Reduce energy costs yourself – it's easy!

Information
for management

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Operational optimisation pays off for your wallet – and for the environment

Impressive savings are possible
An average business can easily cut its energy costs by 10 to 15 percent – just by taking a few steps. This might seem a modest figure at first sight, but you will achieve impressive cost savings over the years as the result of your actions.

"Our building service was able to reduce its energy consumption by 15 percent – by taking action itself and without any investments."

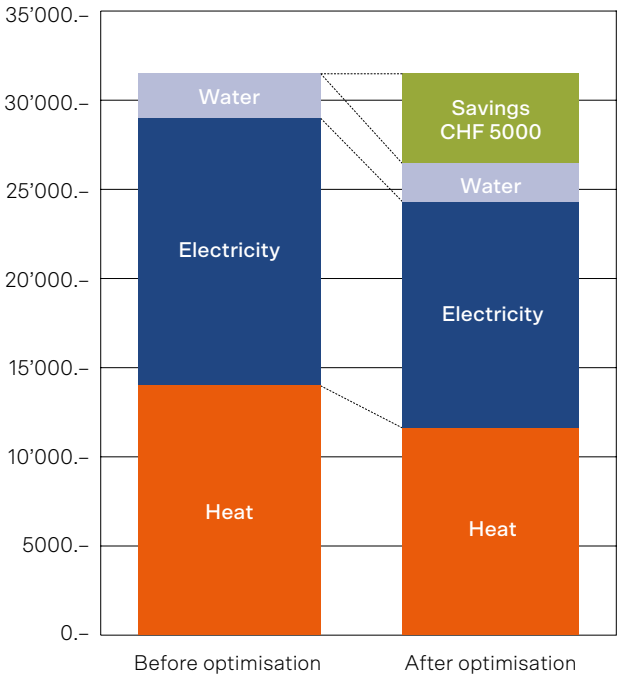
Tackle cost-cutting yourself!
Take the opportunity to cut costs and improve your competitive edge. It's not always necessary to engage external experts to carry out an optimisation. Many actions can also be undertaken by the employees responsible for operational and building maintenance themselves. They are the ones who are most familiar with the building, the requirements for the production processes and the wishes of the building users. You can offer this guideline to your employees as a source of help on where and how to find and exploit potential for savings.

Actions that pay off
An operational optimisation can be implemented in your plant or premises with minimal outlay of time and money. Experience shows that the recommended actions will usually pay off in less than two years.

Time – knowledge – budget
Successful operational optimisation projects need time, knowledge and a budget. Also: clarify how the individual assigned to implement the optimisation is to acquire the knowledge they need (self-study or courses – also see the last page).

As a guidance figure, a budget framework of about one third of the annual energy costs should be available for the first optimisation. In other words: if the annual energy costs are CHF 30'000, about five working days (in-house effort) and material costs of between CHF 4000 and 7000 will be required for the operational optimisation project over the next two years and – if knowledge is lacking for a particular action – it may be necessary to engage a specialist.

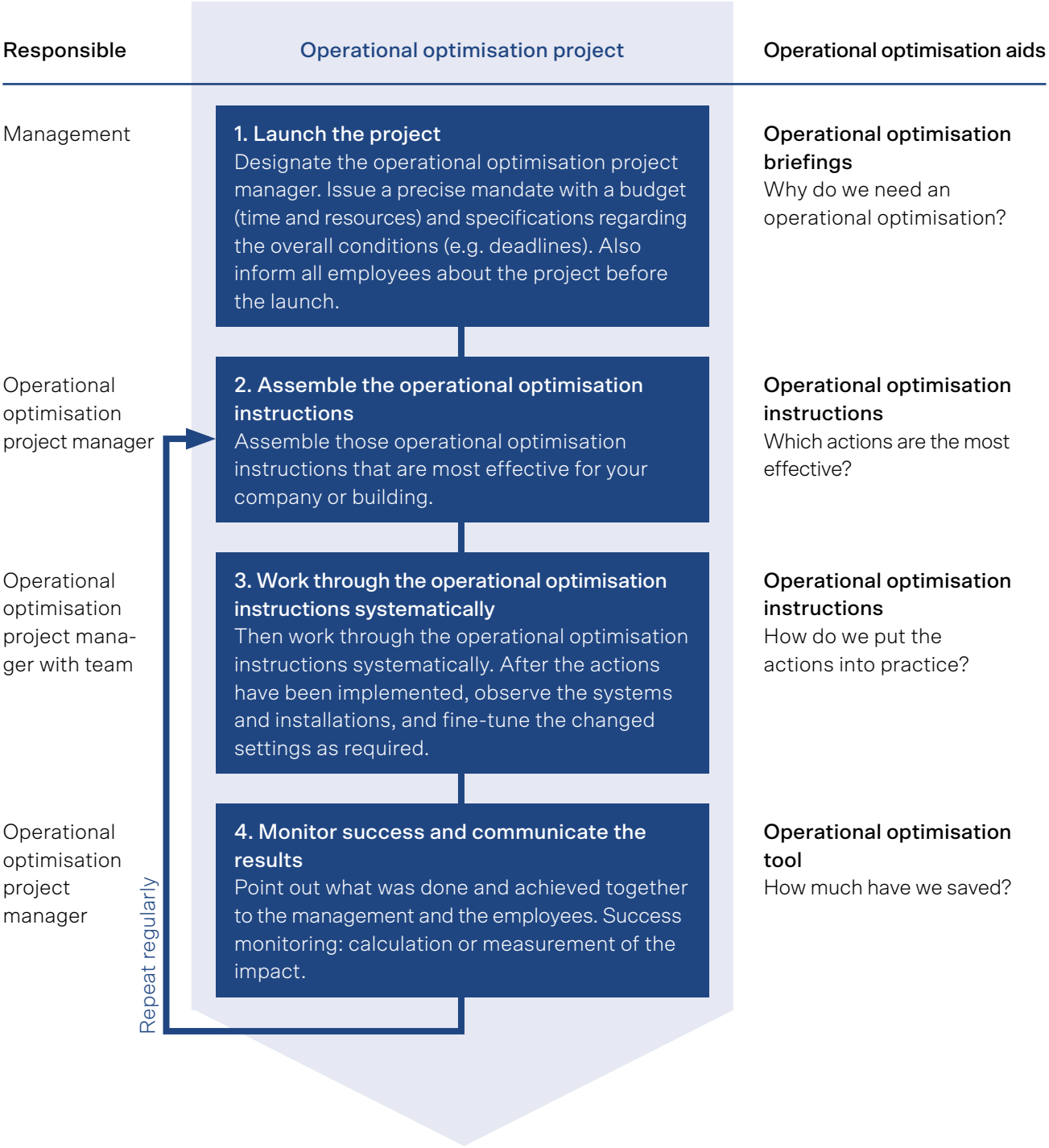
Annual energy costs before and after an optimisation



Example of how dedicated building maintenance can drastically reduce energy consumption in your own business, with just a few actions to optimise your operations.

How to go about it

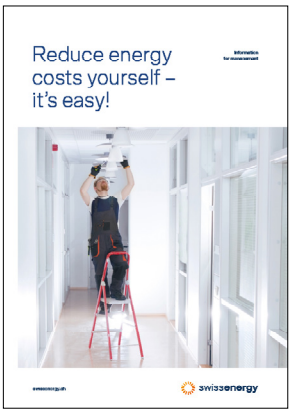
The four steps in an operational optimisation project
Successful operational optimisation projects are initiated by management and are led by an operational optimisation project manager. In small and medium-sized enterprises, a coordinated operational optimisation project takes 1 to 3 years. Long-term success will materialise if the actions (such as cleaning the heat exchanger) are repeated regularly. The following illustration shows the four steps from the project launch through to the outcome.



Workflow for an operational optimisation project (simplified presentation of the methodology described in SIA fact sheet 2048)

Operational optimisation is a management issue

The operational optimisation briefings for the management and the operational optimisation instructions will help you put your operational optimisation project into practice.



For management

Operational optimisation briefings

Successful operational optimisation projects are initiated, supported and promoted by the management. This ensures strong backing and the necessary resources for the employees responsible for the project – in this case, the operational and building maintenance staff. The operational optimisation briefing for the management provides the basic principles and information needed for the successful launch of an operational optimisation project.

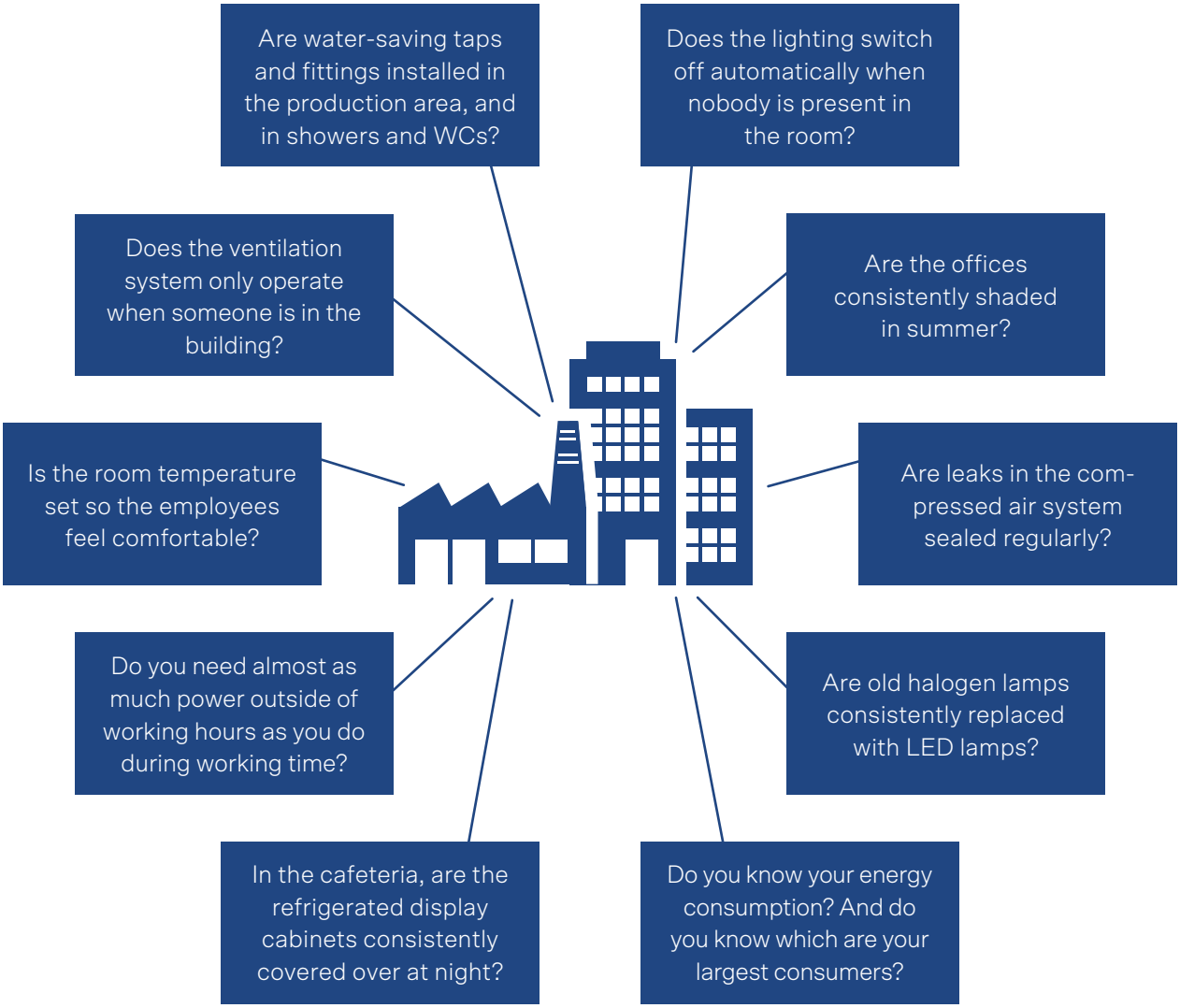
For the project manager

Operational optimisation instructions for practical use

If an "energy leak" has been discovered, it must be eliminated by taking the appropriate actions. For this purpose, operating times have to be set correctly, temperatures must be adjusted, components need to be cleaned, employees must receive instruction, plant and equipment must be consistently switched off, or single components may need to be replaced. The various operational optimisation instructions describe how all this is done in practice.

Everything's fine with us! Are you sure?

Different insights open people's eyes
All examples from practice show that an operational optimisation reveals potential in every business – even those with exemplary management. This is because the optimisation is undertaken as a standalone project – detached from hectic day-to-day business. This sharpens the focus and opens up new prospects. Small and medium-sized enterprises are particularly dynamic, so the requirements for their processes and infrastructure are constantly changing. For example: office workstations are converted, machines are relocated or additional IT systems are procured. Adaptations of this sort put the existing infrastructure under heavy strain. Energy and cost efficiency often fall by the wayside. This is even true of many well-managed and forward-looking companies.



Additional information

Focus on: “Operating with no benefit”

The lighting is switched on even though nobody is present in the room. A ventilation fan is merrily supplying fresh air to the offices in the middle of the night. These two examples of “Operating with no benefit” illustrate one of the two main levers for operational optimisation. Plant, systems and machinery should only operate when they are needed and when they deliver some benefit.

The second main lever for optimisations is the replacement of inefficient technologies by energy-efficient alternatives (e.g. replacing halogen lamps with LED lamps).

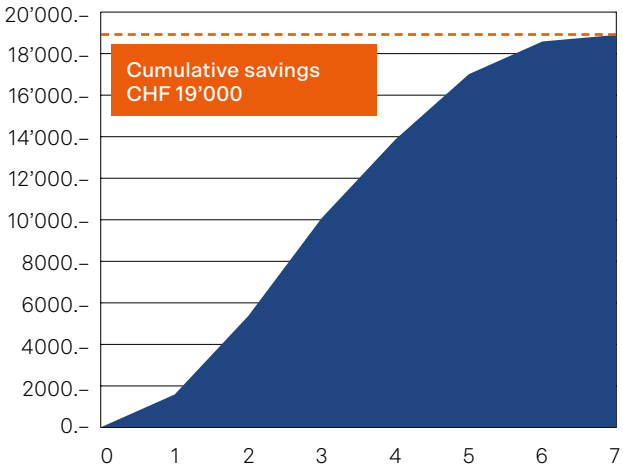
Bottom-up initiatives

Employees who have largely autonomous responsibility for building and operational maintenance often implement successful operational optimisations – and they are perfectly able to do so without the management’s “blessing”. This is because many actions can be implemented within the scope of the existing maintenance budget.

Cumulative savings

The long-term payoff from the impact of operational optimisations is often underestimated. Annual savings of 10 to 15 percent might not seem very attractive at first sight. Even though the percentage savings decrease slowly again after an optimisation (e.g. heat exchangers become soiled again), a handsome sum accumulates over the years – and it remains in your coffers.

Energy costs saved in CHF



Years needed to implement the operational optimisation project

Additional information

- Operational optimisation instructions for practical use
- Operational optimisation tool: www.endk.ch (aid)
- Fact sheet 2048: Operational optimisation for energy efficiency, www.sia.ch (SIA shop)
- Operational optimisation of complex systems
- Training on operational optimisation www.energo.ch (training)
- Courses for caretakers www.sfh.ch (training)

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