HiPer it!
BPS Group

## We are Carbon & Energy Hunters

# HiPer it! solutions & products overview

Energy & operations cost reduction, optimisation, support of ESG reporting, and asset value increase
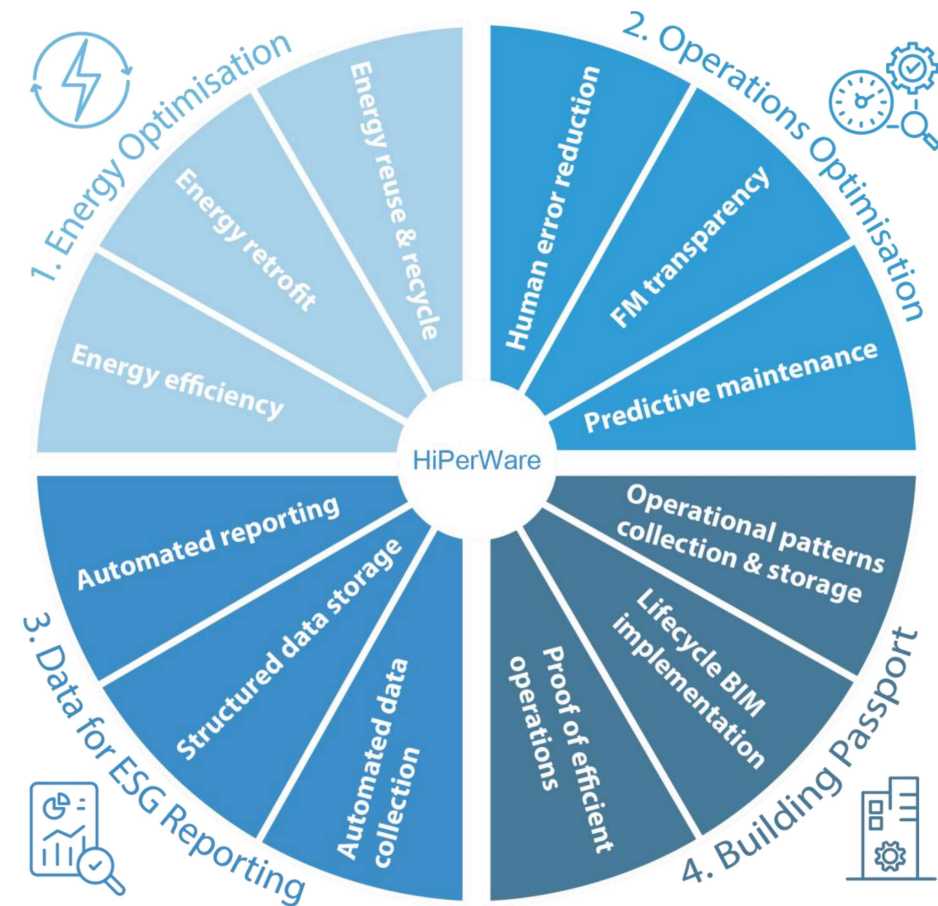
EUTECH

BIM-TAGE DEUTSCHLAND 2023

GREEN BIM AWARDS 2023

# Our targeted solutions for full efficiency & transparency

**HiPerWare** – Mass market PropTech solution to achieve regulatory sustainability and decarbonisation targets in real estate & manufacturing worldwide.

We offer 4 solutions on the HiPerWare platform that include Energy optimisation, Operations optimisation, Data for ESG reporting and Building passport.

HiPerWare – common platform for realising all 4 solutions.



1. Energy Optimisation
- Energy reuse & recycle
- Energy retrofit
- Energy efficiency

2. Operations Optimisation
- Human error reduction
- FM transparency
- Predictive maintenance

3. Data for ESG Reporting
- Automated reporting
- Structured data storage
- Automated data collection

4. Building Passport
- Operational patterns collection & storage
- Lifecycle BIM implementation
- Proof of efficient operations

HiPerWare

# 1. Energy optimisation: efficiency & energy retrofits

**Energy optimisation & retrofit challenges that HiPerWare eliminates:**

- Lack of **quality data & transparency** in internal energy consumption
- Lack of **accessibility** to complete building operational data
- Lack of **simple and affordable diagnostics** and recommendation tools for making informed and qualified energy and cost optimisation decisions
- Difficulty to **collect & maintain** up-to-date energy performance data records

HiPer it!  has achieved for its clients:

Reduction of unplanned outages & energy consumption by an average

of **20%** & **25%**



Reduce energy costs and carbon footprint, embrace sustainable practices to achieve the goal of net-zero CO2 emissions

Ensure operations and consumption transparency via in-depth information and the Business Energy Model

Get a detailed action plan to achieve energy efficiency and sustain HiPerformance operations

# 2. Technical Operations optimisation

**Building operations challenges that HiPerWare eliminates:**

- Lack of **transparency** in facility management
- Lack of building **operations digital trail**
- Lack of **centralised dispatching service**
- Lack of **quick and affordable Big Data collection** for optimisation
- Lack of **digital twins/ digitalised engineering systems** for ease of maintenance
- Abundance of **human error** and **lack of record**

HiPer it! has achieved for its clients:

Reduction of maintenance and technical operations costs by up to

**50%**

Reduce human error & ensure facility management transparency

Implement predictive maintenance and optimise technical operations

Get valuable insights for informed strategic decision-making

# 3. Big Data for ESG reporting

- Enrich ESG reporting with automated data collection from diverse equipment systems.

- Import data from various building systems and create the central source of factual information – data platform for deep process analytics.

- Integrate with ESG reporting system to automatically export data for further report creation and proof of execution.

- Enable benchmarking and advanced analytics of the portfolio, comparison of separate assets across operational metrics, energy consumption and operational costs for optimal performance.

Comply with **CSRS, ESRD** requirements to gain accreditations & certifications

Automate collection of data hidden in complex building systems and simplify analysis of ESG data

Measure ESG performance over time for better progress tracking and goal setting

Drive positive environmental impact and create long-term value for all stakeholders

# 4. Building passport – digital trail of building's life

- Create complete live Digital Twin of a building with big data, Connected BIM models, 360 degrees photo panorama, and single-line and P&I diagrams.

- For assets designed and constructed using Building Information Modeling (BIM), the Digital Twin brings BIM benefits into the operational phase of the building lifecycle.

- Create a digital log-book to serve as evidence of efficient building operations. This initiative aims to enhance the asset value by ensuring transparency and easy transition to a new FM company. Consistently collecting data on the building's operations provides tangible proof of its efficiency, thereby elevating its quality and consequently its overall value.

Streamline navigation with accurate and up-to-date representation of the building's current state

Get a full "digital trail" of operations and determine the cause-and-effect relationships of ongoing processes

Transform building from a "black box" into live digital twin enriched with big data
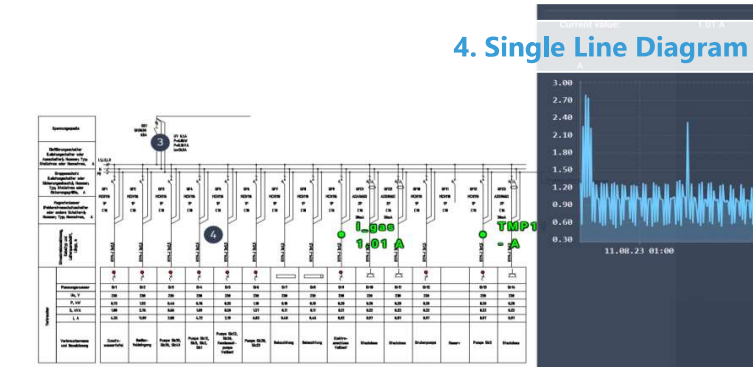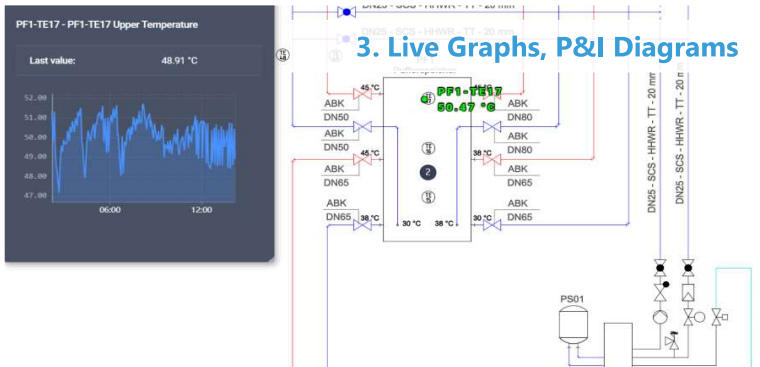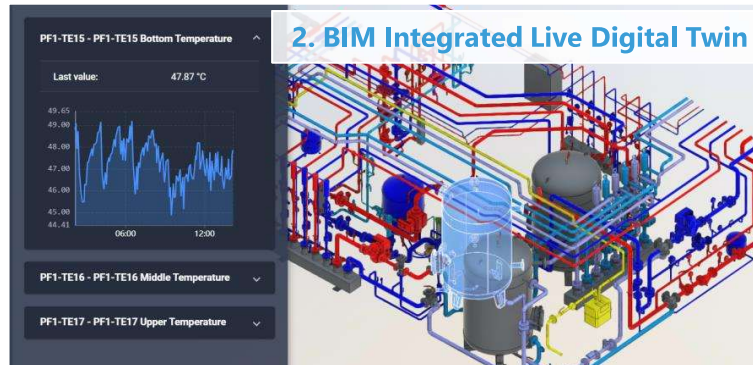
# HiPerWare capabilities

- **Cost-effective and non-invasive collection** and storage of big data from a variety of systems without programming or expensive engineering services

- **Rapid equipment installation** with **immediate data flow** on the platform upon installation completion

- **Open API integration** with other hardware vendors and BPM/CMMS systems

- Accurate analysis due to **high frequency data collection** - multiple times per minute

- Detailed building operations patterns for **anomaly detection & solutions** across asset portfolio

- **Dynamic customisable dashboards and reports** for data analysis/ presentation

- Digital twin (**BIM** models, **360 degrees photo** panorama, 2D diagrams)

# HiPerWare – big data IIoT platform

Digitalisation of MEP for simplified navigation within the building systems: Anatomy (BIM) + process (IIoT data)

- Live data patterns of individual elements, full MEP systems and entire asset portfolios

- Get full transparency in operations, eliminate inefficiencies and simplify maintenance

- Benchmark system components and assets as a whole to reach ultimate performance

HiPerWare achieves more than traditional EMS



| | EMS | HiPerWare |
|---|---|---|
| Measurements | Only electric energy data | Electric energy data + other sources, granular processes & their outcomes (temp., pressure, $CO_2$) |
| Analysis | Only static analysis | Static + pattern-based analysis for detailed diagnostics |
| Anomaly detection | What happened | What, where & why |

# HiPer it! products overview

| | HiPer Checkup | HiPer Power | HiPer NetZero | HiPerWare Platform |
|---|---|---|---|---|
| Automated Big data collection | x | x | x | x |
| Building passport / digital trail of operations | | x | | x |
| Big data export for automated reporting (including ESG, CAFM & CMMS) | | x | | x |
| Energy optimisation* | one time | continuous | x | |
| Operations optimisation* | one time | continuous | x | |
| Regular energy consumption reporting* | | x | | |
| Business Energy Model (BEM) creation* | | | x | |
| Energy retrofit feasibility study* | | | x | |
| Energy retrofit design and implementation* | | | x | |

*services involving HiPer it! energy consultants

# HiPer CheckUp – entry point for achieving high performance
## Gain insights on technical processes to reduce energy and operational cost
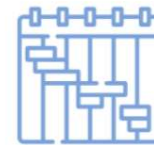
**1. Installing equipment & collecting Big data**

Simple non-invasive installation (compatible with any equipment) and instant operations data collection

**2. Detailed analytics**

Expert analysis supported with AI and Big Data library of operational patterns

**3. Action plan**

Tailored action plan by energy experts from HiPerformace results

**4. Decreased energy & operational costs**

Reduced energy and operational costs by an average of 25%

Achieve energy and operations savings within the first 4-5 weeks with an average payback period of 9 months

# HiPer Power – your virtual Energy & Technical Operations Manager

## Benefit from all-in-one solution while sustaining high performance operations

**1. Installing equipment & collecting Big data**

Simple non-invasive installation (compatible with any equipment) for continuous big data collection

**2. Detailed analytics**

Analysis of energy distribution and consumption, cause-effect relationships, process dependencies in building systems

Identification of energy consumption inefficiencies by AI big data analytics

**3. Reports & notifications**

Weekly reports and recommendations; ad-hoc notifications for energy and operations optimisation;

Notifications of the issues, their location and time

**4. Digital Trail of Operations**

Complete "digital trail" of operations as a key component of "Building Passport" solution with energy consumption and distribution for informed decision making

**5. Decreased energy & operational costs**

Energy and operations costs savings with an average of 25%

Reduced or fully eliminated $CO_2$ emissions

# HiPer NetZero – Energy optimisation from an idea to confirmed results
# Reducing emissions, consumption and costs

**1. Collecting data & BEM creation**

Creation of 'as is' Business Energy Model (BEM) and processes Big data repository

**2. BEM detailed analytics**

Analysis of energy distribution and consumption, cause-effect relationships, process dependencies in building systems

**3. Pilot energy retrofit roadmap**

Feasibility study of low hanging fruits with elimination of all initial inefficiencies and anomalies

**4. Retrofit design & implementation**

Retrofit strategies development and implementation to enable efficient operations and reach sustainability targets

**5. Decreased energy & operational costs**

Energy and operations costs savings by up to 70%

Reduced or fully eliminated CO2 emissions & 100% net zero

Average payback period of 2-3 years; subsidies from government support programs, improving project payback period by up to 50%

# HiPerWare Platform – analytics beyond the 'naked eye'
# Common platform for realising all 4 solutions.

## 1. Installing equipment & collecting Big data

Simple non-invasive installation (compatible with any equipment) and instant operations data collection

## 2. Live Digital Twin

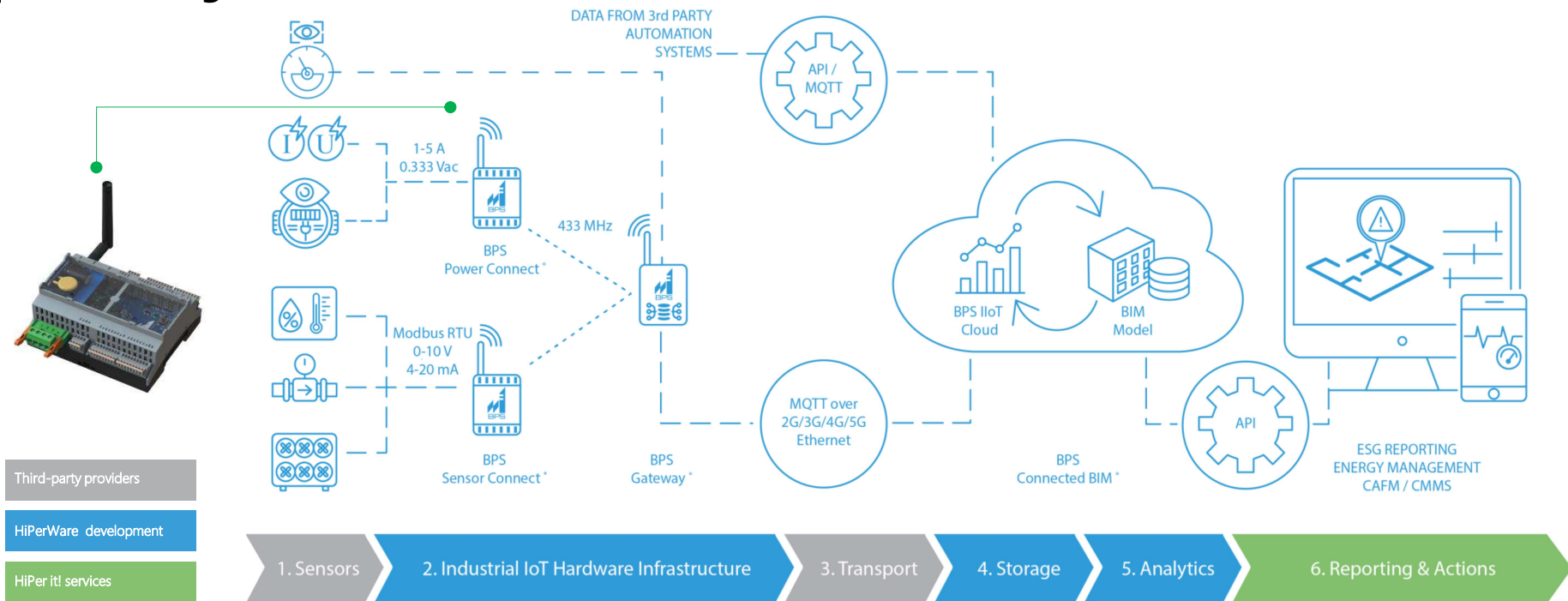Live digital twin based on real-time Big data and asset anatomy

## 3. Big data analytics

Library of normal / abnormal operations patterns; optimisation of building performance, administrative reporting, centralised dispatching, reducing energy consumption and $CO_2$ emissions

Platform is an ideal tool for energy, facility management and maintenance professionals

# HiPerWare platform architecture

- **Full stack development**: hardware, firmware, cloud software, big data analytics, Saas, ML & AI
- **Mass non-invasive** Big Data collection, cost-effective even for "not-shiny" buildings (**~90% of market**) and analog meters
- Big Data + building anatomy = **Digital Twin** and full **digital trail** of operations
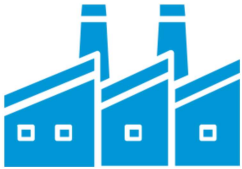- **Open API integration**

# Industries we work with

**Offices**  **Hospitality**  **Residential**

**Retail**  **Healthcare**

- Higher levels of accreditations achieved
- Higher market demand & increased rent values
- Future cost reduction of light & deep retrofits
- Efficient data collection & structuring for ESG reporting
- Digital trail & building operations passport
- Reduced $CO_2$ emissions, energy and maintenance costs
- Optimised & simplified maintenance

**Manufacturing**

- Achieved Green Deal and Net Zero targets
- Reduced $CO_2$ emissions, energy and maintenance costs
- Optimised resource consumption and technical operations
- Transparent operations leading to human errors reduction
- Optimised & simplified maintenance
- Efficient data collection & structuring for ESG reporting

**RE Investment**

- Meeting and exceeding existing EPC standards
- Reduced $CO_2$ emissions, energy and maintenance costs
- Higher market demand and increased rent values
- Government recognition: subsidising and attractive loan interests
- Higher levels of accreditations achieved
- Future cost reduction of light & deep retrofits

# Benefits: cost saving, asset value and efficiency increase

Decrease energy and operation costs

Reduce CO2 emissions and comply with Green Deal targets

Collect ESG data from any building system

Simplify maintenance through transparency

Gain green accreditations
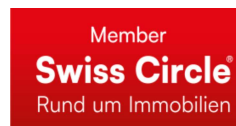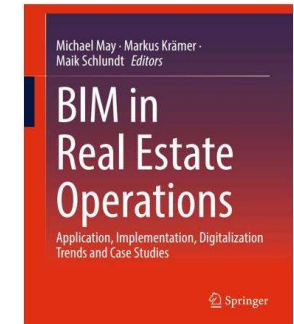
Increase asset values and market demand

Futureproof through energy retrofit and optimisation

Use BIM for entire building life cycle

# HiPerWare – awards & recognitions

- 2023 - Innovation World Cup Finalist
- 2023 - Green BIM Awards winners
- 2023 - German Federal Ministry of Economics and Export Control - BAFA certified EMS solution
- 2023 – EUTECH Chamber board member
- 2022 - Top 50 EU PropTech startups
- 2022 - EU grant from ENERBUILD
- Development partners with Autodesk since 2019

# Learn more – find additional information here