Introduction to Taipy

The Low Code "Business Application Builder"

Presented by Vincent Gosselin vincent.gosselin@avaiga.com
and Albert Antoine albert.antoine@avaiga.com

80%

Of all software development fail !

Sources: IDC, 2020, Grant View Reportver

The challenges faced

Only 23% of companies find the right talent

Applications take too long, are too costly to develop and deploy

A fully-integrated Application Builder

1 **GUI Generation**

Here is some tip you may be interested in.

2 **Data modeling**

Scenario Management, Business Process Modeling, Smart Management of time series, etc.

3 **Security**

Architecture based on strong security requirements (secured API, Login/ password management, Data access, etc).

4 **AI Platforms Support**

Bridge to all major AI platforms: Google's GCP, Azure, Databricks, Amazon, etc.

5 **Business Performance**

Powerful Monitoring of Business Performance over time, of custom KPIs, etc.

6 **Job/Pipeline Management**

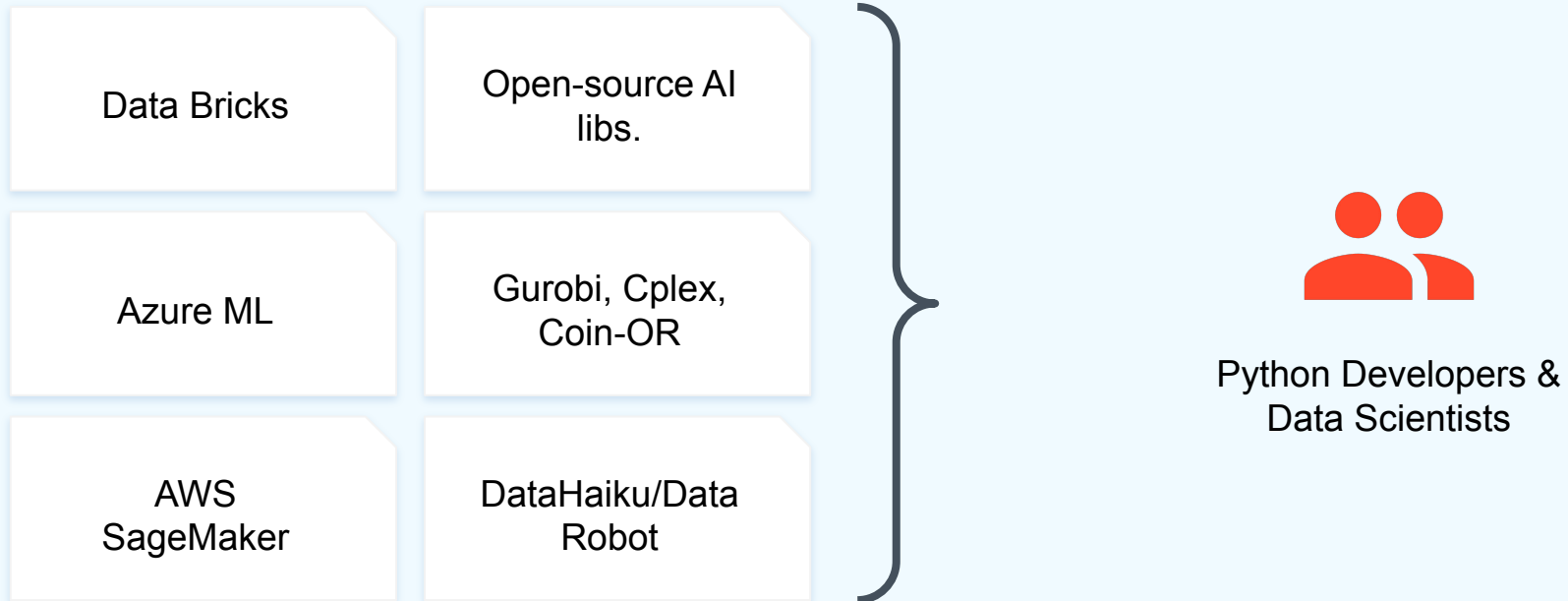Smooth transition from Training to Scoring/Execution, Suitable for Prescriptive AI jobs.

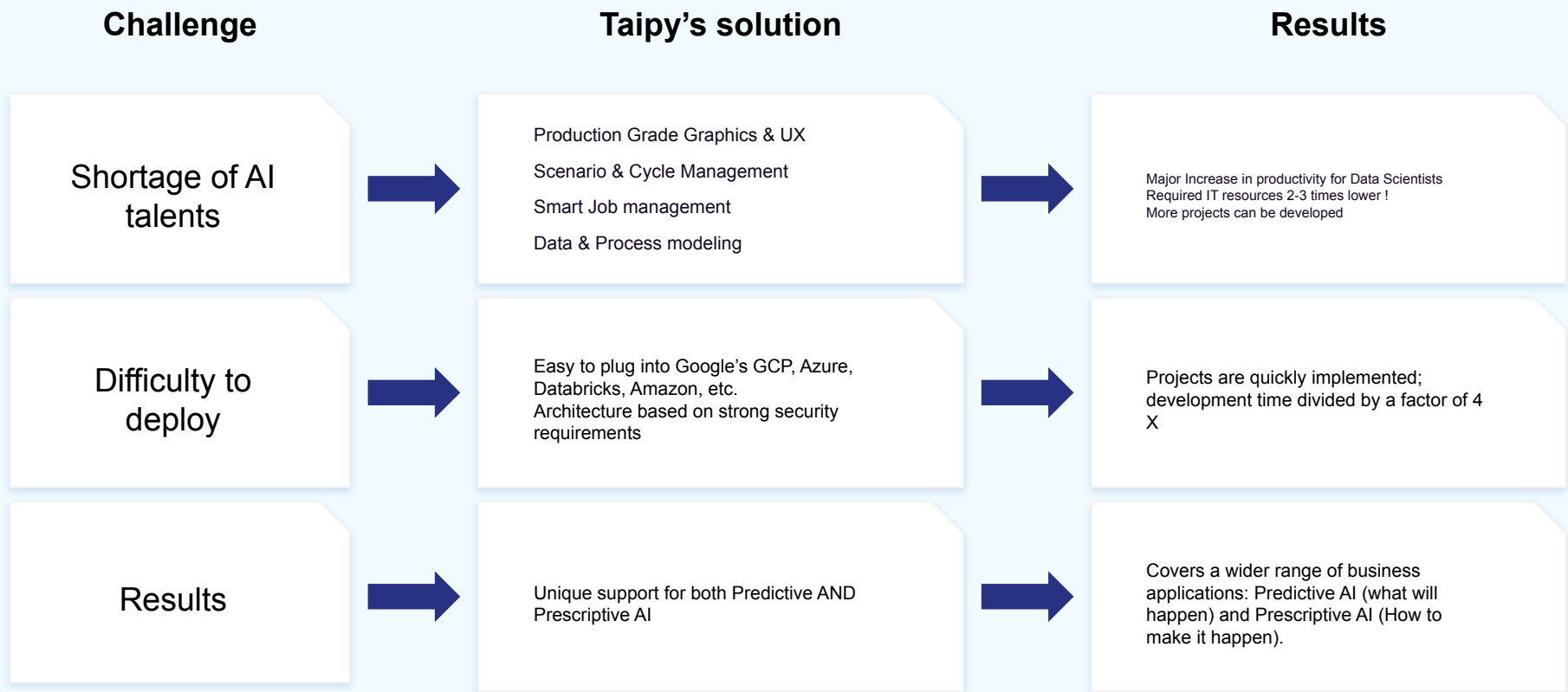# The solution

Taipy = Predictive AI + Prescriptive AI

Taipy is the only 360º low-code AI Application Builder for Python Developers & Data Scientists, ready for both Predictive and Prescriptive AI.

The solution

Data Bricks

Open-source AI libs.

Azure ML

Gurobi, Cplex, Coin-OR

AWS SageMaker

DataHaiku/Data Robot

Python Developers & Data Scientists

A complete suite to overcome these challenges and build best in-class AI & ML applications.

Challenge	Taipy's solution	Results
Shortage of AI talents	Production Grade Graphics & UX Scenario & Cycle Management Smart Job management Data & Process modeling	Major Increase in productivity for Data Scientists Required IT resources 2-3 times lower ! More projects can be developed
Difficulty to deploy	Easy to plug into Google's GCP, Azure, Databricks, Amazon, etc. Architecture based on strong security requirements	Projects are quickly implemented; development time divided by a factor of 4 X
Results	Unique support for both Predictive AND Prescriptive AI	Covers a wider range of business applications: Predictive AI (what will happen) and Prescriptive AI (How to make it happen).

Tremendous Feedback from customers

"Taipy has become a core product for our AI strategy. Taipy allowed us to bring to production award winning AI applications withing limited budget and resources."

Arnaud De Ligniville, CFO Intermarché

"Taipy brings all the functionalities needed for an AI driven supply chain: Scenario Management, great UX, Predictive & Prescriptive AI, etc. And all at a fraction of the costs of alternative solutions.

Dang Huynh Uc My, Chairman TTC Sugar

"Taipy is the software we have been looking for over 10 years: a software able to productize our AI algorithms. It covers all the missing links between an algorithm and a production software designed for our end-users".

Delman Lee, Vice Chairman TAL Group

"Taipy enables us to implement the best practices to succeed with the industrialization of AI apps. It saves us several years of hard learning, many resources and has decreased the deployment of our apps drastically".

Jesselynn M., Responsible for McDonald's HR applications

Our early adopters

Our business model

Taipy Open-Source Community Model

Free-to-download version that builds value of Taipy's community as we grr"iohù2gr@nk "ré=jtow the number of active users.

Hosting Open-Source Apps

Taipy App Deployment / Hosting

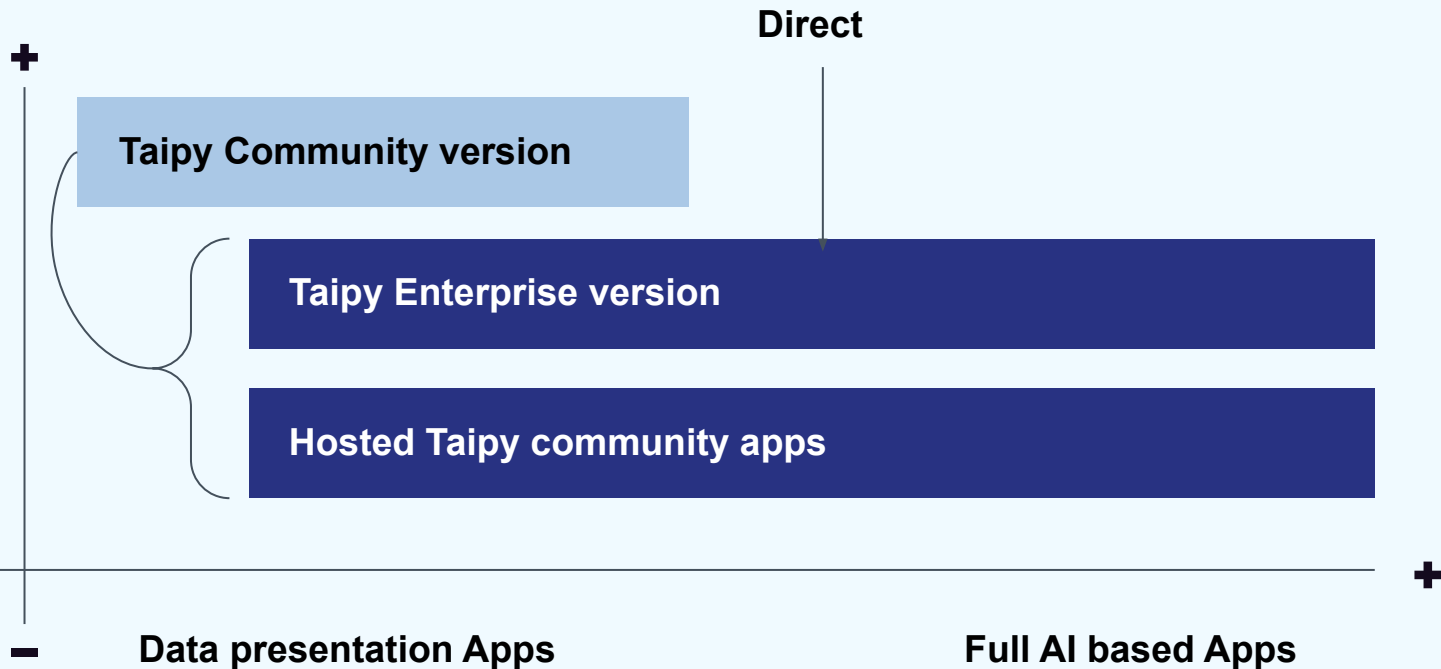Average Deal Size 300$/month per customer

Enterprise Version

Annual subscription: Deployment on servers, User Profiles, Security, Enterprise LDAP, Scalability, Robust Restart, Product Support, etc.

From 30K/Year to 100k/year.

Customer engagement model

Company size

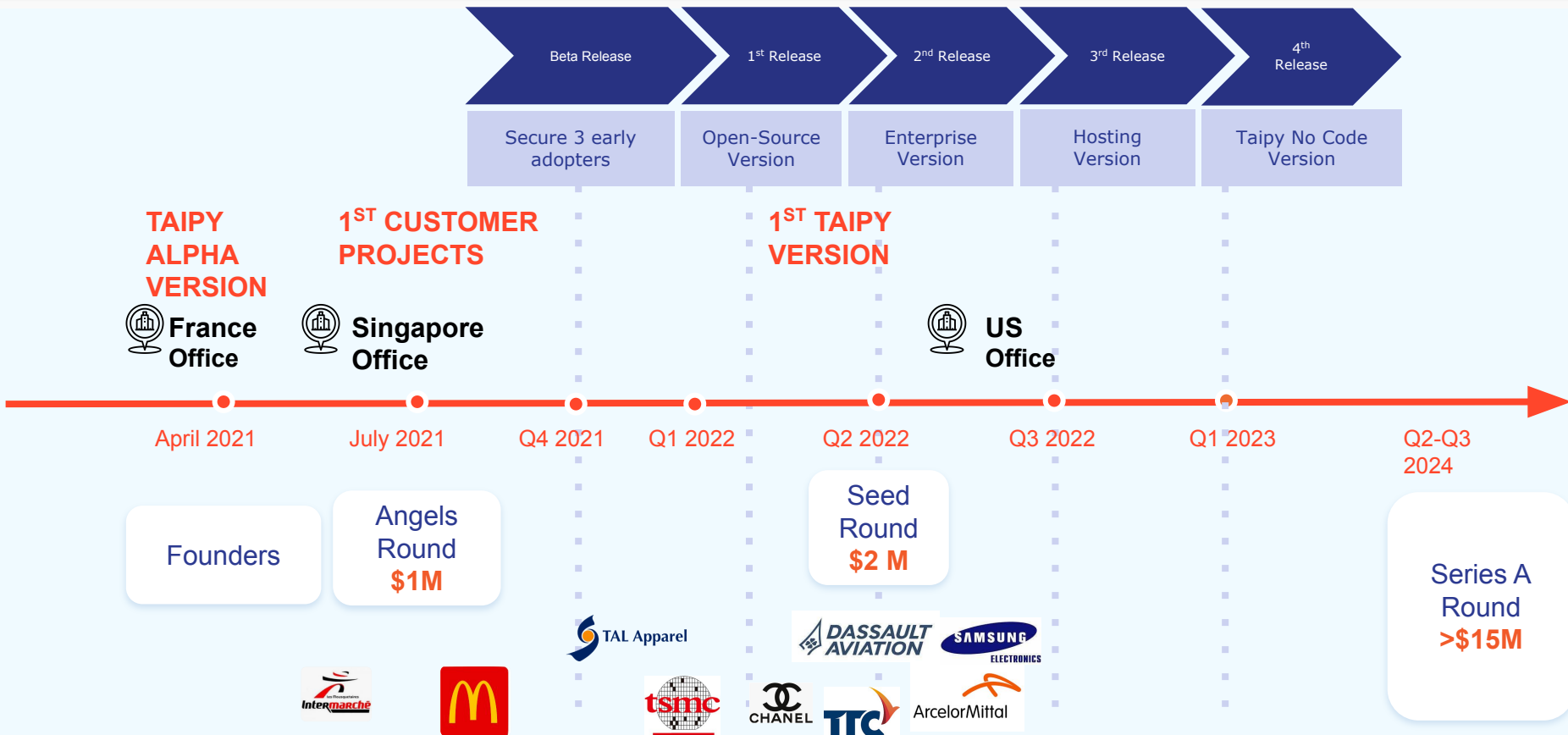**Direct**

Large Companies
(IT Dpt, Innovation Group, Data Science Dpt)

Taipy Community version

Taipy Enterprise version

Hosted Taipy community apps

SMEs
(No IT)

Data presentation Apps

Full AI based Apps

Application complexity

Product roadmap

Beta Release	1st Release	2nd Release	3rd Release	4th Release
Secure 3 early adopters	Open-Source Version	Enterprise Version	Hosting Version	Taipy No Code Version

TAIPY ALPHA VERSION
France Office

1ST CUSTOMER PROJECTS
Singapore Office

1ST TAIPY VERSION

US Office

| April 2021 | July 2021 | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q1 2023 | Q2-Q3 2024 |

Founders

Angels Round **$1M**

Seed Round **$2 M**

Series A Round **>$15M**

TAL Apparel

Intermarché

McDonald's

tsmc

DASSAULT AVIATION

CHANEL

TTC

SAMSUNG ELECTRONICS

ArcelorMittal

Enterprise licence

Distributed Deployment

Support LDAP, AD

End-User Profiles

Robust Job Recovery

Support

Avaiga : AI/Data App for business

1 Taipy is the only low-code **AI Application Builder for Data Scientists (Python)**

2 Taipy **takes away the complexity of building production-ready software** by providing all the required software bricks: full-scale Graphical Interfaces, Scenario Management, Multi-User, Business Process Modeling, Deployment in Production, etc.

3 Taipy will be **used by the large community of Python developers and Data Scientists.**

4 Taipy **decreases dramatically the time & costs** of productizing AI pipelines/algos

5 **Taipy brings true monitoring of ROI & Algo Performance**

6 **Taipy is the only tool that supports both Predictive AI and Prescriptive AI**

Experienced management, key to making the vision a reality

Avaiga's international management team brings together
proven leaders with deep industry & domain expertise

Vincent Gosselin – Co-Founder, CEO
30+ years as **AI specialist** with **ILOG, IBM**
Created 3 successful AI based companies
Msc Comp. Science & AI, University Paris-Saclay

Albert Antoine – Co-Founder, COO
15+ experience in business development for AI software
Launched AI companies to **Asia Pacific Market** – e.g.:
Dataiku, Digimind
SLOAN MIT/USA

Dr Andy Chun – Technical Advisor, AI Evangelist
30+ experience as **AI specialist**
Influent AI Evangelist (guest at **TedX** conferences,…)
Recipient of several **AI awards**
PhD, University of Illinois Urbana

Dr Jean-Robin Medori – Director R&D Back-End
10+ years of experience as **Data Scientist** & **Senior Architect**
Designed platforms such as **IBM Decision Optimization Center**
PhD in Data Science

Fabien Lelaquais – Director R&D Front-End
30+ years of experience as Head of **Graphical Platforms** for ILOG, IBM & RogueWave
Expert in all aspects of front-end **GUI visual** developments

David Swafford – VP Business Development
30+ experience in developing AI markets for (ILOG, IBM)
Top One Sales VP for ILOG and IBM
Successfully opened **tier one accounts**: Oracle, Manhattan Associates, Sabre Technologies, Dassault, SAP, etc.

Our direct competitor Streamlit.io

Our product offers more functionalities and is more powerful.

2019: Launch of Streamlit

2021: Series A + B (> 50M)

2022: Acquired by Snowflake for 800M

	Streamlit	Taipy
Python-centric Open Source Business model	✅	✅
Support for Enterprise version	✅	✅
Graphical scalability and performance	No	✅
Support for big/large data	No	✅
Support Business Scenario Management	No	✅
Pipeline Management	No	✅
Support Predictive AND Prescriptive Analytics	No	✅
Support full application deployment	Very limited	✅

Targeting Business Applications

AI Business Applications

AI Consumer Applications

Operations

Manufacturing
Sales Forecast, Inventory Optimization, Supply Chain Design, Supply Chain Planning, Master Planning, Product Design, etc.

Retail
Sales Forecast, Assortment Planning, Inventory Optimization, Staff Planning, Store Replenishment, Employee Churn, Cash Flow Optimization, etc.

Logistics
FTL Route Optimization, Activity Prediction, Warehouse Staff Recruitment, Warehouse Location, etc.

Service Industry
Asset Optimization, Manpower Planning/Scheduling, Maintenance Planning, Customer Attendance Predictions, etc.

Finance Industry
Collateral Optimization, CashFlow Prediction, ATM Cash Management, Portfolio Optimization etc.

Telecommunication Industry
Network Deployment Optimization, Routing Optimization, Frequency Allocation, Technician Dispatching, etc.

Defense
Convoy Planning, Supply Chain & Mission Planning, Surveillance Ops, etc.

B2B

Manufacturing
Price Optimization, Inventory Planning, Integrated Supply Chain Design & Planning, Sales Forecast.

Retail
Vendor Price Optimization, Warehouse Replenishment, Order Planning, etc.

Logistics
Inbound Logistics Planning, Transportation Planning, Inventory Optimization, Price Optimization

Media
Ad Scheduling, Audience Prediction, etc.

B2C

Product Recommendation, Customer Churn, Speech Recognition, Customer Segmentation, Campaign Optimisation, etc.

Thank you !

Vincent Gosselin
vincent.gosselin@avaiga.com