PSLifestyle

Plan for exploitation and sustainability

How to use PSLifestyle results to generate impact

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TABLE OF CONTENTS

1. Introduction

In 2017, the Finnish Innovation Fund Sitra developed a digital tool for citizens, called the "Lifestyle Test", to understand the impacts of their lifestyle and consumption habits. Following this, the European Union Horizon-2020 project **'Co-creating positive and sustainable lifestyle tool with and for European citizens' – PSLifestyle** aims at enhancing the uptake of low-carbon lifestyles in line with the 1.5-degree target of the Paris Agreement. Furthermore, the project intents to expand the user base and potential impact of the tool by adapting it to the context of eight European countries: Estonia, Finland, Germany, Greece, Italy, Portugal, Slovenia, and Turkey.

By engaging citizens with a digital tool, the project will collect and analyze their consumption and climate impact data to be used and exploited in research, as the basis of effective policies and civil society initiatives, or to identify business opportunities. The project will build a data-driven movement with and for the citizens to enable more sustainable lifestyles across Europe. For more information on the PSLifestyle project and the Lifestyle test, please refer to the deliverable "Specifications of the PSLifestyle Application and Dataset – V1" and to the Governance Framework[2].

The Lifestyle test is accessible online, including via mobile devices, and allows people to understand the impact of their lifestyle by answering a set of simple questions, divided into four main lifestyle areas: housing, transport, food, and purchases. After taking the test, the users are presented with a detailed picture of their footprint and a list of tailored lifestyle options with calculated emission reductions (Fig. 1). For example, if a carbon footprint is largely determined by frequent flights or long-distance car travel, it will be suggested to reduce travel and switch to transport modes with a lower carbon footprint, such as trains. The users can design their own plans for reducing lifestyle emissions over time by choosing among the suggested actions and track their progress by updating their plan. The localization of the test for the eight project countries, carried out during three rounds of Citizens Labs, required the collection and processing of local data and the contextualization of the questions of the footprint test, their corresponding answer options, as well as the list of actions to reflect local realities. This makes the results of the test very relevant for the local level.

In addition to collecting data on the user lifestyle carbon footprint, and on what changes users are willing or not to undertake, the test also collects information on the motivations behind the user choices, as well as the underlying structural challenges and enablers for change (Fig. 2). This information will be processed and made available to different stakeholders to identify opportunities and promote agendas at the business, policy, research, and civil society level for enabling 1.5-degree compatible lifestyles. Within the project, this stakeholder engagement is the focus of WP3 and is described here in this Plan for Exploitation and Sustainability.

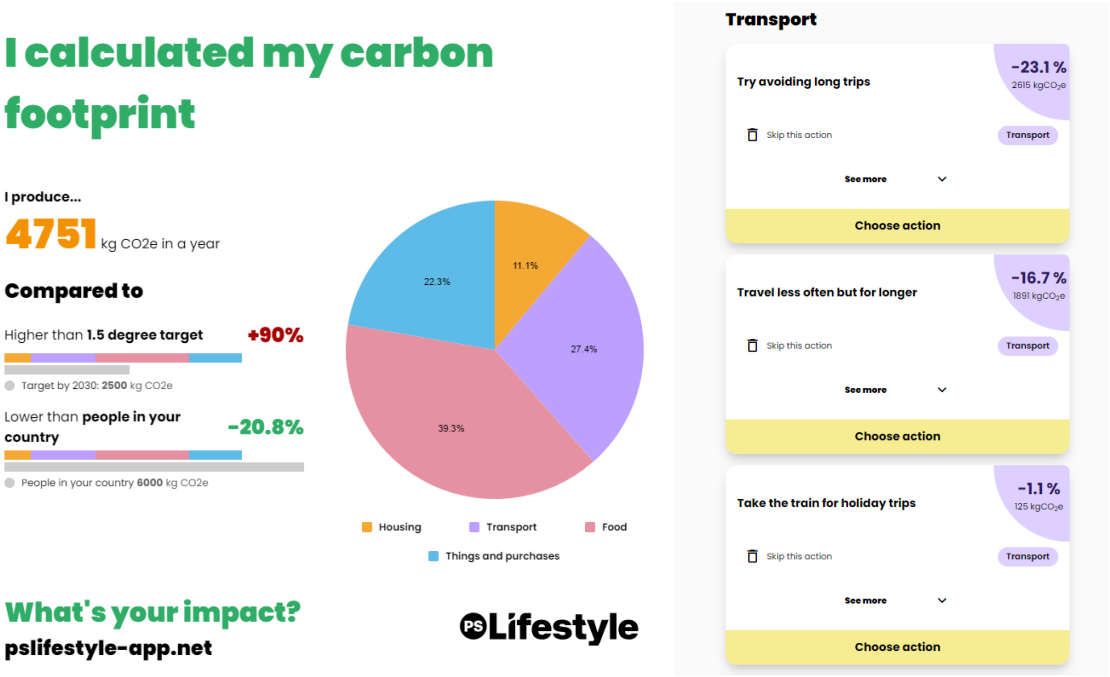

Figure 1. Carbon footprint results (left side) and a selection of tailored lifestyle changes for transport (right side) from the Lifestyle Test.

Figure 2. List of options prompting when the Lifestyle test user decides not to include an action in the emission reduction plan. This information is then used to identify challenges and enablers to sustainable lifestyles.

This document describes the plan for generating impact from the data and results coming from the use of the Lifestyle test. It also presents steps for further expanding its user base and geographical reach. It is structured in the following sections: Section 2 will describe how the data collected is organized and stored; Section 3 will describe how the test can be adapted to include other countries; Section 4 will describe how data is processed to produce informative results for exploitation in a series of stakeholder workshops.

The report is produced in three iterative versions. Version 1 will include an introduction and a description of the data generated and the further upscaling of the test. Versions 2 and 3 will include the plan for the exploitation of data and results, as well as a deep dive into the goals of the stakeholder workshops and their implementation processes and methodology. Versions 2 and 3 will also update the content of the previous version where appropriate.

2. The PSLifestyle Open Dataset and Dashboard

The PSLifestyle Open Dataset stores the data collected from the use of the Lifestyle test. The test allows for calculating the user carbon footprint as well as collecting information on what changes users are willing to undertake to reduce their carbon footprint over time. The carbon footprint data is organized by four main consumption domains: housing, food, transport, and purchases. Data collected from the emission reduction plans allows, for example, to understand what actions are more frequently included in the plan and what are the least frequently selected. When preparing the plan, users can also indicate why they are not willing to implement certain actions, e.g., because it is too expensive, or because they lack the know-how or needed skills (Fig. 2).

All footprint and lifestyle change data can be differentiated by demographic and socio-economic variables, i.e., gender, age, income, and postal code/location. This information is collected through the test by means of optional questions asked after the carbon footprint calculation. This information is important for understanding how different footprint profiles characterize different societal groups, what actions these groups are more willing to adopt, and what barriers they are facing. By collecting information on the postal code/location, all the above can be mapped at a resolution which allows for targeted business opportunities, policies, or civil society initiatives. For example, the Open Dataset can be queried to analyze which are the most frequent barriers that the residents of a city face when adopting an action (e.g., switching to a vegan diet, or from private to public transportation modes), or how income affects the user's willingness to adopt some actions instead of others. The demographic data collected via the tool provides context to the carbon footprint data and is key to the exploitation of the results of the project.

The PSLifestyle Open Dataset is saved to a Firestore database on Google Cloud Platform and will be offered under a Creative Commons License to ensure correct attribution. Data collection, storage, and use are handled in compliance with the applicable legal framework for personal data processing (including the Charter of Fundamental Rights, GDPR, e-Privacy Directive-soon ePrivacy Regulation, and others) as outlined in the Data Management Plan of the PSLifestyle project.

To facilitate access to the data collected via the test, the entire dataset is processed and presented via a dashboard implemented in Google Looker Studio. The dashboard is structured into three main sections, accessible by clicking on the respective section on the top left of the dashboard landing page. These sections are: 1. Key metrics; 2. Footprint composition; 3. Plans and Actions.

The key metrics section includes the number of test takers, the total and average carbon footprint, and the average carbon footprint of housing, mobility, food, and purchases. It also presents some aggregated statistics from all cross-country users of the tool, including the total number of tests taken, the total and average emissions of all test takers, and the total emission reductions planned by all users.

The footprint composition section presents a series of graphs (as stacked horizontal bar charts) which show how the carbon footprint of the test takers is broken down by different contributions from the four main lifestyle domains (food, housing, transport, and purchases).

The plans and actions section presents the number of times each action has been included in the reduction plan by the test takers, the number of times each action has been marked as done, and the relative impact in terms of emission reduction. This information is also reported by grouping actions per their lifestyle domain. Similar to the key metrics section, the plans and actions section also presents some aggregated statistics from all cross-country users of the tool. These include the number of users that selected and marked as "done" at least one action as part of their plan, the total number of actions selected and done by all test takers, and the aggregated emission reduction from all of actions selected and done (for a total of six aggregated cross-country indicators).

Crucial to the exploitation of the project results, the dashboard can be explored by filtering all the available data by country, consumption domain, and by all demographic and socio-economic variables. One additional filter allows for limiting the data shown to the data collected in a specific interval of time. These filters are easy-to-use via a series of drop-down menus located at the top of the webpage hosting the dashboard.

3. Scaling-up PSLifestyle

3.1 The European version of the Lifestyle Test tool

A European-level version of the Lifestyle Test is in development in addition to the eight country versions. This version is for users who live in Europe but outside of the case countries. The European version of the test is based on average European data (excluding data relative to the eight countries of the project). The list of actions proposed to the users, as well as their emission reduction impacts, are representative of the average European context. The accuracy of the data used to build the European version of the tool varies depending on the consumption domain considered. For food and mobility, the amounts of CO_2 equivalent embodied in the consumption of a food item or the use of different transport modes (i.e., the carbon intensity) do not vary much across Europe. On the other hand, the carbon intensity of electricity consumption varies over ten-fold between European countries, being highest in Estonia and Poland and lowest in Sweden, Luxembourg, and Finland (EEA, 2023)[1]. Heating demand also varies substantially between countries depending on the climate and building conditions.

The data generated via the use of the European version of the Lifestyle test is of relevance for stakeholders operating at the European level. This version allows for engaging with citizens outside of the project countries, which will otherwise not have the opportunity to take the test. The data collected from users of this version will be stored in the PSLifestyle Open Dataset and included in the Dashboard, expanding the potential impact of the project and the scope for the exploitation of data and results.

3.2 Applications of the Lifestyle test in other countries

Apart from the European version of the test and the eight countries already represented, efforts are being made by the project coordinator Sitra to engage with organisations outside of the Horizon consortium with the aim of implementing the test in additional countries and increase the reach of the project. This will be carried out through partnerships with local organizations that have a deeper understanding of the local or regional context and are in a better position than project partners for marketing the test locally.

Until now, the recruitment of other countries has relied on presenting the project at international conferences, which has led to organizations from other countries approaching Sitra for information on how the test could be implemented in their local context. As more partner organizations will join, the "community of practice" methodology would be continuously followed to ensure that new organizations get to learn from the country

[1] Greenhouse gas emission intensity of electricity generation in Europe (Available from: https://www.eea.europa.eu/ims/greenhouse-gas-emission-intensity-of-1 - Accessed 13/09/2023)

cases where the test is already implemented, with a continuous exchange of knowledge and ideas. The support provided to the new organizations from the country partners of the consortium would be voluntary, hence, no partner would be obliged to extend support and, before a new organization is added to the shared platforms of the project (Microsoft Teams, Miro, etc.), consent would be asked from all the consortium partners at milestone meetings such as the Executive Board of the project.

New organizations benefiting from the content developed in the PSLifestyle project would not be provided with any funding from the consortium partners. Obtaining funding for the localization and marketing of the test would be their own responsibility. In terms of implementation, the preference of the consortium partners is that new organizations would be added as new countries on the Lifestyle test website. Hosting all existing and additional versions of the test on the same website allows for generating a larger database, whilst providing more regional diversity, which is one of the major selling points for new organizations to join.

Once the test is formally released in the 8 partner countries, along with the European version, Sitra plans to engage with organizations outside of the consortium by actively using connections with pre-existing networks such as Consumers International and the European Consumer Organization (BEUC). Apart from these formal networks, Sitra has also identified a host of organizations which may not be part of these networks but could be engaged with to bring the test to new countries by creating local partnerships.

Organizations joining the consortium are provided with the technical knowledge developed in the project, such as the means to calculate consumption-based carbon emissions through a template excel sheet which allows for replicating the methodology used for the cases of country partners. However, new organizations would be responsible for data collection, project management, developing the content to be included in the test website, producing marketing material, and for any changes to the structure of the test (including new lifestyle options and other changes to the calculation template) they deem necessary to their case. Organizations are also required to provide technical expertise including one or more carbon emission analysts and marketing specialists.

Once new organizations are ready with their content for the localization of the test, our tech partner Solita would create an interface to transfer the data from the excel template to the online version of the test. Any needed text in their local language to be used in the test would also have to be provided via this interface by the new organizations.

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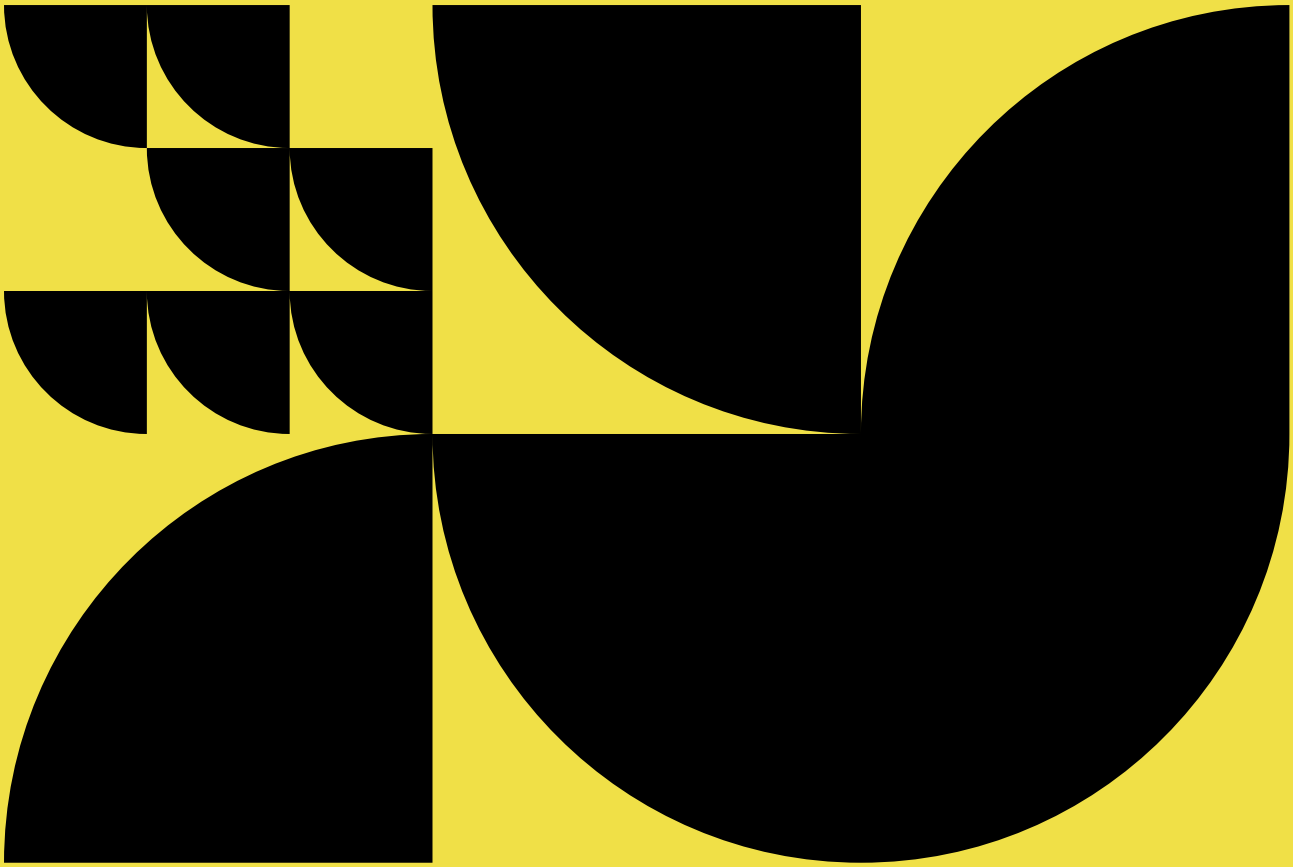

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