

NAIXT

SOLUTIONS GmbH

Cost Efficient Hybrid with Variable Transmission Ratio for Small Offroad Vehicles

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AI GENERATED

FOUNDED IN EARLY 2026



Founding

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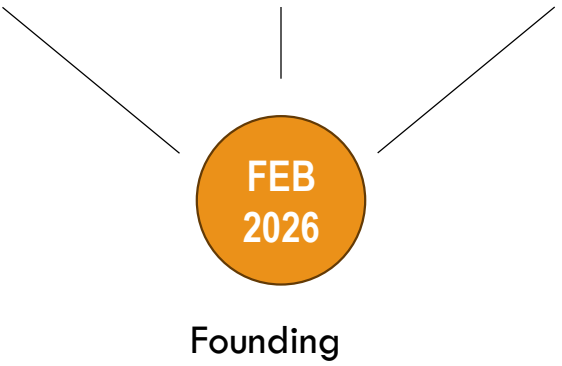
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First Idea



Development in various
research projects



Founding

THE ***NAIXT*** WAY OF SMALL VEHICLE MOBILITY

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The CVT is the 'chink in the armor'

An aerial photograph captures three off-road racing vehicles, likely Bajas, as they speed across a vast desert landscape of rolling sand dunes. The vehicles are kicking up large plumes of sand, creating a sense of high speed and action. The dunes are characterized by their smooth, undulating curves and light tan color. In the distance, more vehicles can be seen as small specks on the horizon. The overall atmosphere is one of adventure and competition in a remote, arid environment.

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**The battery
cannot come out here.**

And nothing from the car world fits.



Parallel hybrid

the belt stays in the vehicle.



Series hybrid

every kilowatt installed twice.



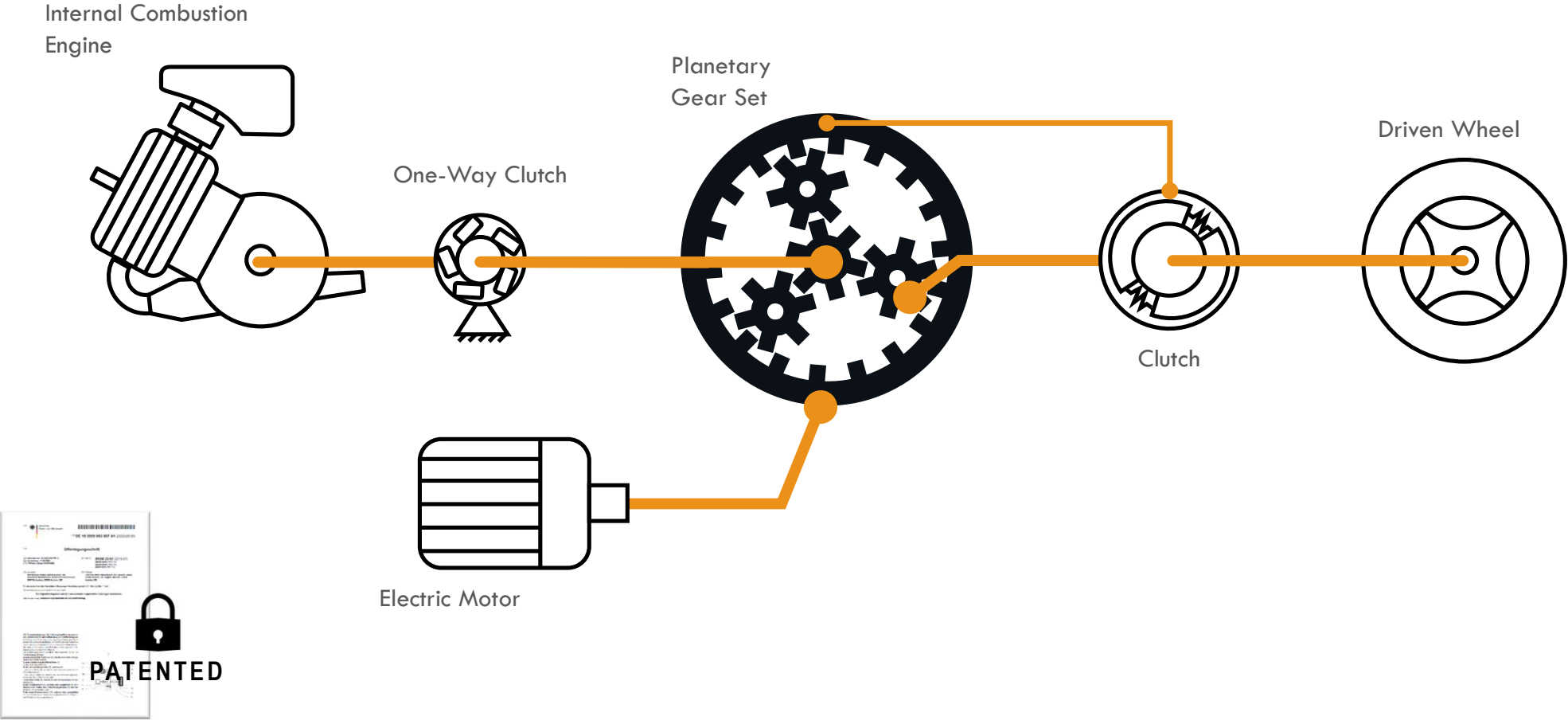
Full battery

no charger, no chance.

This class needs something of its own.

Our Solution - the **ePGS**

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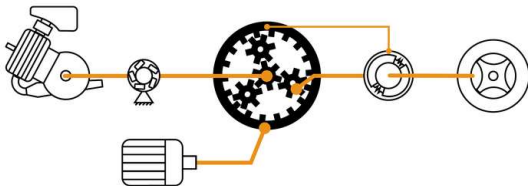


Three modes cover the entire ride

VRM

Variable Ratio Mode

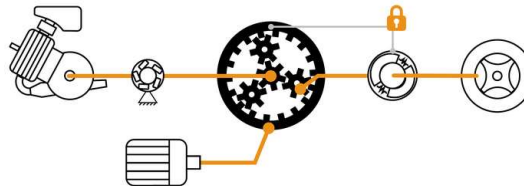
The electric machine sets the ratio.
The engine stays at its best point.



PDM

Parallel Drive Mode

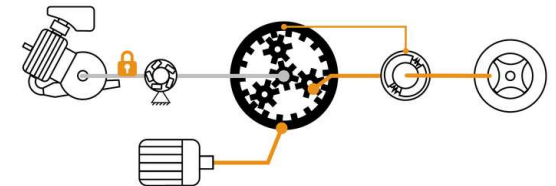
The clutch locks two shafts for
maximum mechanical efficiency.



EDM

Electric Drive Mode

The one-way clutch lets the machine
drive the vehicle alone.



ePGS powered systems enable significant benefits in operation

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Maximum Power

Minimised losses and additional electric motor increase the power at the wheel by up to **+100 %**.



Electric Operation

Electric operation when it is required. Possible up to ~50 % of max. Speed.



Higher Efficiency

Thanks to the increased efficiency, **+30 %** less fuel is consumed.

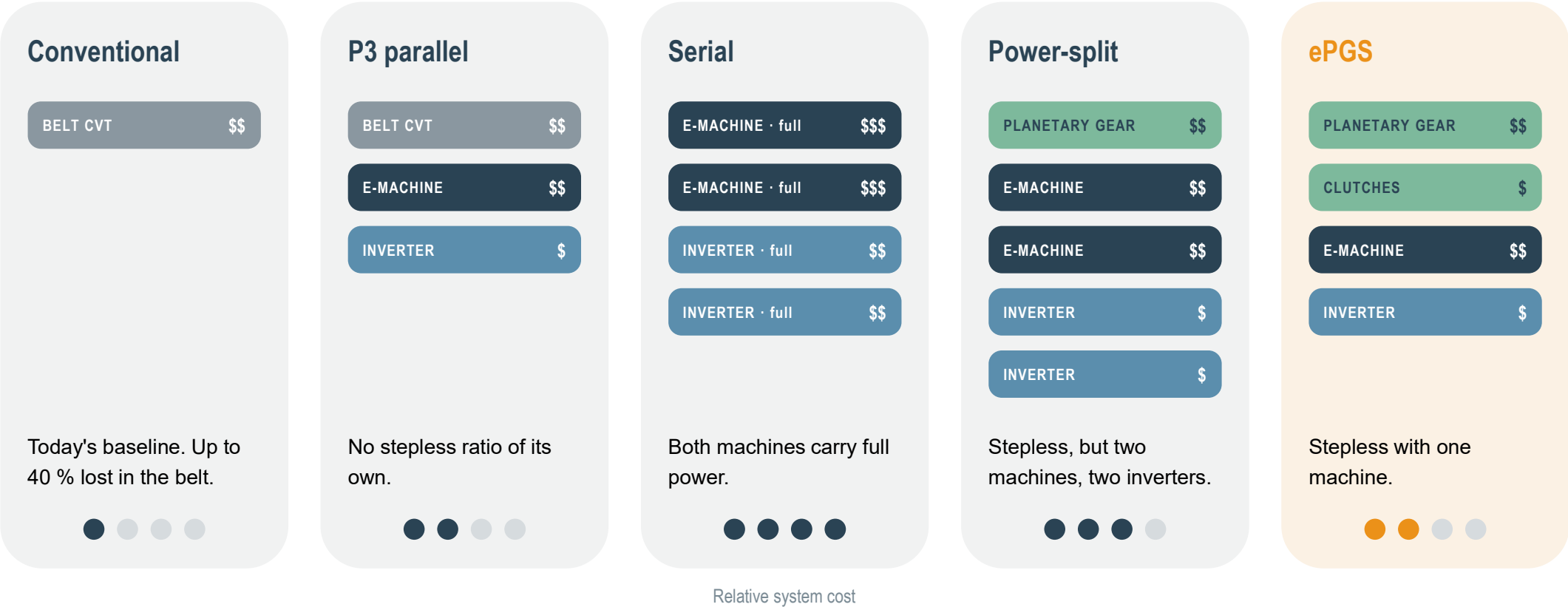


Unlimited Operation

No battery charging necessary to ensure **24/7** operation. Always available

The simplest hybrid that still gives a stepless ratio

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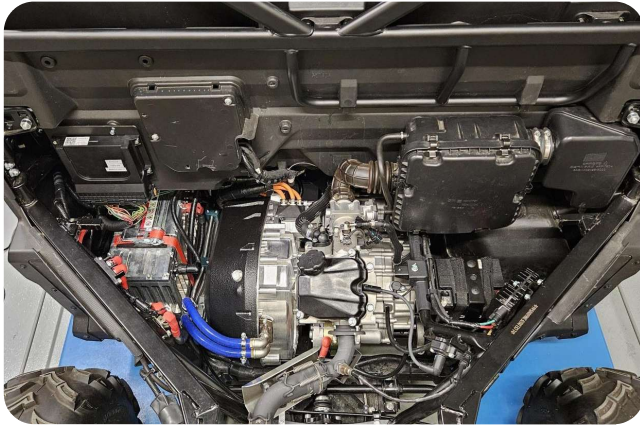


Components required per architecture for a 300–800 kg vehicle. Machines and inverters are rated by the power they have to carry. Dollar signs are our own relative cost estimate, not a costed bill of materials.

Prototype built and measured

The hardware exists.

Built, instrumented and run on a test bench – not just simulated in theory.



First prototype of the planetary gear hybrid, validated on a powersports platform.

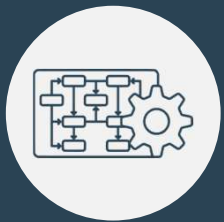
PATENTED ARCHITECTURE

The planetary gear set, the one-way clutch and the electric machine are covered by the patent.



Quick check.

Bring one of your Machines. We run the numbers on your machine.



WE BRING

Simulation model, prototype data,
full assumption sheet.



YOU BRING

Vehicle data and BSFC Map.



YOU GET

A first estimation on performance
and fuel consumption for your
machine. No cost, no obligation.

GET IN TOUCH

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