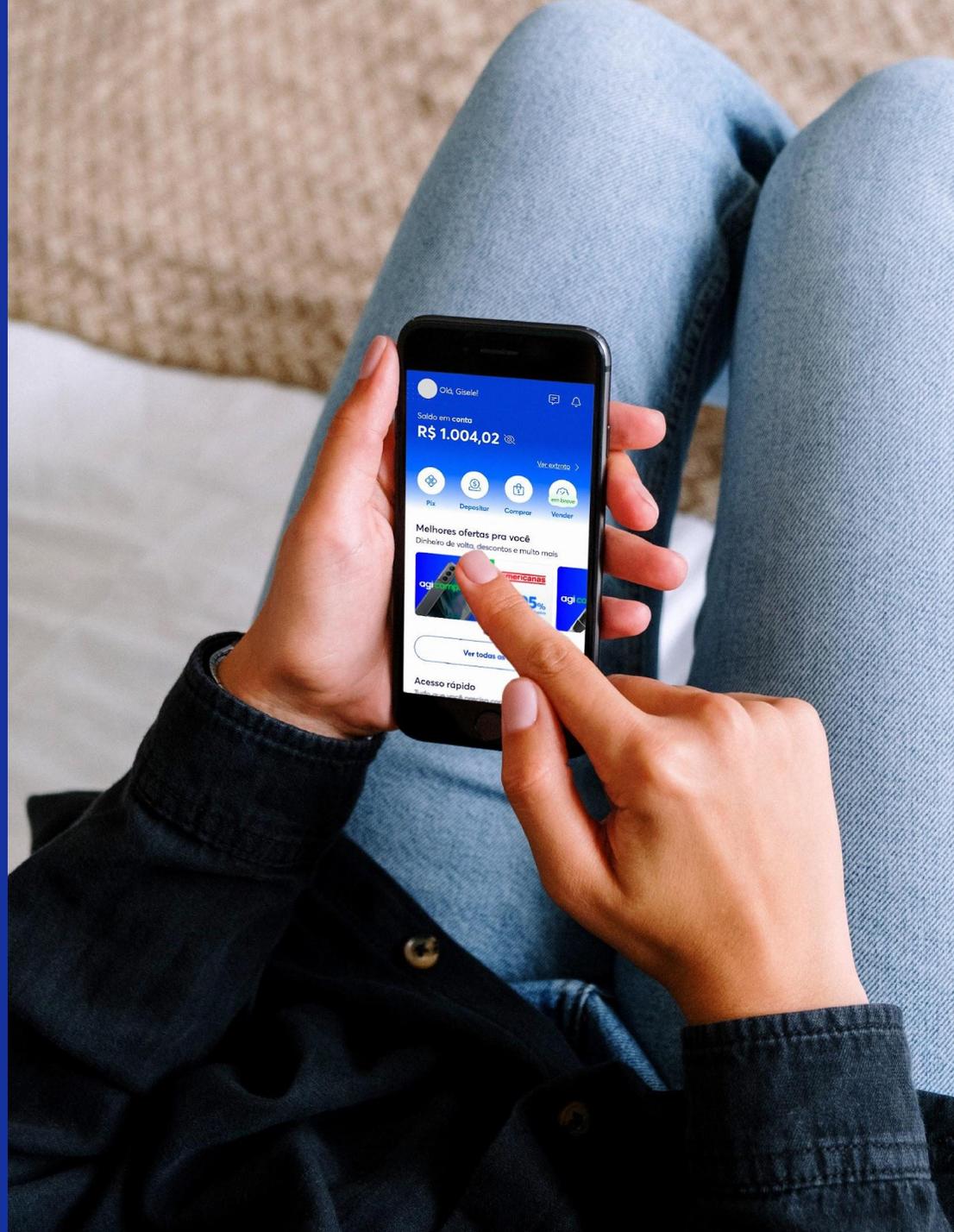




# Origination

Orchestration of the Financial  
Product Sales process at Agibank

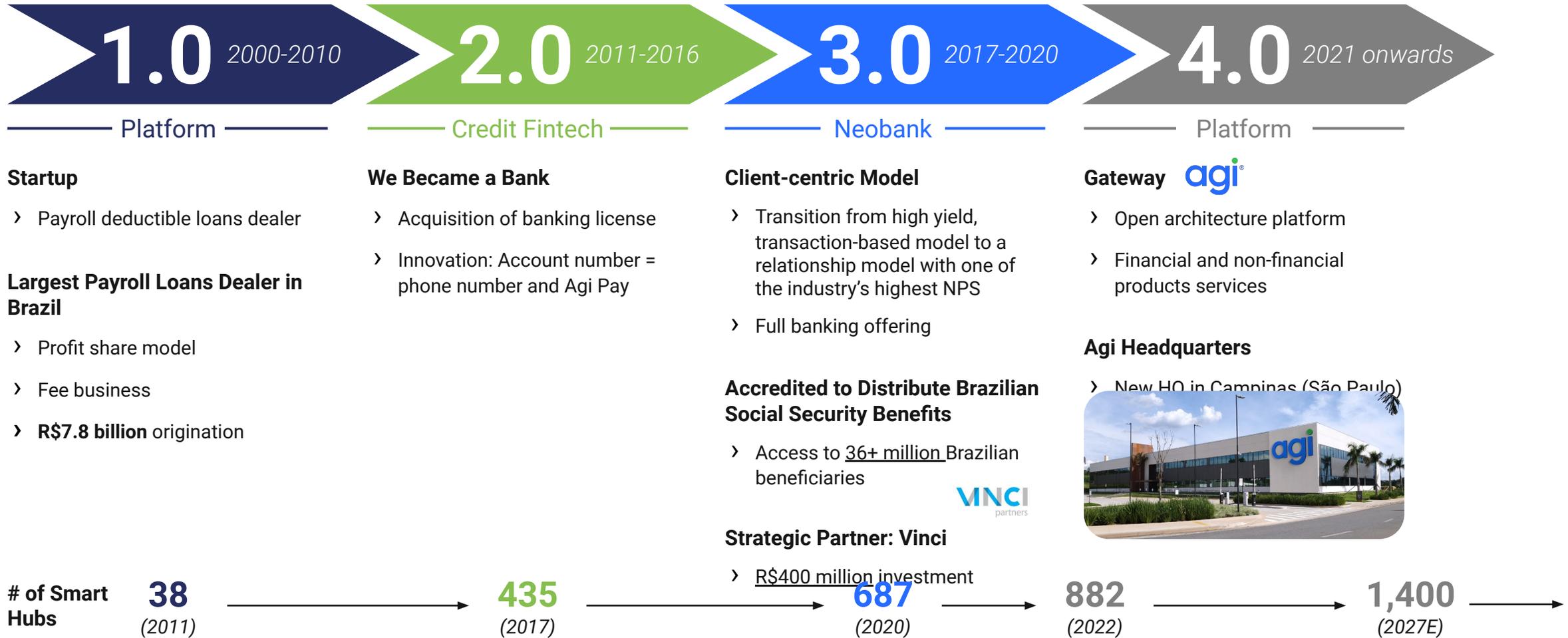




# Jean Robert Alves

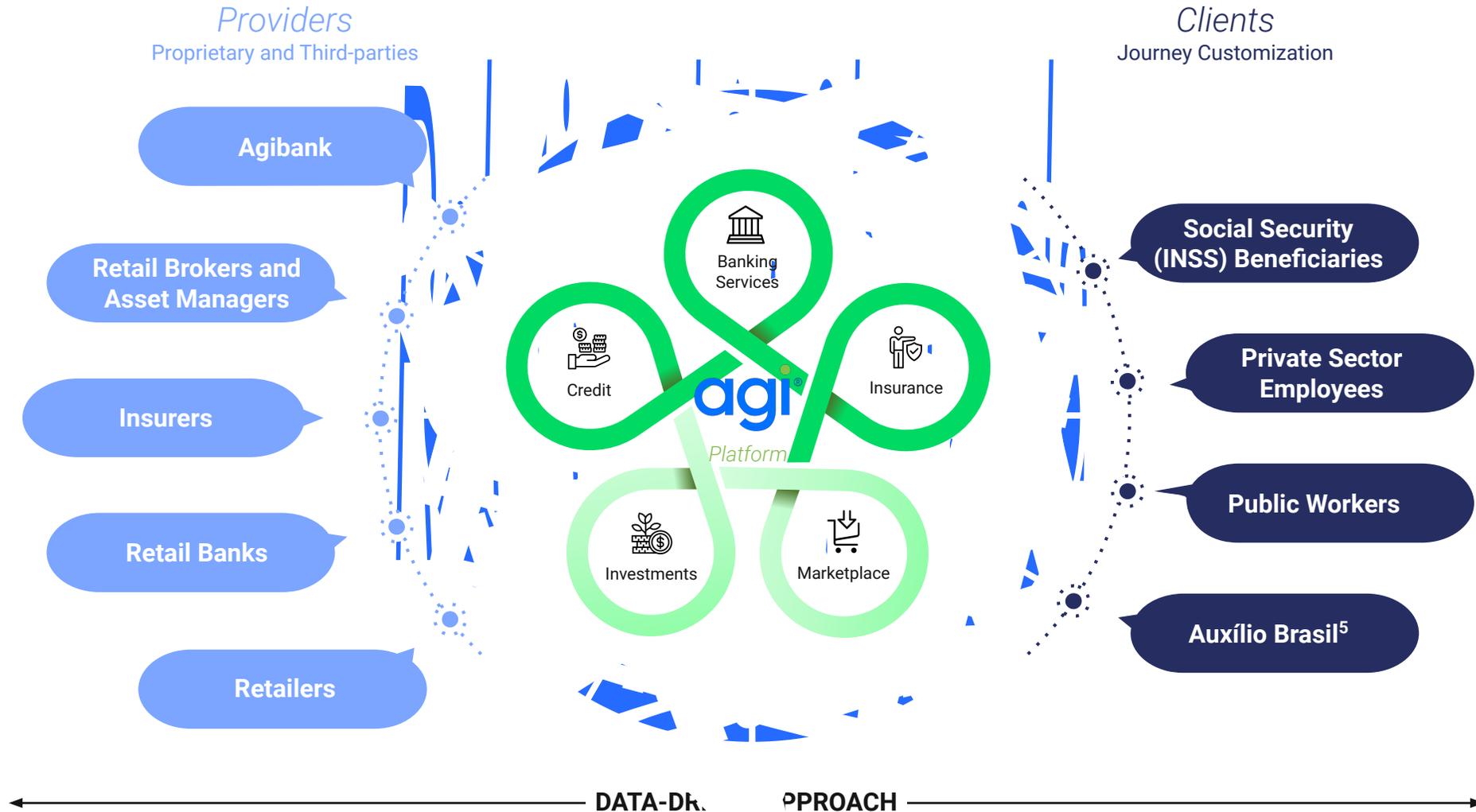
- Working with software development since 2011
- Working as an architect at Agi since 2017
- Camunda Champion since beginning of 2022

# How We Got Here



*We have built a unique and scalable business from scratch without outside capital*

# We Have Created a Complete Platform to Explore Opportunities Beyond Credit



Note: <sup>1</sup> Internet Banking. <sup>2</sup> Service provided by one of Agi's subsidiaries. <sup>3</sup> Banking Correspondents. <sup>4</sup> Business Process Outsourcing. <sup>5</sup> Auxílio Brasil is a social welfare program of the Brazilian Government, providing income distribution to people under poverty.

# Sales before Origination (until 2017)

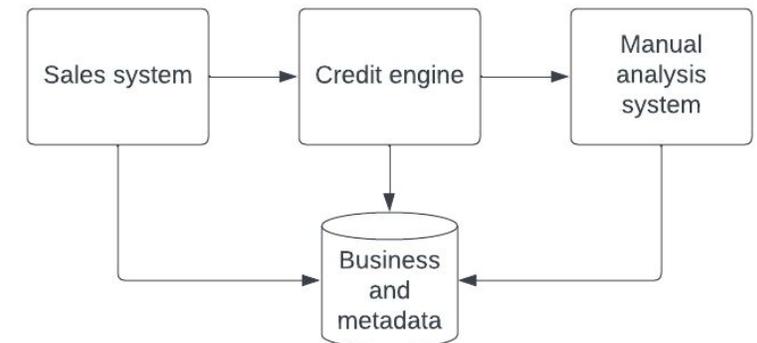


- ▶ Monolithic sales system in ASP.NET, containing the logic of all products.
- ▶ Internal frontend of the system, without exposing APIs to sell products.
- ▶ Credit engine responsible for simulating and effecting all products.
- ▶ Business data and flow metadata in the same database.
- ▶ Workflow defined by ifs/elses in code and columns in the database.
- ▶ Service distributing from time to time the proposals for manual analysis.

 Windows Server®

  
Microsoft  
SQL Server®

  
ASP.NET MVC



# Old model issues

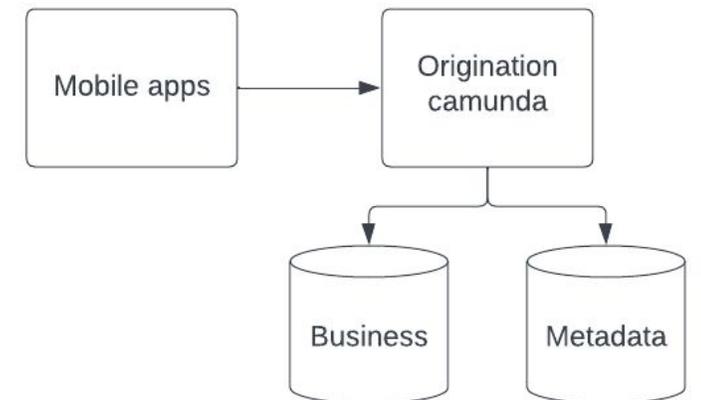


- ▶ A single team was responsible for all components and products, making it impossible to parallelize and prioritize backlog between different parts.
- ▶ Sales only on the physical store channel, as there was no API to be exposed to other channels.
- ▶ As there was no defined workflow, only current status columns, it was common to have what we call “sledgehammers” changing the status of a proposal by direct SQL Update, often causing inconsistencies.
- ▶ Necessary to “dig” code to discover the steps of each flow.
- ▶ Average service and sale time for a product reached 2 hours.
- ▶ Scalability compromised by being monolithic and with technology dependent on Windows servers.

# Origination 1.0 (2017 - 2019)



- ▶ We started using BPM with Camunda.
- ▶ Current account and credit card products.
- ▶ Mobile banking channel (Android / iOS).
- ▶ Installation of Camunda Standalone with a server for all processes.
- ▶ Management of business data on a separate database from flow metadata.



# Evolving...



## Benefits

- ▶ Process visibility
- ▶ Well-defined flow preventing messy changes
- ▶ Rules mapped to Decision Tables (DMNs) made the process more dynamic.
- ▶ More visible and manageable human task queues

## Points to improve

- ▶ Scalability still compromised by having everything on a single server
- ▶ Still a single team evolving and maintaining all parts of the process

# Evolution of the organization



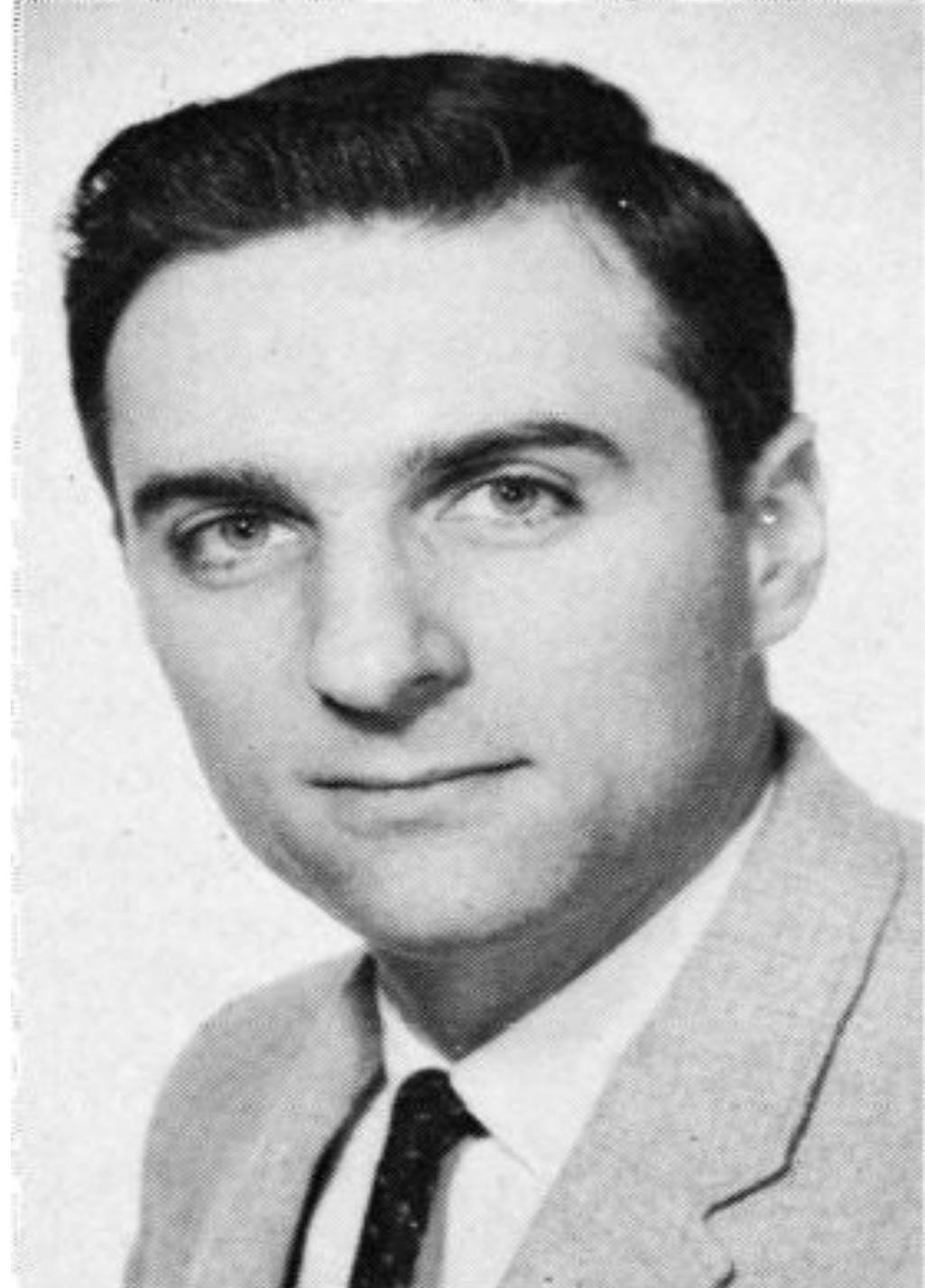
- ▶ We started to adopt a model of smaller teams, called Squads.
- ▶ Each team becomes responsible for a small part of the business.
- ▶ The teams started to use different technologies and have different skills, given the different scenarios.



# Conway's Law

“Organizations, who design systems, are constrained to produce designs which are copies of the communication structures of these organizations.”

- Melvin Conway (1967)

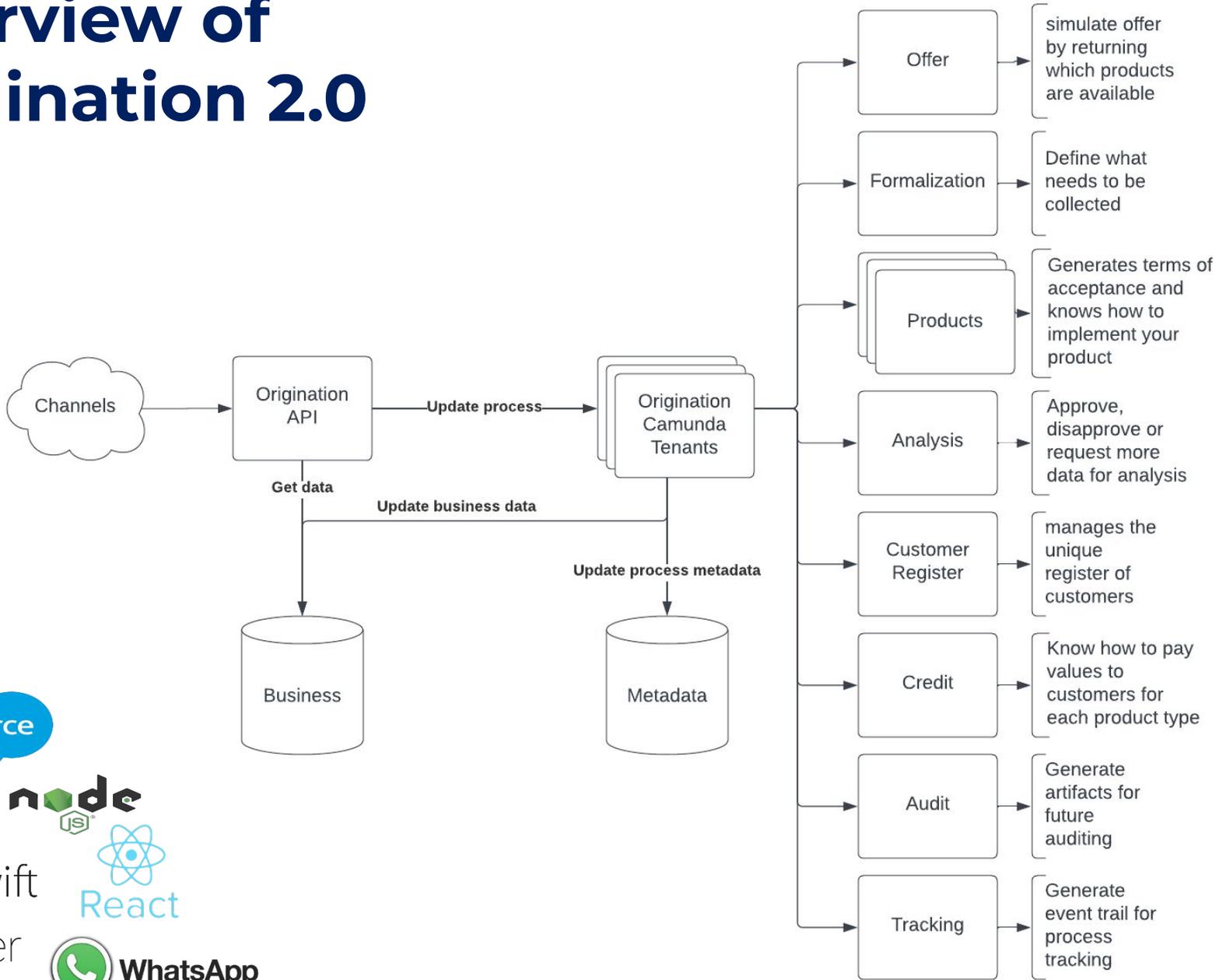


# Origination 2.0 (2019 - now)



- ▶ Focus on being omnichannel
- ▶ It currently serves 10 different channels, including Physical store, Mobile Banking, Internet Banking, Whatsapp, Marketplace, etc.
- ▶ Up to now offering 28 different products such as Current Account, Credit Card, Payroll Card, Personal Loan, Refinancing, Payroll Loan, Life Insurance, etc.
- ▶ Currently distributed in more than 30 Camunda projects, given the responsibility of each team.
- ▶ Microservices running all on Kubernetes in the AWS cloud.
- ▶ Tracking of all operations by events.
- ▶ Dynamic connection points, allowing the registration of new products, rules and types of analysis without changing the main process.

# Overview of Origination 2.0



# Benefits of Origination 2.0

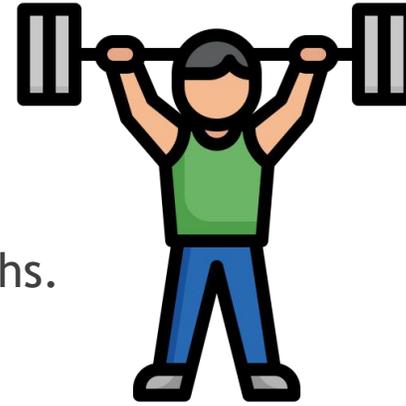
- ▶ Decoupling the screen flow of each channel in relation to the business flow itself, allowing its use in several channels, for several products.
- ▶ Specialized teams each one in just a small context tend to better understand the problem in their hands, managing their own evolution backlog and thus bringing gains to the process as a whole.
- ▶ Multitenant strategy mitigating impact between different sales channels.
- ▶ Average service time varies depending on the scenario (product x channel), ranging from 1 minute to the target limit of 30 minutes per sale.

# Camunda specific benefits

- ▶ Visibility and maintenance of flows facilitated by having the design there, executable and always updated, uniting developers and business people in the same understanding.
- ▶ Learning and evolution of processes in a more natural way, gradually automating each part of the process, leaving each day less work for human tasks.
- ▶ Easy management and visualization of human task queues.
- ▶ Dynamic process helping in the addition of new products through sub processes.
- ▶ Power to developers so they can use the technologies they already know and love.

# Current state

- ▶ Average of **400K** Originations per month in the last five months.
- ▶ Peak of more than **600K** Originations in a single month.
- ▶ More than **80** process design deployments made on main Camunda.
- ▶ More than **200** Active BPMNs.
- ▶ In all of 2022, more than **3.2M** main processes started (Root process instances) and more than **1.2B** process movements (Flow nodes instances).
- ▶ Only in January/2023, almost **500k** main processes started (Root process instances) and more than **150M** process movements (Flow nodes instances).
- ▶ Over **30** other projects and teams using Camunda in addition to the main one.





# Questions?



 Jean Robert  
Alves



## Vamos crescer juntos?



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