

VOITH

Energy Consulting



Energy Consulting

Key parameters

VOITH



Expertise

We are performing energy audits for **more** than 10 years



Results

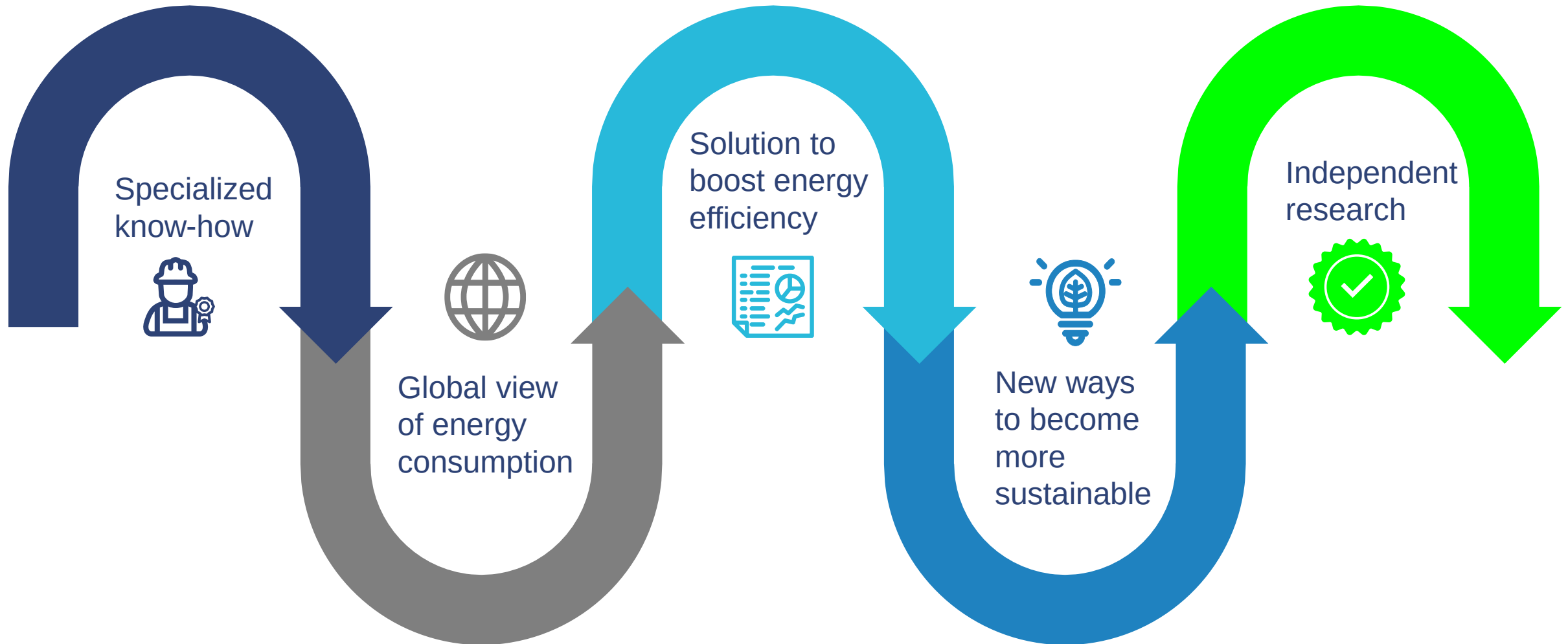
Typically, we reveal potential savings in the range of 10% to 20% of current **total** energy costs.



Investment

Over 60% of improvements offer a return on investment (ROI) of **less than three years**

Energy Consulting The Journey



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The Voith way on Energy Consultancy

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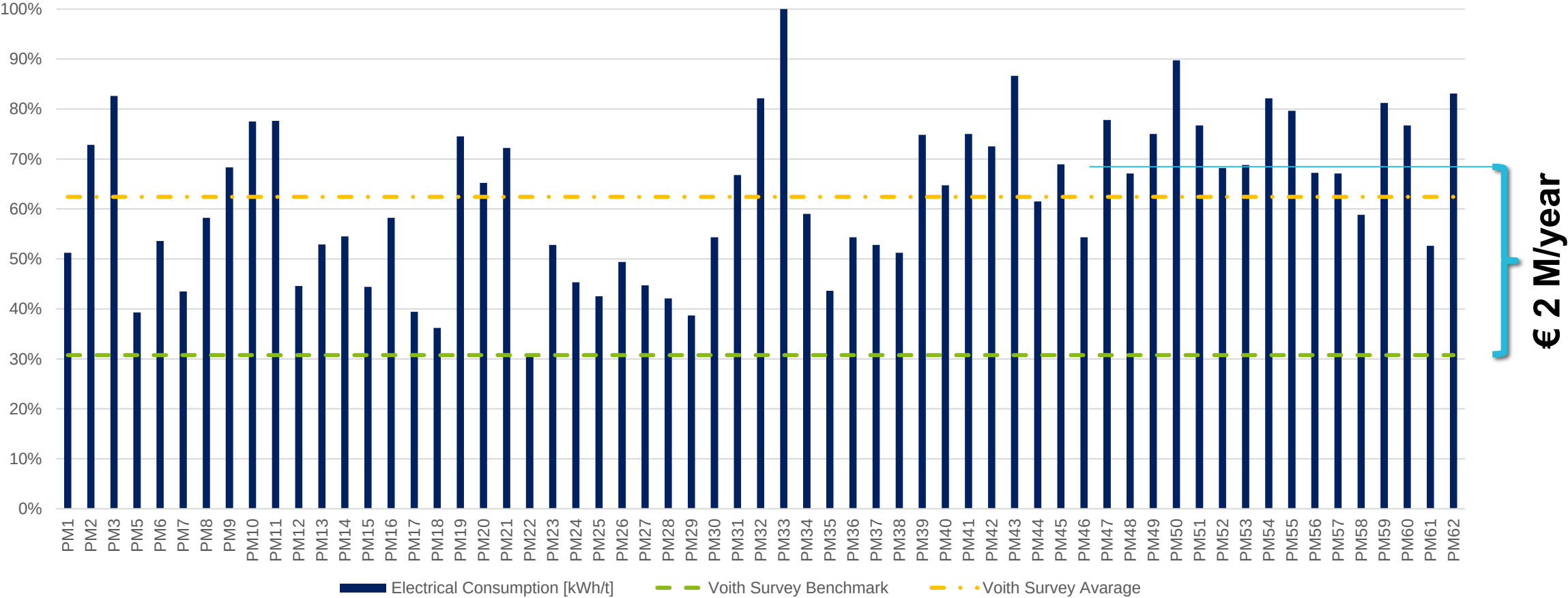
1



Benchmark

Energy Consulting Benchmark

Board & Packaging - Total Electrical Consumption



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The Voith way on Energy Consultancy

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1



Benchmark

2



On Site Audit

Energy Consulting On Site Audit

- ➔ Application of **analysis methods** for comprehensive energy usage assessment into **main Energy consumers** for Paper Machine and auxiliaries Systems
- ➔ We **support** the implementation of energy-saving products and **independent evaluations** for necessary system changes, focusing on both **significant upgrades** and **low-investment improvements**.



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The Voith way on Energy Consultancy

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1



Benchmark

2



On Site Audit

3



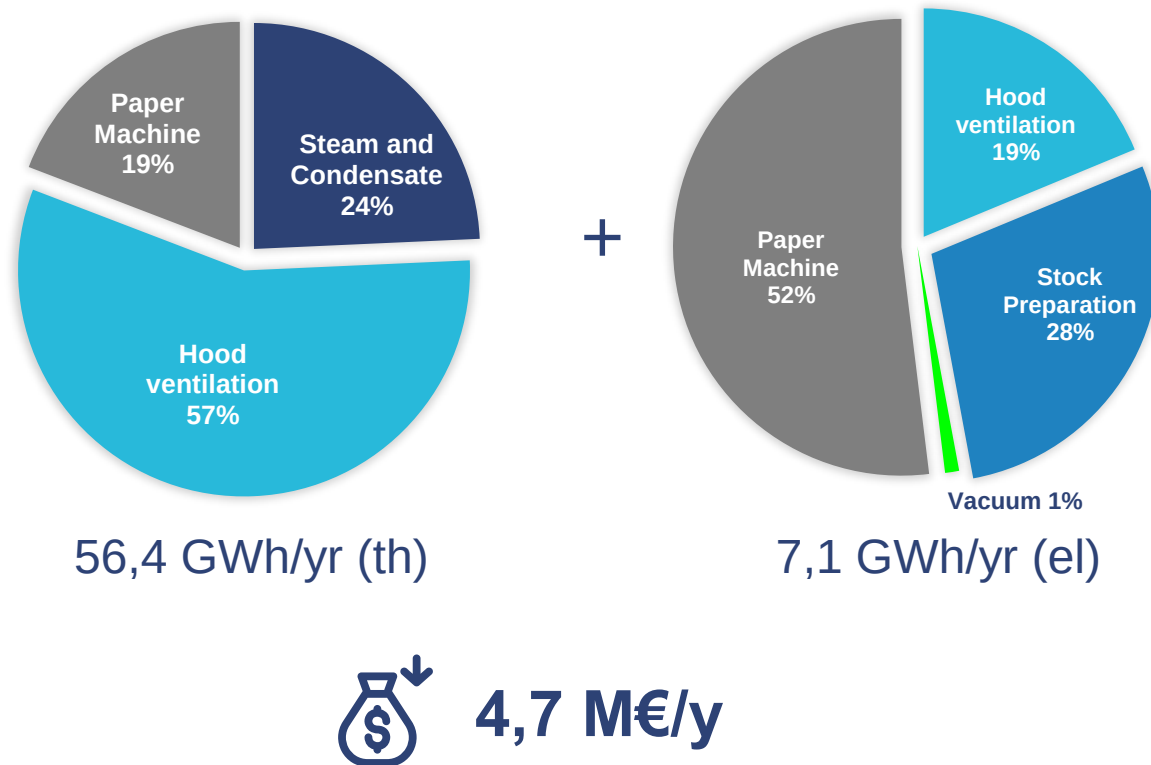
Map and Report

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The energy savings map

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→ Potential Energy Savings Map



→ Capex

Classification	Definition
Low	< 10.000 €
Medium	10.000 - 50.000 €
High	50.000 - 200.000 €
Very high	> 200.000 €

→ Categories

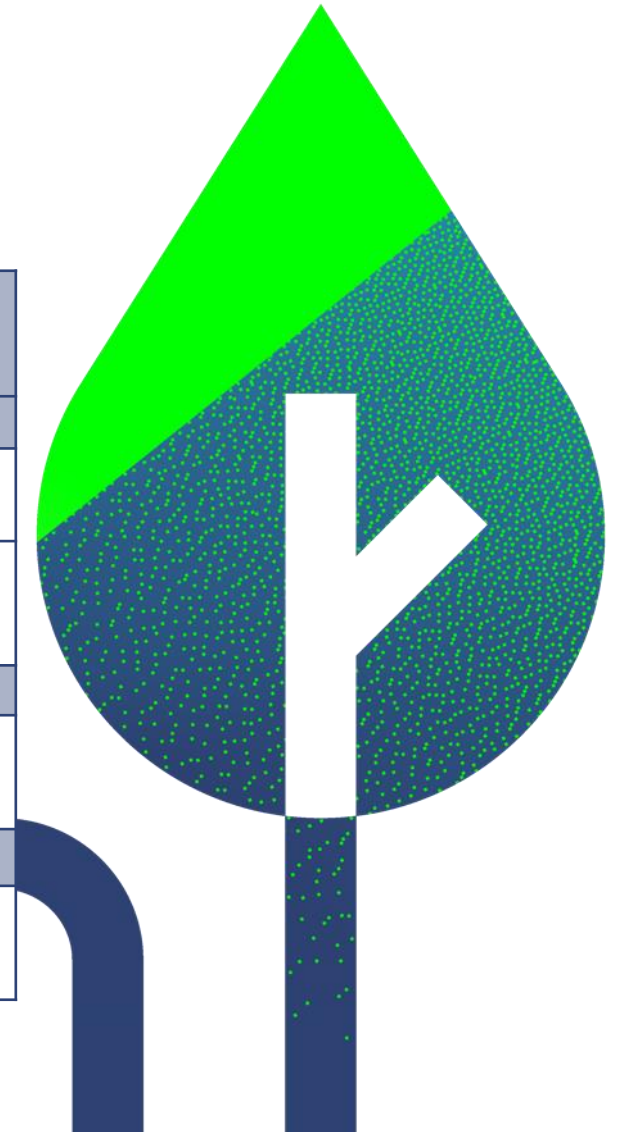
Nr.	Category
1	Settings & parameters
2	Maintenance & repair
3	Rebuild / modification
4	New parts
5	Metering & monitoring

Energy Consulting Report

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Master Project List

Project	Category	Potential Savings				Capex (kEUR)	ROI (y)
		MWh _{th} /yr	MWh _{el} /yr	kEUR	CO ₂ (ton/y)		
1. Steam and Condensate System							
1.1. Cascade optimization	Modification / Rebuild	12.725	-	750	2900	1.500	2,0
1.2. Automatic control system to minimize steam losses during web breaks and grade changes.	Modification / Rebuild	974	-	57	193	100	1,8
2. Vacuum System							
2.1 Conversion to RunEco Vacuum System	Modification / Rebuild	-	4100	820	-	2.000	2,5
3. Stock Preparation							
3.1. Drive control of throttle valve controlled centrifugal pumps	Modification / Rebuild	-	2500	500	-	235	0,5



The background of the entire image is a collage of discarded plastic waste, including crumpled plastic bags and crushed plastic bottles, rendered in a monochromatic blue and teal color scheme. In the bottom right corner, a portion of a green globe is visible, textured with a grid of small dots. From the top center, several bright, glowing rays of light emanate downwards, creating a sense of hope and illumination.

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Join us to build a **greener world together.**

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