

## Carbon Footprint of Murau Beer

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#### Topic

Resources

#### Title of the Paper

[Carbon Footprint of Murau Beer](#)

#### Form of Presentation

Presentation

#### Short Description (maximum 2500 characters)

The Umweltbundesamt (Environment Agency Austria) has calculated the Carbon Footprint for the Obermurtal Brewing Co-operative in Murau on the basis of an international standard draft ISO 14067. This standard specifies that the life cycle of a product is calculated from the production of a raw material to the manufacture of the finished product. Apart from defining system boundaries, the ISO standard requires that the results of CFP calculations are documented and confirmed by an external auditor. The CFP of Murau beer has been calculated with the GEMIS model (= Global Emission Model for Integrated Systems). This model accounts for emissions from combustion, upstream process emissions and greenhouse gas emissions. It also takes into account Austria-specific structures and processes. (The Umweltbundesamt is an accredited inspection body for emission inventories. It has a validated database for emissions and emission factors at its disposal.) The calculation includes the supply of raw materials as well as their transport, plus the production, beer glass production, lorry deliveries and ambient heat and electricity supply for office and storage space. All energy and material inputs within the defined system boundaries have been included and multiplied by emission factors. Waste disposal and reuse are not considered in the present case. The CFP calculation shows that most of the emissions arise during production (55%), which is where most of the savings can be achieved. Here the analysis shows that by replacing fossil energy sources by renewable energy sources, the total product emissions can be further reduced. As regards delivery and transport (16%), savings could be achieved by restructuring the distribution system and logistics and using low-emission transport (train, alternative means of transport). The Umweltbundesamt has also calculated the CFP for the main Murau beer containers. With returnable bottles (0.305 kg/l), the amount of CO<sub>2</sub> emissions – and thus the CFP – was found to be only half of the amount calculated for non-returnable ones (0.671 kg/l). The comparatively large share of returnable Murau beer bottles (93%) in relation to non-returnables has a very positive influence on the total CFP of 0.309 kg/l. Among the packaging forms that were analysed, draught Murau beer has the lowest CFP (0.281 kg/l). These results support companies in making contributions to climate protection.