

ÍMPETU

A calm, proactive agent for autistic and ADHD minds

Starting is the hard problem, not planning.



Starting is the hard problem, not planning.

● THE PLAN

Usually already known. Often written down three times. Sometimes colour-coded.

● THE FIRST MOVE

The actual bottleneck. Not a motivation problem, not a knowledge problem — an activation problem.

Every feature of ÍMPETU exists to lower the energy to begin.

This is not a niche.

Executive dysfunction is one of the most common ways a human brain differs — and one of the least designed for.

1 in 31

U.S. children aged 8
identified with autism

*CDC ADDM Network, 2022 surveillance
year*

15.5 M

U.S. adults with a current
ADHD diagnosis — about 1
in 16

*CDC / NCHS Rapid Surveys, Oct–Nov
2023*

55.9%

of those adults were only
diagnosed after turning 18

*Same source — a generation went
unnamed*

11.7%

of U.S. children aged 3–17
have a current ADHD
diagnosis (7 million)

CDC, 2024 national parent survey

Globally, WHO estimated about 1 in 127 people were autistic in 2021 — and notes that autism routinely affects education and employment opportunities.

The gap is not between confusion and clarity.

● KNOWING WHAT TO DO

Intact. Often unusually sharp. ADHD and autism are about executive function and sensory load — not intelligence and not comprehension.



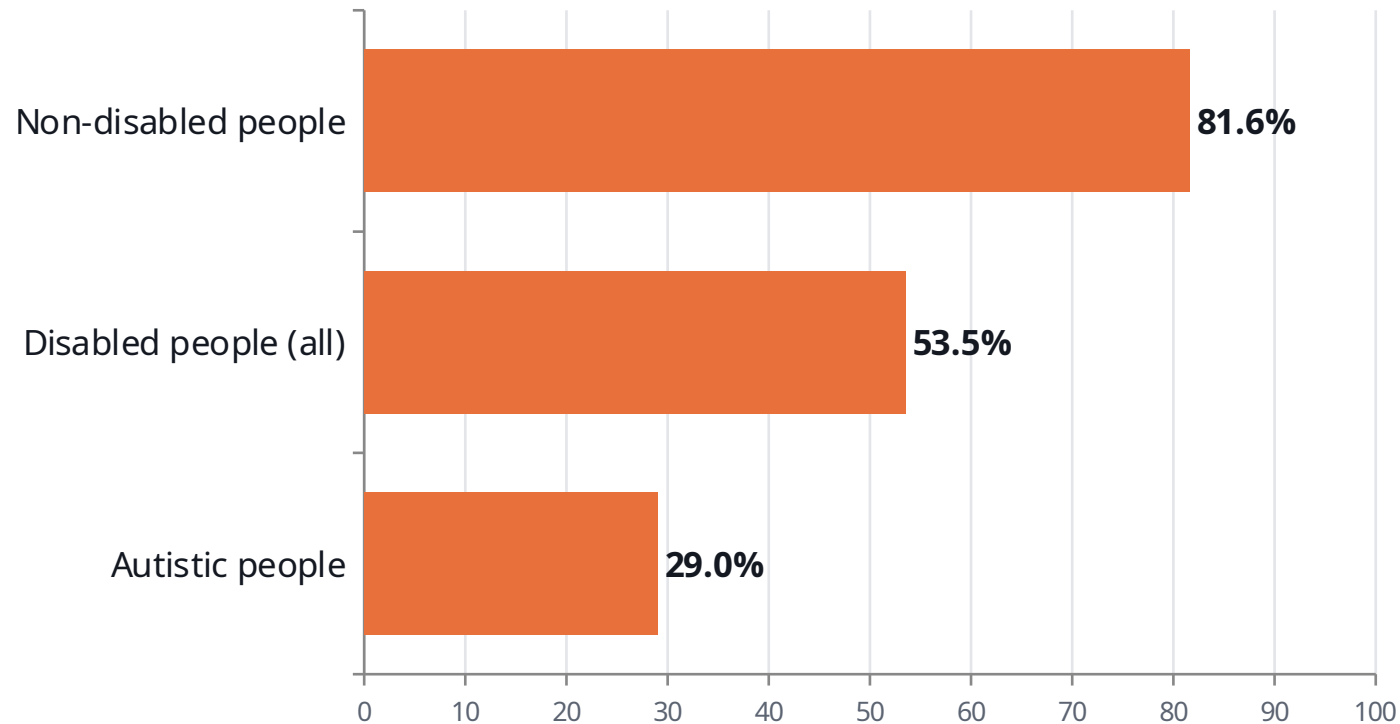
● ACTING ON IT

Where the disability actually lives. The task is understood, agreed with, and wanted — and still does not begin.

“Knowledge (knowing what to do) and performance (acting on what you know needs to be done) can be very different, and the brain may approach these factors separately with effects from ADHD.”

UConn Center for Behavioral Education and Research, summarising Russell Barkley's framing of ADHD as a performance disorder rather than a knowledge one.

The cost is measured in lives, not minutes.



Autistic people had one of the lowest employment rates of any impairment group the ONS measured.

Most of them want to work. What fails is not desire and not competence — it is everything that has to happen before the first email gets sent.

A missed deadline, an unanswered letter, an unbooked appointment — the same activation gap, compounding for years.

Source: ONS, Outcomes for disabled people in the UK: 2021 — employment rates, July to September 2021 (UK, ages 16–64).

Every productivity tool raises the cost of starting.

● The wall of steps

A twelve-item plan is not a ramp. It is a wall with numbers on it.

● The blank page

The empty compose window is where most tasks quietly die.

● The nag

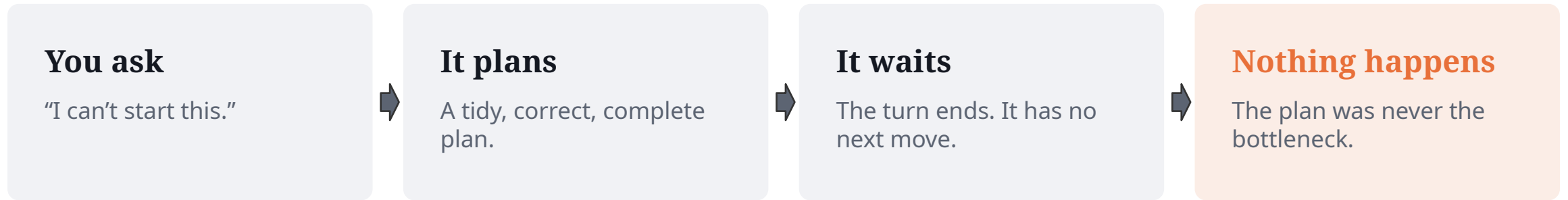
A reminder that implies failure raises avoidance instead of lowering it.

● The reset

Every session starts from zero, so you explain yourself again. And again.

None of these are bugs. They are defaults designed for a brain that starts by itself.

A chatbot fails in exactly the same place.



An assistant that answers and stops is still asking the person to supply the one thing they do not have.

The gap is not intelligence. It is agency: the ability to act, to remember, and to come back.

Four moves, all of them aimed at the first minute.

01

**Negotiates one
step**

One move at a time,
offered — never ordered,
never a wall.

02

**Does the scary
10%**

Writes the email in your
voice and leaves it as a
real draft.

03

Remembers you

Tasks, energy, framing,
pronouns. You never re-
explain.

04

**Comes back on
its own**

A daily job reaches you
first, with your computer
off.

Deployed on Google Cloud and verified end to end — not a mockup.

One step, negotiated — never an order.

- **Autonomy is not a nicety.**

Some autistic people shut down when told what to do. Demand avoidance is a real mechanism, not stubbornness.

- **Offered, not issued.**

“Would it help to...”, “we could...”, “if you want...” — and you can veto, swap it, or say no.

- **Scaled to today.**

It asks energy 1–5 and shrinks the ask, including explicit permission to rest with zero guilt.

- **Addressed to an adult.**

No baby-talk, no diminutives, no “it’s understandable that you feel...”, no exaggerated praise for small actions.

A REAL EXCHANGE

“I’m overwhelmed and I can’t start.”

“Want one tiny next step, or do you want to rest first?”

“One step.”

It proposes the single next move, saves it, and offers to write the hard part.

It does the scary 10% — for real.

- **The blank page is the enemy.**

It writes the email in your voice and drops it as an actual Gmail draft. You review and send.

- **It never sends.**

Compose scope for drafting, read-only scope for searching. It cannot send, delete, or alter your mail.

- **A dedicated drafter writes it.**

A sub-agent that knows the mail comes from your own address: no repeated name, no “my name is...”, one sign-off at most.

- **It looks things up instead of guessing.**

Addresses, deadlines, procedures go through grounded search — and it says so plainly when it cannot find them.

DRAFTS · GMAIL

Subject:

Consulta por estado de expediente

Buenos días. Escribo para consultar el estado del expediente y qué documentación falta para avanzar.

Quedo atenta a su respuesta.

Anna

Waiting in your drafts. Not sent.

It holds the thread, so you don't have to.



What it keeps

Open tasks, the negotiated next step, your last energy level, what framing actually landed, and how you want to be addressed — él, ella, elle.



Why it matters

Working memory is the thing executive dysfunction takes first. Re-explaining yourself every session is itself an activation cost — one most tools charge every single day.

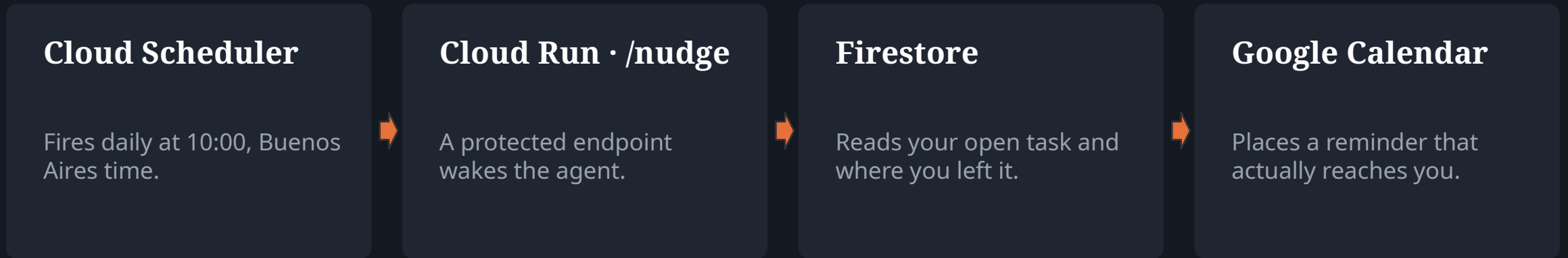


Where the line is

Stored memory is data, never instruction. A saved note can never authorise an action, and neither can anything found in your inbox or on the web.

Backed by Firestore, with an honest in-memory fallback — and it tells you which one it is running on.

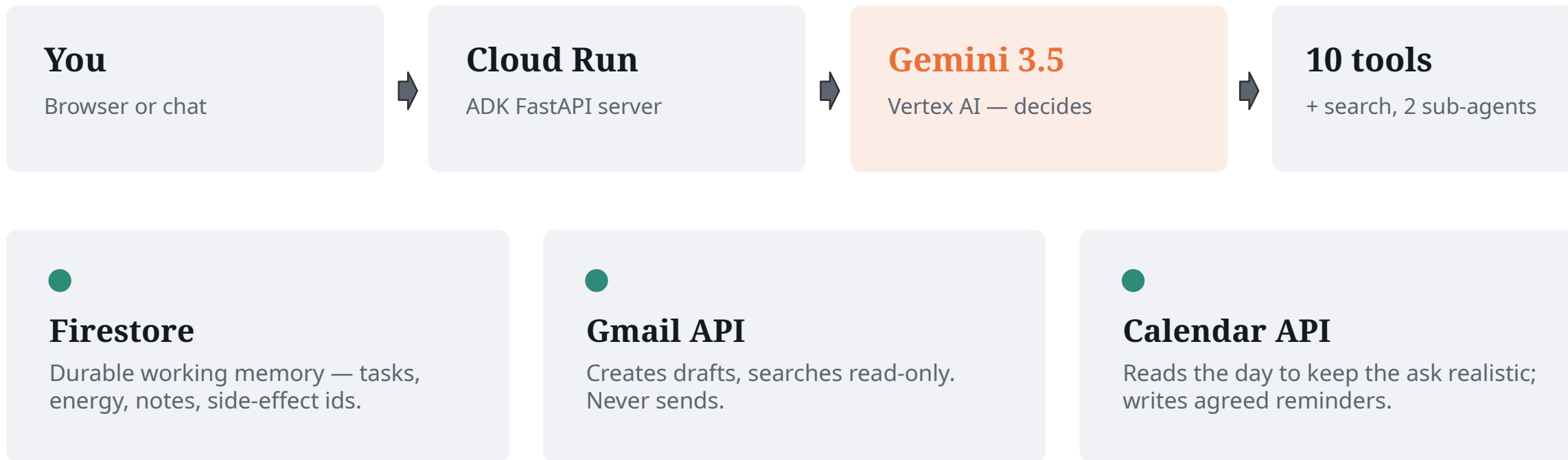
It comes to you — with your computer off.



A purely reactive assistant is not enough for an ADHD brain. If beginning is the barrier, something has to begin.

This is the line between a chat box and a collaborator.

Architecture



The proactive loop: Cloud Scheduler (10:00 AR) → Cloud Run /nudge → Firestore (your open task) → Calendar (notifies you)

All Google Cloud, end to end.



Gemini 3.5 · Vertex AI

The reasoning. Picks the action.



Google ADK

LlmAgent, function tools, AgentTool sub-agents, grounded search.



Cloud Run

Hosts the agent server and the /nudge endpoint.



Firestore

Durable working memory, with an honest fallback.



Secret Manager

The OAuth token — never in the image, never in the repo.



Cloud Scheduler

Fires the daily proactive nudge.



Gmail API

Draft and read-only inbox search.



Calendar API

Reads the day, writes notifying reminders.

Python · Docker · Apache-2.0. One command deploys it.

The model is in the decision path — by design.

Which raises the only question worth asking: when the model decides, what does that decision reach, and under whose identity?

● One identity per operation

The caller's identity now travels all the way to the side effect. It used to stop exactly where Google began.

● Credentials per person

Your draft lands in your inbox, not a shared one. A missing binding is the absence of permission, never permission.

● Untrusted input stays data

Inbox results, search results and stored notes are tagged as things read — never as things that instruct.

● Honest about uncertain

A lost response becomes “unknown”, then gets reconciled against Gmail and Calendar — never silently retried.

Findings came from a written adversarial review of the codebase; 29 red-team tests replay each attack, and each was checked as a negative control — reverting the fix turns its tests red. Open gaps are documented, not hidden.

Five principles that never move.

- **No shame, ever.** Missing a step is information, not failure. No nagging, no guilt, no streaks to break.
- **No crisis-hotline handoff.** A struggling person is kept company on the concrete next step, not deflected to a helpline.
- **Respect the person's intelligence.** Small steps lower activation energy. They are not a statement about capability.
- **Honest degradation.** Every side effect reports whether it actually happened — it never fakes success, and never calls an uncertain outcome a failure.
- **One identity per operation.** The caller's identity reaches the side effect, and every side effect's id is recorded.

Accessibility has never had a tool for this.

- Cognitive accessibility has mostly meant clearer text and more reminders. Neither lowers the energy to begin — reminders often raise it.
- An agent is the first technology that can do the first ten percent for you, hold the thread between sessions, and come back tomorrow without being asked.
- 1 in 31 children. 15.5 million U.S. adults. 29% of autistic people in work. The bottleneck was never the plan.

**Starting is the hard problem.
Now something else can start it with you.**



Try it, read it, check it.

LIVE

`impetu-brkvglmi2a-uc.a.run.app`

CODE

`github.com/annatchijova/impetu` · Apache-2.0

What to look for

Draft created · memory saved · reminder scheduled · it returns later. Four visible states, not a chat transcript.

All of it deployed and verified end to end — nothing staged for the video.

Sources for every figure in this deck

- Autism prevalence, 1 in 31 (2022 surveillance year) — CDC, Data and Statistics on Autism Spectrum Disorder, cdc.gov/autism/data-research
- Adult ADHD, 6.0% / 15.5 million / 55.9% diagnosed as adults (Oct–Nov 2023) — CDC MMWR 73(40), NCHS Rapid Surveys System
- Child ADHD, 11.7% / 7 million aged 3–17 (2024) — CDC, Data on ADHD in Children, cdc.gov/adhd/data
- Employment rates 29.0% / 53.5% / 81.6% (UK, Jul–Sep 2021) — ONS, Outcomes for disabled people in the UK: 2021
- Global autism, about 1 in 127 in 2021 — WHO, Autism fact sheet
- Knowledge versus performance in ADHD — UConn Center for Behavioral Education and Research, on Russell Barkley's framing