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Transnational Report on Gaps and Needs Analysis on Waste Management in Belgium, Italy, Kosovo, Greece and Spain

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1. Introduction

Objective

As part of the needs analysis activity within the Eco-Champion project, the corresponding partnership organizations have conducted five national surveys. Every national analysis aimed to scan and understand citizens' needs, assess current waste management practices, and identify key requirements and challenges in sustainable waste management in Belgium, Kosovo, Italy, Greece, and Spain. The information provided will serve project partners in gathering renewed insights from relevant stakeholders and utilizing the information to shape future planned activities in the Eco-Champion project and other initiatives.

Survey Design

The Eco Champions consortium's research teams created a common questionnaire to maximize the insights gained from survey research. The questionnaire was translated into the national languages, and Google Forms was decided to be the most appropriate online tool in terms of uniformity of the process and accessibility. 20 -30 participants per organization answer the survey, and the main findings will be presented in the following lines. The transnational survey doesn't wish to serve as a comparative study, even if it could be read as such, but mainly to guide the national teams in identifying the local needs and preparing customized activities according to the specific findings.

Next Steps

Findings will guide the development of activities planned for Eco festivals, which may include targeted awareness campaigns, encourage public debate and roundtable discussions, and localized waste management strategies and policies for improvement.

2. Needs analysis Report Belgium

Survey Design and Data Collection Process

The responsible organization for conducting the survey in Belgium is Connect Brussels in the city of Brussels. The survey was distributed within our local network via an online Google Form, ensuring easy access and participation. It was conducted in French to enhance comprehension and engagement among respondents. While the questionnaire required participants to provide certain details, its structured format encouraged candid responses. A total of 20 individuals took part in the survey, offering valuable insights into waste management practices and challenges within their communities.

Key Findings

Participant Profile and Demographic Overview

Age Distribution:

55% aged 18-29

30% aged 30-64

10% aged 0-17

5% aged 65+

Gender Breakdown:

70% identified as male

30% identified as female

Geographical Location:

85% reside in urban and 10% regional areas

5% live in villages

Primary Role in the Community:

85% are residents

15% are business owners or waste management professionals

Waste Generation and Management Practices

95% of respondents separate recyclables (plastic, glass, paper) from general waste.

90% actively reduce food waste.

55% avoid single-use packaging.

50% repair broken items instead of discarding them.

55% use reusable sanitary products.

Estimated Amount of Waste Generated Weekly

60% produce less than 5kg of waste per week.

30% generate 5-10 kg.

10% produce more than 20 kg.

Most Common Types of Household Waste

Organic waste was the most frequently reported type, mentioned by **90%** of participants. This was followed **by plastic waste (80%),** which remains a significant environmental concern. Paper and cardboard waste were identified by 40% of respondents, while glass waste (10%) and metal waste (5%).

Infrastructure and Technological Assessment

90% stated that there are enough waste management facilities (bins, recycling centers) in their area.

75% reported that waste collection occurs twice per week, while 25% indicated daily collection.

40% said recycling is the most common waste disposal method, while 40% Incineration. 0% of participants reported landfills are a disposal method.

Environmental and Financial Impact

100% of respondents believe that waste management practices significantly impact the environment.

Monthly household spending on waste services:

45% pay less than €10.

10% pay between €10-20.

10% pay between €20-50.

15% pay more than €50.

The rest, 20%, reported it as nonapplicable.

Recycling Challenges:

60% found recycling very easy.

25% found it easy.

15% was neutral.

Specific Needs and Concerns

Challenges in Achieving a Zero-Waste Lifestyle

55% cited lack of time to engage in sustainable waste habits.

45% reported excessive supermarket packaging as a major issue.

30% found reusable products too expensive.

Barriers to Recycling and Composting

10.5% were unsure how to recycle properly.

Feedback from Participants

"Ils doivent venir chercher plus souvent." ("They should come to collect more frequently.")

"Une application de suivi/rapport devrait être conçue pour garantir l'engagement des citoyens dans la collecte des déchets." ("A tracking/reporting app should be designed to ensure citizen engagement in waste collection.")

Challenges Faced by Disabled or Elderly Persons in Waste Management

10% of respondents stated that disabled or elderly individuals face challenges in waste management.

Challenges mentioned by respondents:

Inadequate waste collection services for individuals with limited mobility.

Heavy equipment (like furniture) is very difficult to be transported to recycling parks.

Cultural and Gender-Related Influences on Waste Management Practices

15% of participants believe that cultural or gender-related factors influence waste management behaviors in their area.

Examples cited by respondents:

Cultural differences in household waste sorting practices.

Traditional gender roles, where women are more likely to handle waste disposal and recycling.

Regulatory and Policy Assessment

Awareness of Waste Management Programs and Regulations

20% of respondents were aware of local or national waste management programs, while **80%** were not familiar with any specific initiatives.

10% of respondents were aware of local waste management regulations, while **90%** were not informed about policies in their municipality.

Effectiveness of Waste Policies (among those aware):

15% found them very effective.

30% found them somewhat effective.

20% considered them ineffective.

35% were unsure.

Participation in Waste Management and Environmental Awareness

40% of respondents have participated in community clean-up activities or waste management initiatives.

100% of respondents stated that they know the environmental impact of improper waste disposal.

Recommendations and Policy Suggestions

55% suggested increasing waste collection frequency

50% proposed distributing free compost bins

40% wanted stronger awareness campaigns

55% supported launching an app for waste tracking and citizen engagement

40% encouraged school-based waste education programs

30% favored financial incentives for recycling

Conclusions

The Eco Champions WP2 survey provides valuable insights into waste management behaviors, challenges, and potential solutions within the local community. While engagement in waste reduction and recycling is high, key issues such as waste collection frequency, policy awareness, and accessibility for vulnerable groups remain. Despite 90% of respondents affirming the presence of adequate waste management facilities, the need for improved service delivery and targeted interventions is evident.

Plastic waste continues to be a significant environmental concern (80%), highlighting the urgency for stricter reduction policies and sustainable alternatives. Additionally, while 95% of respondents separate recyclables, only 40% compost, signalling an opportunity to enhance organic waste management. The community strongly supports digital tools (55%), such as a waste-tracking app, to improve citizen engagement and accountability.

Most notably, 100% of participants recognize the environmental impact of waste disposal, reinforcing the importance of education and policy-driven initiatives. With strong support for school-based waste education programs and awareness campaigns, there is a clear opportunity to foster long-term behavioral change. Addressing these challenges through a combination of policy improvements, digital innovation, and community-driven initiatives will be key to achieving a more sustainable waste management system.

3. Needs analysis Report Kosovo

Survey Design and Data Collection Process

The responsible organization for conducting the survey in Kosovo is The Balkan Forum in the city of Pristina. An online Google form survey [translated into the Albanian language] with multiple-choice and open-ended questions is designed and shared via emails and also via social media channels. The survey was distributed through organizational contact lists, social media platforms, and direct outreach to key stakeholder groups across the municipalities of Prishtina, Peja, Mitrovica, and Ferizaj in Kosovo. Analysis of responses by age group indicates that Instagram was particularly effective in engaging young people aged 18-29, who made up 61.8% of total participants, compared to 35.3% from the 30-64 age group. Additionally, the survey saw strong participation from women, who represented 67.6% of the 34 respondents. These insights highlight the effectiveness of digital outreach in engaging younger demographics and the active involvement of women in discussions on waste management.

Limitations:

The survey received limited responses from rural areas, with only 17.6% (6 out of 34 respondents) residing in villages. This suggests a potential gap in rural participation and highlights the need for more targeted outreach in these communities. Additionally, as with

any self-reported data, there may be some degree of response bias. Notably, 24 out of 34 respondents voluntarily provided their email addresses, indicating a willingness to stay engaged and potentially participate in future discussions or initiatives on waste management.

Key Findings

Participant Profile and Demographic Overview

The survey gathered responses from a total of 34 participants, providing valuable insights into waste management perspectives. A significant portion of respondents **(61.8%)** were young adults aged 18-29, while **35.3%** fell within the 30-64 age group. Women represented the majority of respondents, making up **67.7%** (23 out of 34). In terms of location, **76.5%** of participants reside in urban areas, while 17.6% come from villages, ensuring a diverse geographic representation. The survey successfully reached a broad range of stakeholders, including citizens, young people, households, individuals with disabilities, and environmental organizations, reflecting an inclusive approach to gathering opinions on sustainable waste management.

Waste Generation and Management Practices

The survey highlights a significant gap in waste segregation infrastructure, with **76.5%** of respondents disposing of all waste in a single bin, while only 23.5% actively separate plastic, glass, and paper. However, respondents demonstrate strong awareness of food waste, as **64.7%** stated they avoid throwing away food. Similarly, sustainability in clothing use is evident, with 73.5% wearing clothes as long as possible or donating them to those in need.

Household waste generation varies, with 34% producing 5-10 kg weekly and 26.5% generating less than 5 kg. Combined, **60.5%** of respondents fall within this range, though 20.6% were unsure, and 17.6% reported generating 10-20 kg of waste per week. The most commonly found waste materials in households are plastic (85.3%) and paper (70.6%), emphasizing the need for improved recycling efforts and waste reduction strategies.

Infrastructure and technological assessment

The survey results indicate a strong concern about waste management infrastructure, with **70.6%** of respondents stating that there are not enough waste management facilities in their area. Waste collection frequency varies, as 41.2% reported that waste is collected once a week, while 29.4% stated it is collected daily. However, 52.9% of respondents were unsure or unaware of the specific waste management methods applied in their municipality. Notably, the majority (82.4%) believe that waste management is the responsibility of the municipality, highlighting the need for clearer communication and improved public services in this sector.

Environmental and Financial Impact

Almost **80%** of respondents believe the current waste management practices have significant impact on environment. **61.8 %** of households spend less than EUR 10 per month on waste management services.

Specific Needs and Concerns

The survey highlights significant challenges in recycling accessibility, with only **2.9%** of respondents stating that recycling is very easy. In contrast, the majority find it difficult, with **41.2%** describing it as very difficult, 23.5% as difficult, and another 23.5% as somewhat difficult. The main barriers to recycling and composting include a lack of system and infrastructure (41.2%), followed by 14.7% who believe it requires too much effort, and 17.6% who are unsure why they do not recycle.

Opinions were somewhat divided regarding challenges faced by People with Disabilities (PwDs) in waste management. While 58.8% believe there are no particular obstacles, 41.2% think otherwise, with some respondents noting that PwDs often lack proper access to waste management facilities. Cultural and gender-related influences on waste management were not seen as significant by most respondents, as 67.6% stated that these factors do not impact waste practices. However, comments suggest a strong need for awareness campaigns to promote waste reduction, recycling, and environmental protection.

Regulatory and Policy Assessment

The survey reveals a significant gap in public awareness regarding waste management programs, with **79.4%** of respondents stating that they are unaware of any local or national initiatives. Additionally, confidence in waste management policies is low, as only 8.8% believe they are effective, while 20.6% find them ineffective, and 52.9% remain uncertain.

However, there are encouraging signs of community engagement and environmental awareness. A notable 76.6% of respondents have participated in community clean-up initiatives, demonstrating a willingness to take action. Furthermore, 82.4% recognize the negative environmental impact of improper waste disposal, indicating a strong foundation for future awareness campaigns and policy improvements.

Conclusions & Recommendations

The survey findings highlight a broad consensus on the lack of proper and modern waste management infrastructure, including insufficient recycling facilities and collection systems. Additionally, respondents emphasize the need for stronger policy enforcement and incentive based initiatives to encourage responsible waste disposal. Finally, public education emerges as a key factor in fostering long-term engagement, as many participants remain unaware of existing waste management programs and best practices. Strengthening awareness efforts, improving infrastructure, and implementing policy-driven incentives will be essential steps toward a more effective and sustainable waste management system.

Actionable recommendations

1. Enhance Recycling Infrastructure
    a. Establish a comprehensive recycling system by increasing the number of recycling bins and collection points in urban and rural areas (88.2% support).
    b. Ensure that bins are properly labeled and strategically placed to maximize accessibility and usage.
2. Introduce Incentives and Regulations for Responsible Waste Disposal
    a. Implement financial or material incentives to encourage citizens to recycle (70.6% support).
    b. Introduce penalties for improper waste disposal to promote compliance and accountability.
3. Strengthen Partnerships for Waste Management
    a. Foster collaboration between schools and municipalities to improve waste collection infrastructure and promote reduce, reuse, and recycle practices (67% support).
    b. Develop a structured engagement model where municipalities, businesses, and citizens work together to enhance waste management.
4. Develop a Governmental Master Plan on Waste Management
    a. Establish a comprehensive, long-term waste management strategy with clear policies, regulations, and enforcement mechanisms.
5. Increase Waste Collection Frequency and Efficiency
    a. Prevent environmental hazards by increasing the frequency of waste collection, especially in areas where waste accumulation leads to public health risks.
6. Improve Waste Management Services and Training
    a. Provide capacity-building programs for waste management service providers to enhance efficiency and sustainability.
    b. Introduce green technologies to modernize waste management infrastructure and reduce environmental impact.
7. Enhance Public Engagement and Education
    a. Launch large-scale awareness campaigns targeting schools and communities to promote responsible waste disposal.
    b. Integrate recycling education into school curricula and organize community clean-up initiatives.
8. Encourage Business and Retail Sector Involvement
    a. Supermarkets should install vending machines for recycling plastic and glass, providing incentives for customers to return used packaging.
    b. Establish collaborative recycling programs between businesses, waste management services, and citizens to streamline collection and processing.

By implementing these recommendations, municipalities and stakeholders can improve waste management efficiency, increase citizen participation, and promote a culture of sustainability.

4. Needs Analysis Report Italy

Survey Design and Data Collection Process

The organization responsible for conducting the survey in Italy is CRHACK LAB in the city of Foligno. The ECO-CHAMPIONS project aims to assess the local community's current waste management practices, challenges, and needs. This report summarizes the findings based on survey responses collected from residents. The primary objectives include understanding waste disposal habits, identifying common obstacles to effective recycling, and recommending solutions for improvement.

Key findings

Participant Profile and Demographic Overview

The survey involved people of various age groups, predominantly between 30 and 64 years old, with a slight majority of female participants. Most respondents reside in urban areas and identify as residents rather than entrepreneurs or business managers. The primary role of respondents in their community is that of residents, indicating that household waste management is a critical concern

Waste Generation and Management Practices

The majority of respondents reported separating recyclable materials such as plastic, paper, and organic waste. However, some still lack awareness or access to proper recycling facilities. In terms of waste reduction, common strategies include avoiding food waste and minimizing the use of single-use packaging.

Main Challenges and Obstacles in Waste Management

Several key barriers were identified:

- Lack of availability of waste sorting and recycling facilities.
- Insufficient knowledge about composting and recycling procedures.
- Difficulty in repairing and repurposing items due to time constraints or lack of skills.
- Limited accessibility for elderly or disabled individuals in waste disposal.

Among the main difficulties reported, many participants highlighted the limited availability of packaging-free products in local supermarkets. Others expressed difficulties in repairing damaged objects due to a lack of time or specific skills. A percentage of respondents believe that information on recycling and composting is insufficient or difficult to access. Some residents, particularly the elderly or people with disabilities, find waste management complicated, emphasizing the need for accessible and inclusive solutions.

Recommendations for Improvement

Respondents suggested various measures to enhance waste management:

- Establishing incentive programs for recycling.

- Implementing stricter regulations and penalties for improper waste disposal.
- Conducting educational campaigns to raise awareness on sustainable waste management.
- Improving waste collection infrastructure to accommodate all community members.

Suggestions and Possible Solutions

Participants proposed several initiatives to improve waste management, including:

- Economic incentives for those who adopt sustainable practices such as composting or material reuse.
- Increased educational campaigns and workshops to raise public awareness of proper waste disposal practices.
- Implementation of stricter regulations and penalties for those who do not comply with waste management rules.

Interest in Sustainability Training

A considerable portion of respondents expressed interest in further exploring sustainable practices in waste management. This suggests an opportunity to develop targeted training and awareness programs to increase knowledge and encourage the adoption of responsible behaviors.

Conclusions

The needs analysis highlighted a good level of awareness regarding waste management but also the need for greater informational, logistical, and economic support. The recommendations suggest the importance of encouraging sustainability through targeted policies, environmental education, and active community involvement. The ECO CHAMPIONS project can play a key role in promoting more sustainable and inclusive Practices within the territory.

5. Needs Analysis Report Greece

Survey Design and Data Collection Process

The organization responsible for surveying in Greece is Co2gether in the city of Patras. The survey was delivered to our local network through an online form (e.g., Google form) in Greek to facilitate distribution and participation. The fact that the questionnaire was anonymous encouraged people to complete it and allowed them to feel more confident and open to answering. A total number of 31 participants answered the questionnaire, and 58% of them left their email addresses visible, meaning that they wish to receive updates for the project development

Key findings

Participant Profile and Demographic Overview

The majority **(67%)** fall within the **30-64** age group, indicating a predominantly middle-aged population. Only 9.7% are young adults (18-29), suggesting a lower presence of younger generations. Seniors (65+) make up 16%, and the 0-17 age group, is the smallest (6.3%), signaling potential concerns in these age groups. Women significantly outnumber men (**74%** vs. 26%). Most respondents **(64.5%)** reside in cities, while 35.5% live in rural areas. This suggests urbanization trends and potential disparities in services between urban and rural populations. Most individuals **(87.1%)** are residents, Business owners constitute 9.7%, and Public servants make up 3.2%.

Waste Generation and Management Practices

- Sorting recyclable materials **(67.7%)** is the most common behavior, suggesting that the public is quite aware of recycling.
- This is followed by avoiding food waste **(58%),** indicating a fairly strong environmental awareness, especially given the high environmental impact of food waste.
- Repairing items **(3.2%)** and avoiding single-use packaging **(6.4%)** appears to be less widespread, which may indicate either limited awareness of these practices or practical barriers to their implementation (e.g., lack of infrastructure for repairs or lack of alternative packaging).
- Long-term use of clothes and shoes or their free disposal **(29%)** suggests that, while recycling and avoiding food waste are high priorities, clothing management may not be as widespread or organized as other eco-friendly habits.

Estimated amount of general waste weekly

- **The majority produce minimal waste 51.6%** generate less than 5kg of waste per week, indicating a relatively low waste output. Moderate Waste Generators
- **22.6%** produce between 5-10kg weekly, which is a moderate level of waste. This group may represent larger households, higher consumption levels, or areas with less emphasis on waste reduction practices.
- **Lack of Awareness**. **16.1%** do not know how much waste they generate, which highlights a potential gap in waste awareness. This could indicate the need for education on waste tracking and management to encourage better sustainability practices.

Types of household waste are most common in your neighbourhood

- **Plastic is the dominant waste type (64.5%)**

This is a significant concern as plastic is non-biodegradable and contributes to environmental pollution. High plastic waste suggests a need for better recycling, plastic reduction policies, and awareness campaigns.

- **Paper/Cardboard waste is also high (58%)**

This indicates a strong reliance on paper-based materials, which can be managed through recycling programs. Encouraging digital alternatives and reusable packaging could help reduce this category.

- **Organic waste is 41.9%**

This presents an opportunity for composting programs to reduce landfill waste.
High organic waste also suggests a need for better food waste management practices.

- **Glass (32%) and Metal (19.4%) waste are relatively lower**

These materials are recyclable and should be collected separately to maximize reuse.
Improving glass and metal recycling facilities could help reduce their environmental impact.

19.4% of respondents don't know their waste composition. This indicates a knowledge gap and highlights the need for educational initiatives on waste sorting and reduction

Infrastructure and Technological Assessment

Adequate Waste Management Facilities (77.4%). A strong majority believe there are enough waste bins and recycling centers, which suggests that infrastructure is not a major issue. However, **22.6%** might feel there are gaps, which could indicate certain areas need more accessibility to waste disposal options.

Waste Collection Frequency Varies. 35.5% reported twice-weekly collection, which is a standard frequency in many urban areas. **22.5%** have daily collection, likely in high-density areas or city centers. **15.5%** receive weekly collection, which may not be sufficient in some cases. **25%** don't know how often waste is collected, indicating a lack of awareness about local waste management schedules.

Recycling is the Most Used Waste Disposal Method (35.5%). Recycling appears to be common but not dominant, meaning there is room for improvement in promoting it further. **35.5%** are unsure or unaware of the primary disposal method, showing a significant knowledge gap. **22.6%** reported landfill use, suggesting that a portion of waste is not being properly diverted from landfills, which may have environmental consequences.

Municipality's Responsibility (90.3%). Nearly everyone agrees that waste management is handled by the local government. This suggests that improvements or changes in waste management policies should be led by municipal authorities, potentially in collaboration with private waste management companies.

Environmental and Financial Impact

- **Environmental Impact Perception. 64.5%** believe waste management significantly affects the environment, indicating strong awareness of waste-related environmental issues. **25.8%** are unsure, suggesting a gap in education about the environmental consequences of waste disposal practices. This highlights an opportunity to improve public knowledge on how waste contributes to pollution, landfill overflow, and climate change.
- **Financial Awareness of Waste Management Costs.** 58% are unsure about their household waste management costs, which suggests that waste-related expenses are either included in taxes, bundled with other services, or not clearly communicated. 22.6% spend less than €10 per month, which is a relatively low cost. 19.4% spend between €10-20 per month, indicating that some residents may be paying for private waste services or additional disposal fees.

Specific Needs and Concerns

The Greek survey reveals several challenges and attitudes toward waste minimization, recycling, and accessibility in waste management.

1. Lack of Awareness & Initiative in Waste Reduction.

48.4% haven't considered minimizing household waste, suggesting a lack of awareness or motivation. This indicates a need for educational campaigns on simple, actionable steps for waste reduction, such as meal planning, composting, and reusing materials.

2. Barriers to a Zero-Waste Lifestyle

25.8% consider supermarkets responsible for not selling bulk products, showing that local/national businesses contribute to waste production.

16.1% lack skills to repair items, leading to unnecessary disposal of clothes, electronics, and shoes.

22.6% struggle with time constraints when managing food waste or buying in bulk.

3. Recycling Participation & Barriers

19.3% consider recycling very easy, but 16% avoid it due to effort, 25.8% don't know how, and 38.7% don't care much.

4. Accessibility Issues in Waste Management

64.5% are unaware of challenges faced by disabled or elderly persons, while 35.5% recognize that these groups struggle with waste disposal. This suggests that accessibility concerns (e.g., difficult-to-reach bins, lack of home collection) may not be widely recognized.

Challenges mentioned by the participants

- Difficult access for the elderly or people with reduced mobility due to the height of the recycling bins.
- The bins are very difficult to open, you have to be very strong
- Because the collection system is not adequate. Making recycling management difficult

87% think cultural or gender-related issues influence waste management practices in their area.

Regulatory and Policy Assessment

The data highlights significant gaps in awareness regarding local and national waste management programs and policies, despite relatively high participation in community efforts.

- **Low Awareness of Waste Management Programs (80.6%).** Only 19.4% are aware of existing local or national waste programs, suggesting that current initiatives are either insufficiently publicized or not widely accessible. However, participants mentioned knowledge of Clothing recycling, Individual initiatives, Recycling of plastics, electronics, composting, and Oil recycling.
- **Lack of Awareness of Local Regulations (97%).** Nearly all respondents (97%) are unaware of local regulations on waste management, showing a major gap in policy communication. Of those who responded, **66.7%** were unsure if local waste reduction regulations are sufficient, indicating confusion or lack of transparency in policy enforcement.
- **Encouraging Community Involvement & Action. 67.7%** have participated in community clean-ups or waste initiatives, showing strong local engagement. **83.9%** recognize the environmental impact of improper waste disposal, indicating a generally informed population on environmental consequences.

Suggestions and Recommendations

The survey suggests the community is willing to seek better waste management solutions, particularly through **education, incentives, and improved recycling infrastructure**.

61% by organizing educational campaigns or workshops on waste management
61% by setting up incentives for recycling or waste reduction (e.g., discounts, rewards)
58% by collaborating with schools to teach children about reducing waste, reusing products, and recycling
29% by helping local businesses and citizens go waste-free, for instance, by setting up systems to reuse packaging and reduce food waste and introducing stricter regulations and fines for improper waste disposal.
58% by offering free or low-cost composting bins or facilities
51% by offering more recycling bins to improve recycling disposal
25% support community-led waste management initiatives (e.g., clean-up drives,eco-challenges), and improve frequency and reliability of waste collection services.
84 % would be interested in learning more about sustainable waste practices

Conclusions

Recycling & Waste Reduction Efforts – Many residents separate recyclables, minimize food waste, and extend the use of clothes and shoes. However, **plastic and paper remain the dominant waste types**, requiring stronger reduction strategies.

Infrastructure vs. Accessibility – While waste management facilities are generally considered sufficient, **accessibility remains challenging for vulnerable groups**. Addressing these gaps is crucial for inclusive waste management.

Lack of Awareness & Engagement—Most **residents are unaware** of local and national waste management programs and regulations. Limited policy awareness suggests a **need for stronger educational efforts and public engagement**.

Cultural & Demographic Influences – **Gender differences and other demographic factors shape recycling behaviors**, indicating that tailored approaches may be more effective in promoting sustainable habits.

6. Needs Analysis Report Spain

Survey Design and Data Collection Process:

The organization responsible for surveying in Spain is LA BIEN PAGÁ in the city of Valladolid. The survey was delivered to our local network through an online form (e.g., a Google form) in

Spanish to facilitate distribution and participation. The fact that the questionnaire was anonymous encouraged people to complete it and allowed them to feel more confident and open to answering. A total of 20 participants answered the questionnaire.

Key findings

Demographic and general information

- Age: **90% age 30-64**
- Sex: **85% women**
- Geographical location: **75% city**
- Primary role in the community: **85% resident**

Waste Generation and Management Practices

85% separate recyclables (like plastic, glass, paper) from general waste
75% avoid throwing away food
65% repair things that are broken (when possible)
60% avoid single-use packaging
60% wear clothes and shoes as long as possible or give them away when don't wear them

Estimated amount of general waste weekly

- **40% less then 5kg**
- 25% 5-10 kg

Types of household waste is most common in your neighbourhood

- **65% plastic waste**
- 50% Paper/Cardboard

Infrastructure and Technological Assessment

70% stated that there are enough waste management facilities (e.g. bins, recycling centres) where they live.
50% stated that waste is collected daily (30% weekly)
50% stated that recycling is the waste disposal method most used in their area (40% doesn't know/not sure)
80% stated that the Municipality is responsible about Waste Management

Environmental and Financial Impact

50% believe current waste management practices in their area have a significant environmental impact (35% doesn't know)
45% of their household spend less than 10€ monthly on waste management services (30% N.A. and 25% 10€-20€)

Specific Needs and Concerns

50% declared that the difficulty to recycle is level 3 (corresponding to "neutral" I Likert scale) while for the 20% of the participants is very easy (level 1)
65% declared that the main reason why it is difficult to live without household waste is because the **supermarkets around them don't sell products in bulk** and **40% don't have the skills to repair** things like clothes, shoes, electronics, etc.
65% recycle and 10% doesn't due to too much effort.
Feedback from one participant: there are no recycling bins nearby, they are generic.
50% is not aware if there any particular challenges faced by disabled or elderly persons in waste management in their area while **30% of them declare that these vulnerable groups face challenges**.

Challenges mentioned by the participants:

- Difficult access for the elderly or people with reduced mobility due to the height of the recycling bins.
- The bins are very difficult to open, you have to be very strong
- Because the collection system is not adequate. Making recycling management difficult
- Pedal bins
- Purchasing options, barriers to access to all bins

35% think that cultural or gender-related issues influence waste management practices in their area.
Main reasons according to the participants:

- The more culture, the more recycling there should be.
- My Roma neighbours don't recycle. They don't even put the rubbish bags in the bin, as if to recycle.
- Lack of training and awareness
- The older population is not as familiar with or aware of recycling and they often confuse bins.
- There are people who are not careful or have not considered recycling because they think it is nonsense.
- Women in general are more aware because of the care education we have.

Regulatory and Policy Assessment

10% is aware of local or national programs for waste management
Feedback from participants:

- The slogan we all recycle
- Green homes, go natural.

10% is aware of any local regulations or policies on waste management
Feedback from participants:

- What needs to be discriminated between one type of waste and another: video, paper, plastic, etc.
- Municipal law

11% of those who answered yes (9 participants), finds local regulation very effective in reducing waste, while 33% somewhat effective.
35% has participated in community clean-up or waste management initiatives.
60% is aware of the environmental impacts of improper waste disposal.

Suggestions and Recommendations

How can local authorities or organizations help you manage waste better?

60% by collaborating with schools to teach children about reducing waste, reusing products and recycling
55% by setting up incentives for recycling or waste reduction (e.g., discounts, rewards)
45% by helping local businesses and citizens to go waste free, for instance by setting up systems to reuse packaging and reduce food waste
40% by

- offering **free or low-cost composting bins** or facilities
- organizing **educational campaigns** or workshops on waste management
- introducing **stricter regulations and fines** for improper waste disposal
- supporting **community-led waste management** initiatives (e.g., clean-up drives, eco-challenges).

What changes would you recommend improving waste management practices in your area? (open question)

- Better management of the municipality
- Workshops for more effective recycling. Accessible containers
- Not privatising companies dedicated to this end
- Citizens need to know the effects of incorrectly separating waste
- Proximity of collection points for electrical appliances and other devices
- Raising public awareness
- More frequent collection system
- Use of recycled containers in supermarkets

Are there any additional comments or insights you'd like to share? (open question)

- Using creativity to give things other uses
- Not for the moment
- More containers
- Thanks for the initiative

65% would be interested in learning more about sustainable waste practices

Conclusions

The waste management analysis reveals a **responsible community with strong recycling habits, yet challenges persist in accessibility, awareness, and infrastructure**.

While **most residents separate recyclables, avoid food waste, and repair** items, plastic and paper remain dominant waste types. Infrastructure is generally sufficient, but **accessibility issues exist** for vulnerable groups.

Limited policy awareness and engagement highlight the **need for stronger educational efforts and incentives**. Cultural and demographic factors influence recycling behaviors, with gender differences noted.

Key recommendations include school collaborations, incentive programs, and stricter regulations to enhance waste reduction. Overall, improved public awareness, infrastructure adjustments, and municipal engagement are crucial for more effective waste management.

7. Concluding Remarks

Potential Actions & Recommendations:

✔ Increase Education & Awareness – Many are unaware of waste reduction strategies and the challenges faced by certain groups.
✔ Improve Recycling Accessibility & Convenience – More bins, better instructions, and incentives could boost participation.
✔ Advocate for Systemic Changes – Supermarkets, businesses, and local authorities must support waste reduction efforts. This suggests that broader outreach and engagement strategies are needed while some targeted initiatives exist.
✔ Enhance Municipal Involvement & Policy Communication- Municipalities should increase public communication on waste policies (e.g., through online platforms, social media, or local events).
✔ Address gaps in knowledge about waste reduction strategies- Implement awareness campaigns explaining waste management regulations in simple, actionable terms.
✔ Promote engagement- Workshops & seminars can be organized to inform residents on their responsibilities, propose inclusive activities and acquire practical skills.

Potential Solutions:

- Advocate for bulk-buying sections in local stores.
- Promote repair workshops and DIY repair guides.
- Create time-efficient waste reduction strategies (e.g., simple meal planning tips).
- Build on existing community engagement by formalizing waste reduction programs.
- Encourage volunteer-led awareness campaigns to bridge the knowledge gap about local waste policies.
- Strengthen partnerships between municipalities, businesses, and community groups to create more visible and structured initiatives.
- Digital innovation for informing and boosting waste management responsible practices.