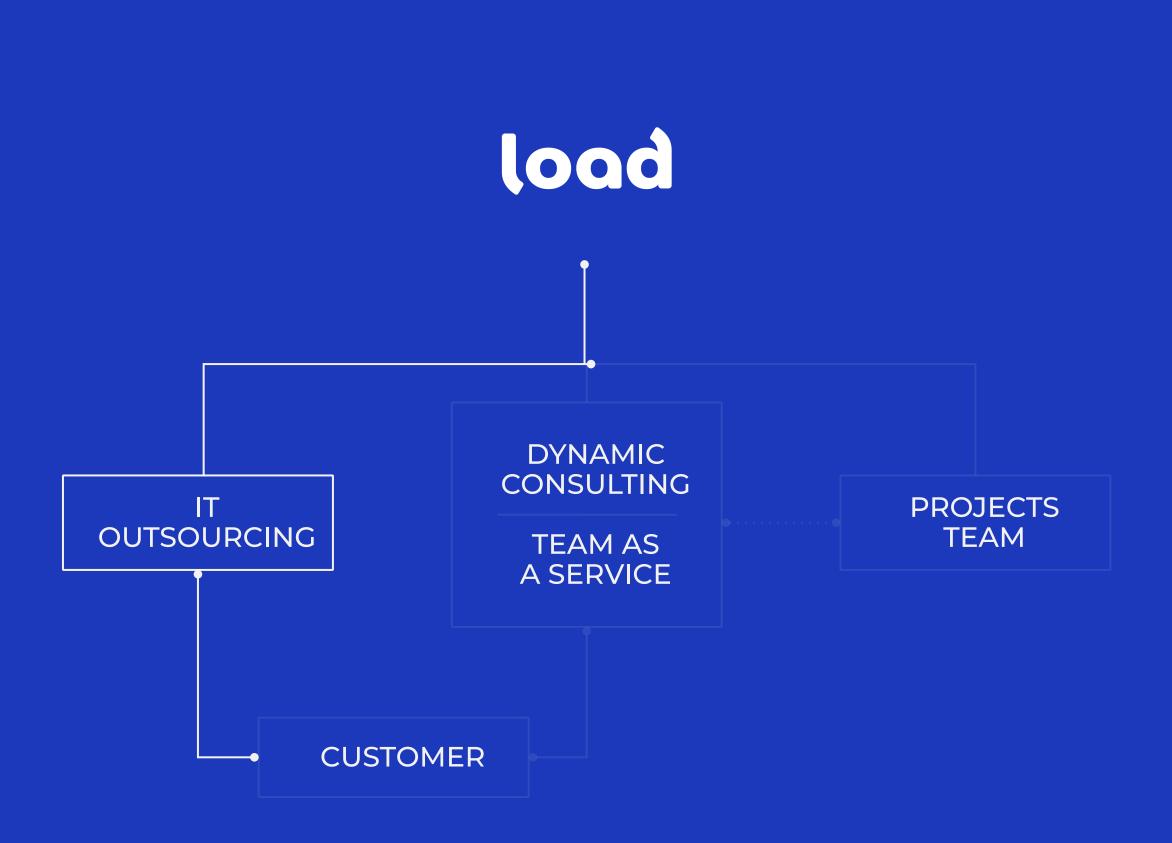










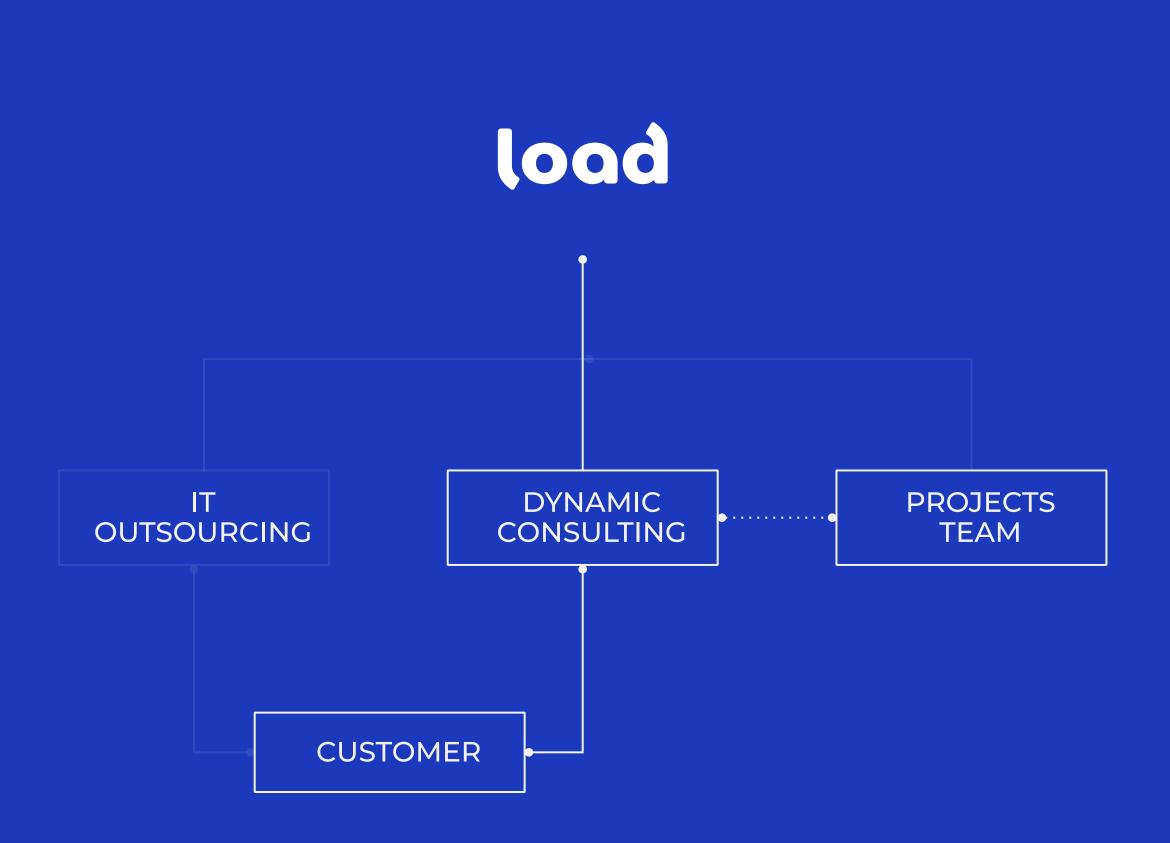


IT Consulting

### IT Outsourcing

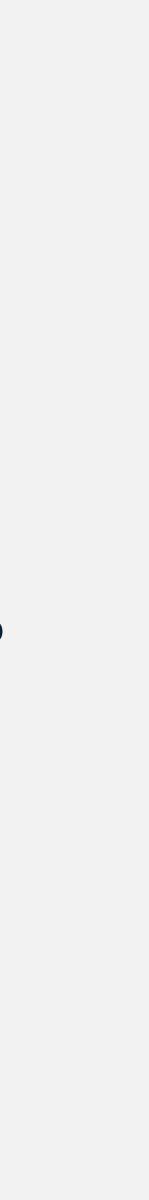
In addition to developing digital products, we also offer **digital consulting services** to our customers.

LOAD's traditional consulting model addresses our clients' challenges by integrating LOAD experts into their team, remotely or on-site.

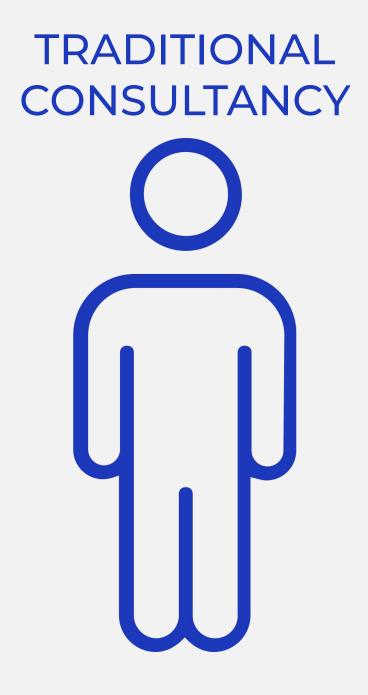


### **Dynamic Consulting**

LOAD offers the **Dynamic Consulting** model in a slightly different way. Traditionally, this model solves our clients' challenges by providing remote experts to work with their team. In addition, we offer a flexible FTE allocation model where a consultant doesn't need to be fully assigned and we can provide integrated coordination and capacity from our internal project team.

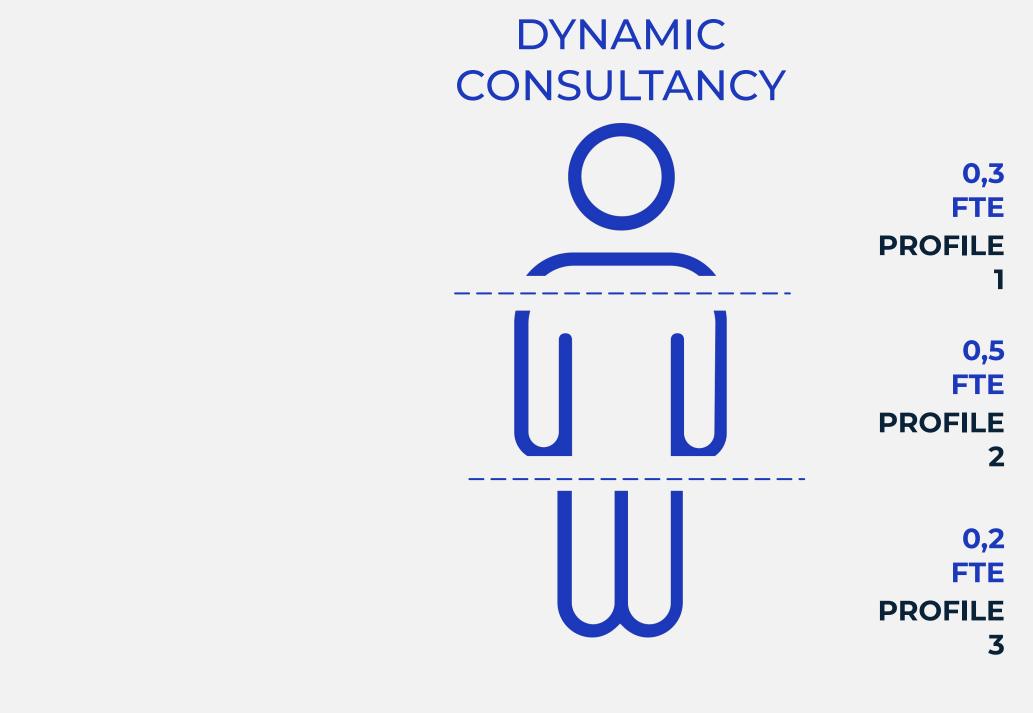


### IT Outsourcing vs. Dynamic Consulting Why we are better



1 FTE = 1 PERSON

When your need is a **SPECIFIC PROFILE** 



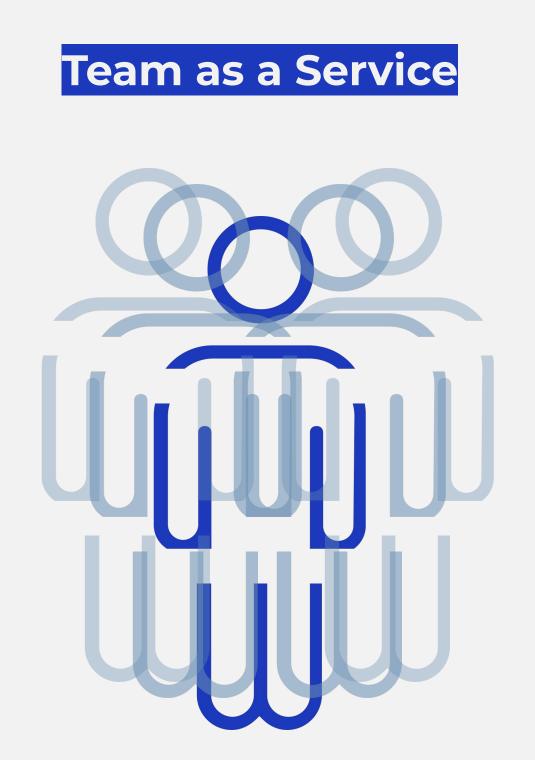
1 FTE = MULTIPLE PEOPLE

When your need is **SEVERAL ROLES** 

### What is Team-as-a-Service?

Team-as-a-Service (TaaS) is a dedicated team composed of various specialists who assist customers with a variety of tasks ranging from digital product design, architecture, development, testing and other digital specialties. This type of service lends itself to an ongoing relationship between the client and the team. It expands the capacity of the client team and does not require as many interactions as traditional consulting models. This can provide tremendous benefits throughout the lifecycle of a digital product.

With this model, we can allocate an initial configuration to the team working with the client, composed of a variety of profiles, some fully allocated, others partially allocated, ranging from seniors to juniors, and increase (or decrease) the size of the team over time.





**FTE - Full-time Equivalent** 

When you need **multiple** roles that work independently yet are an **extension** of your team.

# LOAD is...

## Commitment Knowledge Quality Flexibility



In addition to the values necessary for good collaboration - **commitment**, **knowledge**, **quality** - we value **flexibility**.

A methodology that reverses the learning curve and provides a short-term results-oriented approach to risk mitigation.

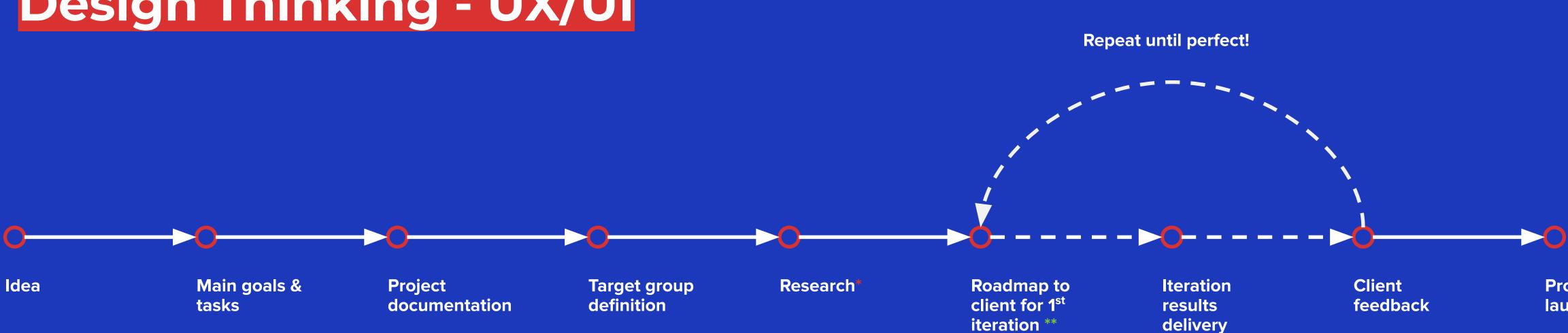
Affiliated to the Masters in Innovation group, European leaders in innovation and new product development and Master Brokers of the European Space Agency for technology transfer between space and Earth.

We are a digital innovation engineering firm with a hands-on, pragmatic mindset and the ability to expand when needed.

We are advocates of a democratic approach to the technology needed to innovate.

Creative, multidisciplinary, lean and systematic approach to ideation, selection, concept definition and technical implementation.

## Design Thinking - UX/UI



### \*Research

- One-day workshop/ kick-off meeting 1.
- Consumer research (individual consumer 2. interviews)
  - i. Definition of the number and type of questions
  - Development of the survey ii.
  - Conclusions of the survey iii.
  - iv. Preparation of a report

### \*\*Roadmap to client 1<sup>st</sup> iteration

- Definition of personas / use cases
- UX Approach Definition 2.
  - User stories definition
  - Customer journey maps / user ii. workflows
  - iii. Wireframe creation
  - Mock-up production İV.
  - v. Prototyping
  - vi. UI design
- Project calendar and delivery dates 3.





### UX/UI Design

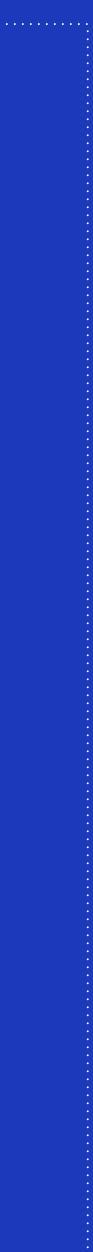
- Concept validation
- Ideation
- User Personas
- User stories development
- Customer journey mapping
- Information Architecture
- Design research
- Rapid prototyping
- UI Design
- UI Testing & QA
- Misc Utils:

Balsamiq, Invision, Zeplin, Slack, Photoshop, Sketch



### Software Engineering

- Benchmarking & Software Auditing
- Brainstorming & Fast Prototyping
- System Architecture & Design
- Agile Project Management
- Web & Mobile Development
- Data Warehousing & Data Mining
- DevOps & System Management
- Artificial intelligence, deep learning, CNNs, RNNs, LSTM-CRF, NER, machine learning
- Blockchain, Smart Contracts, DApps
- CyberSecurity
- Computer graphics, real-time 3D
- Virtual & Augmented Reality
- Computer Vision
- Unit testing, functional testing, integration testing, acceptance testing
- Technical writing (architectural design documents, interface control documents)





### Software Development Skills

- Native Mobile iOS, Android
- Hybrid Mobile

Ionic, React Native, Xamarin, Cordova

### • Web client-side

Html5, Css3, AMP, PWA, Angular, Socket.io, React, Sass, Bootstrap

### • Server-side

Node.js, Express.js, MySQL, MariaDB, SQLServer, PostgreSQL, LAMP

### • Big Data

Hadoop, Spark, Kafka, MongoDB, Cassandra, Hbase, Redis, ElasticSearch, RabbitMQ, Mosquitto, BigQuery

### Programming languages

Java, Kotlin, Swift, Objective-c, Javascript, Typescript, PHP, Python, C++, C#, Go

### • laaS/PaaS

IBM Bluemix, Amazon (AWS), MS Azure

#### • Blockchain

Bitcoin core, EOS, Ethereum, Smart Contracts, Solidity, EOS.IO, EOS JS, IPFS, C++, Solana

### • Artificial Intelligence

TensorFlow, Keras, Caffe, NumPy, Python, CoreML, Py Speech Recognition, Microsoft Speech SDK, Linguakit / NLTK, Cereproc, Freeling, OpenCV, Pyttsx, Neo4j

• 3D, Computer Vision, AR/VR

Unity3D, OpenGL, WebGL, OpenCV, OpenNI, ARToolkit, Vuforia SDK

### • Embedded fast prototyping

Arduino, Raspberry-Pi

### • Tests

Protractor, Jasmine, Karma, XCTest, Appium

### Collab & Tracking

JIRA, Confluence, Trello, Slack, Basecamp

### • Devops & Misc Tools

Jenkins, Fastlane, Fabric/Crashlytics, Swagger, Confluence, Testflight, SendGrid, Docker

 Version control GIT, SVN

LOAD is part of the Verhaert Group, a leading center for product innovation.

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## Thank you.

