

SolvisVital.

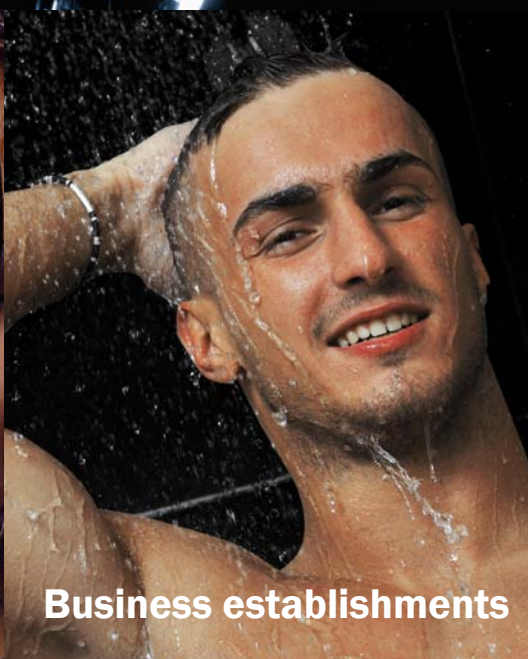
The modular heating and fresh water system for ...



Multi-family homes



Hotels and guesthouses



Business establishments



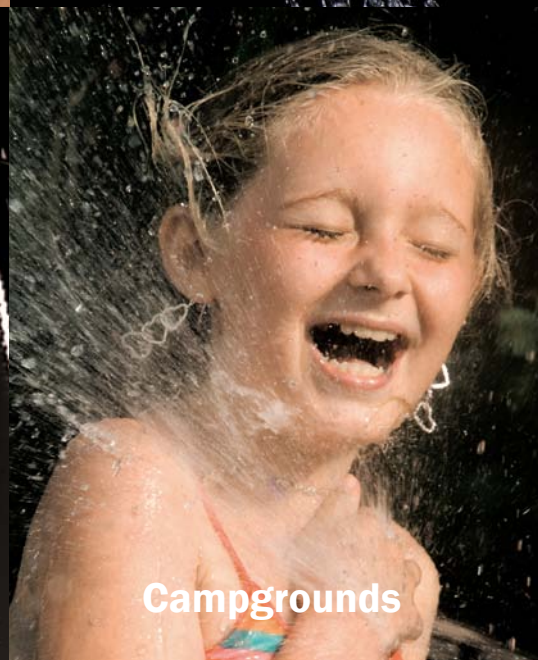
**Retirement and
nursing homes**



Sport facilities



Residence halls



Campgrounds

The new heating system.



A woman with long blonde hair, wearing a black tank top, is holding a clear plastic water bottle in her left hand. She is looking towards the camera with a slight smile. The background is black, and the lighting is dramatic, highlighting her features and the bottle. The text is overlaid on the image in white, bold, sans-serif font.

Economical operation

Hygienic drinking water supply

System modernisation

Return on investment

Energy efficiency

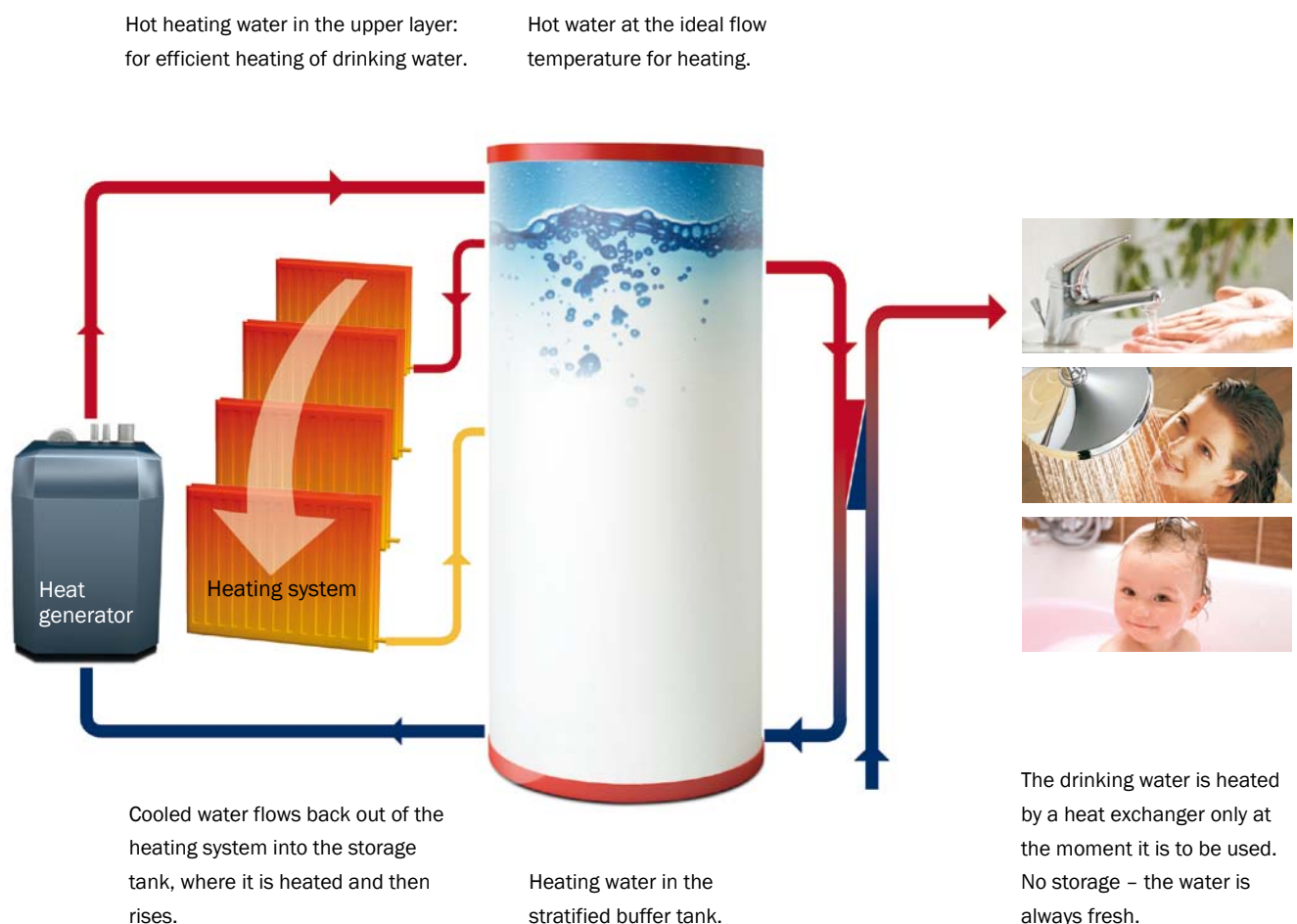
We sought to optimise the generation of heat, and then we realized: It's all about the water.

There are many different sources of energy – but how can we obtain heat in both a cost-efficient and future-oriented manner? Our solution to this problem started with a very simple idea: **Our rooms are not heated directly by oil or gas, but rather with hot water.**

Thus, the heating water storage tank constitutes the real heart of a central heating system. But then is a separate hot water tank even necessary? Can't we heat the water more efficiently directly in the storage tank? Can we effectively utilize

the physical properties of hot and cold water? Can we develop an adaptable heating system that works with oil, gas, geothermal heat, wood and solar energy? Can we manage different heat sources efficiently and effectively?

Yes, we can! In the following pages, you will learn more about the “marvel” of heating system technology.



Whichever energy source you decide on, you can remain flexible both now and in the future.

None of us is a prophet, who can say exactly which forms of energy will become cheaper or more expensive in the future – not even us. We just know that the energy from the sun is virtually inexhaustible – and that solar can already be used effectively now or retrofitted later.

Until now, the decision was one to be agonised over: If you had already settled on one form of energy to supply your building, you could not change your mind later (or if so, only at great cost). The SovisVital system, in contrast, offers the possibility to “tap into” and manage further energy sources either immediately or down the road, thanks to its standardised connections. The system is thus “future-ready”. **You will always decide on the “right” energy source.**

Energy source



Gas condensing boiler



Can be combined flexibly



Oil condensing boiler



Can be expanded easily



Boiler/district heating



Solar thermal energy



Can be adapted modularly



Combined heat and power plant (BHKW)



Can be implemented immediately with low investment



Wood pellets/woodchips



The system



Stratified buffer tank as a heat manager



SolvisVital: The heat manager for the highest efficiency, flexibility and hygiene.

With SolvisVital, you are investing in a complete system for heating and for supplying fresh hot water with the highest energy efficiency. The modular system is as compact as it is flexible, and it is especially suited for the modernisation of residences, hotels, sport facilities, business establishments or even for installation in new buildings.

An intelligent system controller helps to avoid incompatible interfaces, preventing expensive investment mistakes. All modules come fully assembled and are guaranteed to install reliably and be easily expandable, regardless of the energy

source you might choose today or in the future.

SolvisVital is a system with preassembled complete stations and the highest efficiency of solar energy use.

The SolvisVital system is the reliable, flexible and sustainable solution in the face of increasing energy prices and hygiene requirements. And it has already been successfully employed in hundred of buildings for many years.

SolvisVital

Consumer energy needs

Fresh water station
with system controller



Operation
monitoring



Drinking water
heating



Circulation
requirements



Room heating



Apartment
stations
for heating and
hot water



Local heat
network



Fresh hot water at all times

**The right amount of fresh water
at all times**

Environmentally friendly and hygienic

Cost-efficient implementation

Your starting point for an efficient heating system – modern drinking water heating.

Everyone loves a hot shower. This is a basic need, regardless of how well the building is insulated. The modernisation of the building begins as early as the decision of how to heat the drinking water.

The old storage tank contains a large amount of drinking water that can be used up either quickly or slowly – sometimes as long as a few days. The SolvisVital system is different: the **patented** stratified buffer tank contains enough hot water in its upper layer to allow for a hot shower at any time. The water in the lower layer cools down – and for good reason: this cold water is used for, among other things, cooling the exhaust from the condensing boiler. The heat stays in the system and does not escape through the flue. The result is that the **efficiency** of your heating system is immediately increased when you heat the water with SolvisVital.

Step 2: Integration of the room heating

Step 3:

Expansion – for example with solar energy

Step 1: Replacement of drinking water heating system

After returning from a holiday, do you shower using the water that has been sitting in the storage tank? **“Water must always be flowing.”** This dictum of hygienists is the law here at Solvis. SolvisVital guarantees the highest hygiene standards, and gives Legionella no chance to grow.



Water, that most basic of staples, is always fresh with SolvisVital.

But the heat manager can do much more ...

After the first step of modernising the drinking water heating system comes the next step on the road to cost savings: **integrating the room heating**.

The stratified buffer tank controls not only the hot water for the shower, it also controls the temperatures to ensure comfortable room heating. The boiler can run for a long period and fills the storage tank. This is efficient, because there are few starts and stops. This also protects the boiler, since it is always operating in its “comfort zone”.

Whenever you open the thermostat valve in a room, the heat manager fulfils this temperature change immediately. However, the boiler does not need to start up. Only when the temperature in the buffer is too low does the boiler switch on – **and when it does, it runs efficiently and for a long period**.

Step 3:

**Expansion –
for example with
solar energy**

Step 2:

**Integration of
the room heating**

The temperature characteristics make it clear: heat is only transferred into places where it is needed.

Cold water increases the efficiency of the auxiliary heating.

Step 1:

**Replacement of
drinking water
heating system**



... and it is always up-to-date.

You decide when to adapt your heating system to changing conditions. SolvisVital is up to the challenge!

For example, if a solar system is being installed, the rents must be raised in order to pay for the investment in modernisation. Or does the free solar energy first come into play when the roof needs to be replaced in a few years? It can also be beneficial to switch from oil to pellets. Or to the production and sale of heat and electricity – whatever your plan, SolvisVital is thinking with you and helps you **pursue your strategy**.

Step 2:

Integration of
the room heating

Step 1:

Replacement of
drinking water
heating system

Step 3:

Expansion –
for example with
solar energy

Using solar thermal energy helps to significantly reduce the burden on the boiler in the summer.



You select the optimal form of energy – we do the rest.

Solar
thermal
energy

Combined
heat and
power plant

Wood
pellets

We call it the “coordinated approach”.

What does that entail? Simply the basic idea that significant savings can be achieved using project planning that is tailored and tuned to the specific building in addition to coordinated installation and control during operation.

Preparation

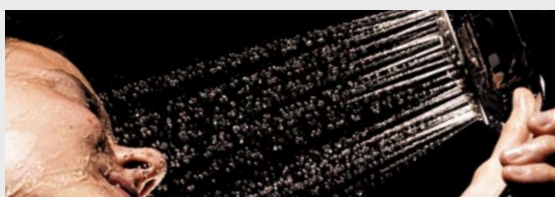
Upstream services – for example initial analysis using SolvisPrelog

Using SolvisPrelog to identify the building-specific requirements for room heat, hot water circulation and hot water delivery.

The detailed initial analysis that the installation technician performs using the SolvisPrelog data logger quickly and easily provides you with a detailed evaluation of all the important data relating to your drinking water heating system:

- Daily delivery volume: important for accurate design of a solar system, for instance
- Maximum delivery within 10 minutes: designing the standby volume
- Maximum delivery displayed per second: dimensioning the direct heating of the hot water
- Record of the circulation load with peaks and curves: optimising the distribution

With **SolvisPrelog**, you receive highly reliable planning before you make any investments. The result is both significantly better hygiene in the system and investment savings of up to 40%.



Planning

Integral planning with a strategic development plan for the building

Your building is a system that requires constant adjustments. You can control this process with the right strategy and expert advice.

The changes arise as a result of:

- Price changes, especially with energy providers
- Changes to laws and other specifications
- Altered user behaviour
- Technical innovations

Modernising the system is most often technically faster, more economical and with fewer interruptions for the tenant than other measures.

SolvisVital can be adapted at any time.



Our customers simply call it “sustainable”.

Solvis follows the holistic approach to sustainability. As a result, energy use is decreased, renewable resources are employed and less water is consumed.

Installation

Comprehensively prepared installation with advance clarification of interfaces

Our trade partner realises the system concept that has been planned quickly and reliably using pre-assembled standard modules.

SolvisVital is ahead of the rest because of the following features:

- One system – many applications
- Proven standard modules can be reliably combined
- Retrofitting has been considered in the system concept
- Expert training increases quality and reliability
- The skill level of our installation partner increases constantly
- Safe and reliable handover after assembly is completed



Reliability

Downstream services such as system optimisation via monitoring

An accurate and transparent diagnosis of the operating characteristics improves the reliability of the system and helps to reduce costs even further.

- Are all pumps running exactly as they should?
- Are all sensors displaying the correct temperatures?
- Is the amount of available heat optimised to demand?
- What happens when user behaviour changes?
- Does the system report difficulties automatically?

Our well-trained installation partners use their expertise to answer all of these questions. They know your system like the back of their hand so that you can rest easily.

All systems go! Your Solvis technician ensures that your system stays reliable.



**Significantly reduced
operating costs**

**Increased return
on investment**

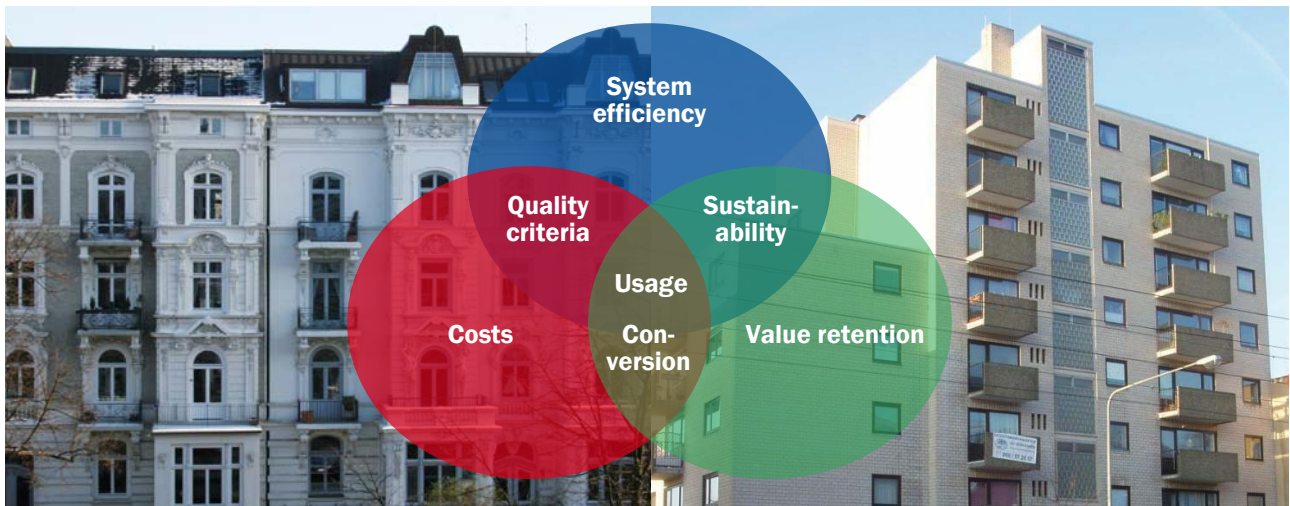
Improved rentability

**Your building's
value increases**

**Flexible,
expandable
system concept**

The figures speak for themselves: increase the return on investment from your building through SolvisVital.

Who doesn't want to reduce running costs? But how? Until now, everyone concentrated too heavily on the technical details. We at Solvis choose a different path. For us, the economical approach is always decisive. Our goal is to make investments in ecological solutions successful for the medium and long-term.



Whether or not your investment is successful depends on many factors. We evaluate them all.

You have decided to replace the hot water heating and the heating system in your multi-family home. Maybe the boiler needs to be replaced, maybe the hygiene of the hot water demands **your initiative**.

And you are prepared to do more than just replace the existing system with a newer model. But the investments must remain manageable for you. We will show you the right technical solution and how to get there.

If you own your own home, you benefit directly from lowered operating costs.

If you rent out your flat or your property,

the cost savings in heating benefit your tenants while you have to initially bear the costs of the modernisation. However, the success of your rentals is increasingly determined by the tenants' expectations for future-oriented living concepts with affordable, environmentally friendly and efficient heat supply.

The clever combination of a conventional supply system with renewable energies, for instance a gas condensing boiler system with solar thermal energy or power-heat coupling, provides you with **financially attractive options** for financing and refinancing your expen-

ditures. And within an attractive timeframe.

We at Solvis have developed a project plan to accompany you from the very beginning and answer your questions about usage analysis, planning, installation and system monitoring.

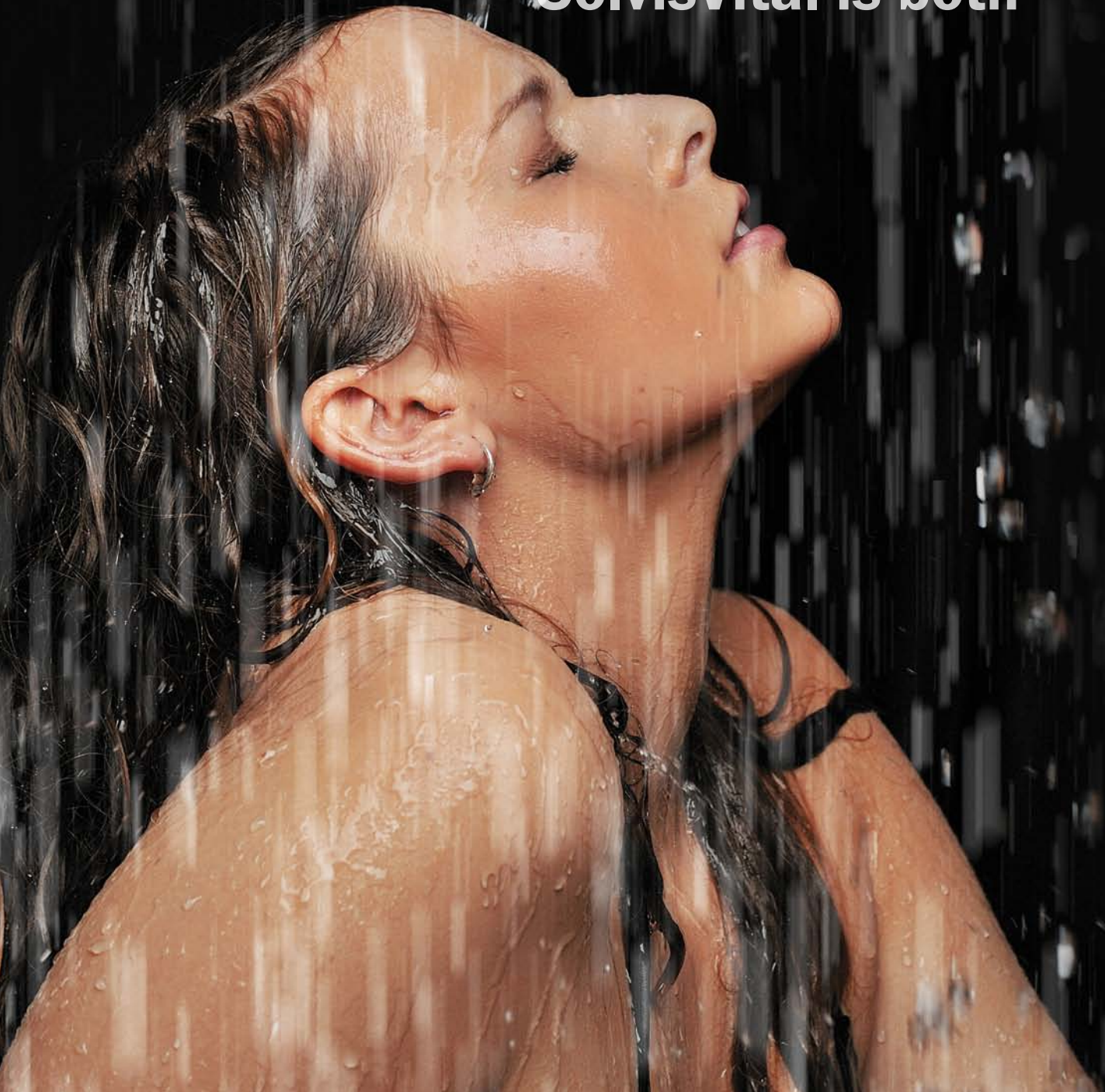
SolvisVital provides you with a **future-oriented system**, hygienic fresh water, high energy efficiency and thus significant cost savings. We call this **optimised profitability**.

Contact us. We have a concept that is just right for you.

Water is life

The sun is the energy for life

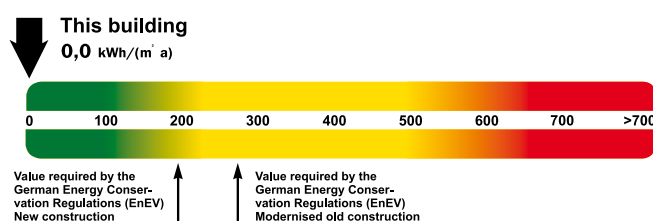
SolvisVital is both



We're making the future.

With heating systems from Europe's largest zero-emission factory.

Solvis. The zero-emission factory. That means that all departments and production processes have zero negative impact on the environment. An international jury under the chairmanship of the Club of Rome recognised Solvis as an “outstanding example of an environmentally conscious industrial company”.



Solvis is one of the most innovative companies in the industry. At the beginning of the 80s, after the oil crisis had passed and the anti-nuclear-power movement was extremely active, a motivated team of experts with an unmistakable drive for perfection came together – not to improve the world, but rather to “harness the sun”.

In 1988, production began on the first

thermal collector panels with a unique coating and significantly higher performance. After that, one innovation followed another, and the patents stacked up. Solvis products became the champions of energy efficiency and brought home one environmental award after the other. And with the development of SolvisMax, we have now made another quantum leap into the future of heating

technology. With SolvisVital, we offer the most flexible and energy-efficient modular system for large systems, independent of the type of energy source. A solution for multi-family homes which is as economical as it is future-oriented, whether for retrofitting or for new construction.

Clear as pure water: your benefits at a glance.

1. Significant reduction of operating costs for room heating and hot water
2. Flexibility in retrofitting, combining and changes in usage
3. Increased return on investment for your property
4. Increased hygiene in the drinking water heating system
5. Simplicity and transparency during planning, assembly and operation
6. Many options, even in the basic version; openness in the future
7. Amortisation generally after only a few years

Your advisor for intelligent system solutions:



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