The Energy Savings Software for the Industry

Unlocking 35% Energy Savings with the First Electrical Power Distribution Optimization Platform

KODNYX

Pre-Seed Investor Pitch Deck

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Rising Electricity Cost Are Eroding Competitiveness for Manufacturers

Electricity as a Share of Operating Costs in EU Industry

14%

Deloitte (2025)

Second-largest cost driver
after raw materials (20 %)

Electricity Demand until 2030

25% 

International Energy Agency (2025)

Drop in total production of Europe's energy-intensive sectors due to high energy costs

-10% 

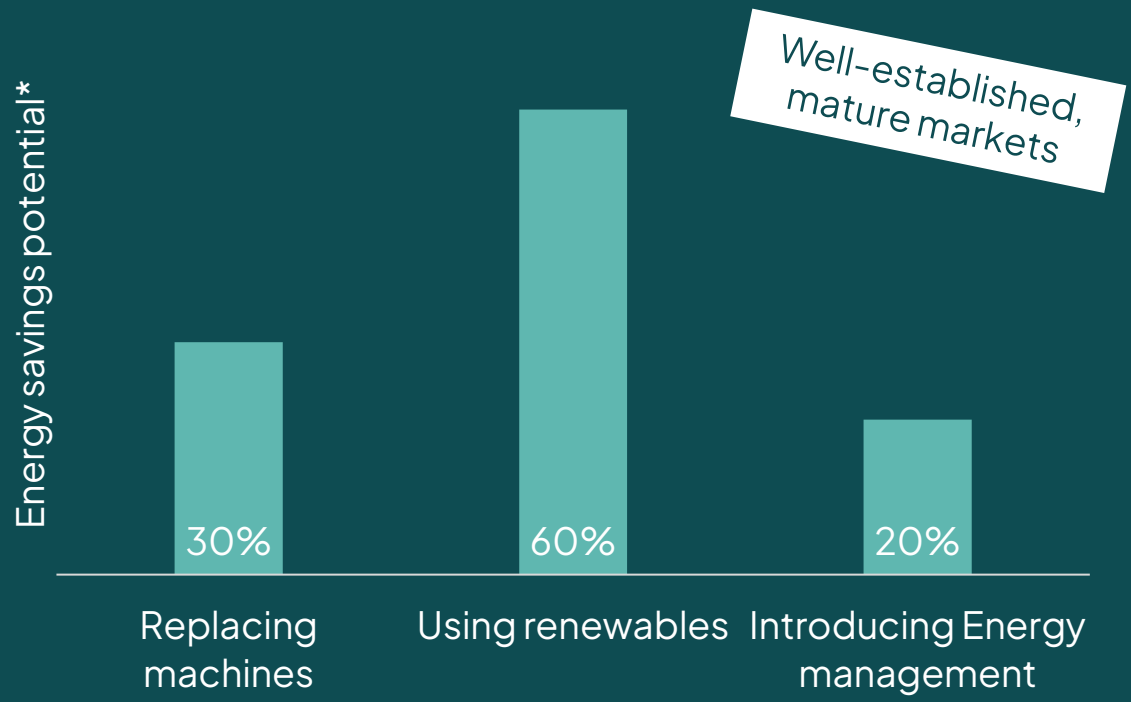
Eurostat (2023)

Electrification coupled with inefficient legacy infrastructure amplifies **rising electricity costs**.

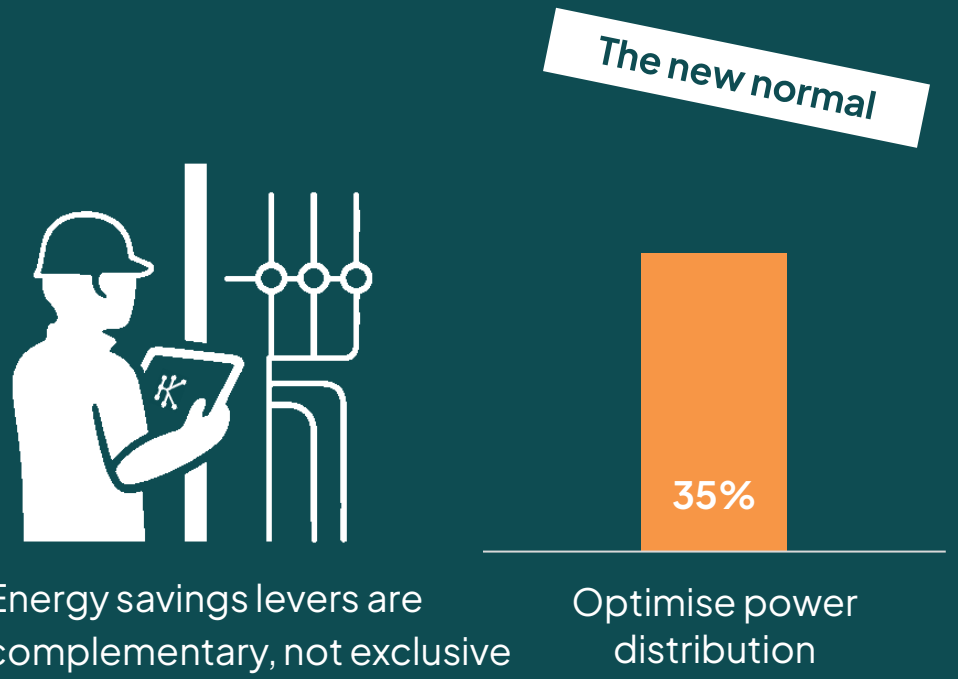
Energy is the **second-largest cost driver**, directly impacting margins and competitiveness.

Kodnyx Enables Energy Efficiency Providers (EEPs) Uncover Hidden Costs By Optimising Power Distribution

What everyone sees: EEPs focus on well-known energy savings levers



What no one sees: Up to 35% untapped savings in power distribution systems



Kodnyx provides the software to unlock the 35% behind the wall: No overlap, only upside

* Savings potential per approach, based on typical industrial energy mix (indicative ranges)

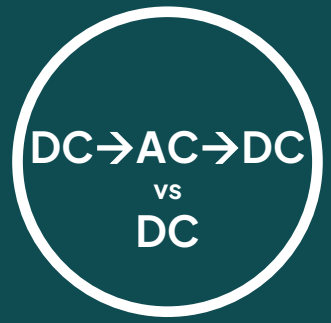
The Untapped 35%* Efficiency Potential Originates From A Historically Grown Inefficiency

Power Distribution in AC

Alternating current (AC) became the global standard 135 years ago, the best choice for **long-distance transmission.**

Sources & Loads in DC

Today's energy world runs on **direct current (DC)** - from **solar & batteries to EVs, data centres, robotics & LED lighting.**

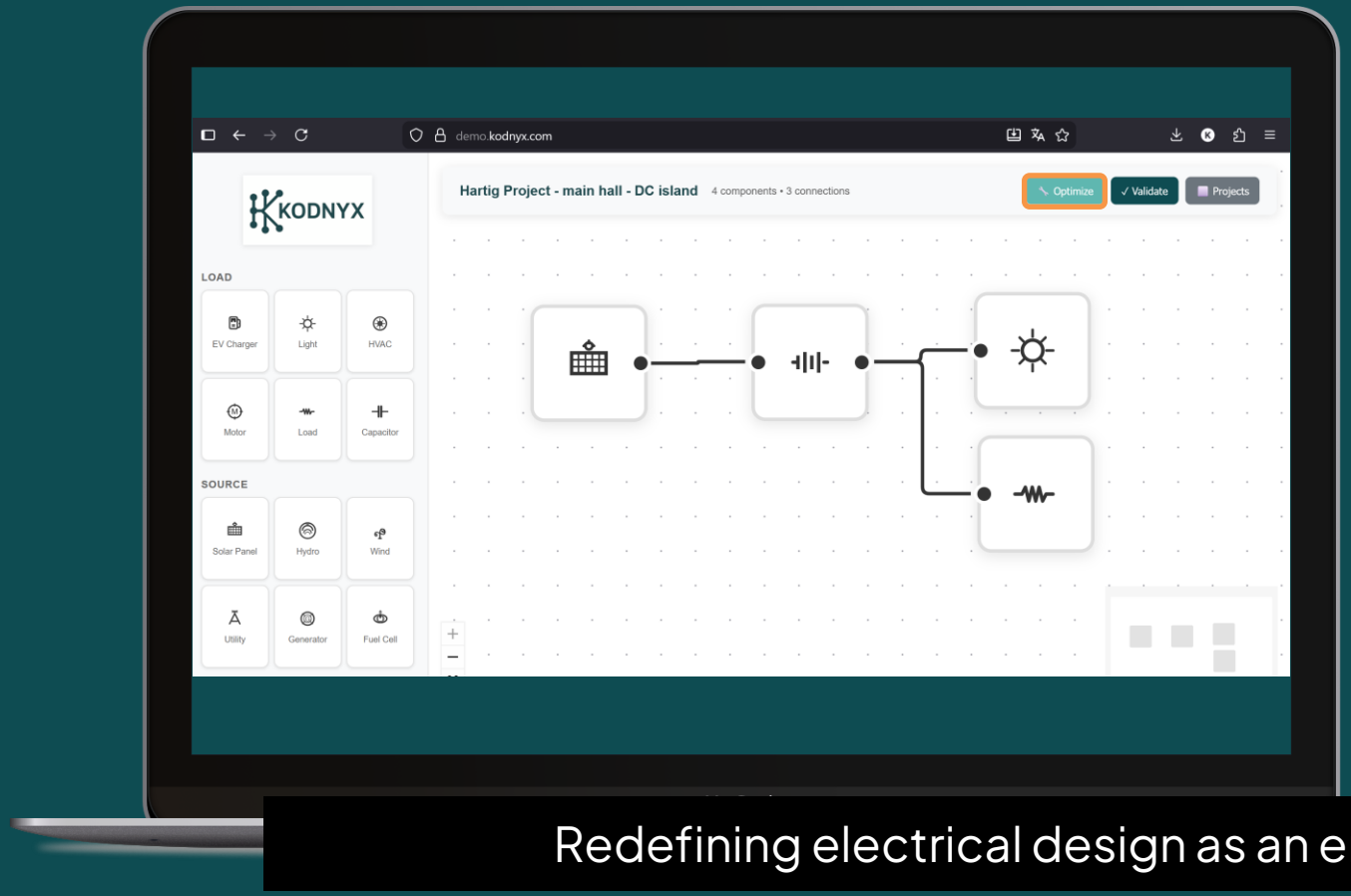


Inefficiency due to legacy

This legacy mix causes repeated **AC/DC conversions** leading to energy losses of up to **35%.**

*Low-voltage DC distribution power losses compared to prevalent AC system (EU Commission, 2024).

Kodnyx Defines a New Category: Power Distribution Optimisation to Uncover 35% Hidden Energy Costs



Today

- Facilities are still designed for AC, despite DC-powered machines.

The New Normal

- Kodnyx software identifies the optimal layout: AC, DC, or hybrid.

More than a Design Tool

- Validates and simulates, ensuring protection.
- Optimises power distribution to unlock hidden efficiency.

Redefining electrical design as an energy-saving discipline

Creating a New Category Defines Kodnyx' Path to Moats

Category Owner
defining the game

Founders have sat in the buyer's seat and bring platform scale to define a new category:
Power distribution optimisation.

Kodnyx is becoming **the front runner** where standards will follow usage.

Data Moat
smarter with scale

Kodnyx builds the largest **proprietary dataset** of hybrid AC/DC layouts.

Data are fed back, every project makes Kodnyx smarter.

Switching Costs
harder to replace

Electrical designers prefer to start from templates and past designs.

Stickiness grows with use.

The Ecosystem Is At The Transition Point: DC Will Be The New Normal

All signals point to DC: Regulation, validation, market pull

"Blatant demand for DC systems & standards"

Vimal Mahendru, IEC VP

"It was not really a technical issue."

Tobias Goldbach, Planning Lead, BMW

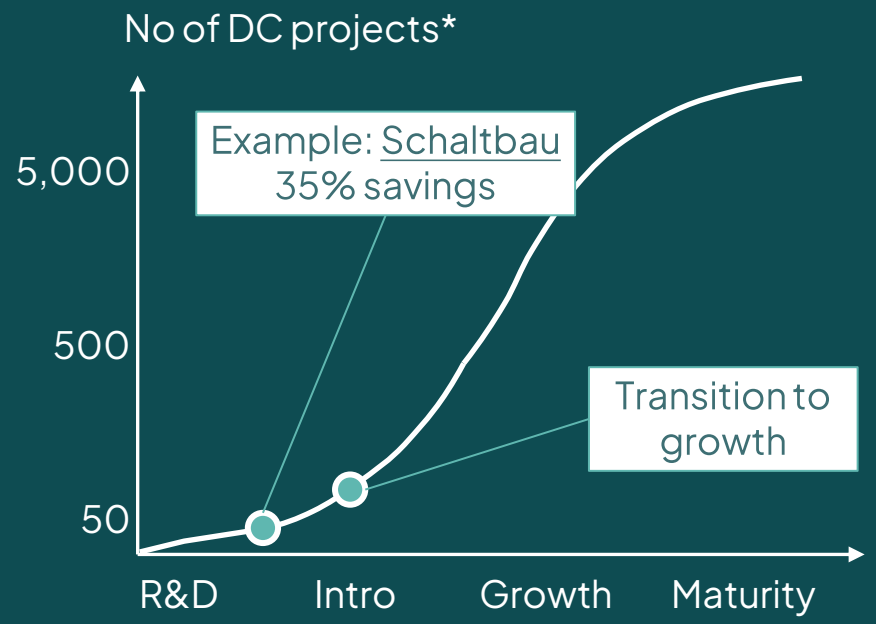
"In 2030, more than **20%** of all new industrial applications will be in DC."

Tobias Lueke, Application Expert, Phoenix Contact

"There is **no standard tool** for design in DC"

Joachim Seidl, Portfolio Strategy Manager, Siemens

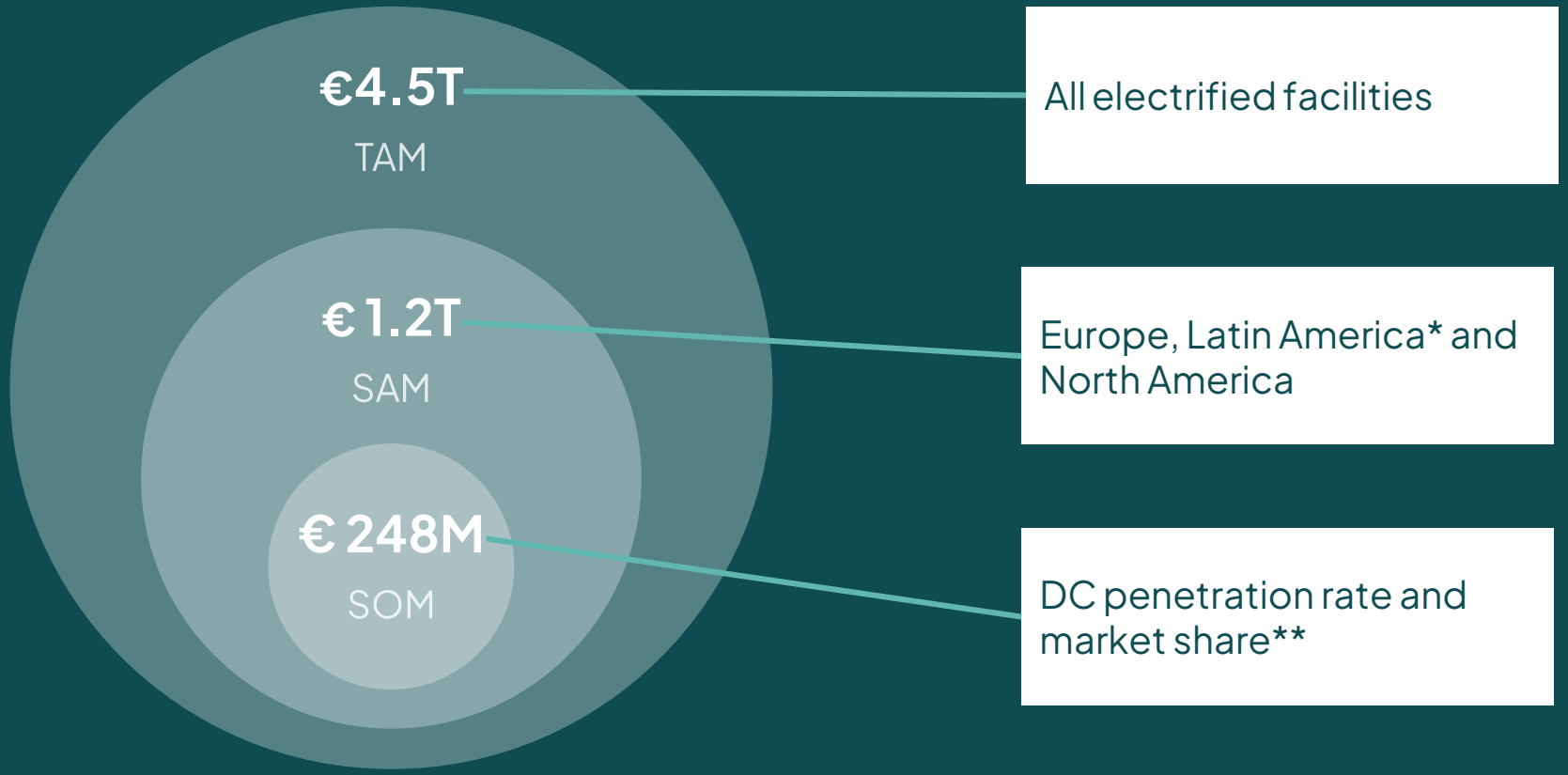
DC market shifts into growth mode



Kodnyx is the enabling layer: The missing software to scale DC

* For example: ODCA's DC INDUSTRIE

We Target €26M Revenue in 2030. From a €4.5T Global Market Opportunity



Evolving from project revenues to scalable SaaS, growing ARR 2–3× annually from 2027.

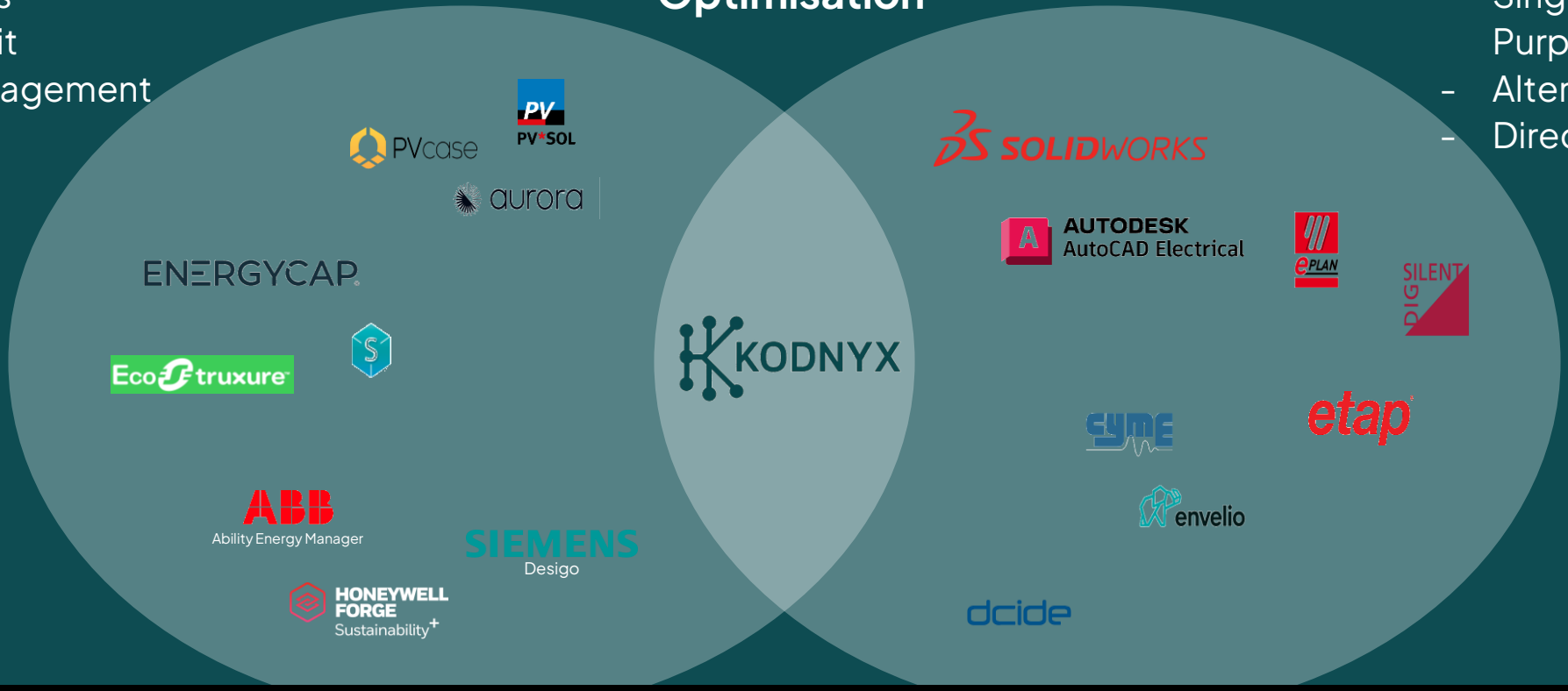
* Leveraging founder networks in high-growth Latam industrial hubs,
** Assumptions: Penetration rate 0.2%, market share 10%.

Kodnyx Defines the White Space Between Energy Efficiency and Electrical Design

Energy Efficiency
- Renewables
- Energy Audit
- Energy Management System

Power Distribution Optimisation

Electrical Design
- Single Engineering Purpose
- Alternating Current
- Direct Current



Existing tools remain relevant. Kodnyx adds what's been missing.

Turning Power Distribution Into A Sellable Optimisation Lever for EEPs

Business Model

- Value Proposition: New revenue stream via a fourth optimisation lever - power distribution
- Customer: Energy Efficiency Providers (EEPs)
- User: Electrical engineers/designers within EEPs
- End beneficiary: Industrial customers

Commercialization

- Pricing: Per-seat SaaS license for EEP engineers (≈400 €/month)
- Scales: Used across facilities and over time, not one-off projects.
- Power distribution as complementary optimisation lever

Phased Go-to-Market Plan: From Project Revenue to Scalable SaaS Growth

De-risking commercial traction through necessary proof-points for a conservative industry

	2025-26 Product Market Fit	2026-27 Scaling	2027+ Expansion
Business Model	Build SaaS from projects, productizing workflows (project pricing)	Transition to SaaS subscription model, manual steps are automated	Scale SaaS model
Ideal Customer Profile	Automated factories with (planned) PV and power-electronics-heavy loads	EEPs* serving automated factories and those facing power or capacity limits	Extend to EEPs of all sizes, with a strong focus on data centres
Sales & Channels	Founder-led sales: Exploiting networks in industry and energy Partnership with industry associations (ODCA and Current/OS)	Add 1 sales expert EEP networks to double customer reach	Build explicit sales team Cross-selling via OEMs (MR, ABB, Scheider Electric etc.)
Targets	20 Paid energy efficiency projects	Convert 5 project EEPs into SaaS customers	€ 1.1M ARR in 2028 growing to € 26M in 2030 with sectoral and geographical expansion
Geographies	Focus on higher DC adoption Founders' network 	Pan-European countries 	Latam expansion, leveraging founder's knowledge and networks 

* Energy Efficiency Providers

Founder-Market Fit Across Power Infrastructure, Project Finance, and Complex Software Scaling

Andrés Andrade, CEO

MSc. Industrial Engineering
Full time committed

2nd time founder with 15 years in global energy innovation & sustainability

Duygu Çağman, CSFO

MSc. Business Economics
Full time committed

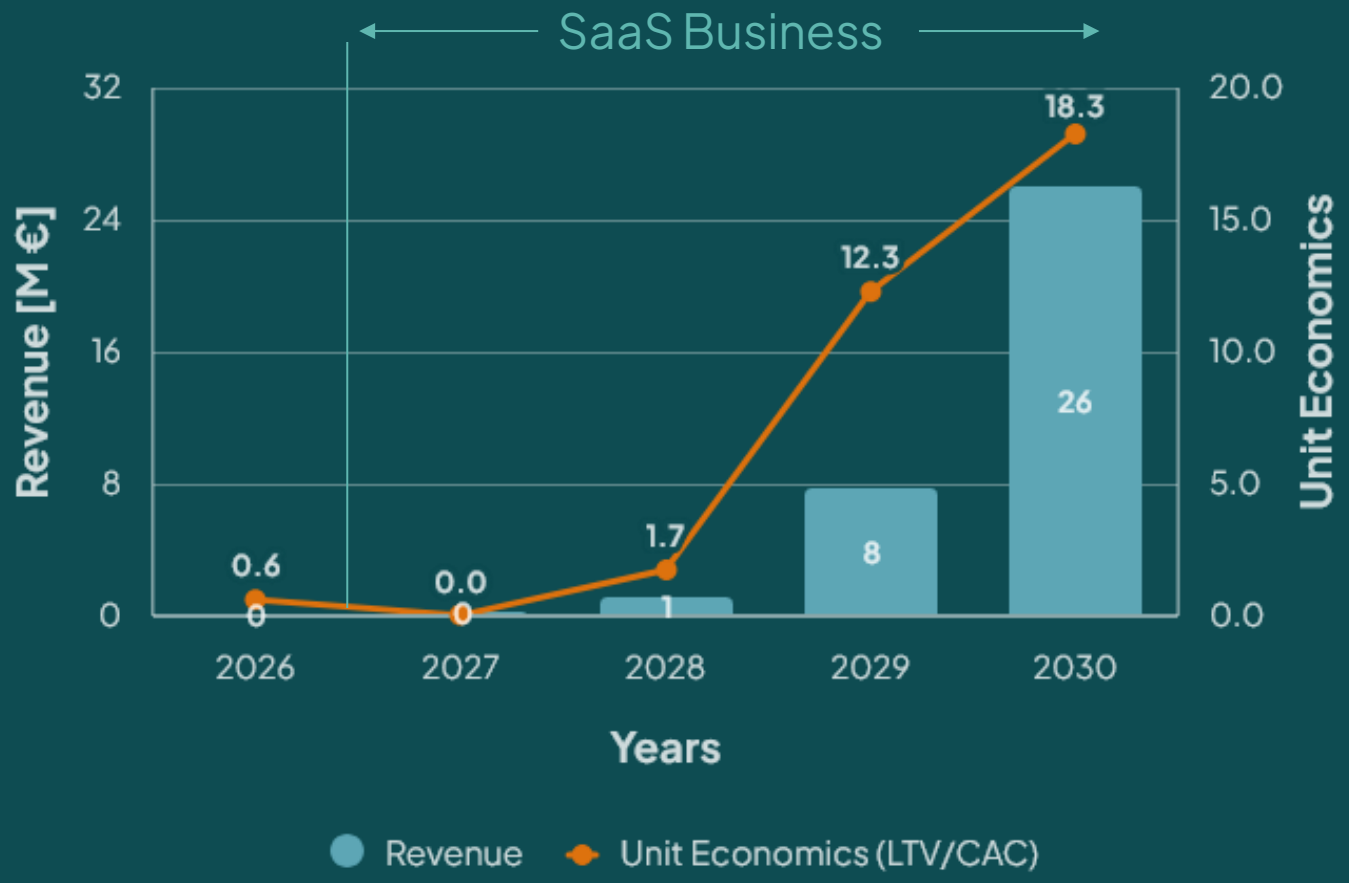
Ex-ING & KfW-IPEX - originated and executed **financings over € 2B** for sustainable infrastructure projects

Dr. Kristoffer Möller, CTO

PhD Economics
Full time committed

Scaled Flix's AI-driven network planning from MVP to full department, experienced **building complex optimization software**

From Paid Projects to a Scalable SaaS Engine With Expanding Unit Economics



Customer Acquisition

- First SaaS conversion cohort: 5 customers on subscription
- B2B customers served via partnership and grow from 100 to ~2,800 in 2030.
- CAC: From € 4,800 in 2027 down to € 885 in 2030
- >90% gross margin

Unit economics improve with standardisation and geography

From Idea to Industry Validation in Just Months

First project with Hartig GmbH & Co. KG
→ Industry interest

Hartig

First place at GITEX North Star Europe Competition
→ Investor readiness

GITEX NORTH STAR EUROPE

First investment secured
→ Institutional validation

Carbon13

Start
July 2025

2026

2027

Siemens Energy bursary for women founders

SIEMENS energy

Cooperation with research institute
→ Technical validation

Fraunhofer

First software corporation negotiations with Maschinenfabrik Reinhausen
→ Market interest

MR

Ongoing Pilot Project to Build the Foundation for Product Development

Co-develop product: Start manually, automate through insights

Analyse current energy system ✓ → **Model & simulate digital twin** ✓ → **Optimize design & quantify savings**

Project goals

- Increase photovoltaic self-consumption
- Reduce energy costs

Status

- Base line via load analysis and modelling established
- Now: Optimising electrical power distribution

Hartig

One of our projects: Hartig GmbH & Co. KG (Aschaffenburg): High-precision instruments manufacturer

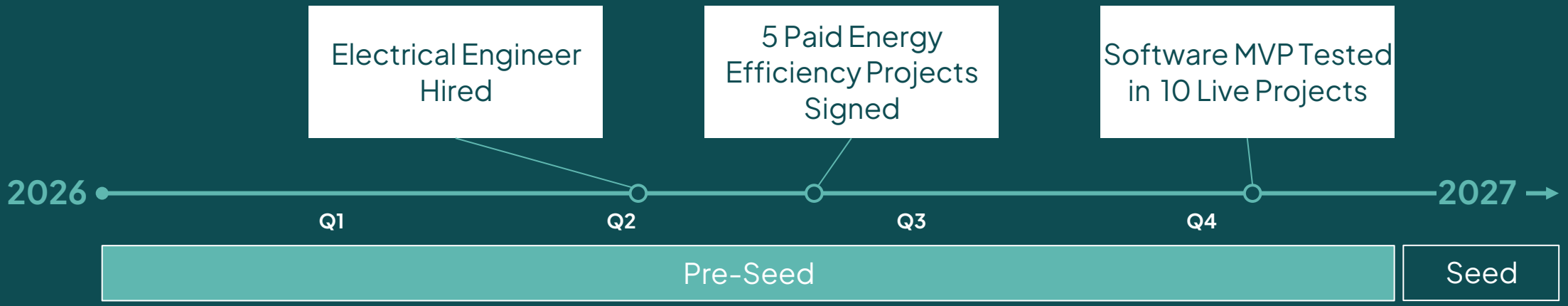
We Are Raising € 650k Pre-Seed Funding To Build Optimisation MVP And Start Commercialization

Now raising a Pre-Seed

- Net raising: €650,000
- €150.000 already committed by Carbon13
- Expected closing: Q1-2026
- Runway: 12 months
- Use of funds: Build MVP and Commercialize

Targeted sources of funding

- Business Angels
- Venture Capital
- Grants



Join Us In Unlocking The 35% Hidden in Power Distribution

KODNYX

The Energy Savings Software

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Appendix 1

Kodnyx discovery from Interviews with Industry Experts, Research Institutions, and Sector Alliances.

We Have Discovered Significant Interest and Saving Potentials in DC Industry Projects from Interviews

Daimler and Volkswagen are interested in DC for "lighting purposes" to "boost optimisation energy efficiency by a lot.“

At a Daimler factory, "all production lines are converted to DC because they have robots."

"Data centers topic is very important currently with all AI topics."

“At Schaltbau, we reduce peak power compared to AC based system by 85%."

For public lighting, in DC, "it's really like 75% of copper savings."

"The connection to AC grid is a big headache nowadays – in some places waiting time 5, 7 years, 10 years."

We Have Discovered DC's Technical Feasibility and Upward Momentum from Interviews

"Technically speaking it's totally feasible to build it. And it does exist."

"The technical part is solved already."

In marine segment, "people know what they are doing. They've been doing it for more than 10 years."

BMW introduced DC in the body shop of their plant in Dingolfing. "At the end, it was not really a technical issue."

"Standards are being created."

"Develop standards for low voltage DC."

We Have Discovered a Lack of Tools from Interviews

"The industry often relies on custom-developed tools as there is no standard tool available."

SIEMENS

“We don't have tools to design the architecture of DC.”

Jacobs

We "don't have a very structured tool right now" and often rely on "overqualified engineers to figure it out."

DC

"A manageable tool can accelerate the widespread adoption of DC technology in the industry."

Fraunhofer

„There’s no single software solution for DC.”

Weidmüller

“We are right now programming ourselves a TCO tool. Just Excel based. A different thing which would be the web-based calculation tool. That will be more difficult, more complex.”

MR

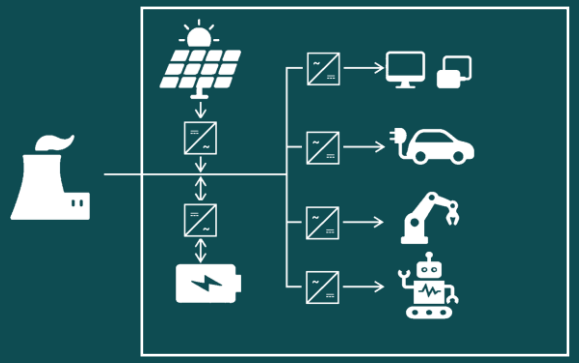
Appendix 2

DC Implementation in Practice

What If We Designed Energy Systems for How the World Actually Runs Today?

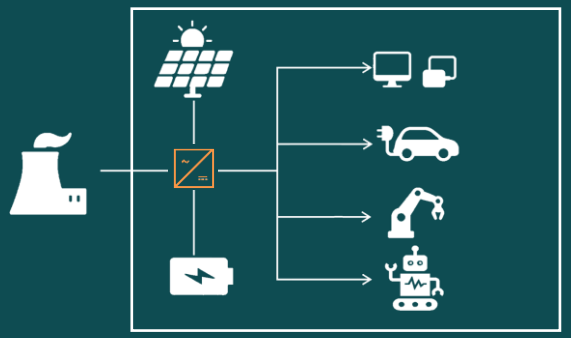
Legacy Set-up*

Inside a Facility



Updated Set-up*

Inside a Facility



DC Design Unlocks Major Efficiency & Cost Advantages

Fewer conversions, higher efficiency

Eliminating repeated AC/DC transformations cuts conversion losses by up to 15 %, which is the foundation of up to 35 % total energy savings.

Lower material and operating cost

Smaller cables and fewer transformers reduce copper use of up to 55% and installation cost.

Smarter, more resilient operations

DC links renewables, storage, and loads directly, improving efficiency, stability, and energy independence.

Inverter (DC/AC) Rectifier (AC/DC) * Illustrative schematics

DC Saves Up To 35% Energy. But The Question Is: Can It Really Be Implemented In Practice?”

Scaling

From Balcony to Factory: Real Proof That DC Works in Practice

1) PV at Home: Simple Fix, Clear Result

- In a residential balcony PV system that powers a laptop, removing one conversion raised efficiency by 12 %.
- A small, tangible example proving fewer conversions mean less wasted energy.

2) Schaltbau NExT Factory: Efficiency Made Visible

- Built as a showcase DC factory.
- Began by converting selected zones (like EV charging and logistics) — proving you can upgrade factories section by section.
- Result: up to 35 % lower energy costs and 25 % less copper use.

Source: Schaltbau (2024)

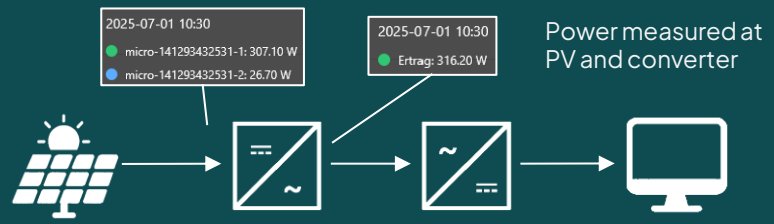
3) Industry Leaders: Sequential Adoption Process

- Maschinenfabrik Reinhausen: Introducing hybrid DC grids in existing plants, one section at a time.
- Phoenix Contact: Promoting “DC islands” within AC factories as a practical retrofit path.
- Schaltbau and VDE: Confirm that staged DC integration is commercially and technically feasible.

Source: MR (2025), Phoenix Contact (2025)

1) Even at Home, a Simple DC Fix Saves 12% Energy. Imagine This Across an Entire Factory

Legacy Set-up



Conversion loss: 5.3% + 11.5% = 16.8%

Updated Set-up

Conversion loss: 5.0%

My old converter

My new converter

What if we rewire my balcony power plant?

Legacy set-up: Energy gets **converted twice** from the PV to my laptop (DC/AC + AC/DC).

Updated set-up: As PV and laptop are both in DC, I only need **one** DC/DC **converter.**

The updated set-up comes with

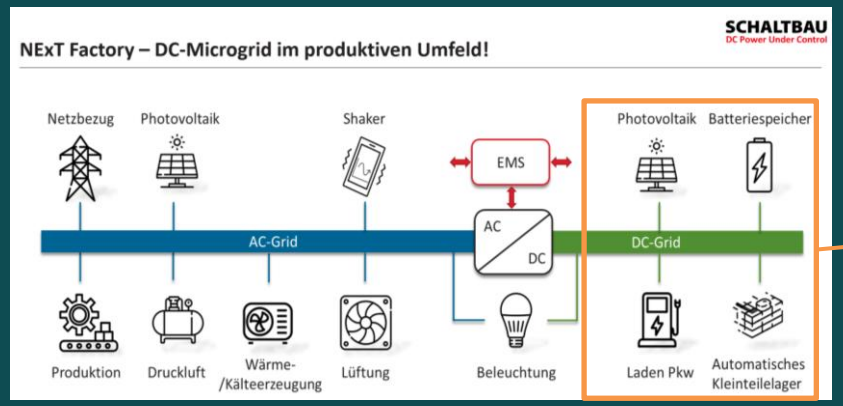
- Energy efficiency savings of **11.8%**
- at the cost of a one-time investment for a DC/DC converter of 18 €.

The business cases yields a pay back period of 1 year and 9 months.

Inverter (DC/AC) Rectifier (AC/DC) Converter (DC/DC)

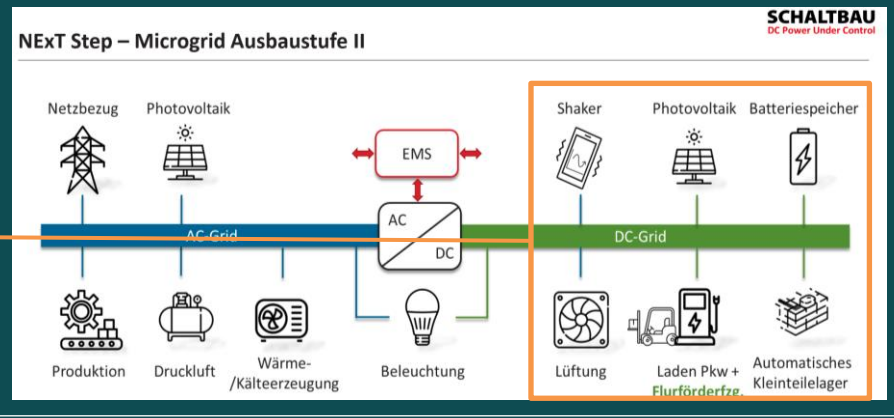
2) Schaltbau's NExT Factory Is an Industrial DC/Hybrid Use Case Illustrating a Sequential Upgrade

DC Extension Phase 1



DC powered

DC Extension Phase 2



Project goal

- Showcase measurable energy and cost savings by applying DC in real operations.

Project results

- +15 % Conversion efficiency.
- –25 % Copper use (due to less cabling).
- –35 % Total energy costs.

Project design

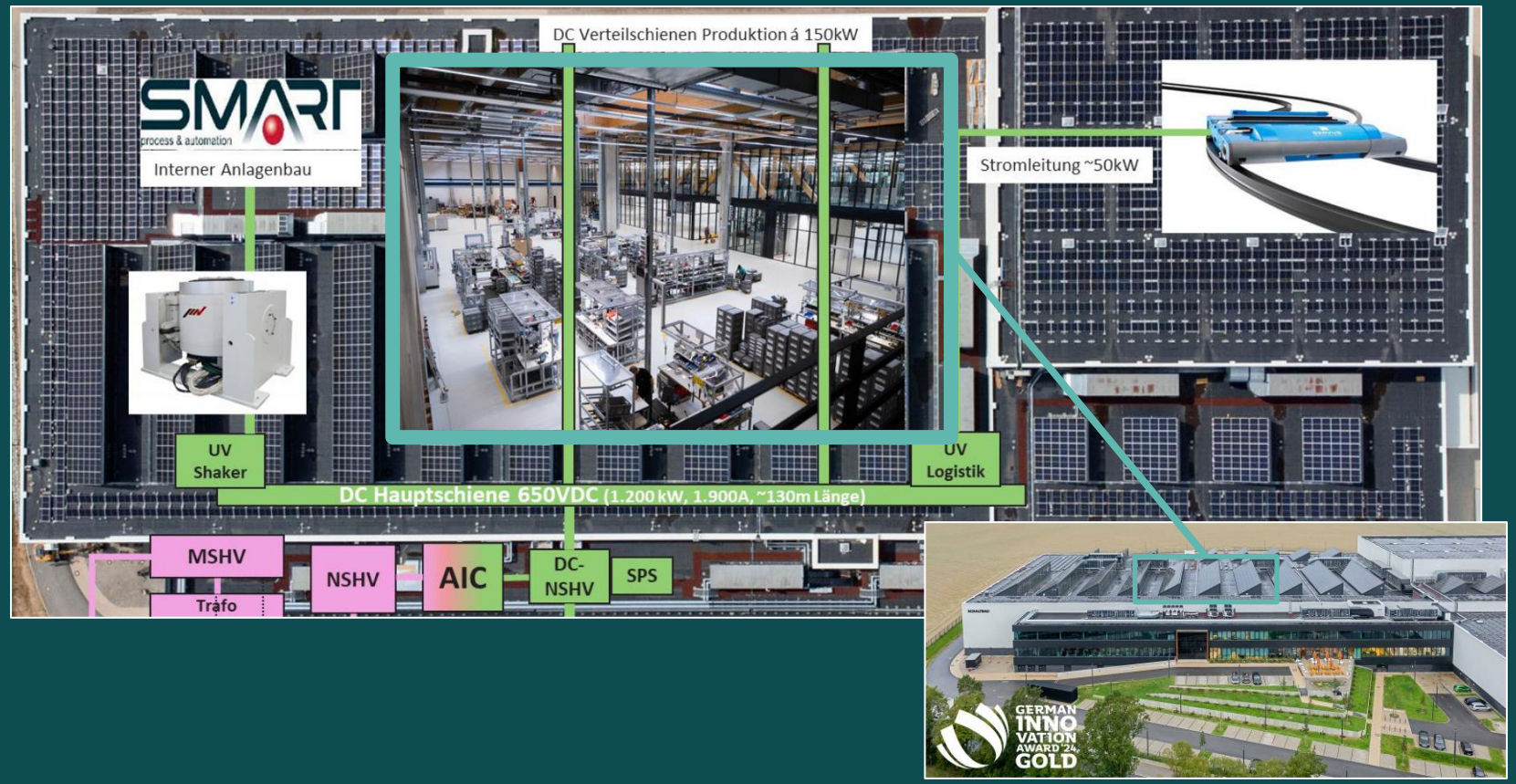
- The design is hybrid and staged with the final goal of an entire factory in DC.
- In the first step, two DC "islands" were created, one for EV charging and one for logistics (to recuperate braking energy).
- These areas connect directly to solar panels and batteries, forming local DC microgrids inside the factory.

The approach proves a gradually conversion.

Source: Schaltbau (2024)

2) Inside the NExT Factory, Supplying Their High-Bay Warehouse with DC, Schaltbau yields high savings

Close-up of a DC island



High-Bay warehouse with DC supply

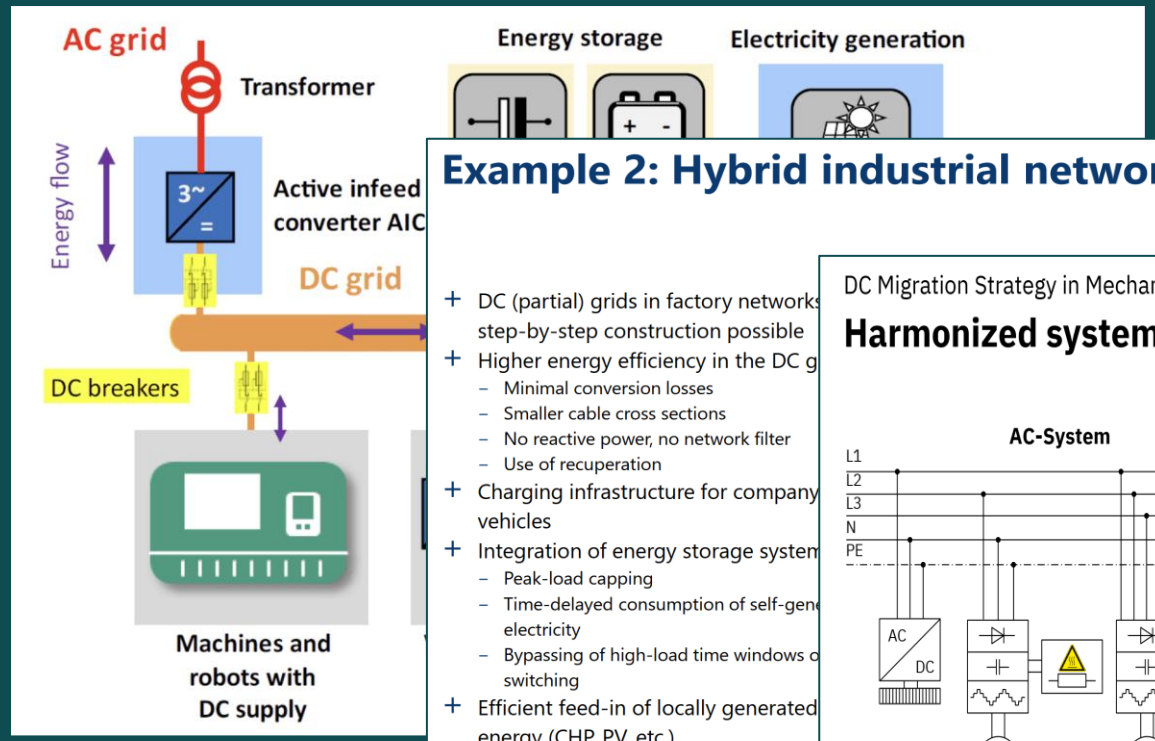
- Over 55,000 storage positions
- 80 ceiling-guided swarm robots

Realized savings

- Energy recuperation of **85%**
- Annual energy savings of up to **800 MWh**
- Annual cost savings of up to **€120,000**

Source: Schaltbau (2024)

3) DC Implementation Is More Than Swapping Converters. It's a Structured Design Challenge.

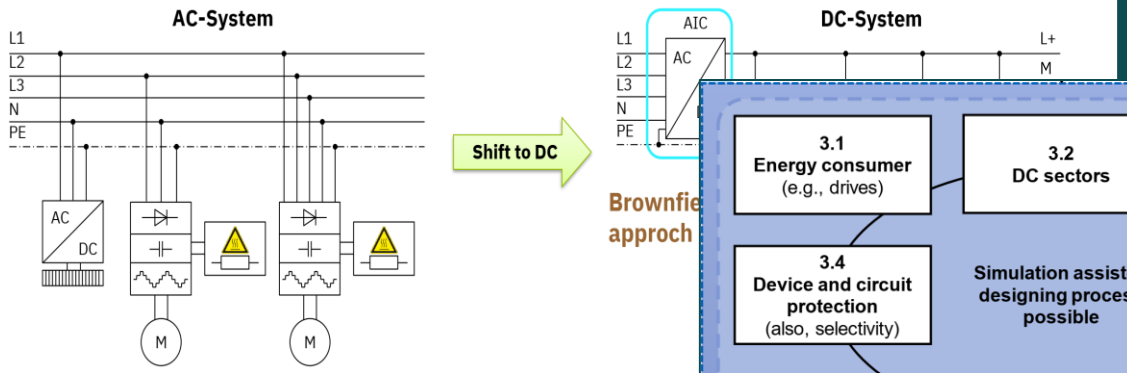


Example 2: Hybrid industrial networks

- \+ DC (partial) grids in factory networks step-by-step construction possible
- \+ Higher energy efficiency in the DC g
  - – Minimal conversion losses
  - – Smaller cable cross sections
  - – No reactive power, no network filter
  - – Use of recuperation
- \+ Charging infrastructure for company vehicles
- \+ Integration of energy storage system
  - – Peak-load capping
  - – Time-delayed consumption of self-gen electricity
  - – Bypassing of high-load time windows o switching
- \+ Efficient feed-in of locally generated energy (CHP, PV, etc.)

DC Migration Strategy in Mechanical and Plant Engineering

Harmonized system approach



Industry pioneers have proved it can be done step-by-step, guided by what are now VDE standards.

And software will make it mainstream.