

Terms of Reference

Provision of Decision Support Tool design and development

Grant Agreement	Project Acronym	Project Title
862674	GO-GRASS	Grass-based circular business models for rural agri-food value chains

Contractor	Action
Greenovate! Europe EEIG Avenue Louise 231, 1050 Brussels	Provision of IT development, research, and design services for the online decision support tool for flexible integration of value chain components of the GO-GRASS project

Duration of the work	Max amount:
Estimated: 8 Months	45 000 EUR

I. Background

The GO-GRASS project (www.go-grass.eu) aims to create new business opportunities in rural areas based on grassland and green fodder and to support their replication throughout rural communities in the EU. This project has received funding from the European Union's **Horizon 2020 research and innovation programme** under grant agreement N°862674.

The project develops, deploys and validates a set of small-scale demonstration sites (DEMOs) of a circular integrated agro-food system in four EU regions (Denmark, Germany, Sweden and the Netherlands). The project is expected to develop technologies from the current Technology Readiness Level (between 5 and 6) to more advanced ones (8) successfully implemented under real conditions at the end of the project.

GO-GRASS is contributing to a range of circular and sustainable business models with

high replication potential that can be used by entrepreneurs, local authorities, and other stakeholders. It is demonstrating innovative cost-effective technologies, processes and tools applicable within the four DEMO scenarios:

- In the **Swedish** demo, Reed Canary Grass is shredded and pressed into briquettes – an innovative material for animal bedding which afterwards can easily be used as fertiliser, as well as for biogas or heat production.
- The **German** demo site converts low nutritional quality grass from the wetlands into biochar. By implementing a first complete processing line, the grass is transformed into biochar by pyrolysis.
- The **Dutch** demo site develops a process to extract fibres from roadside and nature grass to produce high-quality packaging and paper. Partners of the Dutch demo site optimise the technology of separating the liquid from the solid fraction. Also, they develop a cleaning system, which will separate unwanted components from the harvested grass.
- The demo site in Denmark manages a small green biorefinery for **extracting protein from grass**. The organic protein concentrate extracted can be fed to pigs and poultry to enrich their diet. Other product streams are a fibrous pulp, that can be used for ruminant feed or biomaterials as well as brown juice that can be used as fertiliser. The facility is working on the optimisation of **biorefining processes** to provide high yields and high purity of the protein product as well as quality co-products in the form of renewable bioenergy and recycled nutrients.

II. Objectives and tasks

The goal of the Online Decision Support Tool is to help diverse entrepreneurs to make more informed decisions about a business idea related to the processing of grass.

The tool will offer guidance by providing information about critical success factors and barriers, based on the four demonstration sites' scenarios and additional optimal scenarios for grassland valorisation.

The optimal scenarios can be defined as ways to improve the current value chains developed by the four DEMOS - by combining different components from each demo and using the value chains side streams.

The “core value chains” (meaning the four DEMOS) are four of the possible optimal

scenarios. GO-GRASS is assessing more scenarios that are mixing the value chains components.

The users of the tool will be “rural entrepreneurs” such as support actors and rural advisors, regional and local governments, landowners, private investors, and farmers.

Preliminary idea of tool design

1. The users can explore the value chains of existing scenarios. They will display a set of factors (value chain components and framework conditions) and indicators/features which describe them (e.g. factor: ‘Grass typology’; indicators: ‘dry grass’, ‘cultivated grass’ or ‘grass from wetlands’).
2. After exploring the existing scenarios, the users select their region (Northern Europe, Eastern Europe, etc) and a grass product they would like to develop or the biomass they have available.
3. The user will select the indicators/features that they want/have for their potential scenario/business idea.
4. Once all the indicators are selected, the tool will provide 2 outputs:
 - 4.1.1. A go/no go result that will be determined depending on the selected indicators and if they gather enough success factors/indicators to be possible or not (each feature will be weighted depending on their importance for successful scenario).
 - 4.1.2. A list of critical success factors and barriers linked to their selection and examples of existing scenarios that have similarities to the one created by the user.

(More information are available on the Annex, providing potential visualisation of the steps.)

Tasks

We are seeking performance of the following activities:

1. Lead the conception and design of an ‘easy and intuitive’ online decision support tool for flexible integration of value chain components. This decision support tool should be a dynamic software (web-based and/or mobile application) whose recommendations vary according to the user's inputs. The tool should also act as an information source (through the [knowledge centre](#)) showcasing existing optimal scenarios from the project

and other useful information/sources.

2. Research and enter data into the tool and into the knowledge centre.
3. Development and **hosting** of the decision support tool that will be available **without previous registration** on the website of the project.
4. Enter existing data coming from the project deliverables and research of complementary data necessary for a good performance of the tool.
5. Changes and refinements after internal and external testing of the tool and knowledge centre.

TENTATIVE TIMELINE:

April 2023: Selection of sub-contractor

March-June 2023: Integration of scenarios data

June 2023: Pilot

June – July 2023: First testing phase (internal)

July – September 2023: Reviews and updates

September 2023: Public version of the tool

September – October 2023: Second testing (external)

October 2023: Last refinement

End of October 2023: Final version

November 2023: Integration into the GO-GRASS website

III. Price

The price within the offer must be quoted in Euros. Offers from outside of the Eurozone area must provide a conversion into Euros. The price quoted may not be later revised in line with exchange rate movements. The price must include personnel, material and equipment costs. Travel costs, (incl. accommodation, daily allowance etc.), should also be included.

The final price offered must be inclusive of VAT, if applicable, bearing in mind that a

VAT rate of 0% is applied if the contracting organisations are located in two different member states of the European Union, pursuant to Directive 2006/112/EC on the Common System of Value Added Tax.

IV. Selection Criteria and Weightings

Assessment of offers will be performed with the following three criteria. The relevant weighting of each criterion is shown in brackets:

1. Total price of service (20%)

2. Evidence of relevant experience (40%)

Assessment will be made based on existing examples of similar work, experience on support tools design and with relevant research and data.

3. Quality of workmanship/professionalism (40%)

Assessment will be made based on existing examples of similar work in the field of agricultural business.

V. Submission and Contact

For enquiries and further information, please contact the GO-GRASS coordination team (go-grass@atb-potsdam.de) and Nathalie Bargues (n.bargues@greenovate-europe.eu Tel: +32 (0)2 400 10 09)

Offers must be received by email by 20:00 (CET) on 7 April 2023.

This call for tenders has been published on 16 March 2023.