

Deliverable A.1.3

Report on methodological approach for assessing supporters' environmental awareness.

Version 1.0

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Document history

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1. Aim of the document.

The present document details the data collection and data analysis methodology that will be adopted for measuring football supporters' environmental awareness, within the context of Action B.1.1, and subsequently assessing the effectiveness of awareness raising actions carried out according to Action B.4.

More specifically, Action B.1.1 envisions the administration of a questionnaire survey to football supporters in at least 4 out of 10 selected pilot stadiums. The aim of the survey is assessing supporters' awareness with respect to environmental and waste management issues. This first measurement will define a baseline measure that will be used as a benchmark against which the effectiveness of awareness raising initiatives will be assessed.

Indeed, after implementing awareness raising initiatives in pilot stadiums, a second questionnaire survey will be administered to football supporters in said stadiums in order to assess deviations from the baseline. Heightened environmental awareness, as compared to the baseline measure assessed in Action B.1.1, will determine the effectiveness of awareness raising initiatives.

The following section of the document focuses on the data collection methodology, with regard to both Action B.1.1 and Action B.4, specifically describing questionnaire design, sampling methods and modalities for administering the questionnaire.















2. Data collection.

2.1 Questionnaire design.

Survey are a very common approach to quantitative research within the context of social sciences. Survey questionnaires allow collecting large amount of primary self-reported data in a cost-effective way: indeed, as opposed to face-to-face interviews, questionnaires can be self-administered (for instance, via online web tools) and they are easily replicable in different contexts. Furthermore, and most importantly, questionnaire data can be easily aggregated in a unique database for the purpose of statistical analysis by means of statistical software (such as Stata, R, SPSS etc.).

Because of these reasons, the survey questionnaire method fits the aims of Action B.1.1 and Action B.4 for what concerns the measurement of supporters' environmental awareness and the assessment of the effectiveness of the awareness raising initiatives. Indeed, both Action B.1.1 and Action B.4 entail surveying a large number of football supporters in different settings (i.e. at least four stadiums), before and after awareness raising initiatives have been implemented. The questionnaire will allow replicating the data collection among the different fan bases of the four stadiums, in order to reach a satisfactory number of respondents and ensure that the sample is representative of the population of football supporters attending those stadiums. Most importantly, this approach will allow comparing results of the ex-ante and ex-post measurements to identify statistically significant deviations from the baseline observation.

The questionnaire will be developed by the researchers of the Institute of Management of Scuola Superiore Sant'Anna, building on existing academic literature concerning the measurement of individuals' environmental awareness, consumers' pro-environmental behavior and environmental concern. Consumer studies and theories of environmentally significant behavior indeed provide precious insights concerning the assessment of individuals' pro-







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environmental predispositions, knowledge and awareness, as well as other attitudinal and contextual factors that influence individual behaviors like waste prevention and recycling.

Based on such insights, the questionnaire will be divided according to different thematic sections, each one focusing on different relevant variables, such as for instance:

- Attitudinal factors this section will focus on investigating supporters' general environmental predispositions, personal norms and beliefs, as well as attitudes and perceived costs and benefits associated with specific environmentally significant behaviors (such as waste collection and recycling);
- *Knowledge and capabilities* the questions contained in this section will aim at assessing respondents' knowledge of relevant environmental issues (such as waste, energy consumption, water consumption etc.), as well as capabilities with regard to environmentally significant behaviors (such as waste sorting, energy efficiency and water saving measures etc.)
- *Contextual factors* this section will focus on assessing respondents' perceptions of contextual factors that could hamper or facilitate performing environmentally significant behaviors. Examples of relevant contextual factors are national or local policies and laws with regard to environmental issues, costs and rewards associated with undertaking specific behaviors, availability of necessary technologies or tools etc.
- *Habits and routines* this section will investigate respondents' personal habits and routines, i.e. standard operating procedures, associated with environmental issues. For instance, relevant habits and routines to be investigated concern mobility (e.g. use of environmental-friendly vehicles), waste management at home (e.g. waste sorting) or food consumption (e.g. vegetarian diet).
- **Pro-environmental behaviors** finally, this section will investigate respondents' engagement with pro-environmental behaviors, especially with regard to waste management, within stadiums and during sport events.







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As far as concerns the language of the questionnaire, the questionnaire will be initially developed in English. Then, project partners will translate the original version of the questionnaire to develop the Italian, Swedish and Romanian versions of the questionnaire to facilitate data collection in their respective countries.

For the most part, the questionnaire will be composed of closed-ended questions, based on categorical Likert scales. This approach aims at reducing ambiguity in respondents' answers by providing respondents with a range of values to choose from. Questions based on categorical Likert scales will include verbal labels for the endpoints and midpoints of the scales in order to facilitate respondents. Questions will be kept simple, focused and concise in order to avoid vagueness. Furthermore, the questionnaire will avoid any questions concerning the name of the respondent, with the aim to reduce social desirability bias by granting respondent anonymity.

2.2 Sampling method.

The choice of the most appropriate sampling technique must keep in consideration the aim of the investigation and the population to investigate.

The objective of Action B.1.1 is assessing football fans' environmental awareness by surveying supporters that attend football events at the stadiums where awareness raising initiatives will be implemented, in order to produce a baseline measure against which to assess the effectiveness of awareness raising initiatives (according to Action B.4). Awareness raising initiatives will be implemented in at least four stadiums, out of the ten pilot stadiums, in Italy (two stadiums), Sweden and Romania.

In this case, the population of interest is the totality of football supporters that regularly attend football events at the four pilot stadiums where awareness raising initiatives will be implemented. Football supporters are assumed to attend football events to cheer for their favourite football team. In this sense, the supporters that most frequently attend a specific







stadium are supporters of the tenant football club, i.e. so-called "home fans". Accordingly, our population of interest is the population of the "home fans" in the four pilot stadiums.

To sample this population, one specific football club will be selected for each of the four pilot stadiums in order to survey its own supporters. In the case a pilot stadium is shared among more than one football club, we will opt for the tenant football club that attracts the highest number of supporters to the specific stadium. Accordingly, the survey will exclusively focus on first league football clubs' supporters in each of the four stadiums and, more specifically, on the football club with the highest number of subscribed supporters, i.e. supporters that attend most of the club's football matches that take place at the stadium.

To obtain a representative sample from this population, at least 500 supporters per selected football team will be surveyed in each stadium, as reported in project proposal. This implies that supporters' environmental awareness baseline measure will be assessed on a total sample of at least 2.000 supporters. In order to improve the representativeness of the sample, measure will be undertaken to fit the sample to the overall population in terms of age and gender. Some of these measures are described in the next section of the document.

As far as concerns Action B.4, the objective is assessing the effectiveness of awareness raising initiatives, by measuring deviations from the baseline observation (previously assessed according to Action B.1.1). This action requires surveying stadiums' "home fans" in order to assess their environmental awareness after being exposed to awareness raising initiatives.

To this aim, the sample of supporters must satisfy two conditions. First, the totality of supporters in the sample must have attended the specific football events where awareness raising initiatives have been implemented. Second, the large majority of respondents in the second sample must have participated also in the first sample. Indeed, deviations from the baseline measure will be assessed by comparing the results of the first measurement with the results of the second measurement on the same group of respondents, in order to ensure reliability.







Accordingly, measures will be undertaken to ensure that the sample for the assessment of the baseline measure (i.e. 1st sample) and the sample for the assessment of the effectiveness of awareness raising initiatives (i.e. 2nd sample) will be as consistent as possible. For instance, respondents in the 1st sample that did not attend to the football event where awareness raising initiatives took place will be withdrawn from the 2nd sample and replaced with respondents that attended that specific event. Other measures are discussed in the next section.

Similar to the assessment of the baseline measure, at least 500 supporters per selected football team will be surveyed in each stadium in order to test the effectiveness of awareness raising initiatives. This implies that deviations from the baseline observation will be assessed on a sample of 2.000 respondents.

2.3 Questionnaire administration.

As explained in the previous section, establishing the baseline measure (i.e. Action B.1.1) and assessing deviations from such baseline as a result of the implementation of awareness raising initiatives (i.e. Action B.4) will require collecting 4.000 observations, 2.000 before the implementation of awareness raising initiatives and 2.000 ex-post.

For both data collections, the questionnaire will be administered to respondents in two ways: 1) by means of an online survey tool (i.e. SurveyMonkey), and 2) on-site during two football matches of the selected football clubs. The combination of these two methods is necessary to achieve the objective of 4.000 observations and to obtain a sample of respondents that is as representative as possible of the target population.

The next paragraphs describe in detail both approaches to administering the questionnaire for assessing the supporters' environmental awareness baseline measure:

1. Online questionnaire administration (SurveyMonkey) – SSSA will create an online version of the questionnaire, by uploading it on the SurveyMonkey platform. A shareable web

















link will be created for allowing respondents to access it and fill it online. This option allow respondents to autonomously access and fill the questionnaire through their personal computers and portable devices in total comfort.

In order to circulate the web link to the online questionnaire among supporters, partner National Football Associations (NFAs) will contact selected football clubs at each pilot stadium in order to obtain the contact lists (i.e. personal email addresses) of their subscribers. Once obtained, the web link will be circulated via email to the subscribed supporters' personal email addresses together with an introductory letter (attached to the email). The introductory letter will kindly ask respondents to fill the questionnaire, it will introduce the EU LIFE TACKLE project as well as the objective of survey. Furthermore, the questionnaire will ask respondents to indicate which football match they will attend among a range of future football matches that will take place at the pilot stadium. Responses to this question will support project partners in identifying the most appropriate football match for implementing awareness raising initiatives.

A deadline for the completion of the questionnaire will be indicated (approximately 2 weeks from receiving the email). Reminders will be sent to non-respondents after one week from the first invitation to fill in the questionnaire and the day before the deadline.

2. On-site face-to-face interviews during football matches – in addition to the online data collection, questionnaires will be administered to supporters during one football match of the selected clubs in the pilot stadiums. On-site data collection allows targeting respondents based on their age or gender in order to increase the representativeness of the sample compared to the characteristics of the target population. To collect data, two representatives of project partners will attend the football matches and will interview supporters. During interviews, supporters will be asked to provide a valid email address in order to be contacted after awareness initiatives have been implemented to take part also in the second questionnaire. To incentive supporters to take part in the second part of the study, they will received a customized UEFA "thank you" ecard at the completion of the second questionnaire.







The next paragraphs describe in detail two approaches to administering the questionnaire after awareness raising initiatives have been implemented in the four pilot stadiums:

1. Online questionnaire administration (SurveyMonkey) – SSSA will upload a new questionnaire online and create a shareable web link for accessing it online. Online questionnaires will be administered via email to the supporters who took part in the first online questionnaire and to those who provided their email address during face-to-face interviews in the stadiums. Respondents will be asked to indicate if they attended the specific football match where awareness raising initiatives have been implemented. Those supporters who did not attend to awareness raising initiatives will be withdrawn from this sample.

A deadline for the completion of the questionnaire will be indicated (approximately 2 weeks from receiving the email). Reminders will be sent to non-respondents after one week from the first invitation to fill in the questionnaire and the day before the deadline.

2. On-site face-to-face interviews during football matches – representatives of project partners will attend the football matches of the selected clubs where awareness raising initiatives will be implemented. Before the beginning of the football matches and at the end of such football matches, supporters will be interviewed. These interviews will help substituting respondents that will not attend awareness raising initiatives and that will be withdrawn from the 2^{nd} sample.

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