



TRUSTED EV PASS

START CHARGING INSTANTLY —
NO APPS, NO HASSLE, NO FRICTION

THE PROBLEM



PUBLIC EV CHARGING IS PAINFUL:

- Too many **apps, accounts, cards, and QR codes**
- Charging is manual, slow, and different on every network
- Cars cannot coordinate timing, battery needs, or grid load
- Battery health data is scattered and not trusted
- Fleets and grid operators cannot plan based on real usage

OUR VISION



CHARGING SHOULD BE:

APP-FREE

No logins, QR codes, or screens to open

AUTOMATIC

the car and charger handle the process for the user

SECURE

Only verified facts are shared; personal data stays protected

TRANSPARENT

Clear pricing, timing, and energy mix

INTEROPERABLE

Works seamlessly across any charging network

In short: **Cars, chargers, and drivers instantly recognize each other and agree on the best charging plan with zero friction**



SOLUTION

A DECENTRALIZED SYSTEM

that lets the

CAR, CHARGER, AND DRIVER

trust each other instantly without apps or logins

We give every participant a trusted digital identity:

DID (Decentralized Identifier)

– a secure digital ID

VC (Verifiable Credential)

– digitally signed facts (driver, vehicle, charger, payment)

VP (Verifiable Presentation)

– a secure package of selected facts proving exactly what is needed, nothing more



APP-FREE USER-FLOW

Users never need to open an app during charging.

How we achieve it:

1. ONE-TIME ONBOARDING

– set up DID, Driver VC, Vehicle VC, Payment VC

2. CARPLAY + VOICE ACT AS THE INTERFACE

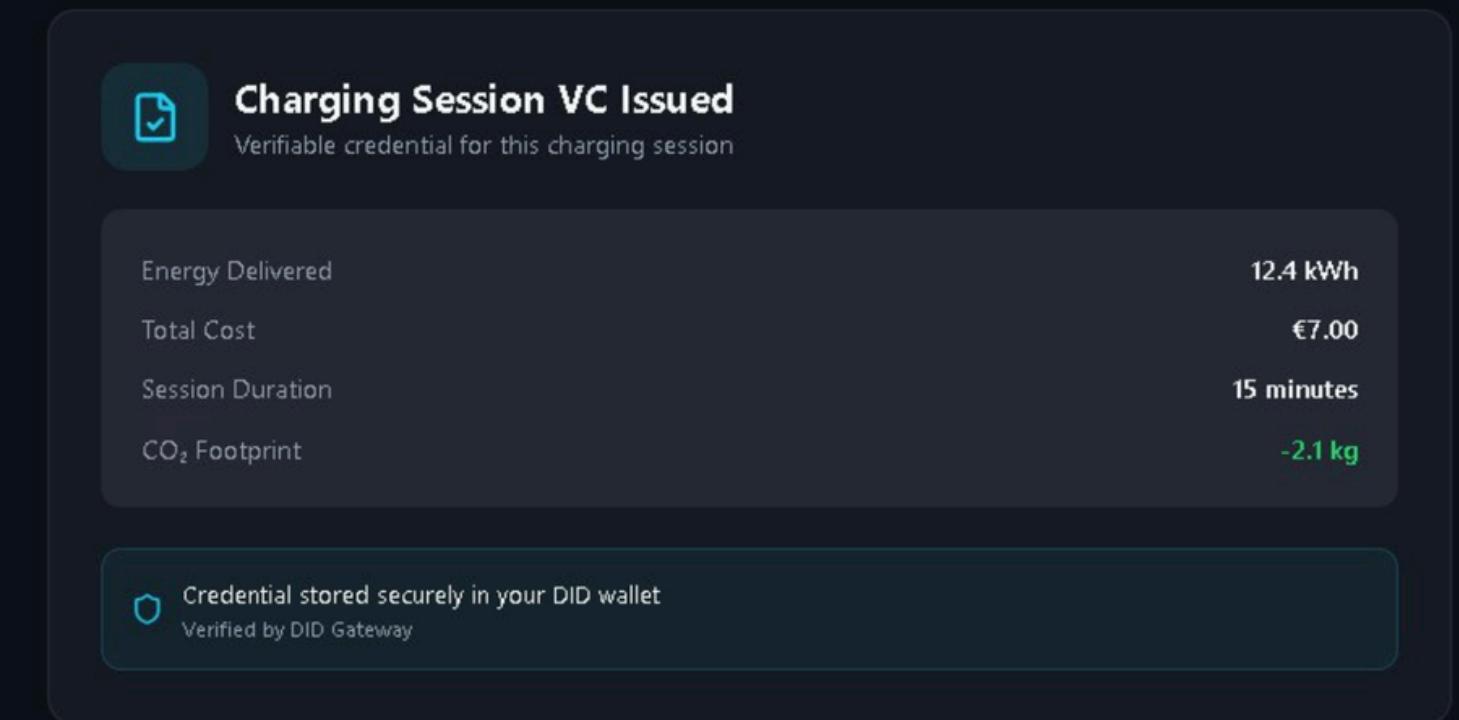
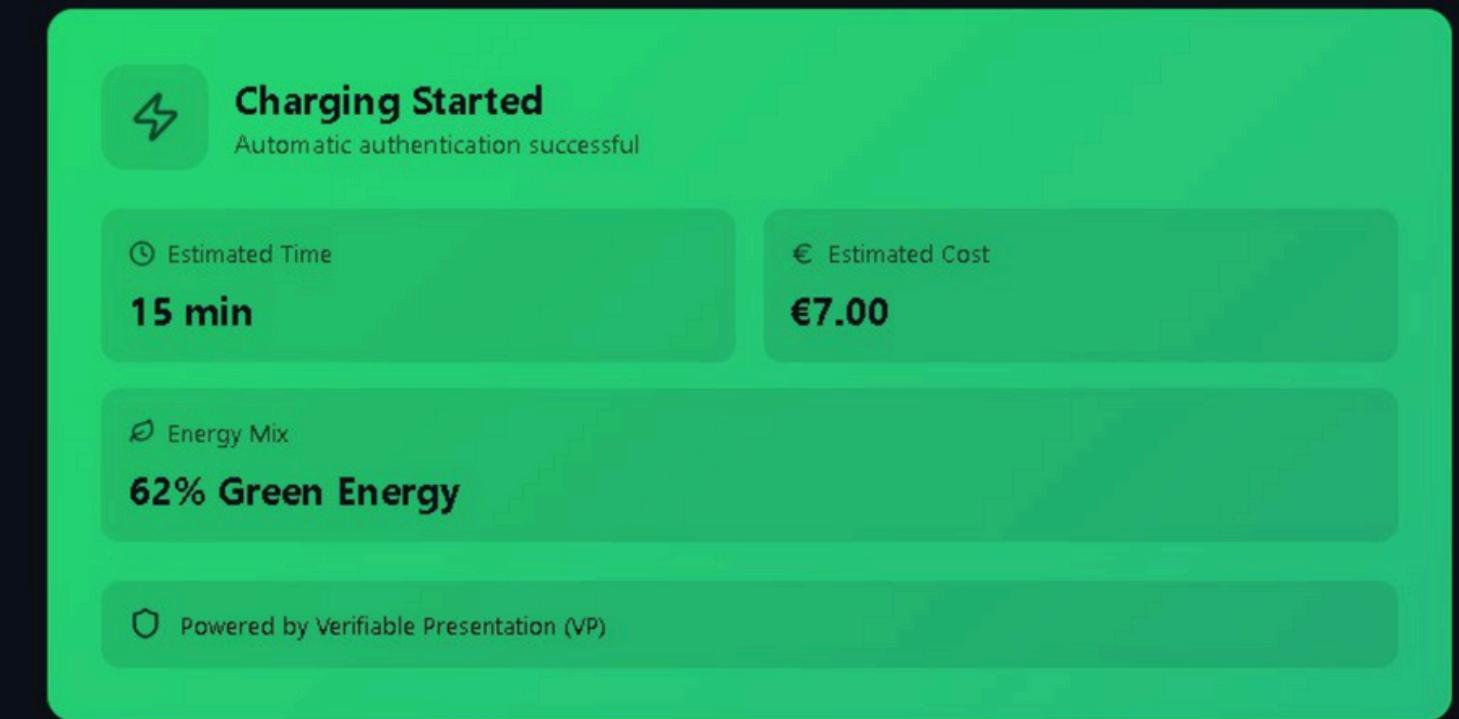
3. CHARGER VERIFIES A VP AUTOMATICALLY ON ARRIVAL



USER EXPERIENCE

THE ASSISTANT:

- **Checks battery level** automatically
- **Recommends the optimal charger**
- Considers **time, cost, and grid load**
- Authenticates automatically on arrival
- **Starts charging** at the moment the **cable is connected**
- **Provides** additional services to **enhance user experience**





SMART CHARGING ASSISTANT

“Find the nearest charging station in
Helsinki...”

With a coffee shop!”



AUTOMATIC CHARGING START

Authorized

User inserts the cable:

- **Charging starts** instantly
- Assistant shows **time to charge**

**NOTHING TO OPEN, NO STEPS TO
CONFIRM**



ARRIVAL AND AUTOMATIC AUTHENTICATION

When the car arrives:

- **Charger recognizes** driver and **vehicle through DID**
- **Verifies authorization** and **payment** via VP
- unlocks automatically

ZERO TAPS. ZERO APPS. ZERO FRICTION.



ECOSYSTEM BENEFITS

FOR FLEETS

Trusted battery and charging data → better planning, lower cost.

FOR GRID OPERATORS

Aggregated, anonymous insights → smarter load balancing.

FOR MARKETPLACES

Verified battery passport → fair pricing and higher trust.

FOR CHARGING NETWORKS

Frictionless onboarding → more sessions and happier customers.



TRUSTED EV[®] PASS BY DENSO



YouTube

<https://github.com/crispglobal/trusted-ev-pass-demo>