



SME POWER

Interreg Europe



European Union
European Regional
Development Fund

Heinola City
Partner

GP

**CARBON
FOOTPRINT
CALCULATION
Finland**

GP Description:

Carbon Footprint Calculation

- The **CARBON FOOTPRINT CALCULATION** is an effective approach and tool for a SME to steer and showcase its transition towards sustainable practices on the way to carbon-neutrality within its own business limits.
- Carbon footprint calculation provides factual and transparent insight on company performance at any given level.
- Carbon footprint can be calculated for products, services, and organisations.
 - Usually, it refers to footprint during the entire lifespan, but the term is also used to describe, for example, annual greenhouse gas emissions of the company
 - The footprint contains at least fossil greenhouse gas emissions (CO₂, CH₄ etc.) that are reported in the form of carbon dioxide equivalents.
- Calculation of carbon footprint enables to identify and analyse emissions and pinpoint possibilities for their reduction.
- It also enables solid basis for strategic decision-making and stakeholder communication.

GP Solution:

Tool for managing sustainable SME practices

Approach based on:

- life cycle assessment
- carbon footprint calculation

1

Definition of objectives and scope

2

Inventory analysis

3

Impact assessment

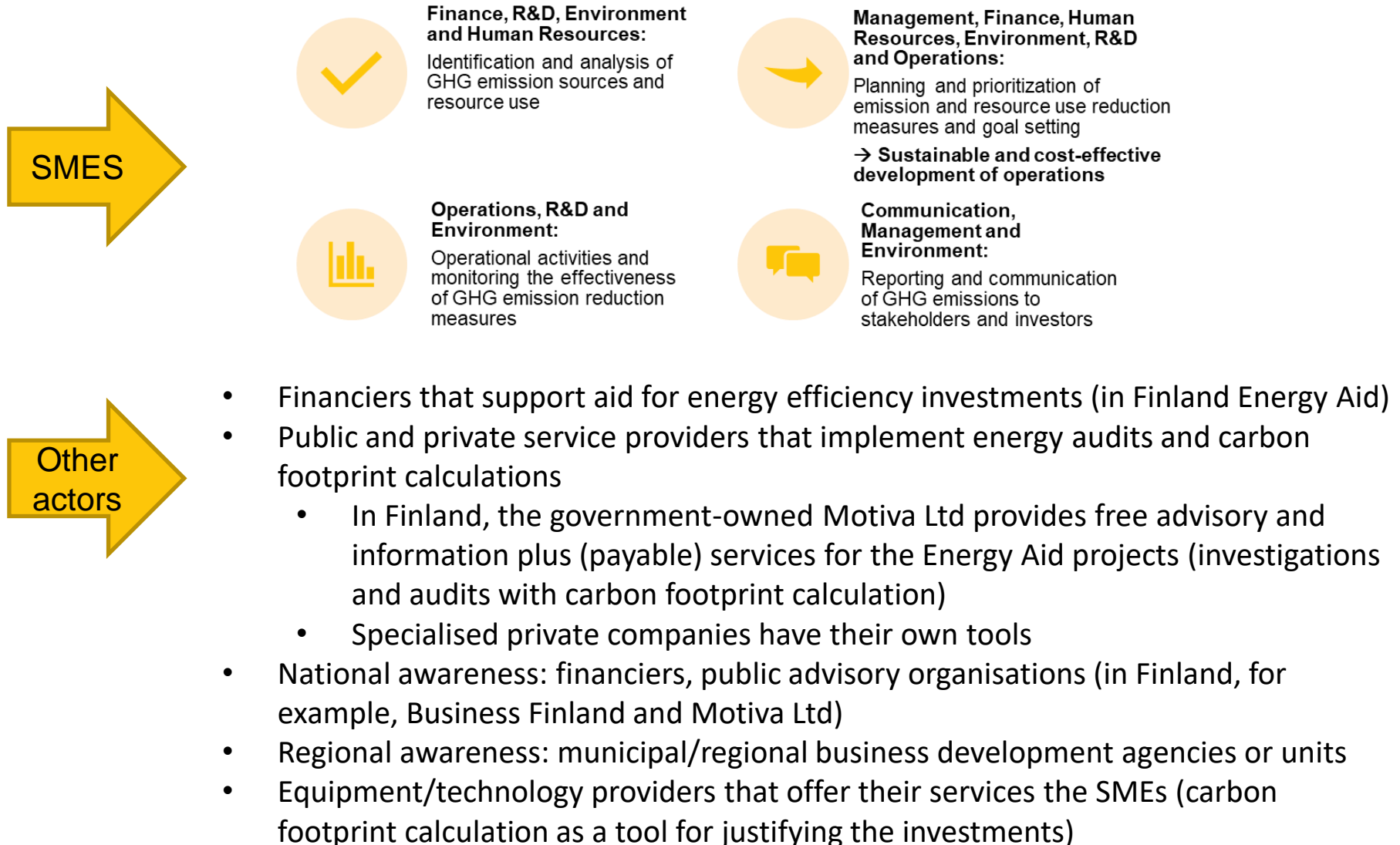
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Interpretation of results

Sustainable operation
Product and process design
Cost-efficiency
Strategic planning
Decision-making
Service production
Marketing
Energy and material efficiency

GP Actors involved:

Carbon Footprint Calculation



GP Description:

Carbon Footprint Calculation

4. What are the key challenges that were faced in the implementation of this GP?

- From awareness to adaptation: businesses are in average aware of energy efficiency questions, but there is still much to do in e.g. in construction processes as well as developing low carbon construction products.
- Sometimes implementation of the calculation comes as an obligatory requirement e.g. from certain certification processes, but in cases of voluntary adaptation it often depends on interest and know-how of the company management
- Systemacy and continuity of monitoring and measuring in companies

There is no patent solution – each organisation must find its organisation or process-specific solutions. The starting point is to map the baseline situation, and after that plan the steps forward. **GHG Protocol** is the most common method for determining the annual operational emissions of buildings and organisations.

It is extremely important to tie the carbon footprint calculation to planning processes at early stage.

GP Description:

Carbon Footprint Calculation

What elements of this GP could be transferred?

- Concrete approach and calculation tool for SMEs (or projects from application to implementation and reporting)
- Management tool that direct focus on energy and material efficiency, thus also cost efficiency
- Supporting tool for communication to shareholders and investors
- Several public (free) and private (payable) tools available (Excel/Web-based)
 - The basic calculation requires often some tailoring based on the company's profile and specific features
 - Examples of free basic tools (available in Finnish):
 - Excel-based calculator for enterprises
 - https://www.syke.fi/fi-FI/Tutkimus_kehittaminen/Kulutus_ja_tuotanto/Laskurit/YHiilari
 - Necessary source data: electricity and heat consumption, transport, waste management, business travel
 - Excel-based calculator for tourism businesses (currently under elaboration):
 - <https://www.xamk.fi/wp-content/uploads/2016/06/VAHIMAT-laskuri.xlsx>
 - Necessary source data: as above + food

GP Description:

Examples of carbon footprint calculation

- In 2019, **FCG** carried out the calculation of carbon footprint of its own operations according to GHG Protocol. The assessment covered the company's operations in Finland.
- The results formed a basis for target setting and focusing measures.
- The results were reported in the company's annual report 2019.
- Actors involved in the project:
 - Environmental manager
 - Local area managers
 - Company administration
 - Travel agency
 - IT department...
- One of the largest companies in the European recycling business, **Kuusakoski Oy**, wanted to calculate the carbon footprint of its Finnish operations.
- Motivation for the project: sustainability reporting, stakeholder communications and industrial process development.
- The project was realized in 2020 in co-operation of FCG and Kuusakoski
- The framework for the assessment were the GHG protocol guidelines for waste treatment companies, with case-specific adjustments.
- Strong company commitment was the key to successful project
- The developed systematic procedure will be further utilised by the company in years to come.





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Thank you!

Questions welcome



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