

# Meet Beam AI

Founded: 2022

Founders: Jonas Diezun (CEO) &  
Aqib Ansari (CTO), Dr. Benedikt  
Sanftl (CPO) & Burak Özafşar (ML)

Employees: 35 (+>150 AI Agents)

Offices: Berlin, Munich, New York, &  
Karachi

[beam.ai](https://beam.ai)



RAZOR  
GROUP

Microsoft

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MOTIUS  
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AIRBUS



KONUX

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CDTM

# Beam AI x CDTM Hacks 2025

## Invent the Future of Work with Intelligent Agents

The future is

# Agentic





Autonomous AI Agents to automate  
redundant and complex tasks

## Who We Are?

Beam AI specializes in AI-driven enterprise automation. Our autonomous agentic operating system streamlines workflows and optimizes decision-making.

## What We Do?

Enabling businesses to drastically improve efficiency by automating complex data processing tasks.

# What Can You Build with Beam?

## Agents That Think, Plan, and Act

### 💬 Customer Support Agent

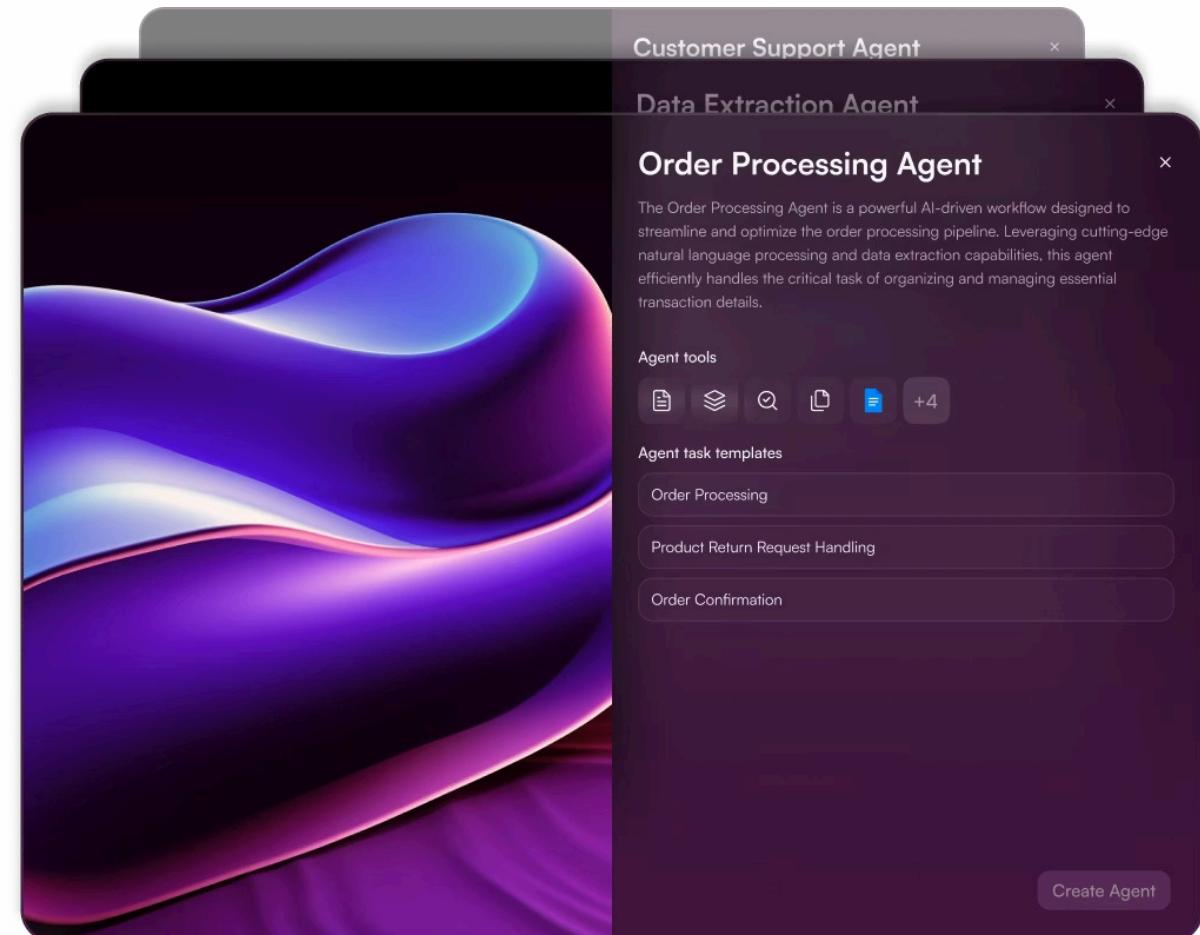
- Automatically respond to FAQs using chat or voice
- Route tickets based on content and urgency
- Retrieve full customer history from connected tools

### 📝 HR & Onboarding Agent

- Screen resumes and shortlist candidates
- Schedule interviews and send confirmations
- Generate onboarding checklists and send welcome kits

### 📦 Order Processing Agent

- Extract details from incoming orders or receipts
- Validate and push to ERP or Sheets
- Auto-generate confirmations and invoices



✨ And many more...

# The Beam AI Agent Stack

## Memory

Upload structured and unstructured data

**Add data**

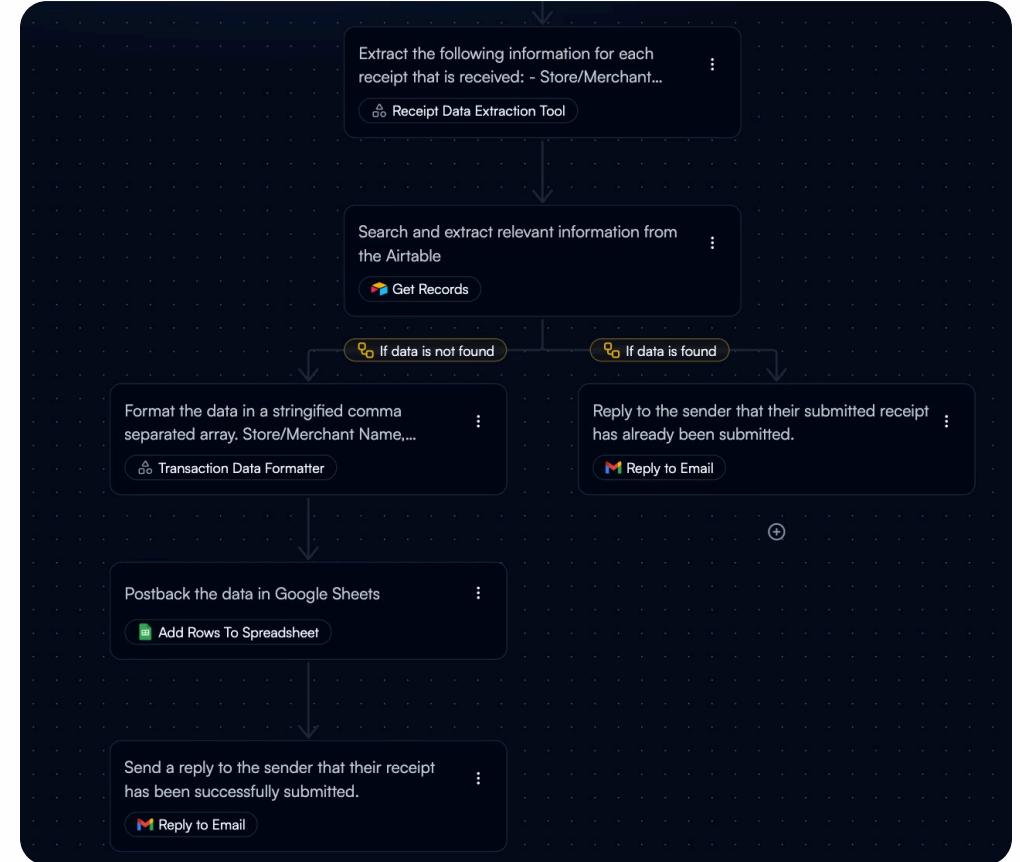
Add your data by clicking or dragging them into the area below.

Click or drag and drop file to this area to upload

Supporting formats: .pptx, .xlsx, .csv, .docx, .pdf, .txt, .png, .jpeg, .tiff, .bmp, .heif

## Flows

Design intelligent multi-step workflows



## Integrations

Connect with external tools & services

**Agent configuration**

Configure your agent's tools, workflows and general settings

Authenticate your integrations to enable the execution of tools or workflows. Integrate external systems, services, or applications to enable data exchange and functionality.

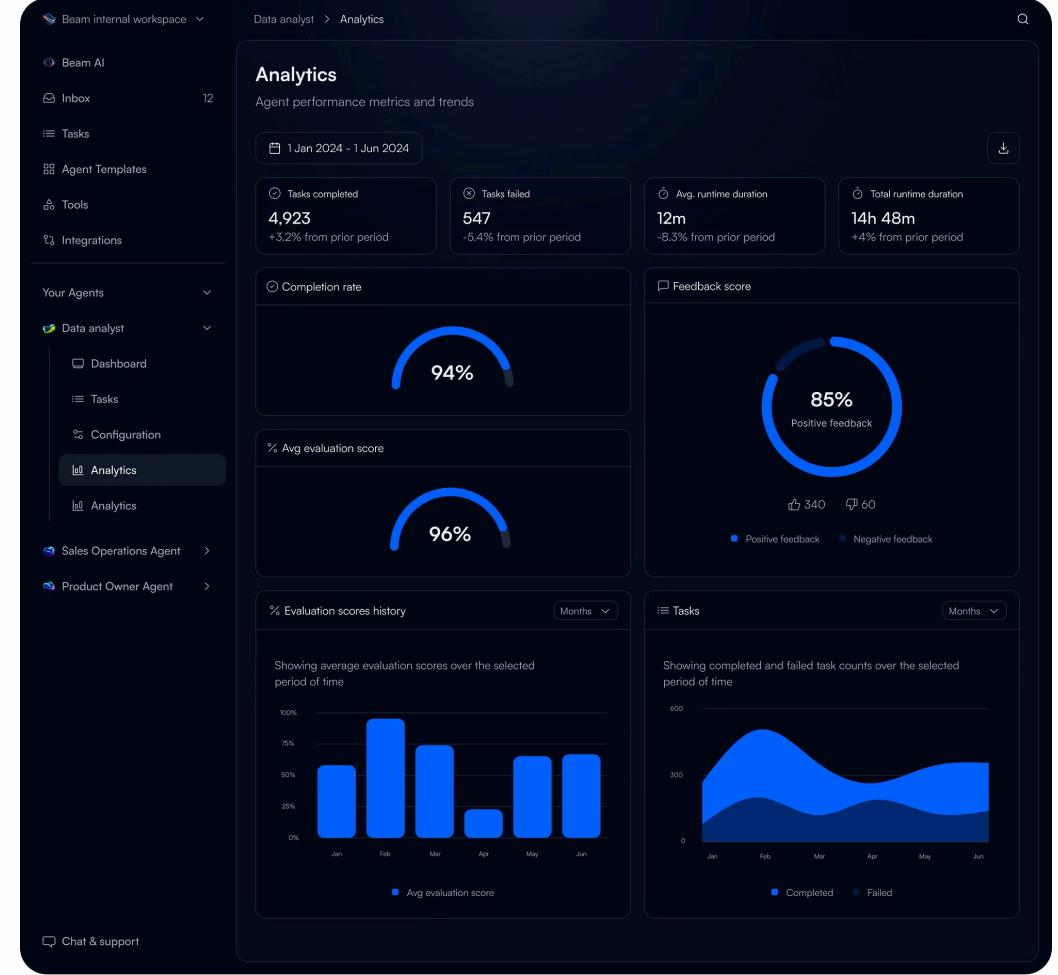
Documents  Google Sheets  Gmail

Spreadsheet application by Google for real-time collaboration. 2 connections

Email service by Google for secure, efficient email management. 2 connections

## Analytics

Track agent performance and impact



## Learning

Train agents via human feedback

**Optimise tool**

Review outputs from past executions and provide feedback to optimise the tool's prompt for better accuracy and results.

Feedback  Perfect output

Describe why this output didn't meet your expectations and suggest improvements. For example: 'The response was too vague; please include more details and specific examples.'

What's wrong: Data loss in execution, Missing task inputs, Missing context, Incorrect memory lookup, Hallucinations

DAT-009 Extract this data and upload it to a google sheet. 80% Mar 19 2:00 pm

Step output

Property Overview:

Location: 321 Elm Street, Seaside Haven, Malibu  
Price: \$1,200,000  
Bedrooms: 4  
Bathrooms: 3.5  
Square Footage: 3,000 sq. ft.

Feedback  Perfect output

Outputs 2 selected Improve outputs Provide feedback on the selected outputs

& data extraction tool to extract detailed information from this identification

## Tools

Define task-specific tool behavior

**Configure tool**

Modify and test your tool settings and parameters to achieve the desired output.

Icon Name\*

Description\*

The Invoice Information Extractor is designed to accurately extract key details from financial documents, specifically invoices. It focuses on identifying the invoice number and buyer name, ensuring data integrity for financial processing. The tool is adept at distinguishing between buyer and seller information, providing accurate outputs even when buyer details are missing. This tool is essential for maintaining precise financial records.

Prompt\*

# Agenda

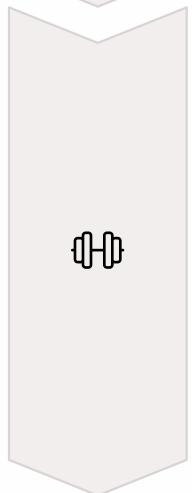


## Your Challenge

Meet PedalWorks: The Case Overview



Where You Can Make an Impact



## Resources & Approach

Your Build Blueprint

Your Starter Kit



Trigger Anything, Anytime, Anywhere

Plug Into Anything, Build for Everything

Final Tips Before You Start





Your Challenge

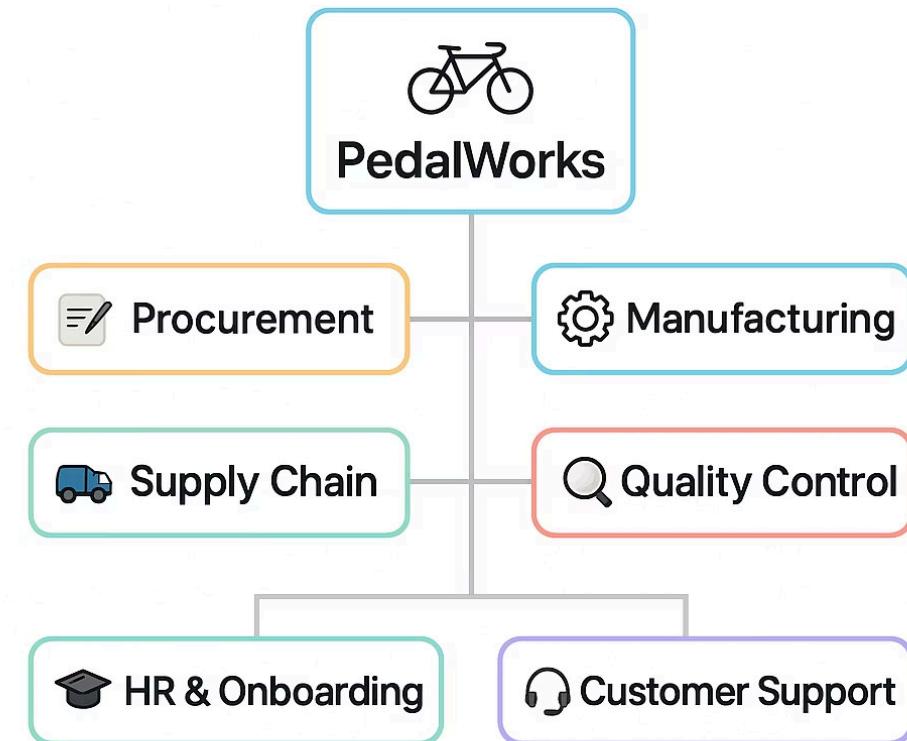
# Meet PedalWorks GmbH

PedalWorks GmbH is a fictional mid-sized bicycle manufacturer with 500 employees that is growing 30% year over year.

They operate across six departments:

- Procurement
- Manufacturing
- Quality Control
- Supply Chain
- HR & Onboarding
- Customer Support

Despite their scale, outdated processes and repetitive manual tasks slow them down.



**Your task:** Pick one department and build an AI agent that solves a real, recurring pain point — faster, smarter, and more scalable.

# Departmental Challenges

Each team at PedalWorks faces pain points ripe for automation

Department	Key Challenges
Procurement	Slow vendor onboarding, mismatched POs/invoices, delayed payments
Manufacturing	Missed maintenance alerts, rigid production planning
Quality Control	Backlogs in inspection, inconsistent defect tracking
Supply Chain	Limited inventory visibility, unreliable demand forecasts
HR & Onboarding	Manual hiring, slow onboarding, compliance tracking by email
Customer Support	Unstructured requests, no centralized view of customer data

# Your Hackathon Challenge

## What You Need to Do

1. Pick a department at PedalWorks with a real operational bottleneck
2. Design and build an AI agent using Beam that automates or enhances that process
3. Demo your agent in action — show what it does, how it connects, and what value it delivers

## What We're Looking For

- **Use Case Relevance:** Is the chosen problem real, well-defined, and critical to PedalWorks operations?
- **Agent Workflow Design:** Is the process thoughtfully structured using Beam's flow builder and features?
- **Technical Integration:** Are APIs, tools, or custom UI integrations used effectively (e.g., Loveable)?
- **Impact & Outcome:** Is there a measurable business benefit — such as time saved, errors reduced, or faster onboarding?
- **Presentation & Storytelling:** Is the final demo clear, engaging, and easy to follow with a well-articulated narrative?

## Bonus Points if you

- Use **voice input or multimodal interaction** (e.g., trigger workflows via speech)
- Simulate or augment input data to test agent robustness (e.g., upload and vary multiple test examples)
- **Embed your agent** into a custom frontend using Beam APIs or Loveable
- Incorporate **Human-in-the-Loop** elements (e.g., approvals or feedback requests)



# Judging Criteria

# Your solution will be evaluated based on

Use Case Relevance

Real-world alignment

Workflow Design

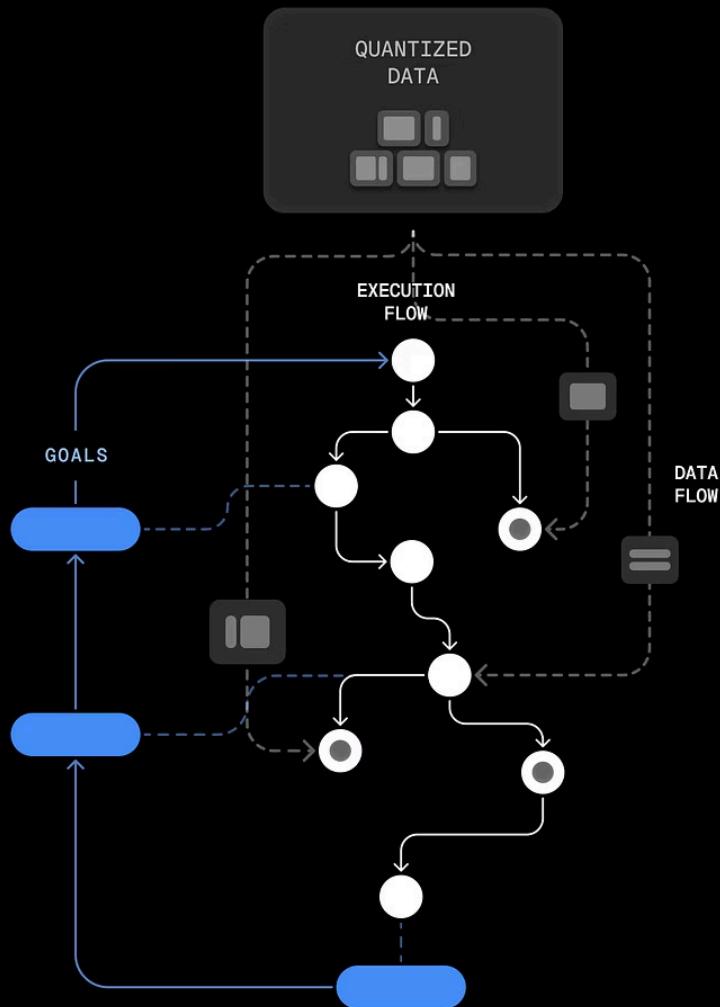
Clarity, logic, structure

Technical Integration

APIs, tools, UI

Operational Impact

Time, accuracy, outcomes



# Your Build Blueprint



## Step 1

Choose a department and pain point

## Step 2

Design the agent logic with Flow Builder

## Step 3

Integrate tools and APIs using Integration Builder

## Step 4

Test your flow using sample inputs

## Step 5

Build a UI or voice interface (optional)

## Step 6

Prepare your final demo + pitch

# Your Starter Kit

You'll receive curated, real-world-inspired datasets to power your agents:

## Datasets

Real-world, business-critical datasets to simulate and test agent behavior:

- **Source-to-Pay (Procurement)** — Provided by Celonis
- **Order Processing (Supply Chain)** — Provided by Beam
- **Dataset Generator App** — To help you quickly generate a test dataset

## Sample App

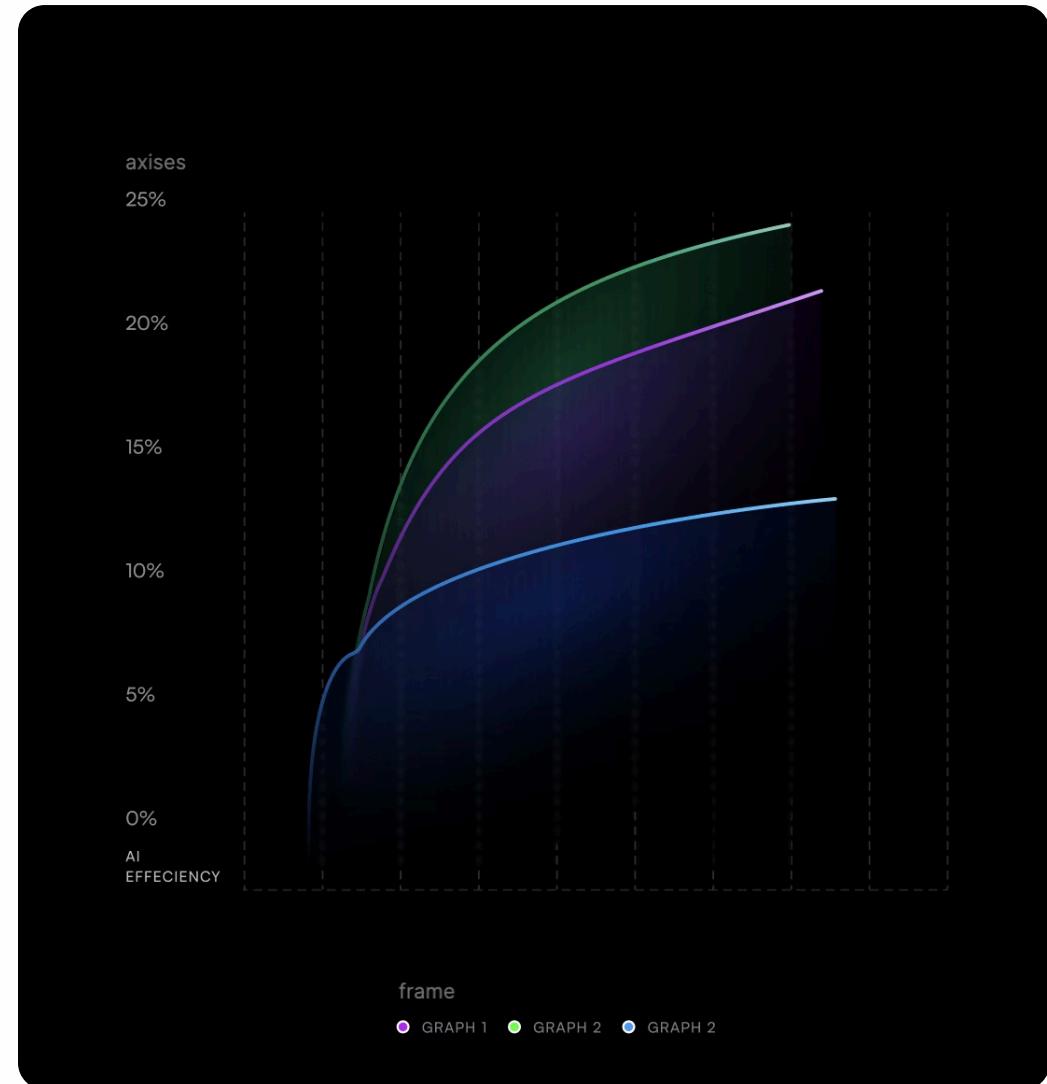
A Basic Reference App to help you:

- Connect your Agent via APIs

## Agent Learning (Beta Version)

Access our Beta Agent Learning Engine to:

- Continuously improve agent performance via feedback loops



# Triggering Agents via Webhooks

## How it Works

Use Beam's **Webhook Trigger Module** to connect your agent to any external system via POST requests.

- Generate a **unique webhook URL** inside the agent trigger settings
- Accepts **JSON payloads**, including structured data, metadata, and attachments
- Optional: Secure with **API Key authentication**

## Supported Payload Types

- Structured objects and nested arrays
- File attachments via **Base64 encoding**
- Metadata like clientId, timestamp, and sourceSystem

# Integration Capabilities

Beam's Integration Builder lets you connect your agent to external tools, apps, and services — whether for data input, task triggering, or embedding your output into existing systems.

## What You Can Do:

- **Call REST APIs** directly from within your agent
- **Use built-in integrations** like Zapier, Slack, Make.com, and Google Sheets
- **Trigger workflows** via incoming webhooks or real-time user inputs
- **Embed your agent** into a web/mobile app via Beam APIs or a polished UI built with Loveable

## Build your custom integration

Connect your agent with your internal or proprietary platforms

Upload an icon



Name\*

Enter a name

Category\*

Select a category

Authentication type\*

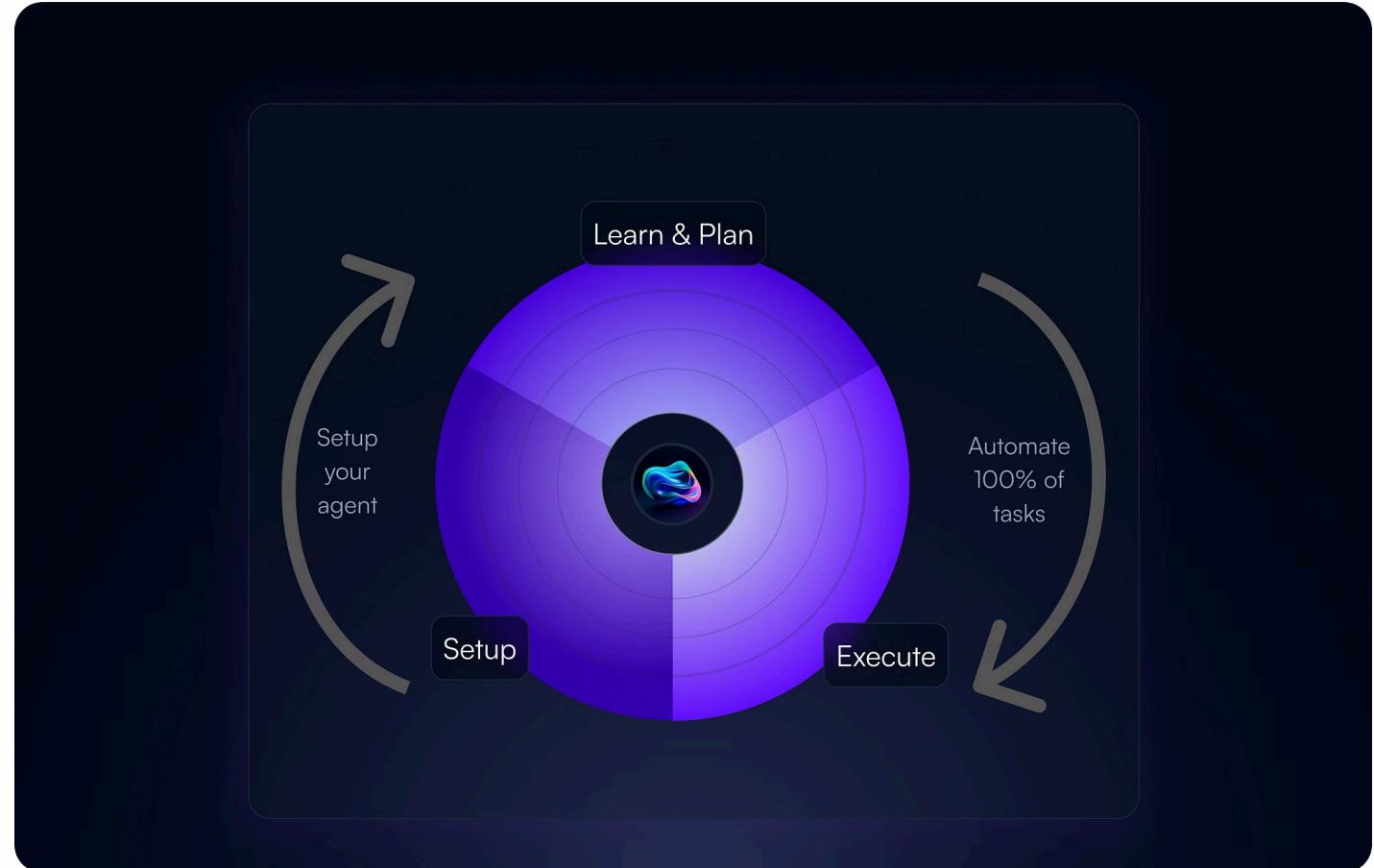
None     API Key     Basic     OAuth (2.0)

# Final Tips

You bring the ideas, Beam powers the agents.

✨ Platform access, examples, and docs will be shared via Discord

👉 Questions? Ping Burak, Mujtaba, or Aqib anytime during the hack!



# Prize

- JBL Charge 5 Bluetooth-Lautsprecher
- One-on-one mentorship session  
with Beam leadership



Thank You

**Best of luck, hackers!**

We can't wait to see what you build 

