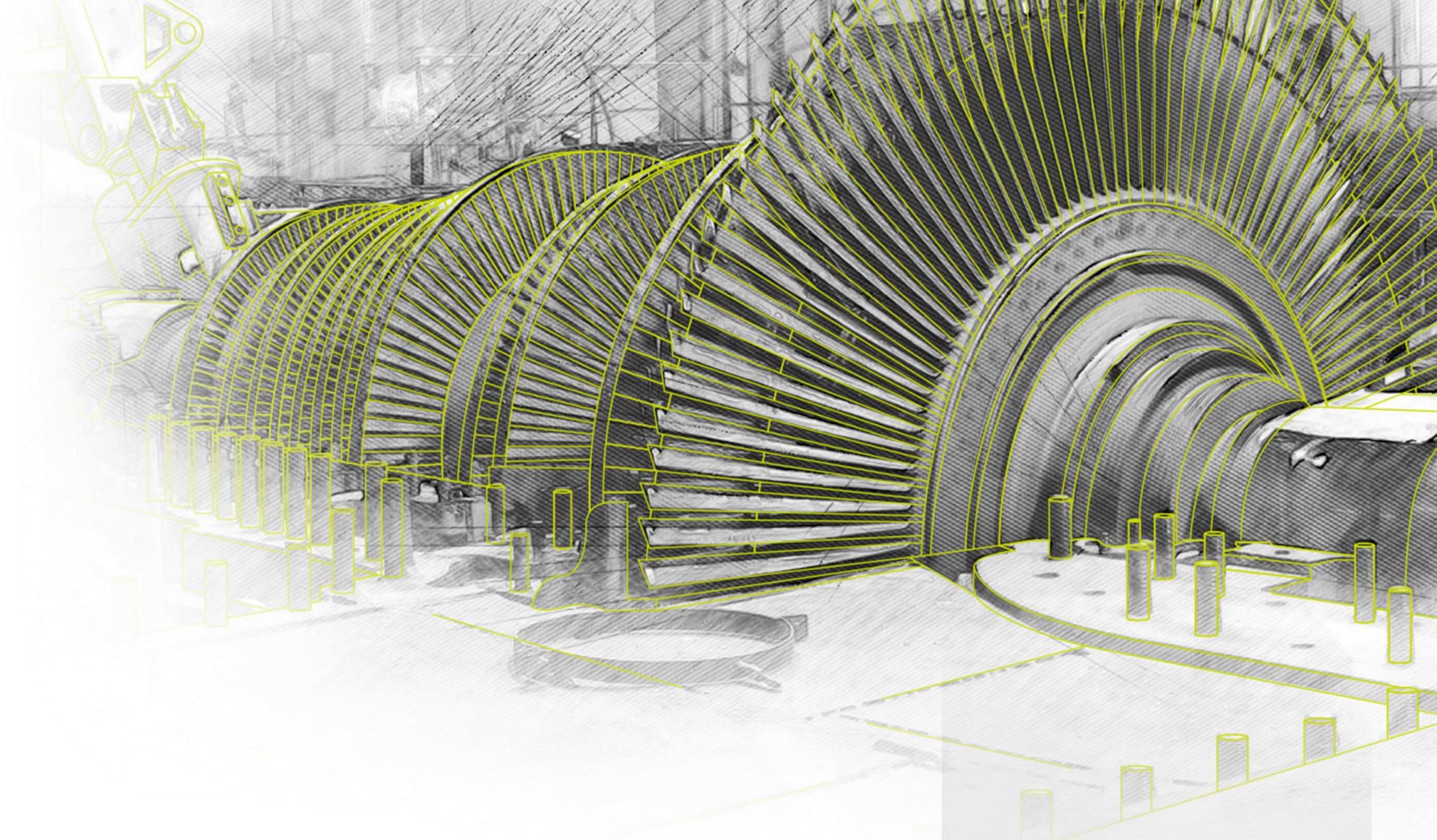




DB ENERGY

Zero-emission industry



DB Energy

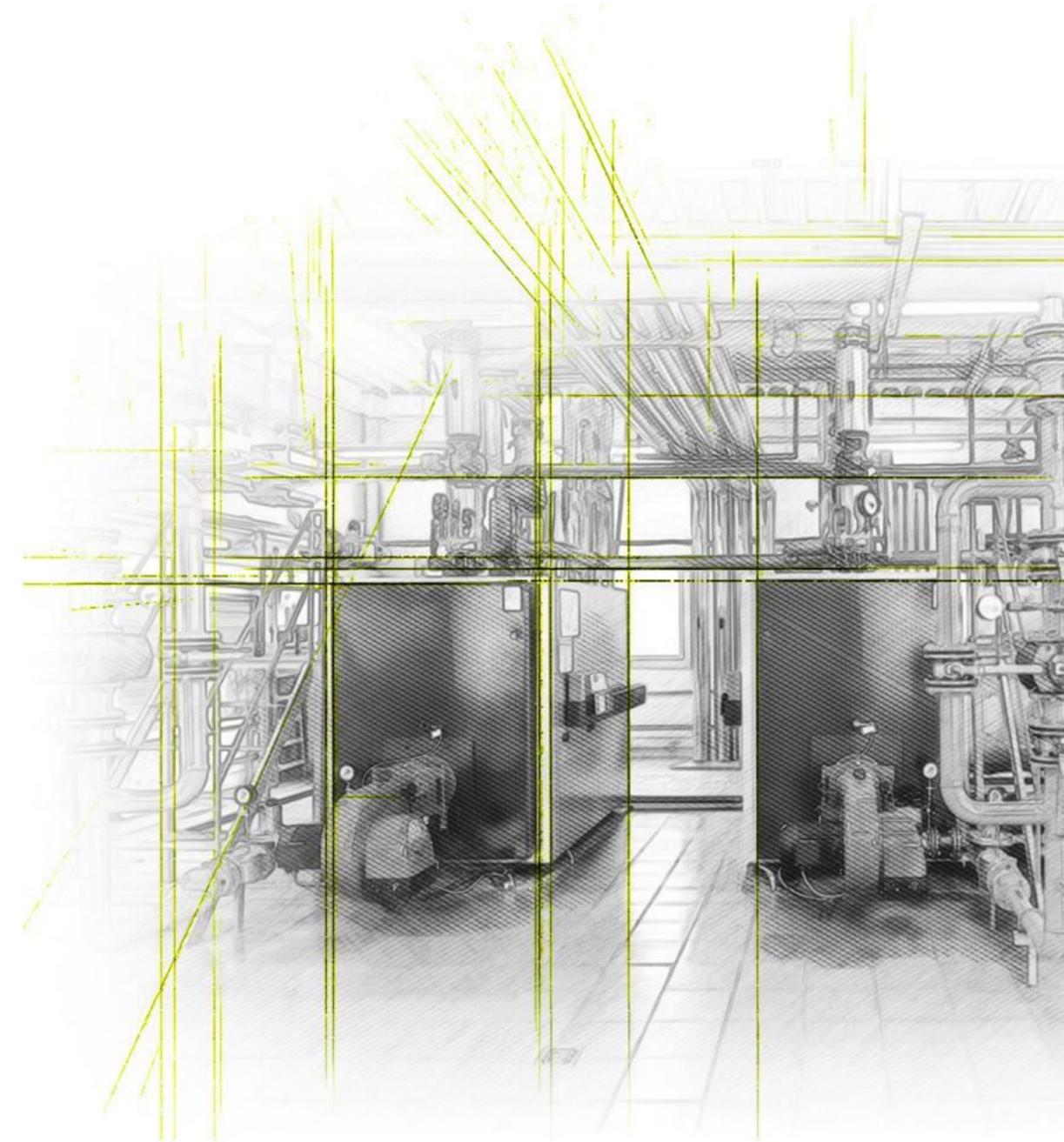
**Zero-emission strategies and energy efficiency for the industry -
from an idea to implementation**

Wrocław, 2024

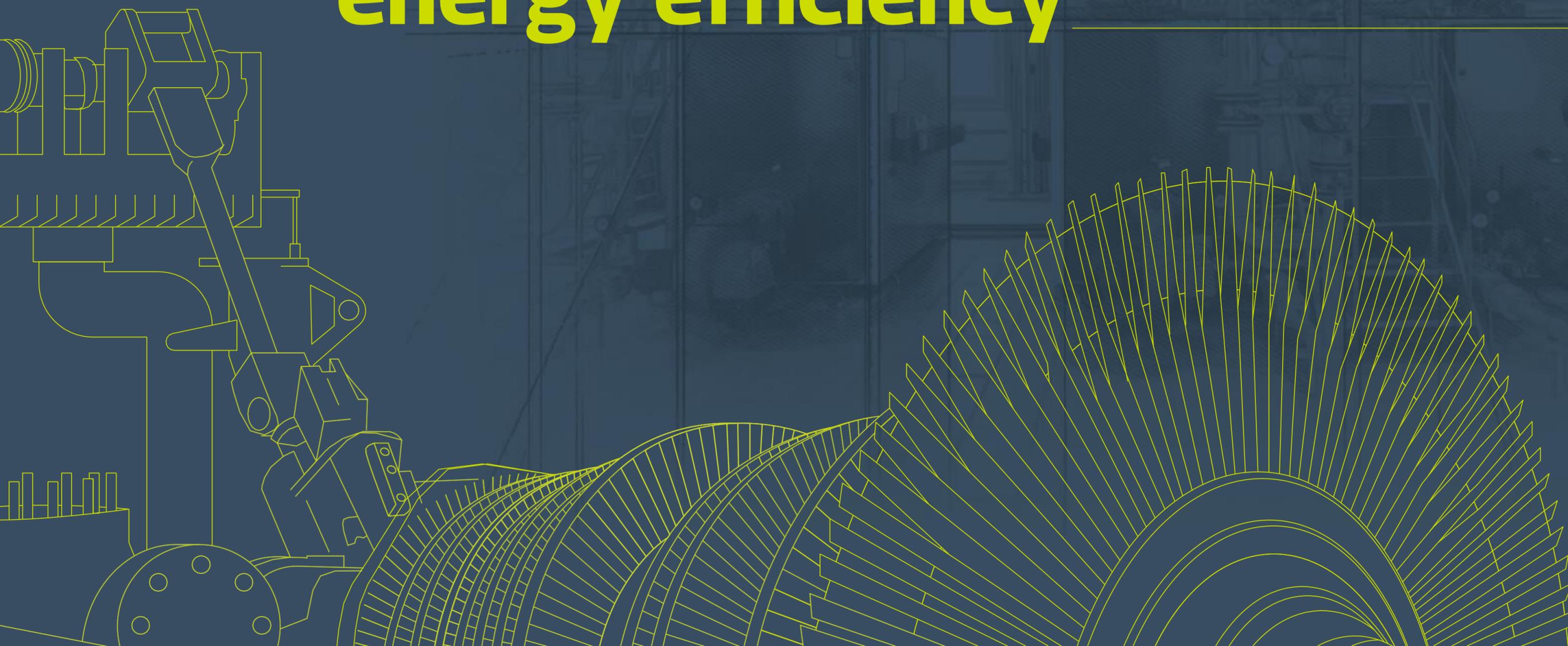


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Zero-emission strategies and energy efficiency



We support energy efficiency and build the zero-emission industry in Poland

WE PROVIDE FOR SUSTAINABLE DEVELOPMENT



We protect the climate by

- reducing industrial emissions
- reducing electricity consumption
- reducing thermal energy and cooling consumption
- reducing water consumption
- implementing RES solutions



We increase companies competitiveness by

- increasing their profitability
- reducing production costs
- reducing energy and emissions costs
- boosting work safety
- ensuring uninterrupted power supply

DB Energy leader of change



YEARS **15**
OF EXPERIENCE
IN THE INDUSTRY

1,300

EUR 1.3 bn

EUR 480 ml

9.3 TWh

EUR 150 ml

_____ industrial audits

_____ value of energy-saving investments

_____ annual savings generated by the designed investments

_____ annual energy savings thanks to designed investments

_____ value of the requested White Certificates

We reduce annual energy consumption **IN ALL INDUSTRIES**



Mining
industry

28%



Food
industry

20%



Wood, paper
and chemical
industry

26%



Building
industry and
infrastructure

24%



Metal
industry

22%

Performance



Key areas of DB ENERGY PERFORMANCE



Consultancy

comprehensive analysis of receiving installations which is necessary to develop an optimal concept aimed at improving energy efficiency



Investments

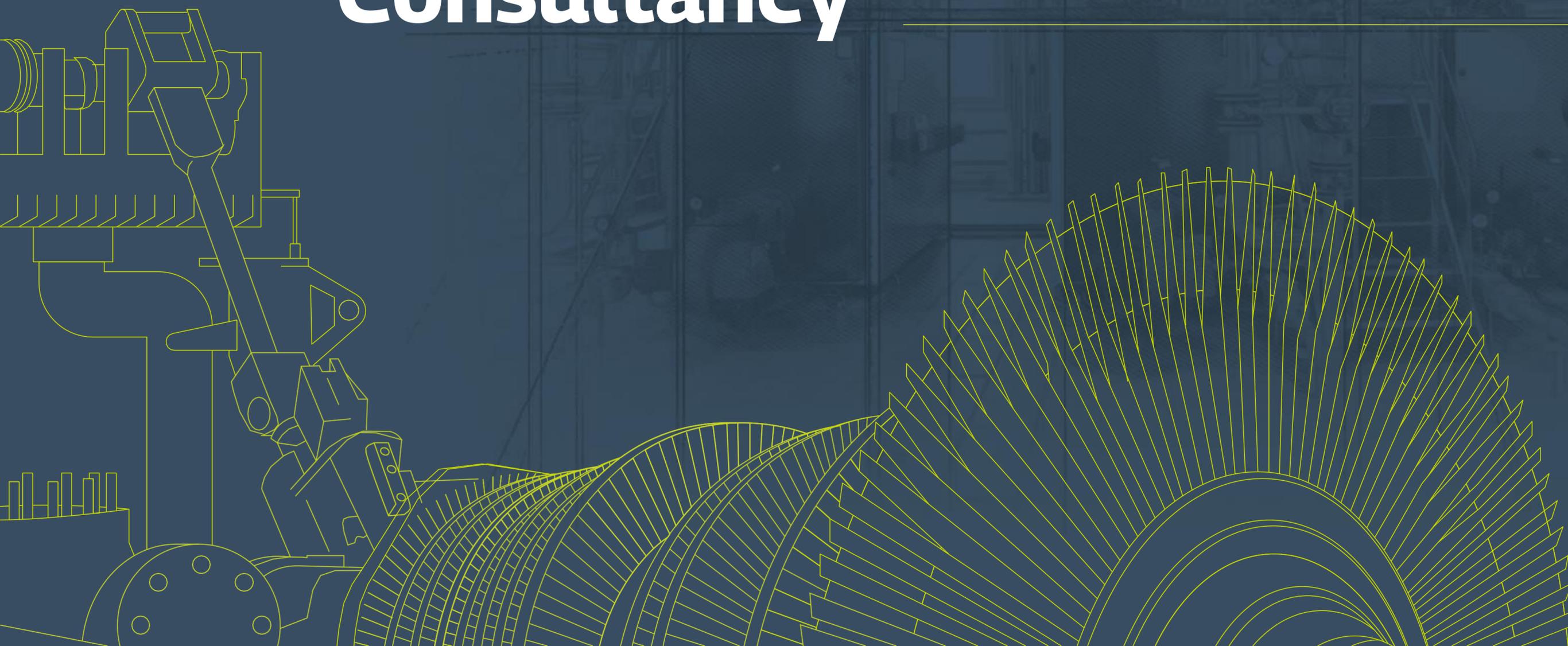
a professionally managed investment process **guarantees the effect to be maximized** – investment financing and implementation in the ESCO or the General Contractor model



Diagnostics

control of installations efficiency and their energy consumption, continuous attempts to identify potential for further energy efficiency improvements

Consultancy



Comprehensive CONSULTING

Complex support for our client while developing energy-saving investments.



Audit Walk Through

we identify the potential for energy-saving investments



Company Audit

an obligatory audit for large companies, we develop a long-term energy efficiency improvement plan



Energy Efficiency Audit

we provide a complete concept of an energy-saving investment



Zero-emission strategies

plant's zero-emissions due to reducing CO₂ emission



Concepts and projects

feasibility studies, technical implementation concepts and construction projects for energy-saving investments



3,200 large companies in Poland, approx. 12,000 in Germany and over 45,000 in the entire EU undergo an obligation to be audited.

They are required to have an audit performed every 4 years.

The EU plans a compulsory audit for 236,000 medium-sized companies.

If conducted regularly, energy audits allow it to design and evaluate the results of energy-saving investments.



We pursue zero-emission strategy **IN THE INDUSTRY**

Zero-emission strategy implementation



it brings real savings



it reduces energy consumption



it reduces the emission of greenhouse gases



Investments



Energy saving investments

FINANCING AND IMPLEMENTATION

DB Energy manages the entire process aimed at energy efficiency improvement in the industry and implements zero-emission strategies:

we implement projects in the General Contractor model

we finance and implement projects in the ESCO* model

* **ESCO** (Energy Saving Contract) is a form to finance and implement a project in which entire financial outlays and partial technical risk is borne by DB Energy. Once the project is implemented, the parties divide savings in a given period. When the contract terminates, the investment becomes the property of the client.

Benefits

maximized savings and reduction of energy consumption

immediate savings with no outlays to incur (in the ESCO model)

technical and financial risk is borne by DB Energy (in the ESCO model)

off-balance investment (in the ESCO model)

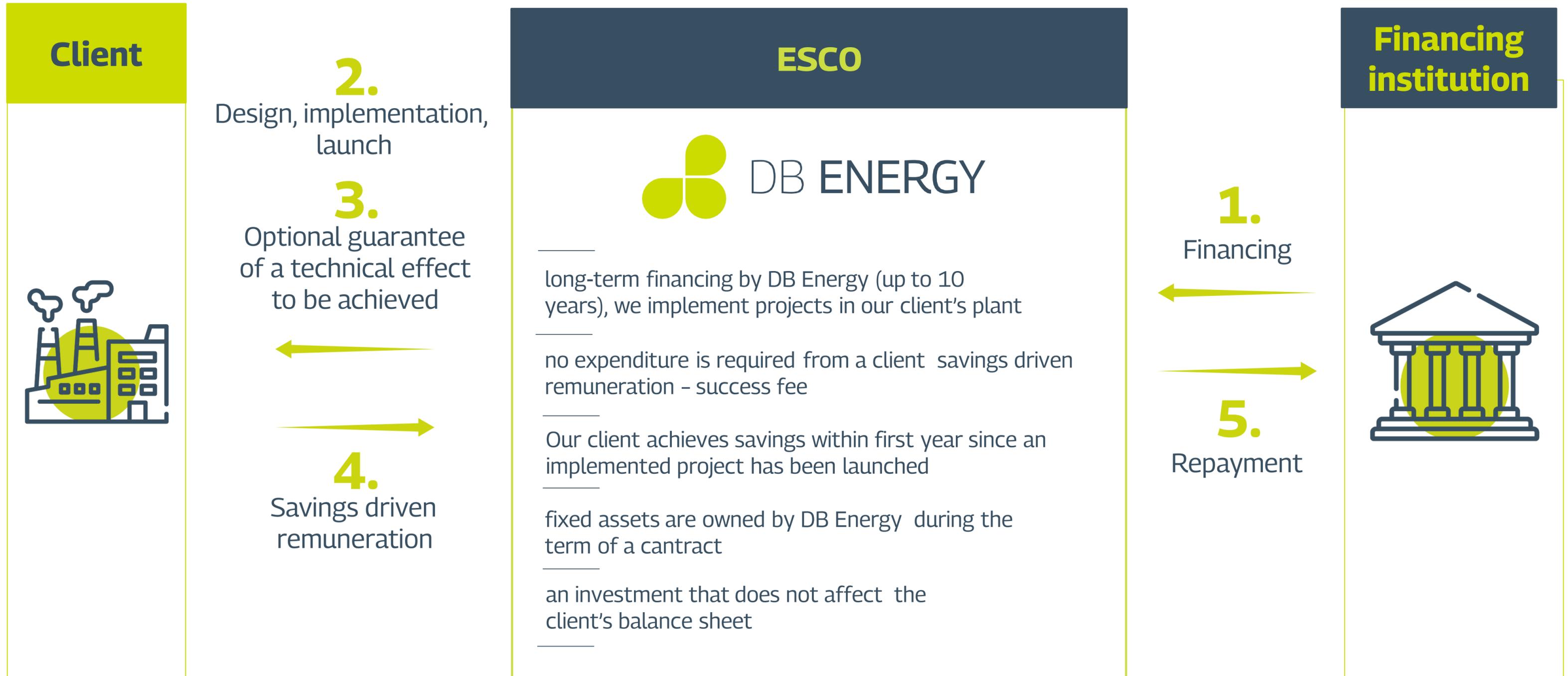
THE GENERAL CONTRACTOR MODEL:

Project implementation - DB Energy Financing and risk - Client



THE ESCO MODEL:

Financing, project implementation and risk - DB Energy



Value of implemented **PROJECTS**

Portfolio of ongoing **ESCO projects**

Capital expenditure

The total value of the implemented
ESCO projects:

EUR 7 million

EUR 600 thousand Simoldes Plasticos
EUR 6.4 million Soufflet

Portfolio of ongoing General **Contractor projects**

Value of a contract

The total value of implemented General
Contractor projects:

EUR 17 million

EUR 755 thousand ZGH Bolesław
EUR 2.3 million Ciech
EUR 6.1 million BWI Group
EUR 7.8 million Schumacher Packaging

Diagnostics



INNOVATIONS

we conduct energy efficiency research for technological processes

we apply artificial intelligence in measurement systems for the industry

we develop a predictive diagnostics system (DiagSys system)

we build a system to assess the efficiency of operating devices

DiagSys

WHAT IS IT AND HOW DOES IT WORK?

Remote diagnostics for drives and their efficiency testing

based on electrical signals, the system detects early an automatic fault

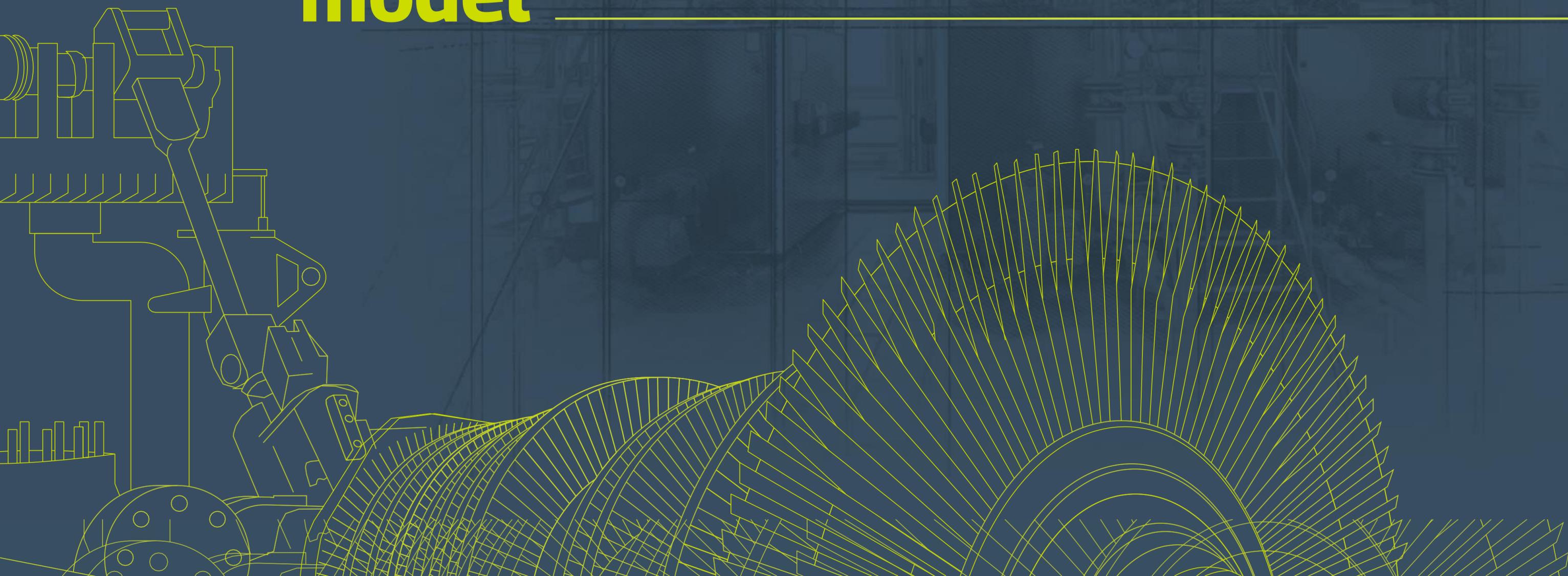
it reduces operating costs

it assesses the efficiency of devices in motion

it reduces significantly energy consumption

The project is co-financed by the National Centre for Research and Development.

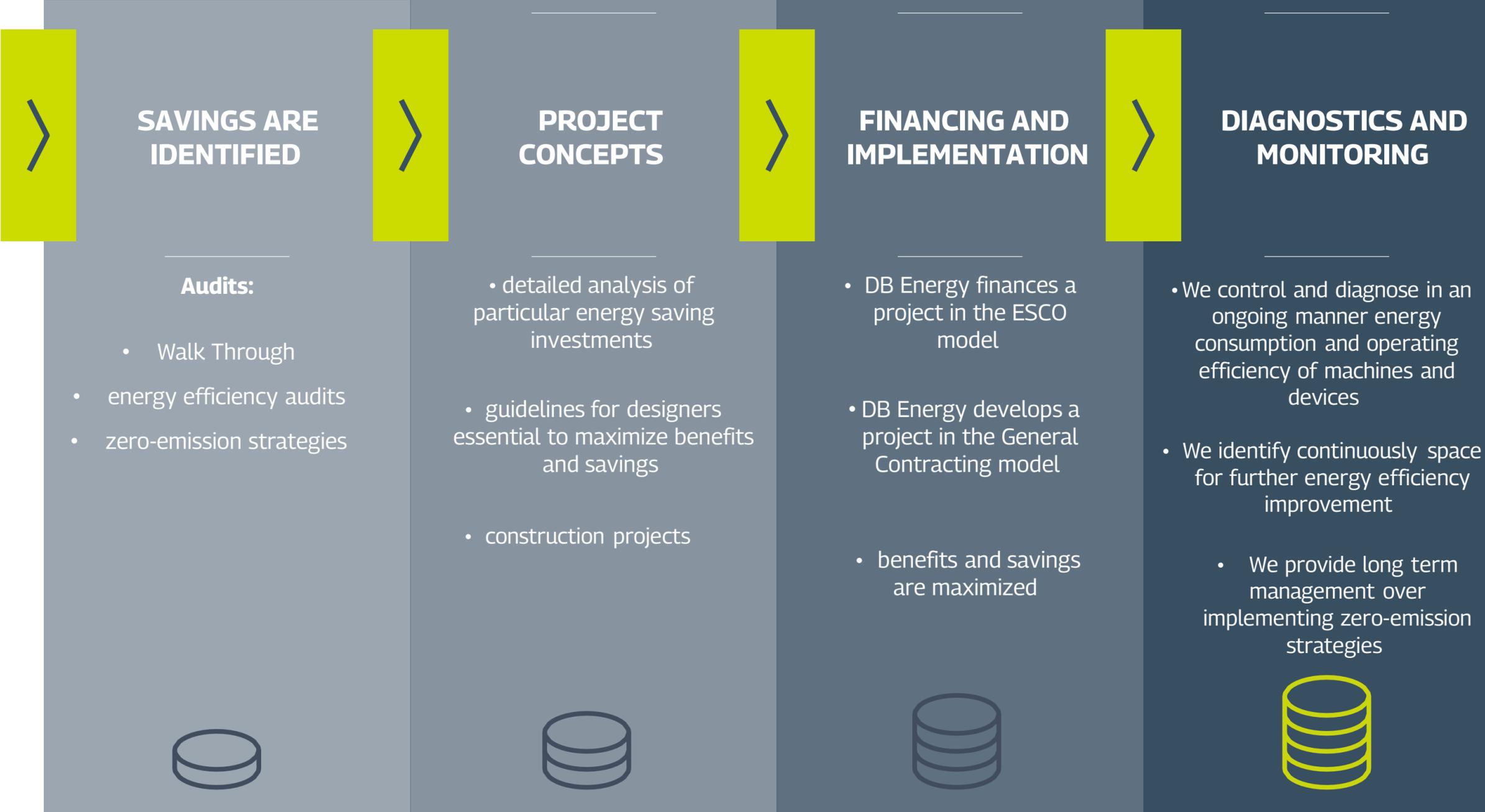
The unique business model



Comprehensive support for the process to improve **ENERGY EFFICIENCY**

we manage extensively the entire process to improve energy efficiency

benefits and savings are maximized for a client



They have **trusted us**



Some CLIENTS





The management board consists of the founders and, at the same time, main shareholders **who build the value of the company on a daily basis**



Krzysztof **PIONTEK, PhD (habilitated)**

**Associate professor of Wrocław
University of Economics and Business**

President of the DB Energy Management Board

Founder (23.26% of DB Energy shares), habilitated doctor in economics, since 2001 at the Department of Financial Investments and Risk Management at the Wrocław University of Economics and Business, graduate of the Faculty of Electronics and Telecommunications of the Wrocław University of Technology.

**He specializes in the application
of quantitative methods for data analysis.**



Dominik **BRACH, PhD**

Vice President of the DB Energy Management Board

Founder (22.89% of DB Energy shares), PhD in economics. As an employee of Wrocław University of Economics and Business, he conducted scientific research studies in finance.

He specializes in finance, risk and real estate management.



Piotr **DANIELSKI, PhD ENGINEER**

Vice President of the DB Energy Management Board

Founder (26.86% of DB Energy shares), PhD of technical sciences. A graduate of doctoral studies at the Department of Industrial Power Engineering at the Faculty of Electrical Engineering of the Wrocław University of Technology.

An expert in energy efficiency and industrial power generation, specializes in energy consumption of industrial energy recipients.



Łukasz
FELDMAN, PhD

Financial Director of DB Energy

In the company since 2019, PhD in economics, a securities broker, a specialist in corporate finance management and funding acquisition.

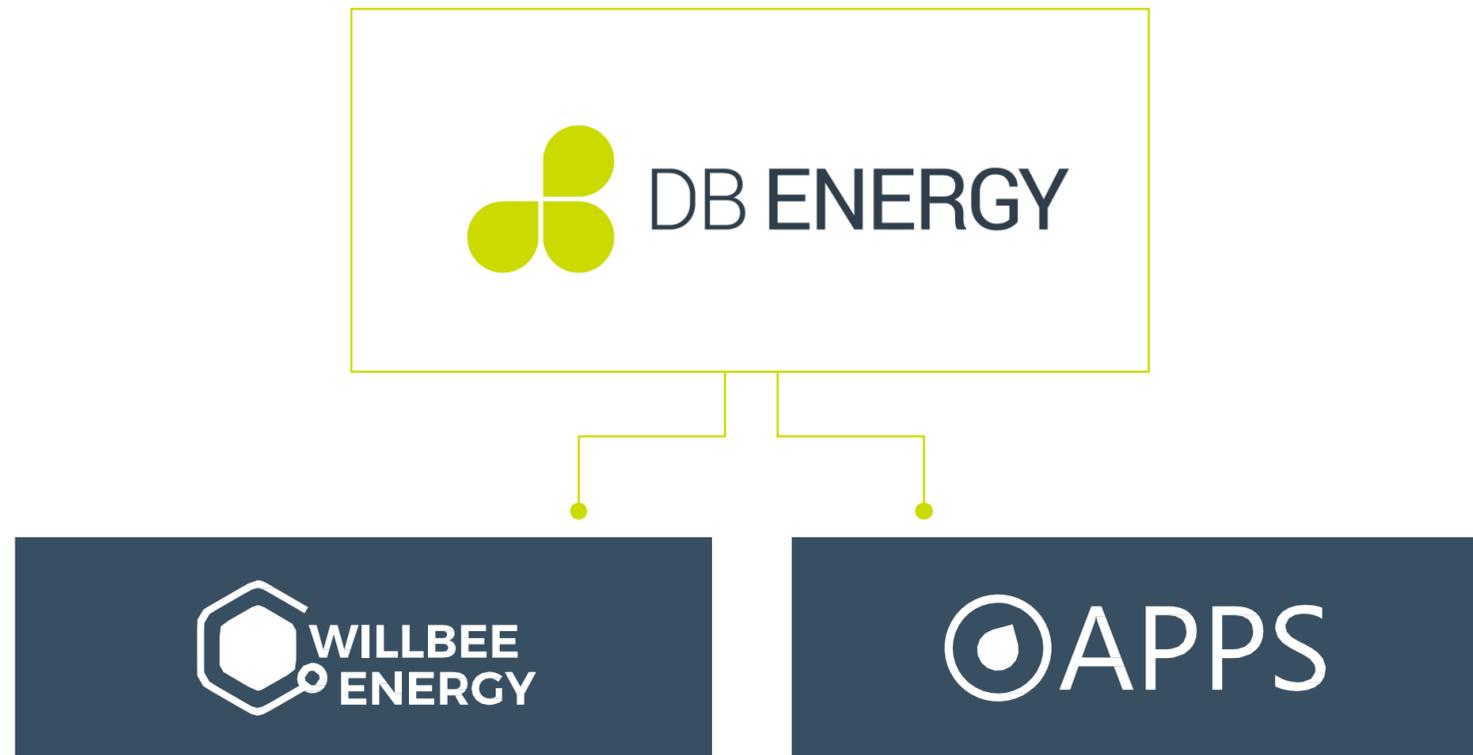
He specializes in introducing and publishing companies on the stock market.

DB Energy corporate group



DB Energy corporate group

WE ARE PRESENT IN POLAND AND THE EU



We elaborate zero-emission strategies and ensure energy efficiency in the industry:

we identify energy-saving investments

we design improvements

we finance and develop projects in the ESCO or General Contractor model

we provide predictive diagnostics and test efficiency of operating devices – DiagSys

We monitor the industry:

we measure parameters of an industrial infrastructure in place

we monitor and diagnose technical installations

we develop DiagSys with an intent to introduce the system on the market

2009

DB Energy commences energy efficiency activities in the industry

2010

2013

2015

2016

2018

 **APPS**

The R&D department is established, the measuring device APPS1 is developed

APPS sp. z o. o. is established – it provides measurement services for the industry, and, in the future, it intends to introduce the achievements of the R&D department on the market

The first ESCO contract of EUR 600,000
(Simoldes Plasticos sp. z o.o.)

The funding of EUR 822,000 is received from the National Centre for Research and Development for the R&D projects

We are the leaders of White Certificates acquisition in Poland

2019

**DB Energy
debuts on
the New
Connect
stock
market**



Willbee Energy GmbH is established

EUR 733,000 is acquired as a part of a private placement

DB Energy concludes a contract of EUR 2.2 million with Ciech Soda Polska

DB Energy enters into cooperation with EFESO Consulting GmbH

2020

DB Energy concludes a contract with SUSI PARTNERS for the ESCO financing of EUR 20 million for industrial projects



DB Energy concludes a contract of EUR 6.11 million annually with BWI Group to manage a cogeneration unit

DB Energy sells the White Certificates of more than EUR 2 million

DB Energy concludes an ESCO contract of EUR 6.5 million with Soufflet

DB Energy concludes a contract in the General Contractor model of approximately EUR 4 million with Schumacher Packaging

DB Energy concludes a contract of more than EUR 1 million with Zamer

DB Energy concludes a contract of EUR 700,000 with OMEGA SA

2021

**DB Energy aims
at the Warsaw
Stock
Exchange
market**



we purchase another two cogeneration units 2x1MWe

we complete the boilers retrofit for Schumacher Packaging in Myszków

we extend the contract with Schumacher Packaging in Myszków with a complete heat and power plant retrofit. The project amounts to EUR 7.8 million

we are awarded AS – the award of the Council of Employer's Organization of Polish Copper for its 25th anniversary

we are nominated in the 18th edition of Dolnośląski Gryf – the most prestigious economic and business competition in the region of Lower Silesia

Willbee Energy fulfils its first order on the European market (Germany, Italy, Austria, the Czech Republic, Ireland and Croatia)

2023

**debut on the
main market
of the
Warsaw Stock
Exchange**



We receive an award - Lower Silesian Griffin in the category "Effective Business Transformation"

We are publishing a report titled "Zero carbon in industry. Are Polish companies ready for the Fit for 55 package?"

We receive our first overseas order from Thermo Fisher Scientific Inc. for the construction of a boiler waste incineration plant.

We sign a letter of intent to structure cooperation with EFESO

we receive a gold medal in the Ecovadis rating

we are signing a framework cooperation agreement with Last Energy, which will expand our offerings to include small nuclear power plants with a minimum capacity of 20 MW

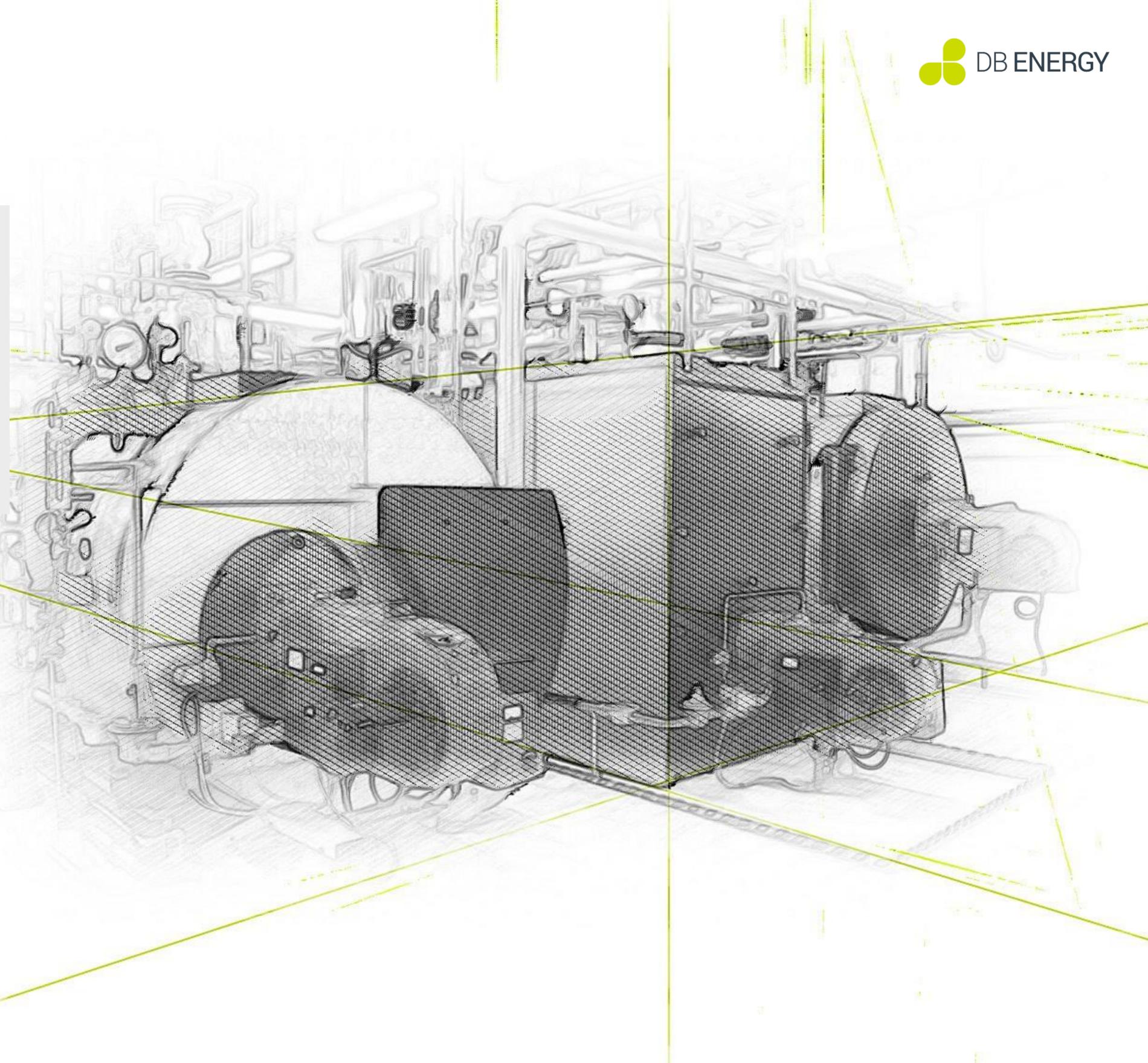
Case studies



SŁODOWNIA SOUFFLET POLSKA

world leader in malt production

The power supply system
improvement with an application of
waste heat and a cogeneration unit,
developed in the ESCO model



SŁODOWNIA SOUFFLET POLSKA

world leader in malt production

investment value of **EUR 6.4 million**
fully covered by DB Energy

Projects key elements

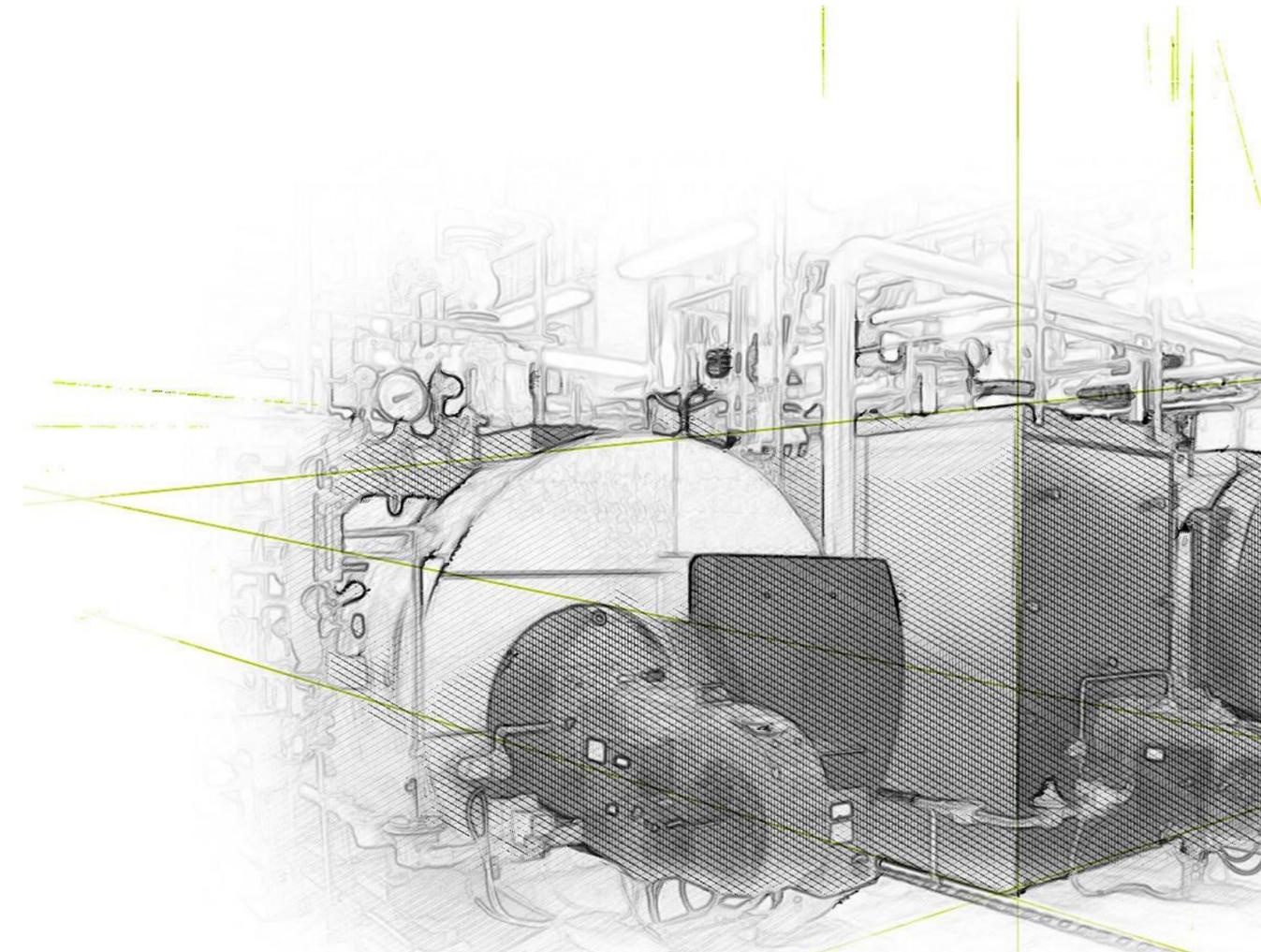
thermal energy recovery

new refrigeration system

new cogeneration system to generate electricity and thermal energy

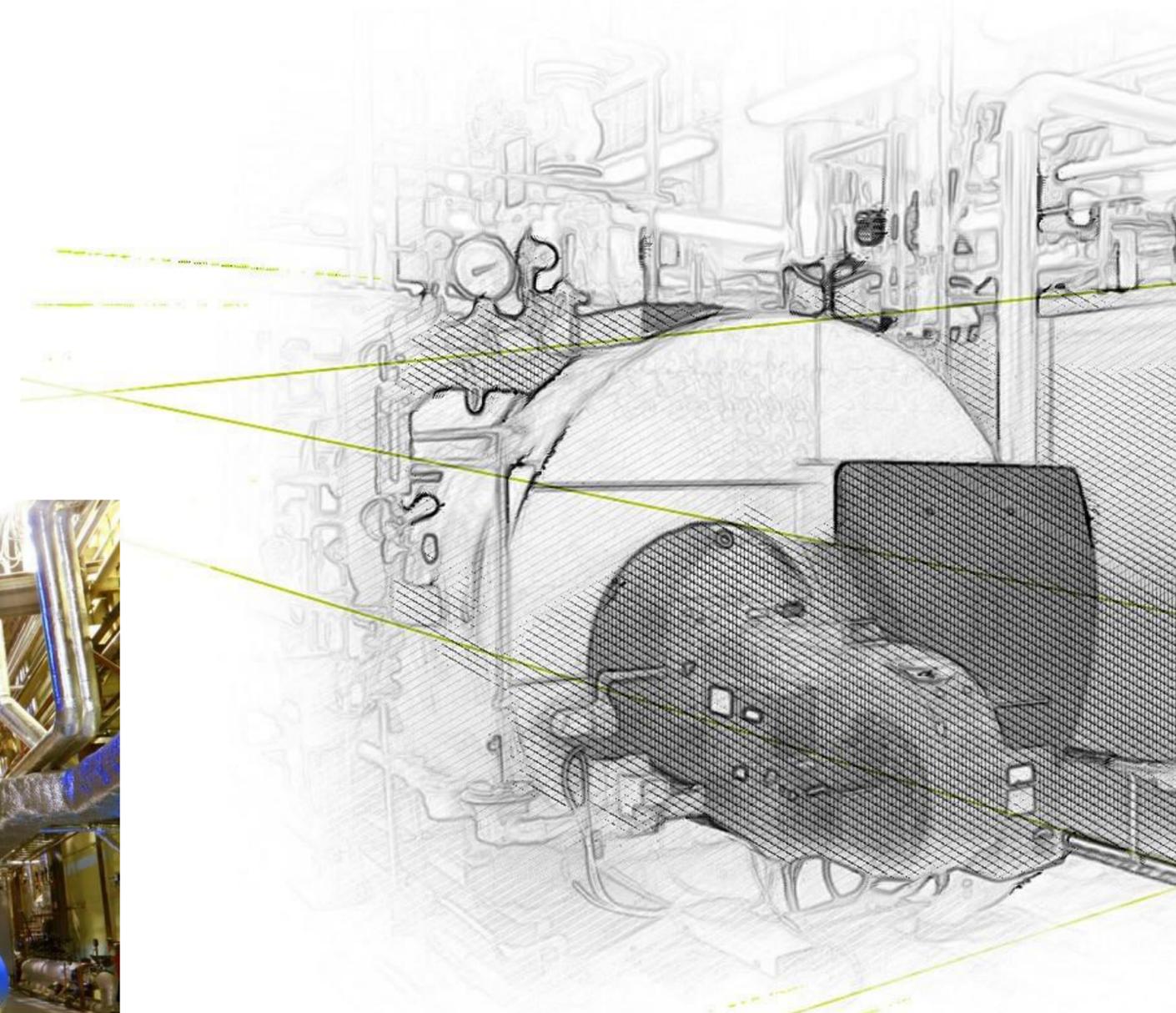
ESCO contractual period – **10 years**

emission reduction – **9 543 tCO₂** annually



SOUFFLET POLSKA

world leader in malt production

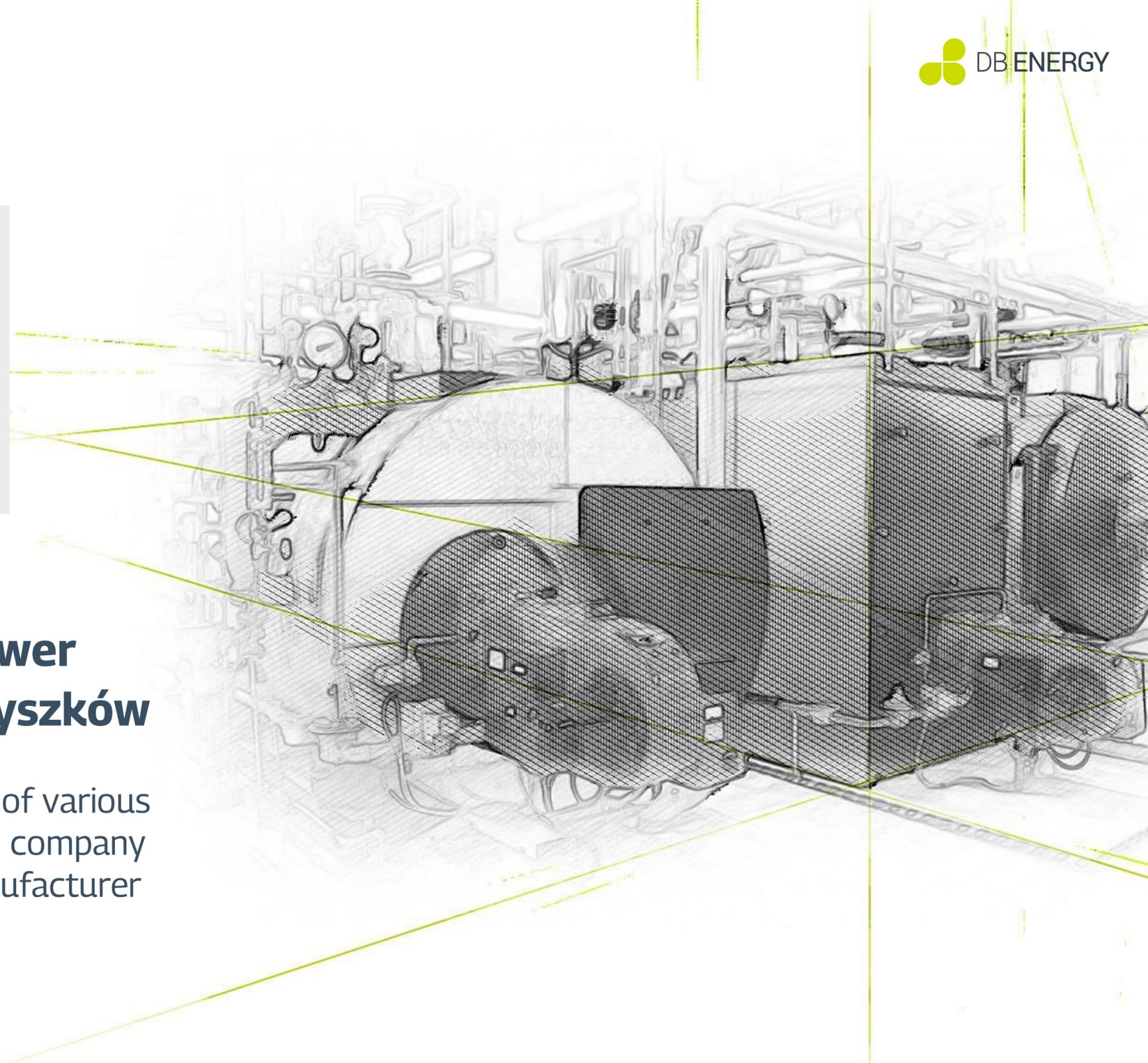


SCHUMACHER PACKAGING

Heat and power plant improvement

**Annual savings of EUR 4.4 million –
DB Energy improves the heat and power
plant of Schumacher Packaging in Myszków**

Schumacher Packaging is a worldwide manufacturer of various types of paper packaging. Having 29 subsidiaries, the company is one of the biggest solid and corrugated board manufacturer in Europe.



SCHUMACHER PACKAGING

Heat and power plant improvement

The boiler improvements effects - real profits for Schumacher Packaging

total investment value - EUR 7.8 million

boiler efficiency increase by 20% (from 65% to 85%) - combustion process improvement

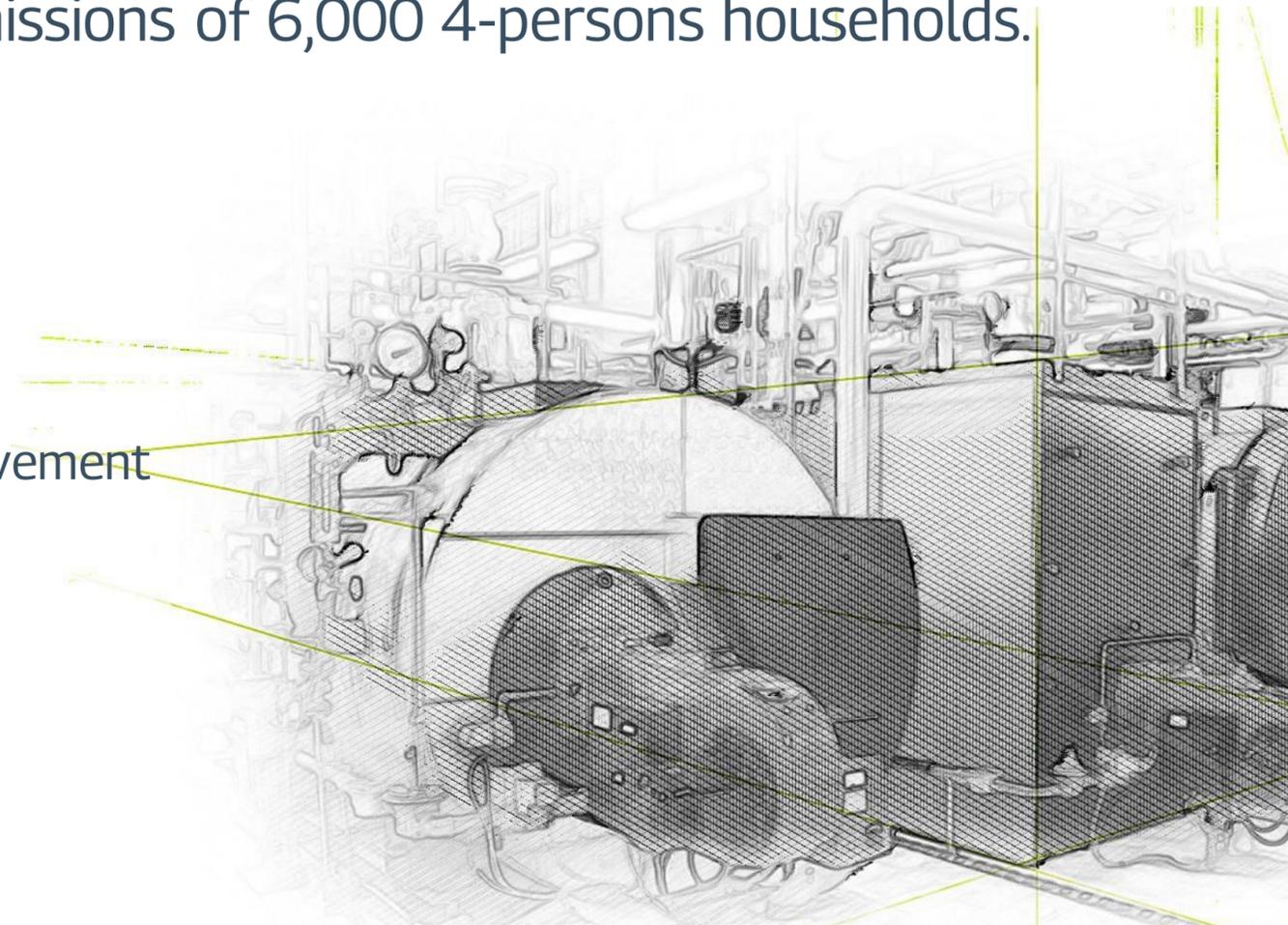
annual savings due to improvement of both boilers - approx. EUR 4.5 million

final energy savings of more than 6,200 toe - the possibility to be granted White Certificates of EUR 2.6 million

18 months - payback period

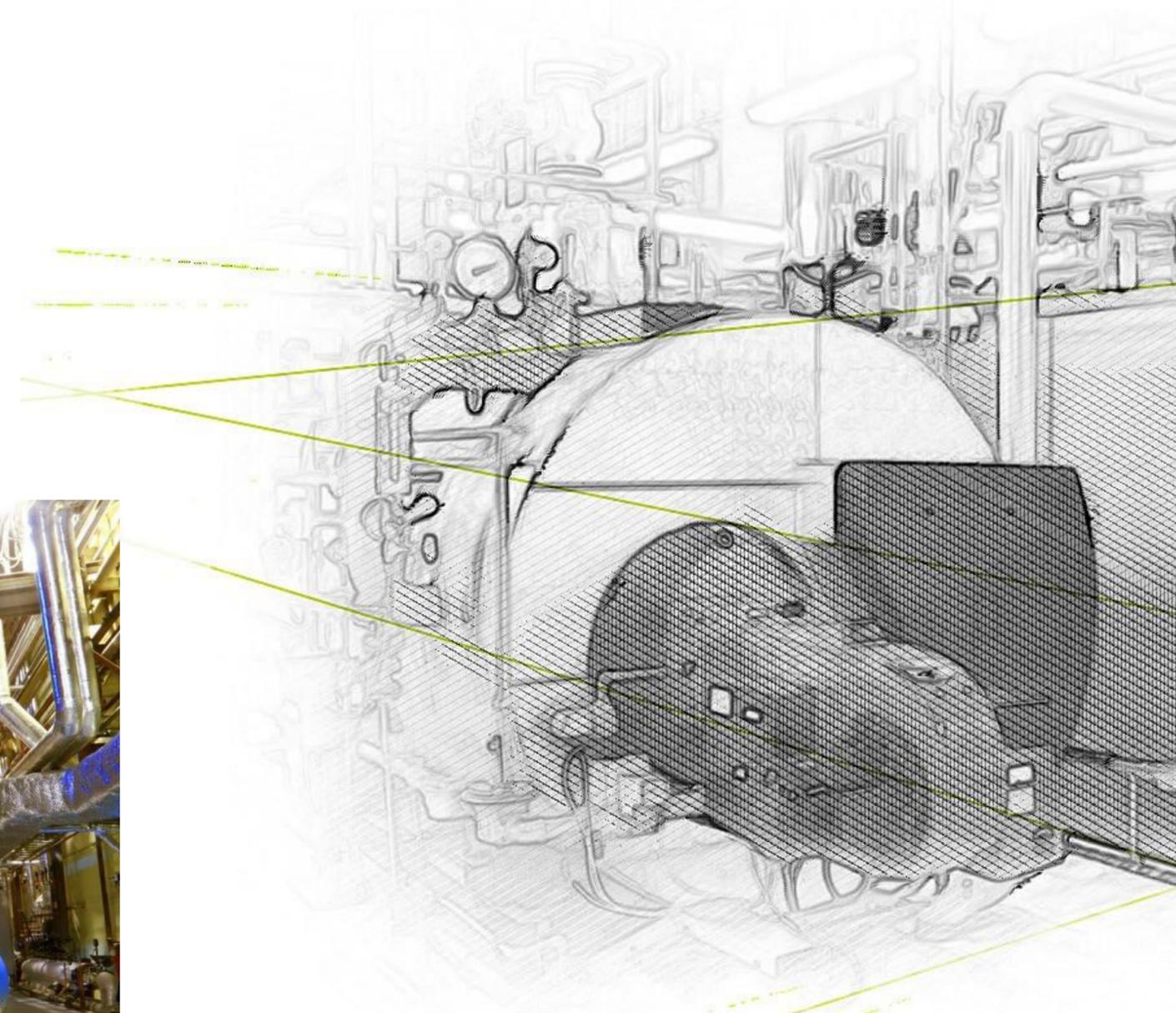
Due to the improvements the CO₂ emissions will be reduced from approx. **134,000 tons** to approx. **110,000 tons** annually.

The difference of **24,000 tons** refers to the average annual CO₂ emissions of 6,000 4-persons households.



SCHUMACHER PACKAGING

Heat and power plant improvement



Working with DB Energy

ADDITIONAL INFORMATION

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