

Experiment Overview

Objective

The experiment addresses the socio-economic transition challenge by **focusing on Small Rural Businesses (SRBs)** (less than 50 employees) in the region. It aims to **assess the current status** of SRBs through analysis of statistical data, **map and visualize their distribution by branches** using data generated via web scraping and mapping workshops with mayors, and **identify the needs and challenges** faced by SRBs through an online survey. The key objectives of the data experiment are to I) enhance the influence of SRBs and strengthen their role in regional decision-making processes, II) raise awareness among stakeholders about the importance of this subject, and III) identify key areas for the future development of SRBs.

Relevance

SRBs make up the majority of businesses in the Nockregion and serve as the **backbone of the region** by **offering a wide variety of services and employment opportunities**. They are crucial yet underrepresented in regional development efforts due to their size and limited resources, leading to sporadic attention on individual branches rather than a comprehensive analysis of all sectors. By generating detailed and spatial data on SRB economic activities, the experiment fills a critical knowledge gap and offers insights necessary for targeted regional development strategies.

Key innovation

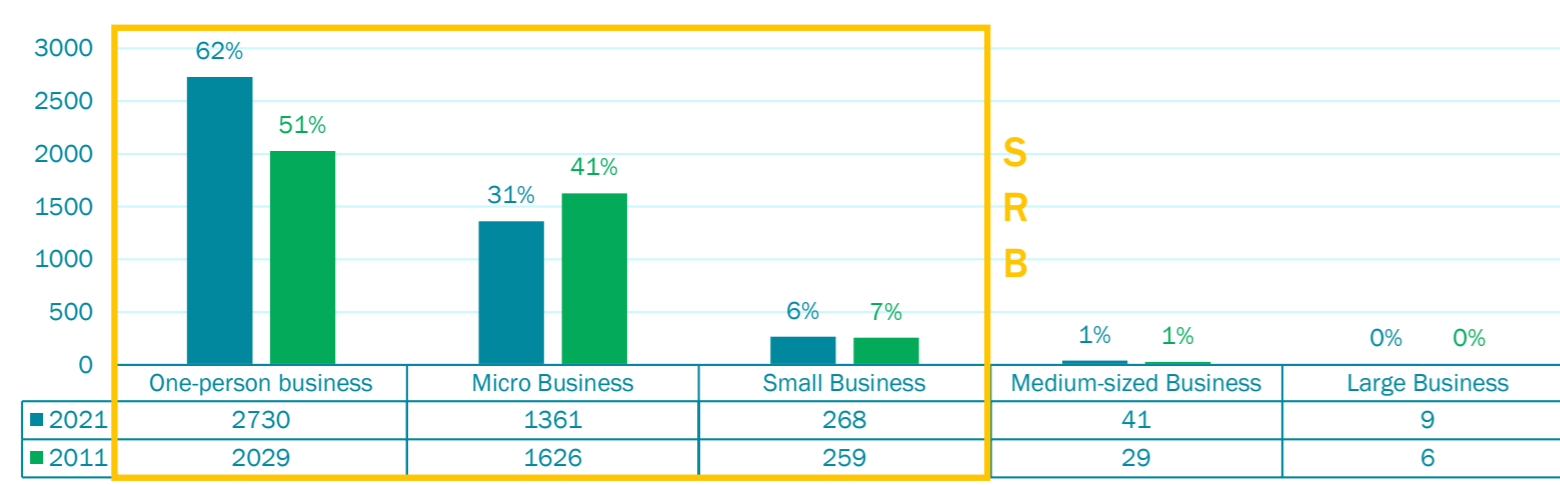
The experiment **combines data sources and methods** such as web scraping, OpenStreetMap, mapping workshops with mayors, and statistical data to create a comprehensive spatial understanding of SRBs. It employs a **cross-sectoral approach**, that integrates agriculture with other sectors, addressing them collectively rather than separately.

Experiment Progress

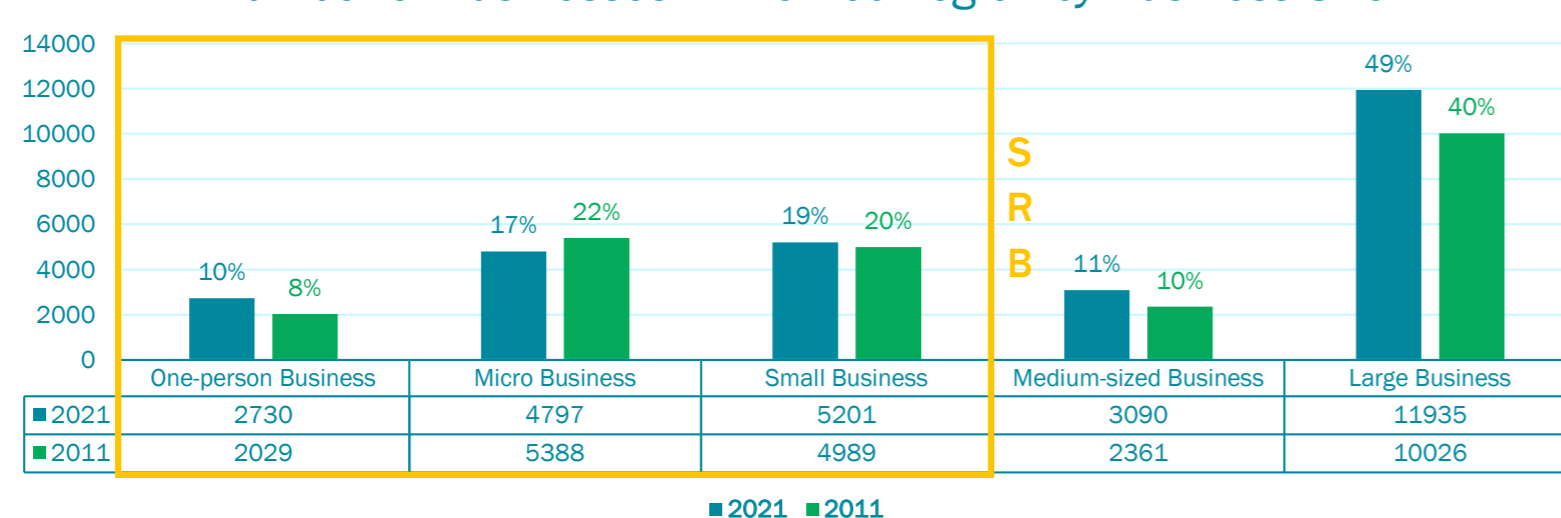
So far, the project has successfully created an information brochure based on analysis of statistical data to generate stakeholder interest (see *graphs*), presented initial findings to local mayors, and completed web scraping of Google Maps data to identify SRBs. Furthermore, a regional workshop with mayors to map businesses in each municipality using local knowledge was conducted. Currently, the project is in the process of integrating and visualizing multiple data sources (see *Map for current results*)—including OSM, IACS, data from the Chamber of Economics, and local municipal information—while also conducting an online survey to identify SRB networks, needs, and challenges.

Business Landscape and Employment Structure

99% of businesses are Small Rural Businesses (SRBs) and employ 46% of all working persons



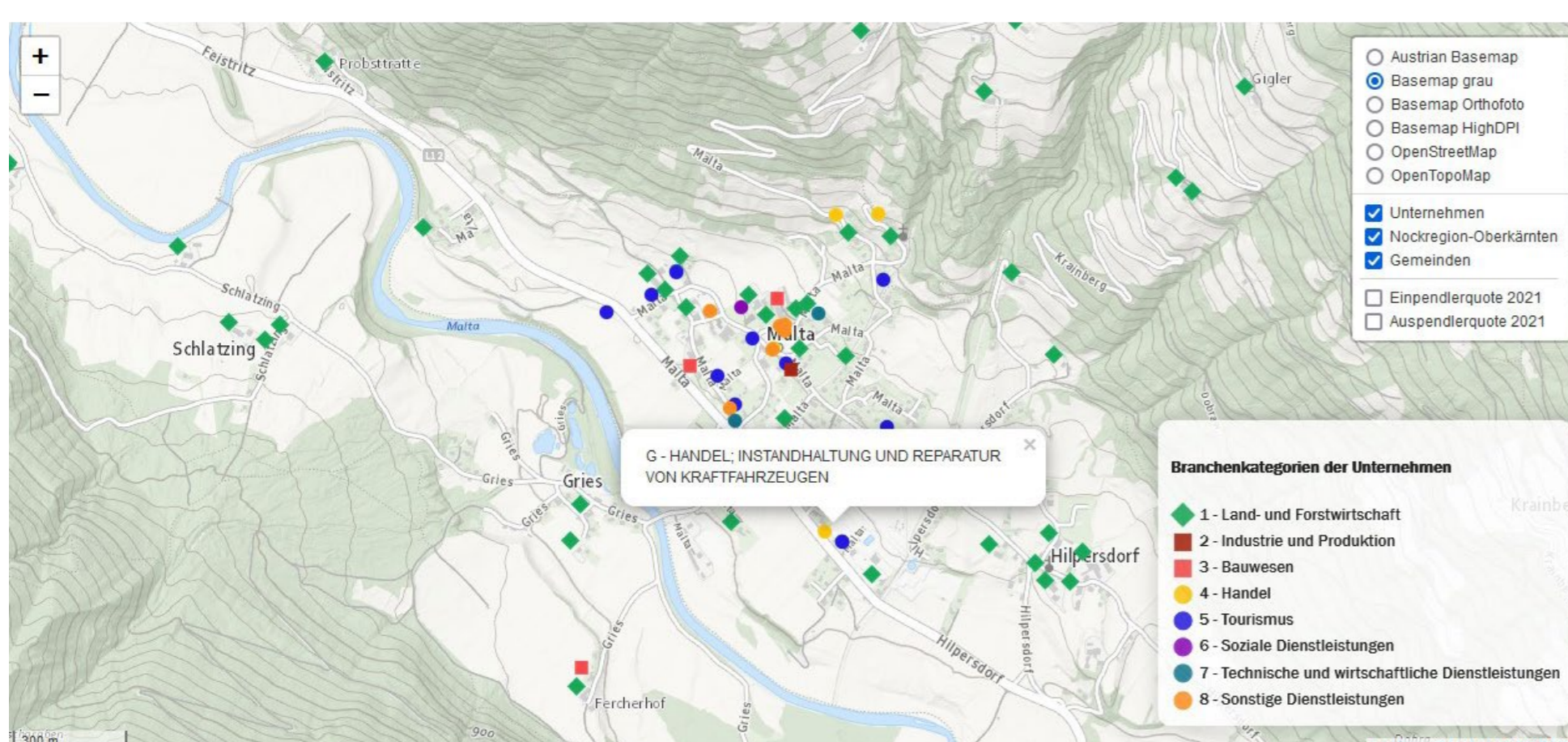
Number of Businesses in the Nockregion by Business Size



Number of Employees by Business Size in the Nockregion

Source: Registerzählung Zeitreihe (Beschäftigte im Unternehmen ; Unternehmen)

Spatial Localization of Businesses in the Nockregion by branches: municipality of Malta



What went well

Mobilizing stakeholders from municipalities for the mapping workshop was successful, with active participation and positive feedback. The workshop highlighted gaps in (some) stakeholders' awareness of local businesses, sparking further interest in the dataset being generated, which will provide a comprehensive overview of businesses by branches.

Challenges

Engaging stakeholders and ensuring their active participation proved difficult in the beginning, as only 4 of 17 mayors attended the first presentation. The extracted data of business locations from Google Maps via web scraping and OpenStreetMap turned out to be very incomplete and unsuitable to capture the complete economic activity of the region. This necessitated obtaining regional business data (including their location) from other sources. Overall, the process of data acquisition and preparation was time-consuming, with quality control supported by the regional knowledge of the mayors. Moreover, merging diverse data sources was challenging due to inconsistent categorizations of business sectors. Another challenge was that data protection issues limited access to sensitive information, such as addresses, due to privacy regulations. Additionally, there are difficulties in distributing the online survey and securing a sufficient response rate.

Learning

Strong regional ties and trusted, well-connected local partners are essential, as they help build trust in the process and outcomes. Local knowledge plays a key role in ensuring the data quality in this experiment, as the accuracy of insights is closely linked to regional familiarity.

Next steps

Next steps include promoting the online survey to increase participation and gather more data, identifying the main challenges faced by SRBs through analysis of survey results, merging the data to create a spatial overview for each municipality, clarifying the format for sharing data with municipalities while ensuring compliance with data protection regulations, and presenting the findings to mayors to facilitate discussions on how this new knowledge and data can support the region, including potential workshops.

