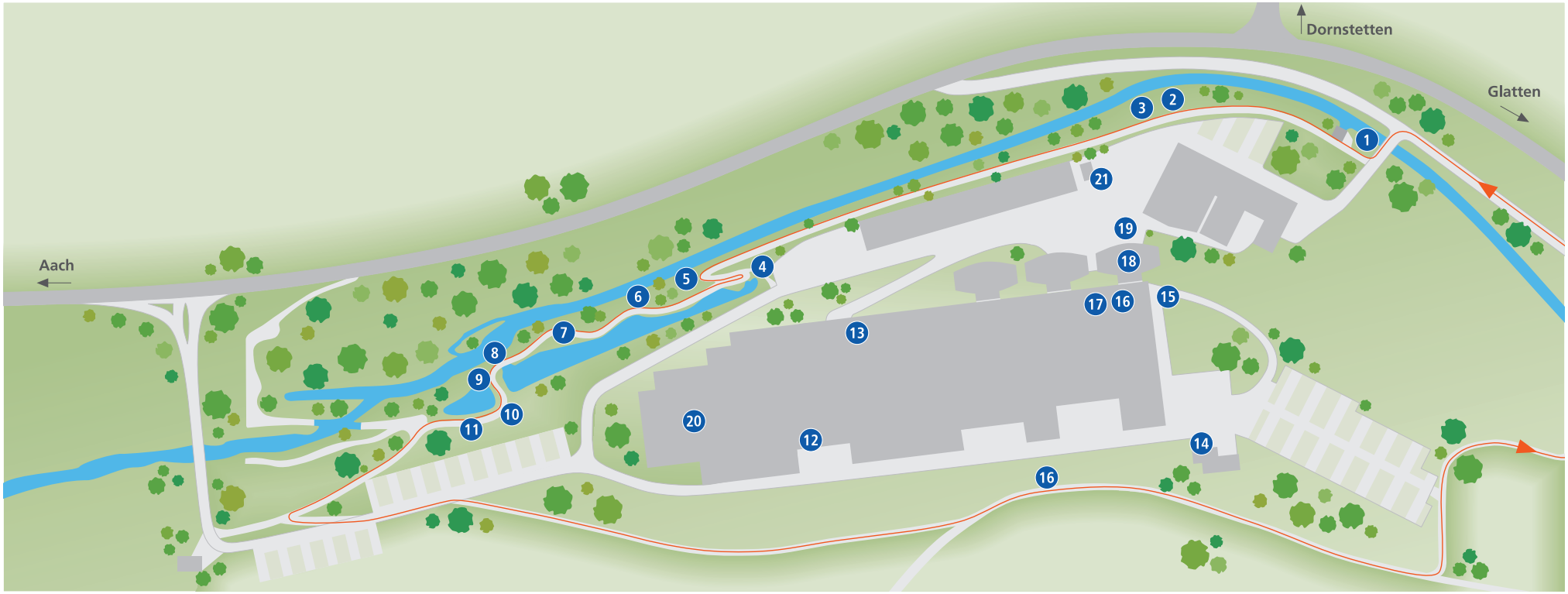
Schmalz Ökolehrpfad

The principle of economic, social and ecological sustainability is an essential part of Schmalz's corporate philosophy. The customer-oriented product and service concept and the realization of social responsibility are in harmony with the commitment to an intact environment. By using renewable energies, raising awareness for a responsible approach to nature and developing environmentally compatible products, environmental protection is actively practiced at Schmalz.

The eco-trail gives the interested public an insight into the variety of possibilities. At the same time it offers employees the opportunity for local recreation.



Publicly accessible path

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1 Hydroelectric power plant

Water power was first mentioned at the Glatten site in 1851. Johannes Schmalz, founder of J. Schmalz GmbH, used it from 1910 to drive the machines at the site. Since the 1920s, it has been used to generate electricity. The electricity generated is consumed by the company itself.

2 Flora I

IIn the vegetation along the Glatt, lush high herbaceous vegetation develops through restrained management. It is a paradise for insects and is characterized by the strongly fragrant meadowsweet and butterbur.

3 Fauna I

Nesting aids for swifts and house martins preserve the population of bird species. In addition, red-backed shrike, wren and kingfisher are native here. With a little luck, stoats can be found in the area as well.

4 Air and climate

Hydropower and other renewable energies sustainably reduce the emission of pollution into the air.

5 Flora II

Purple loosestrife, yellow iris, marsh marigolds and sedge species enliven the edges of the hydropower pond. These plants were deliberately reintroduced here into the floodplain.

6 Fauna II

The wetland is a suitable biotope for birds, rare butterfly species and bats. Migratory birds use this area as a resting place. A passage allows fish to pass through the river.

7 Landscape

River valleys and floodplains are among the most attractive and aesthetic habitats. Their charm lies in the dynamics and the creative power of water, which always brings new aspects to the landscape.

8 Culture

Dry stone walls enliven and shape the landscape. They bear witness to human labor and cultivation. For this reason, a dry stone wall was restored along the river.

9 Water

Specific measures have been implemented to prevent flooding caused by the sealing of land in the valley:

- Rainwater retention basins
- Rainwater usage
- Roof greening
- Water permeable parking lot pavement

10 People and recreation

The recreational function of a landscape includes not only aesthetics and diversity, but also direct encounters. A wooden footbridge, benches and pathways through willow tunnels enable the visitor to do this.

11 Soil

Due to cultivation and building construction in the valley, the originally moist to wet sites have been drained. Therefore, sites with their typical plants have been re-established. Likewise, a semi-arid grassland is being created on the southern slope.

12 Recyclables

Recyclables are separated into over 15 categories, which greatly facilitates disposal. Strict waste separation leads to recycling rates of up to 99%.

13 Heat utilization

The heat from the outgoing hall air is transferred to the incoming air. This reduces energy generation, conserves valuable resources and avoids costs.

14 Woodchip heating system

The wood chip heating system is operated with shredded wood and provides heating for the buildings as well as hot water. The wood chips are obtained from wood residues from forest maintenance. The wood chip heating system also makes Schmalz independent of oil imports.

15 Wind power

Power generation by wind turbines is an important cornerstone in Germany. The J. Schmalz GmbH operates one plant each in Glatten and Dunningen. The electricity generated is fed into the public grid.

16 Solar power

Numerous photovoltaic and two solar thermal systems are installed on the roofs of the company buildings. In Empfingen, Schmalz operates a large free-standing PV system.

17 Energy efficiency

The efficient use of energy is one of the most important topics at Schmalz. High insulation standards for buildings, low-temperature heating, optimized building control technology, avoidance of standby effects and many other measures drastically reduce energy requirements. Energy efficiency is also taken into account when selecting machines and computers.

18 Products

When developing new products, the focus is on the interplay between technical progress, quality, and environmental protection and resource conservation. Schmalz develops products with a long service life and low energy requirements in mind. The goal is to minimize both operating costs and environmental impact through reduced energy use.

19 General measures

Further measures:

- Daylight-dependent lighting
- Paper savings through electronic archiving
- Continued education on environmental topics
- Beverages from regional producers
- Above-average thermal insulation standard for new buildings
- Cooling by water from the Glatt river.

Schmalz is looking for further potential to initiate additional measures.

20 Geothermal energy

Schmalz utilizes the near-surface geothermal energy through 18 probes that reach 100 m deep into the ground. In summer, parts of the office and assembly areas, the server room and the injection molding machines are cooled with the energy generated. In winter, the geothermal energy supports the company's own wood chip plant in the low-temperature range.

21 Energy storage

The company's own energy storage facility serves as a test platform for the redox flow battery stacks developed and produced by Schmalz as well as a demonstration facility for customer presentations. The plant has 50 kW power and 150 kWh capacity.