



SUSTAINABLE THINKING IN VET: the case of Škofja Loka

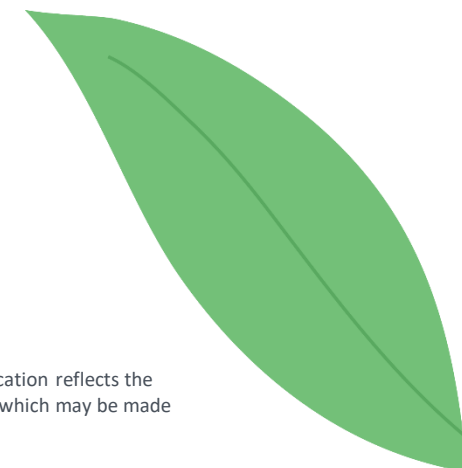
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Objectives



- *In the area of sustainable development, we want to raise awareness for students and employees.*
- *With examples of good practices, we want everyone to think about how personal objectives in a sustainable way.*
- *In the area of sustainable development, we want to strengthen cooperation between SC Škofja Loka, the local community and the business sector.*



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Tasks

- In 2013, we built a new energy efficient business-to-business education centre.
- This was followed by the energy rehabilitation of the older buildings SC Škofja Loka.
- Examples of projects carried out in the field of mechanical engineering and wood works.
- Plans for the future.



Short presentation SC Škofja Loka

- **Vision and goal of the school centre**

„ We strengthen entrepreneurship and innovation and follow new developments and needs in the economy and the labor market.

" Our goal is to keep pace with the needs of the economy and its development by working together, creating a sustainable, circular and economical and environmentally friendly.,,

SC Škofja Loka has 4 organizational units:

- Secondary School of Mechanical Engineering (755 students)
- Secondary School of Woodworking (284 students)
- College of Mechanical Engineering and Wood (300 students)
- Inter-business education centre (MIC) (school-industry cooperation)



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What have we done in recent years in the area of sustainable development?

- With the construction and, in 2013, the opening of a new Business-Business Training Centre, the VET school SC Škofja Loka have set the basis for sustainable development according to modern energy standards, which include:
 - **new technologies (advanced CNC didactic solutions), new machines, tools, installations and effective building insulation;**
 - **heating system implemented with heat pumps;**
 - **installation of smart lights and weather-controlled blinds;**
 - **apply smart monitoring systems, such as digitalized and energy saving systems;**
 - **use of rainwater (e.g. for toilets).**



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What have we done in recent years in the area of sustainable development?

In 2013 we carried out a comprehensive energy renovation of all 5 buildings of SC Škofja Loka



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What have we done in recent years in the area of sustainable development?

- in 2018/2019 we established a learning production laboratory (UIL)
- we have established a charging station for electric vehicles in the SC area
- we focused on digitalization as a tool for industry 4.0 and for increasing the energy and material efficiency of processes
- we carried out the renovation and upgrading of the central management station in 2021/2022 for optimize the heating system



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How is the effectiveness of the measures implemented showing?

- more than 50% energy savings for heating SCŠL;
- 15% saving in electricity compared to the starting point;
- significantly greater living comfort;
- systems and devices are also included in the learning processes of SC Škofja Loka and BBTC;
- incentive for further steps towards digitalization and upgrading of existing solutions;
- strengthening the focus on green, circular and sustainable in all segments of the SCŠL's operations.



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Projects implemented or still being implemented at SC Škofja Loka level and supporting sustainable development

Convert smart vehicle into battery vehicle (2013)



Electric scooter (2015)



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Projects implemented or still being implemented at SC Škofja Loka level and supporting sustainable development

Electric wheelchair processing (2020)



Electric wheelchair processing (2020)



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Projects implemented or still being implemented at SC Skofja Loka level and supporting sustainable development

**Sustainable pressurized paint
can (2020) - RECOLOR**

<https://www.youtube.com/watch?v=GcbAwdvM8h8&t=17s>

**Replica of petrol and electric-powered racing
go-go-car (2023)**



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Project (PCVIZ) - "Climate objectives and content in education"

- SC Škofja Loka, Secondary School of Mechanical Engineering and CPI (Institute for Vocational Education)
- The working group at the school consists of 5 teachers who teach professional-theoretical subjects, general-educational subjects and practical instruction.
- We joined the project because we want to promote collaborative learning in the group, teaching, where there is a student at the centre, project learning, challenge learning and learning in nature.
- We have prepared an action plan for the school to ensure that the school is aligned with the circular economy (measures in various areas: waste, paper, transport, water...).

Project (PCVIZ) - "Climate objectives and content in education"

Members have set out the following tasks:

- to regulate and improve the waste separation system;
- to arrange a place for the disposal of hazardous waste, e.g. oil filters, motor oils, waste washes, etc.;
- to connect with the economy (Ekol) and the local community Škofja Loka);
- we will procure suitcases for water analysis (we want to obtain a certificate of tap water to get students and employees to drink tap water),
- students will be encouraged to prepare e.g. a seminar paper, a business model, a final task, a product that will include the reuse of materials in mechanical engineering and in general;



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Project (PCVIZ) - "Climate objectives and content in education"

- we will participate in projects (JA Slovenia, EIT Raw Materials, Girls Go Circular);
- we will organize technical and open days at the school;
- in the instructions for the preparation of the final tasks, we added the point of sustainable development;
- we will encourage students and employees to use water and electricity savingly;
- we will take a lecture on waste separation, a visit to the treatment plant and a wastewater treatment operation;
- bed linen from the boarding school will be used for cleaning cloths in school workshops.

Project (PCVIZ) - "Climate objectives and content in education"

- in the past school year, we gave a lecture for students and a film on the topic of discarded food;
- for students we organized a tour of the travelling classroom E-transformer 2.0 and a change room of still working appliances at the school;
- for the final task, the students produced models of energy houses.



Project (PCVIZ) - "Climate objectives and content in education"



"Wood Phoenix"

- SC Škofja Loka, Secondary School for Woodworking and partners from local and regional environment



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Plans for the future

We want to become as carbon neutral as possible, so we will plan and introduce circularity at school and at home.

- As part of the PCVIZ project, we will follow the action plan and the objectives set, and at the end we will review and present the effects of the actions set.
- We will continue to participate in sustainable projects such as Enersol, e-mobility,....
- We're going to set up an outdoor classroom.
- We will establish an Educational and Development Centre for Automation, Robotics and digitalization and optimize water, electricity, space heating SC and ventilation of premises.
- We will continue to actively work with various interested companies and with social partners; cooperation will focus on a joint effort to reduce the carbon footprint.
- For students, we will be calling for final tasks that include a sustainable approach, environmentally friendly technologies, nature conservation.



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Plans for the future

The areas of content that have the greatest potential for sustainable development at SC are:

- energy, planning, digitalization and monitoring of energy consumption, drinking water, ventilation, heating...;
- woodworking and the use of waste as a source of energy;
- sustainable mobility in connecting the locations of SC Trata and Podlubnik for students and teachers; (bike, e-scooter, e-vehicle)
- awareness raising and activities for the consistent separation of waste on islands to separate waste;
- cooperation with social institutions such as nursing home, social services... assistance in repairing and reusing furniture, appliances...

You can read more about these projects at:

- Text format or link-www.scsl.si/projekti/
- <https://scsl.si/srednja-sola-za-strojninstvo/o-soli-sss>
- <http://www.lesnifeniks.si>
- Enersol | Škofja Loka School Centre (scsl.si) (projects on renewable sources of energy)

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