

The project SUKI is realised with the financial assistance of the Community Initiative INTERREG IVA of the European Regional Development Fund (ERDF). INTERREG supports the intensified cooperation among the regions of the European Union. The project contributes to the identification of the CO<sub>2</sub> emissions of the canteens, to the enhanced employment of regional and organic agricultural products and to an increased information exchange among the canteens and the organic agricultural producers in Austria and the Czech Republic.

## Project SUKI

### Options for Canteens to Reduce their CO<sub>2</sub> emissions (Measures, Framework and Limits) - Sustainable Kitchen

#### Why are production location and origin of food relevant?

While 1 kg tomatoes conventionally produced in in a greenhouse require ca. 3.1 kg CO<sub>2</sub> equivalents, the production of 1 kg organic tomatoes grown in the field requires ca. 0.17 kg CO<sub>2</sub> equivalents. This difference between the two production forms equals to the factor of 18 and results solely from the conventional production being performed in a greenhouse. In the event that the production takes place abroad, the transportation costs raise the emissions by their multiple. The different greenhouse potentials (e.g. methane has a 25x higher potential than CO<sub>2</sub>) are standardised and translated into CO<sub>2</sub> equivalents.

#### What do we know about our food?

Canteens prepare daily several thousand menus. We know exactly which ingredients we need to purchase for them.

But are we also aware of the resource consumption related to food preparation?

- How high is the energy input for the entire production process in the canteen?
- How much energy is consumed by the transportation of the ingredients from the field to the canteen?
- Which dish is characterised by the most massive ecological back-pack?

#### How are the CO<sub>2</sub> emissions identified?

Knowledge of the CO<sub>2</sub> emissions generated by our food production is gained by assessing the ingredients needed for its preparation, their origin, production form, transportation and storage all along their way from farming to the canteen.

Both the direct energy consumption in the canteen and the indirect energy consumption are considered,

which accumulate on the entire way of the ingredients needed for the food preparation in the canteen and during the food preparation itself.

This assessment reveals the energy consumption hidden in the single dishes, which is then recalculated as CO<sub>2</sub> equivalents.



Photo: Assembling the menu sets in a canteen

## Eco-balances of food

In parallel to the identification of the greenhouse potential (as CO<sub>2</sub> equivalents), an ecological assessment is performed by means of eco balances.

Eco balances enable the consideration of the overall environmental aspects of the assessed dishes. By drafting an eco balance



Photo: RMA

Photo: Freshly cooked organic vegetable balls

for a single dish, the environmental impacts of its individual ingredients are considered during their entire lifetime.

The latter includes: the resource extraction, the production, the transport, the consumption and the disposal of the ingredients and of the assessed dishes.

### What is the benefit?

The direct benefit the project SUKI delivers are the practical options suggested towards reducing the CO<sub>2</sub> emissions of canteens. By saving energy, the canteens render a valuable contribution to climate protection. Further, the project supports also the enhanced employment of regional and organic agricultural products. This secures the employment in the agriculture, and ideally, also the creation of new jobs in this sector.

#### Canteens mirror ...

- a mature choice of the agricultural products and of the menus
- high responsibility (particularly in kindergartens, schools, hospitals and nursing or old age homes)
- the value of nutrition and sustainable consumption.

The project offers a database as well as a think-and-reason basis to help canteens keep CO<sub>2</sub> emissions low by considering adequate purchase and selection of the ingredients and of the menus to prepare.

### Expected Results!

- Development of a catalogue offering short-, middle- and long-term measures towards CO<sub>2</sub> emission reduction. If investments are suggested the amortisation periods of these measures are calculated.
- Development of a strategy aiming at the implementation of the measures towards emission reduction in canteens.
- Information, sensitisation and motivation of the canteen staff regarding the energy consumption levels in each section of the canteens and focusing on the key energy consuming equipment.
- Comparison of the energy demand between fresh-food canteens and cook-&-chill canteens.
- Sensitisation of the canteen staff regarding the selection of the menus and the ingredients and regarding the direct impact of the latter on the CO<sub>2</sub> emissions, i.e. the ecological backpack of each dish.

**The project SUKI aims at identifying the total CO<sub>2</sub> emissions of canteens as well as at analysing the direct and indirect steering options available for canteens towards their CO<sub>2</sub> emission reduction. In addition to these options, also the practical limits of canteens to reduce their CO<sub>2</sub> emissions are shown.**

**The project also helps canteens support sustainable food production and increase the nutrition quality. The reasonable selection of the menus and the ingredients enables the canteens to make a significant step towards sustainable development and healthy nutrition, to contribute to the global CO<sub>2</sub> emission reduction and to support the local organic agricultural production.**

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