

A person is standing in a shallow, rocky river. They are holding a bottle of beer in their right hand, pouring it into two glasses held in their left hand. The glasses are placed on a rock in the water. The background shows a mountain range under a clear blue sky.

SIEMENS

Create sustainable value

More success from sustainable production processes

Food & Beverage

siemens.com/food-beverage

Create sustainable value





Acting responsibly on a sustainable basis

The global shortage and the rising cost of raw materials, water, power, stringent legislation, and ever higher consumer demands are restricting the economic leeway for you as a food and beverage manufacturer. This makes your tasks much more complex.

Your manufacturing processes represent one way of counteracting these trends because they offer numerous approaches for shaping a more successful future for your company.



Save 30% in energy

With climate change and ecological responsibility on the one hand and the rising cost of energy on the other, is no wonder that energy efficiency is a top priority in an energy-intensive industry like yours. With Siemens comprehensive energy efficiency and environmental portfolio, we can help you cut your energy consumption by 30% or more – depending on your specific plant conditions – and minimize your CO₂ footprint at the same time.

Starting with your own energy supply, we support you with eco-friendly systems that use combined heat and power or renewable energies, such as wind and solar. Or you rely on energy generation through biomass from, for example, brewer grains, a typical by-product in breweries, then we also have a range of products for you.

We follow this up not only with innovative technologies for low-loss power transmission but also with solutions for integrated power distribution, enabling you to tap considerable potential savings in industrial and commercial buildings. Then, intelligent hardware and software tools for efficient local energy management ensure better transparency of your energy flows. For if you know where and when energy is flowing, you can also manage it with a sharper focus and greater efficiency.

Apropos efficiency, most of the energy in industries is consumed by outdated motors and drives. Depending on the industry, they account for up to 70% of the total energy demand. Needless to say, enormous potential savings are lying untapped here because today's energy-efficient drive systems consume considerably less power.

Why not ask us how you can optimize your energy requirement? Our team will be glad to show you a whole range of products, systems and services for a sustainably efficient production process.

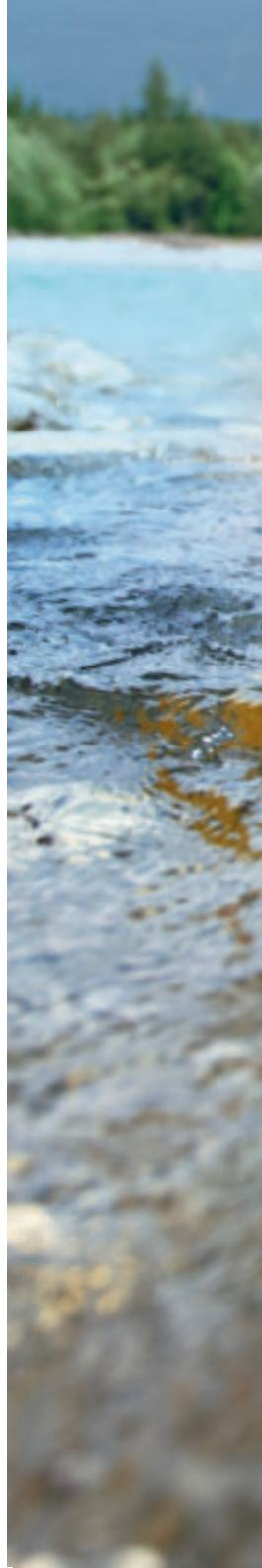
Reuse up to 100% of your wastewater

After energy, water is one of the most important resources for your industry. In many regions, water is running short and local authorities may be limiting your water availability. This includes legislation getting more stringent. So, with water playing an increasing role in the sustainability of your operations, it's time to think about some alternatives. Such as using one of Siemens water recovery solutions, which may enable you to reuse up to 100% of your treated wastewater for process water or utility water.

The manufacturing of food and beverages products requires a great deal of water, both, in production and in the auxiliary processes. A complete evaluation of the different wastewater streams of a production site forms the basis for intelligent and sustainable water and energy management – and is therefore crucial for the cost-effectiveness, competitiveness, and sustainability of your company.

In addition to our complete water treatment systems which boast impressive recovery rates of up to 100%, Siemens offers you an entire range of solutions for energy-efficient water preparation and treatment.

Process sequences are critical to your operations. This is where our systems particularly excel, because they can be integrated seamlessly into the process automation system. The result: resource-conserving and cost-efficient production.





Launch a recall action in less than 1 hour

Nobody ever wants to resort to a recall action, but emergencies do happen. Then it's a matter of responding swiftly.

The closer the links between the production, production planning and corporate management levels, the better.

Totally Integrated Automation and our tailor-made Manufacturing Execution System provide that degree of optimum networking and ensure a swift response to quality defects in less than 1 hour.

One decisive factor for fast and precise tracking and tracing is the optimum interconnection of process controls and business systems. Permanently integrated into Totally Integrated Automation, our range for universal automation, our Manufacturing Execution System (MES) affords access to all process information in real time. All process and packaging-relevant data are recorded on a product-specific basis. The result: perfect synchronization of the processes throughout the entire production lifecycle, more efficient control of the material flows, and quicker identification of faults or quality defects. In order to identify goods in your warehouse or along the entire supply chain, we also offer you reliable systems that are based on innovative identification technology and likewise ensure seamless integration into our MES system.

Besides efficient product identification, our range of products also help you maintain the constant quality of your products in many other key areas on a long-term basis – whether it's at one location or at a number of distributed plants. Consequently, our industry-specific products and systems take over not only the monitoring of all quality-related parameters in the laboratory, but also the careful control of the production process. Whether you're looking for a reliable laboratory information system, intelligent process control, or accurate process instrumentation, our comprehensive offering will give you perfect quality from the very start.

Boost productivity
by 30%



A constant stream of new consumer demands and consumption trends go hand in hand with rising costs. As a food and beverage producer, you want to operate in the market cost-efficiently over the long term. This calls for a balancing act between diversification and profitability. It's a tough challenge, but we can offer you active support. With solutions that will make your production more flexible, cut your TCO and – depending on your specific plant conditions – boost your productivity by 30%.

A fully integrated automated production process is crucial for a sustainable increase in productivity. Totally Integrated Automation also allows us to offer you a unique and universal range of automation products for all production steps – from incoming materials to outgoing products and from production up to the ERP level. The result: optimum process integration, significantly less time and money spent on operation and maintenance and repair.

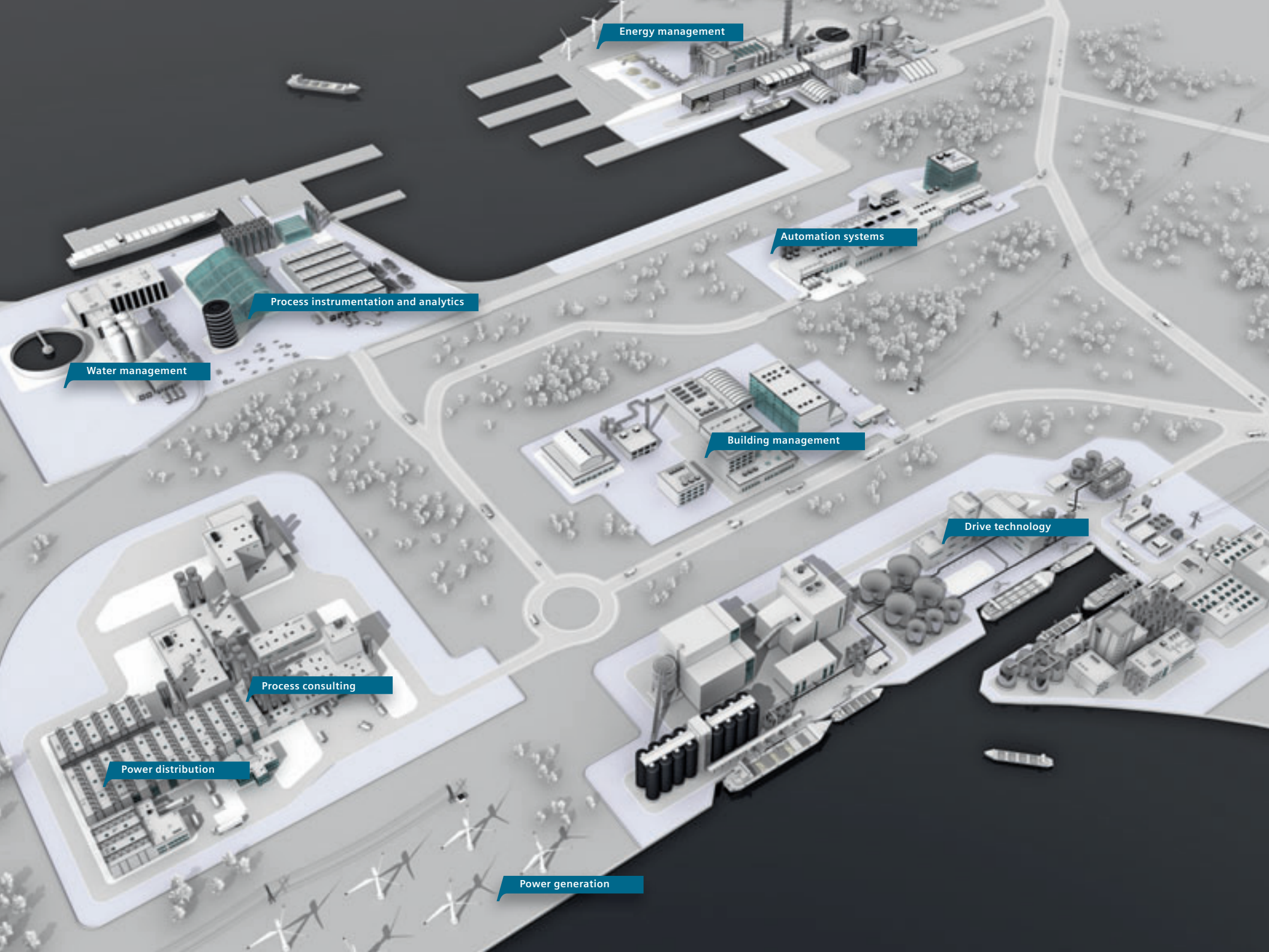
Integrated automation also supports you in the diversification of your portfolio. In outdated plants, the expense of modifying recipes is often extremely high. With our batch system for production automation, product changes can be implemented considerably more quickly and easily – at the touch of a button, so to speak. If a recipe is changed, the whole automation environment sets itself automatically to the new parameters. This is unique and currently not available anywhere else in the market.

We also offer you support for making quick changes in the filling and packaging areas. Integrated, electrical machine concepts used in conjunction with standardized software modules enable quick and easy changeover of machines and plants to new products and formats.

Further increases in productivity can be achieved with the aid of our industry-specific Product Lifecycle Management software, which you can use to speed up product launches and minimize costs over the entire lifecycle.

In short, our range of products offers a wide range of answers to the tremendous challenges in your sector and can help you ensure sustainable added value in your business.





Energy management

Automation systems

Process instrumentation and analytics

Water management

Building management

Drive technology

Process consulting

Power distribution

Power generation

Sustainability at a glance

Our portfolio for the food and beverage industry is more extensive than any other on the market. With industry-specific products, systems, and services, we cover virtually every field of business and the complete production cycle. The following pages give you an overview of the services that we would be happy to discuss with you in detail.

Our portfolio

Process consulting

When developing flexible and future-oriented process concepts, we support you with an interdisciplinary team of food technologists, chemists, process technicians, and engineers. We work together to develop solutions that enable you, for example, to reduce your intracompany logistics costs or execute new projects faster. With a water and energy audit, we additionally advise you on the design of all the energy sources in your company, thereby gaining a key competitive advantage and long-term economic success.

Power generation

We offer you solutions for an environmentally friendly and efficient power supply. These start with combined heat and power plants, which currently represent the most efficient method of converting fuel into usable energy. They include wind, solar, and biogas plants and, a wide range of applications using high-efficiency gas and steam turbines, as well as biomass plants that generate energy from wastes, such as brewer grains. So invest in the future now and save money at the same time – every single day.

Power distribution

With Totally Integrated Power™, we can provide you with an ideally coordinated and complete portfolio for integrated power distribution in industrial and commercial buildings – from tools for planning and configuration to the appropriate technology, from medium-voltage switchgear right up to the socket outlet. Thanks to uniform communication standards, our products and systems can be linked to the building automation or industrial automation system. The result: considerable potential for savings all the way from the planning stage to plant operation.

Energy management

With a unique, wide range of automation, communication and drive technology, Siemens is in the position to provide optimum support for all phases of operational energy management – from the bay level to the management level. For this purpose, we divide the process into three phases. Using intelligent hardware and software, we identify energy flows and hidden potential for making savings. We then evaluate this for specific applications and show you the effect of investment on the lifecycle costs in order then, in the third stage, to implement concrete measures that help you to get the benefits from the existing potential.



Water management

Siemens Water Technologies has the right options to meet a wide range of your water quality needs. Whether feed water, process water, wastewater or water conservation, we understand the critical role water plays in your manufacturing processes and how it impacts your business. Your business demands a system which is reliable and dependable. Count on Siemens to be your trusted partner for your water solutions.

Automation systems

Our automation technology contributes decisively to the continuous optimization of your company-wide processes. At the heart of our portfolio is Totally Integrated Automation, the unique, integrated range of products and systems for automation that offers you everything for a reliable, flexible and economic production process: systems for automation, operator control and monitoring or identification, industrial communication and switching, MES and process control systems, PLM software or sensor systems. We can offer you the right solution for every process step.

Drive technology

As the world's leading supplier of drive technology, Siemens has a comprehensive portfolio of reliable and innovative drive systems ranging from highly efficient motors and frequency converters to gear units and couplings. This range is supplemented by powerful motor management systems, motor starters and helpful software tools, such as for the application-specific calculation of the overall savings and the amortization period of energy-efficient motors and converters. Our integrated automation systems also enable motion control solutions to be implemented.

Building management

Our integrated building solutions give you a significant advantage in terms of efficiency – from the high-tech clean room to the office. Whatever your application – heating, ventilation and air-conditioning, access control, video surveillance, intruder and fire alarms, extinguishing systems, or the central control of all facilities – Siemens offers you networked solutions for reliable building management that meet all validation requirements and cut your costs on a long-term basis.

Process instrumentation and analytics

Process instrumentation is an effective lever for increasing the efficiency of processing plants and improving their product quality. In this respect, Siemens' comprehensive portfolio is unique all over the world. It extends from top-class transmitters for the most diverse applications – whether for pressure, temperature, flow or level – to intelligent electropneumatic positioners for linear and rotary actuators, process controllers, process recorders, as well as weighing systems.

Product Lifecycle Management

Product Lifecycle Management (PLM) enables the continuous support of product development processes and production planning, with the focus on product data management along the whole product lifecycle, Computer-Aided Design (CAD), Computer-Aided Manufacturing (CAM) and the planning and optimization of manufacturing processes.



A photograph of an industrial facility featuring three large, vertical stainless steel storage tanks. The tanks are interconnected by a complex network of pipes, valves, and walkways. A worker in a white uniform and orange safety gear is visible near the middle tank, providing a sense of scale. The scene is set indoors under a high ceiling with industrial lighting.

Leverage your competitive capability

In order to improve your competitive capability, you can apply any one of a number of levers, or all of them at once – with our comprehensive portfolio.

Productivity

To boost your productivity along the entire supply chain, we help you minimize downtimes.

Efficiency

To ensure maximum efficiency in every phase of the production lifecycle, we supply you with integrated hardware and software solutions based on established standards.

Flexibility

To increase flexibility and reduce complexity in your production process, we offer you innovative and cost-effective solutions.



Worldwide service

In order to stay competitive in global markets, you have to optimize the productivity and economy of your technical plants on a permanent basis. To this end, you need flexible, reliable and competent partners who can offer support or coordinated solutions – at every stage of plant development.

As the world's largest provider of technical services, Siemens can keep your plant top fit – over the entire lifecycle from planning and implementation to modernization and maintenance during the operating phase. We offer an integrated range of customized services for every aspect of service and support that your plant needs.

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