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THE IMPORTANCE OF COMMUNICATION IN BEHAVIOURAL CHANGE FOR CONSUMER INVOLVEMENT IN THE CONTEXT OF BIO WASTE SORTING IN LATVIA

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Abstract. Within the framework of the European Green Deal, a circular economy is ensured, which is defined as a sustainable development model that preserves the value of products, materials and resources in the economy as much as possible. Waste sorting is of great importance in this process, as it enables rational management of resources and the return to circulation of already used products, which become raw materials for the production of other products. The proportion of unsorted waste in Latvia is higher than in other European countries, and the shared waste collection system operates with certain problems. In particular, this applies to the collection and management of bio-waste, which is currently one of the weakest sectors in the industry, despite the fact that the Landfill Directive of the European Parliament and the Council stipulates that a separate collection system for bio-waste must be in place by the end of 2023. In the event that the system of separate collection of biological waste is not organized during this period, sanctions may be applied to Latvia. Therefore, it is urgent to understand how to change consumer behaviour and increase involvement in waste sorting as the amount of waste increases, what opportunities and responsibilities exist for the organizations and consumers involved in this process. In this research, the study of consumer behaviour changes and their causes is analysed in the context of public communication and its opportunities.

The aim of the article is to assess the importance of communication in encouraging changes in consumer behaviour in waste sorting in Latvia, especially in the bio-waste segment. In order to achieve the goal, an analysis of literature and documents was carried out on consumer behaviour, factors influencing it, consumer habits and communication possibilities for changing them. Consumer involvement and habits in biowaste sorting were investigated through a secondary analysis of previous relevant studies. In order to characterize the communication of waste management companies about waste sorting, a content analysis was carried out. In order to assess the current communication about waste management and sorting and its impact on consumer behaviour, interviews were conducted with communication experts.

In general, it can be concluded that the waste management industry in Latvia is fragmented, which promotes competition between companies. However, each waste managing company has different waste sorting systems and other rules, which are not clearly explained to consumers, this communication is general and is not formed on a strategic basis, and in does not contribute to changes in consumer behaviour and an increase in waste sorting.

Key words: bio waste, communication, consumer behaviour, waste sorting.

JEL code: R58, R11, O13, O18, Q01

Introduction

The amount of waste around the world is constantly increasing, it affects the urgent requirements for the preservation and cleanliness of the environment. It is becoming more and more important on an international and a national scale to sort out the issues of waste sorting so that it is a natural and self-evident daily activity in every home. Researchers from different countries are looking for solutions to change or improve citizens' waste sorting habits, thus promoting waste management and waste recycling. The main problems in this area are: 1) insufficient special regulation and budget of national governments for household waste management; 2) education of households: households do not know about waste recycling needs; 3) missing recycling technologies; 4) management expenses, - the high cost of waste book classification (Chu et al., 2018).

The proportion of unsorted waste in Latvia is higher than in other European averages – in 2020, the amount of sorted waste in relation to the total amount of waste was 39.6% (the European average was 47.8% respectively). Compared to 2019, the amount of sorted waste has decreased, not following the

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growing trend in other European countries (Eurostat, 2022). Although the difference in this indicator is not large, nevertheless, taking into account the goals set by European countries and Latvia, it is necessary to increase the amount of sorted waste in Latvia compared to the total amount of waste. Each resident of Latvia produces on average more than 400 kilograms of waste per year, which is mostly buried in landfills forever, but the resources of landfills are decreasing every year. The way to reduce the generated household waste is to sort it properly. As a result of waste sorting, the recycling of raw materials is promoted, the negative impact on the environment is significantly reduced, and natural resources are saved (Latvijas Zalais Punkts, 2023).

Biodegradable waste (or biological waste, or bio-waste) is an essential section of sorted waste. Biowaste is defined as biodegradable garden and park waste, food and kitchen waste from households, restaurants, catering establishments and retail premises, as well as similar waste from food processing plants (European Commission). Biowaste is the largest component of household waste in the EU with a share of 34%, but in Latvia it is approximately half of household waste (Eurostat, 2022). Organizing the area of biowaste sorting is an essential task within the industry, which will also improve the overall waste sorting process. Bio-waste is the one that creates unpleasant smells, and separating this part of the waste and removing it often enough can reduce not only the odours, but also the frequency of unsorted waste disposal. As soon as we sort bio-waste, our unsorted waste becomes drier, but we can get more materials from dry unsorted waste. It is not the same as trying to collect cardboard mixed with banana peels and apple cores or materials from dry waste. The remaining waste, which is not suitable for processing, can also be directed to the production of quality energy - it has a higher calorific value and a lower moisture content. They could use the waste imported to Latvia for incineration in cement factories, because the quality of local waste is not good enough (Luse, 2023).

Within the framework of this research, it is necessary to find out how to create strategic communication about waste management and sorting that reaches consumers in order to increase the involvement of consumers in waste sorting. The study is relevant, because in previous studies of sorting habits, Latvian residents indicate that information on waste management is not complete, nor is it placed in channels conveniently used by residents on a daily basis. Waste sorting, on the other hand, is a critically important aspect for achieving Europe's green goals.

The aim of the study is to assess the importance of communication in encouraging changes in consumer behaviour in waste sorting in Latvia and to look for solutions to improve communication. The tasks of the research are: 1) to analyse literature and documents on consumer behaviour, factors affecting it, consumer habits and communication possibilities for changing them; 2) to perform a secondary analysis of previously conducted studies on consumer involvement and habits in biowaste sorting; 3) to describe the communication of waste management companies about waste sorting; 4) to conduct interviews with communication experts in order to evaluate the current communication of the waste management companies about waste sorting and its impact on consumer behaviour. The sources of information in this study are the works of consumer behaviour change and communication theorists (Grunig, Hunt, 1984; Narvanen et al., 2020; Ferron, Massa, 2013), research conducted in the European Union and Latvia on issues of waste sorting, waste regulatory acts of management, as well as public communication of the participating organizations.

Research results and discussion

1. Sustainable consumer behaviour

Solving sustainability issues is often thought to be linked to product innovation. If products and services became environmentally friendly, sustainability would no longer be an issue. However, there are several problems with this view. For example, environmentally friendly products often require large investments, political support, consumer acceptance, and a willingness to pay. Given the high number of product innovation failures, research on consumer behaviour seems crucial to guide various interventions aimed at promoting sustainable behaviour. Sustainable consumer behaviour can be viewed from a variety of perspectives, including policy makers, marketing, consumer interests, and ethics (Antonides, 2017). It follows that sustainable consumer behaviour is largely influenced by entrepreneurs, but entrepreneurs must also have an incentive to change their actions. At this point, it becomes natural that consumers are the ones who can influence the actions of entrepreneurs, but entrepreneurs are the ones who can influence the actions of consumers. In this regularity it is necessary to insert a factor that affects both sides, thus promoting action and fulfilling the regularity, resulting in more sustainable solutions.

Researchers Gilli, Nicolli, Fainelli, by surveying 618 households in Italy, have studied the following regularities: there are three different types of motivation – intrinsic, extrinsic, and pressure. Internal motivation works in a situation when the consumer themselves experiences positive emotions about work and decides, for example, to change a habit. In the case of intrinsic motivation, the consumer rewards themselves only with the feeling of accomplishment. On the other hand, extrinsic motivation is the one where the stimulus comes from someone else – that is, receiving some benefit in return. The benefit can be material, financial, or social. The motivation of pressure occurs when people around a consumer perform an action, which may be a socially (or otherwise) more responsible action, and this creates pressure for that particular individual to change their behaviour in order to fit in and not place themselves lower in a social sense. A correlation was observed between the level of education and involvement in waste sorting - in the group that sorted waste due to pressure-based motivation, the number of people who had completed basic education was lower, while in the groups where the motivation was formed by internal or external factors, the proportion of higher education among the respondents was higher (Gilli, Nicolli, Farinelli, 2018).

Consumer involvement and motivation, openness to the implementation of sustainable solutions on a daily basis are key factors to change their habits. It is very important to educate and create awareness about the importance of waste sorting, not only the message of the environment and economic aspects, but also informing about the importance of bio waste in the entire waste recycling cycle. There are several barriers to sustainable consumption that are listed below.

- The level of education – society's understanding of sustainability and the binding processes of the topic. Actions, effects: the more knowledgeable the consumer, the more responsible purchases and actions are taken.
- Consumer age (scepticism) – the younger generation is more open to more innovative solutions than older generations. Younger consumers follow trends more and are not afraid try a product obtained in a different way, for example from recycled materials.
- Fast fashion – clothing collections on store shelves regularly change, and significantly reduced sustainable clothing consumption is possible.

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- Price – one of the most powerful factors that determine consumer actions. The lower the salary, the more advantageous/cheaper products the consumer will choose, and, in this variant, the impact of sustainability is not considered.
- The level of well-being – as the level of well-being in the country and the world improves, consumers will be able to do more to allocate funds for responsible purchases.
- Lack of information – governmental and non-governmental organizations, as well as brands and companies themselves, must actively inform the public about sustainability, as well as about positive benefits for the environment and the economy. Communication is the key to change.
- Lack of motivation – there is no motivation to act responsibly, which is also facilitated by the previously-mentioned disinformation. By understanding these barriers, brands can inform consumers about a solution or a response to existing barriers by helping consumers understand the value and necessity of the industry (Euromonitor International, 2022).

By identifying the above-mentioned barriers, companies and organizations can develop strategies for different consumer groups, dividing them into segments and adjusting the content and channels of marketing communication. The correlation between education level and waste sorting habits is a significant factor that prompts understanding whether the weak link is the lack of information reaching consumers or other factors that influence it. In this case, pressure motivation is also potentially less likely to occur if the consumer's social circle includes consumers without a higher education, as well as those who do not sort waste (Euromonitor International, 2022). Social groups have a great influence on their members, and accordingly, communication channels and content are very important. In different groups, it is precisely in matters of waste sorting that the economic benefit may become the most significant in some groups, but it may not provide a long-term effect for changing habits.

2. Communication as a means of involving consumers in waste sorting

Effective communication and its strategic planning are very essential to improve public awareness of waste management issues and to help change waste sorting habits both in general and by separate groups of sorted waste. When developing any communication strategy, plan or guidelines, one must remember the need for dialogue with the audience, because dialogue is not only a democratic process, but also an excellent way to acquire/transfer knowledge.

US professor James Grunig, whose theory of four public relations models developed together with Todd Hunt in 1984, has been the basis for the theoretical framework of public relations communication for several decades. Grunig and Hunt divided organizational communication (in the sense of public relations) into one-way and two-way communication, each of them in turn being divided in more detail depending on the desire of the communicator to involve the recipients of information in the overall communication process, as well as to create feedback (Grunig, Hunt, 1984). One-way communication models include the publicity model, which is characterized by persuasion and manipulation to influence the behaviour of the audience in the interests of the organization, and the public information model, in which information about the organization is disseminated using press releases and other one-way communication tools. Two-way communication models are represented by the two-way asymmetric model, in which research is used by communicators to find out the best way of persuasion, and feedback to the target audience is important in this model, and the two-way symmetrical model, in which consultation with the target audience takes place to resolve conflicts and ensure mutual understanding and respect between the organization and its target audience (Grunig, Hunts, 1984).

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In 1995, Grunig developed this theory in collaboration with David Dozier and Larissa Grunig by creating a model of excellence in public relations and emphasizing the importance of two-way symmetrical public relations in organizational communication. The model, as described in this theory, aims to ensure that the decisions made by the organization are not only mutually understandable, but also mutually beneficial for the organization and its audience (Grunig, 2013).

The findings of Grunig and his colleagues are an important theoretical and practical basis for creating communication in the field of waste sorting and searching for arguments that are important to the audience involved in this process. For example, in the UK, WRAP (The Waste and Resources Action Programme, a climate action NGO founded in 2000 that works in more than 40 countries around the world to address the causes of the climate crisis and ensure a sustainable future for the planet) helps individuals, businesses and local authorities work with programs to improve waste reduction and sorting, thereby making better use of natural resources and helping to combat climate change. WRAP has produced a research-based guide, 'Improving Recycling Through Effective Communication', which guides the development of a communication strategy to promote the collection of sorted waste. The guide is based on WRAP's experience of leading national recycling and waste prevention campaigns, as well as other local authority examples across the UK. WRAP's research shows that the key to success is properly designed communication with the community to overcome barriers to people's participation. When developing the guidelines, the latest research and theoretical insights were used to provide local governments and waste management companies with comprehensive information on aspects of communication planning. The manual's chapter on strategy development states that in addition to initial research information or situational analysis and knowledge of key target audiences and budget options, it is important to decide which mix of communication methods will be most effective in reaching the target audience (WRAP, 2013).

For example, WRAP lists communication methods that can be chosen depending on the type of information one wants to give people about waste sorting:

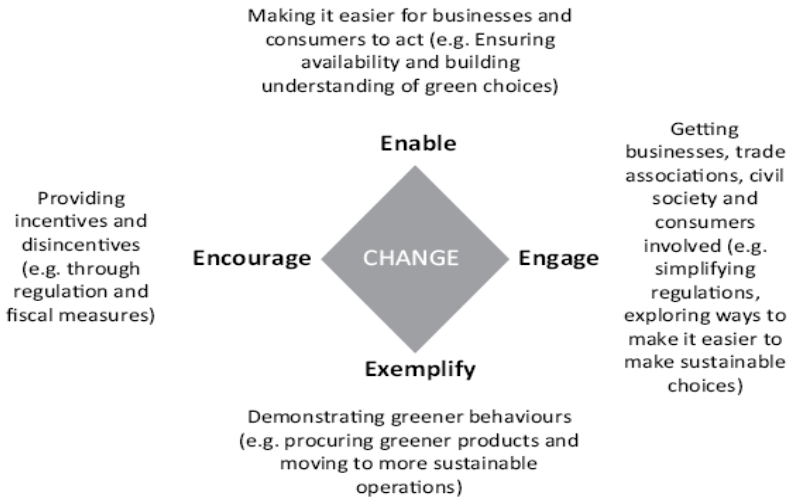
- advertising is suitable for short, simple messages such as awareness raising and simple calls to action;
- public relations in the local press can effectively provide both simple and more complex information, for example, about the introduction of a new service, or explain how waste processing takes place;
- on flyers and calendars delivered to every household, and on the company's website, detailed information can be provided on what can be thrown into the sorted waste container, or what is the container removal schedule;
- in direct communication, customer service specialists can provide detailed information that each person needs individually (WRAP, 2013).

Depending on the situation, communication about waste separation may involve one or more of the above, as well as different tasks, such as creating and maintaining awareness; interest should be promoted; provide practical information; barriers (people's prejudices) must be removed; encourage behaviour change; people must be attracted and involved over time. In addition, the factor that different communication methods and activities have different effects on different audiences should be taken into account:

- TV and radio are suitable for targeting the entire region with the same message;
- the local newspaper can be used to address the people of the local municipality;
- informative posters in certain places will be intended only for people visiting these places;

- social media channels can be an effective way to communicate information about services and allow engaging in a two-way dialogue with residents to spread messages, improve customer service and build relationships;
- mobile phone text messaging and information services can be an effective way, e.g. reminders about taking out waste bins (Pelenur, 2022).

There is no single solution to influencing consumer behaviour. Changing deeply ingrained habits is difficult and requires a consistent, strategic approach. The Department for Environment, Food & Rural Affairs (DEFRA) of Government of the United Kingdom developed the 4Es model to help plan appropriate communication to achieve these goals. The model was developed in 2011 as part of the UK's Sustainable Development Strategy, which aimed to engage individuals, households and communities in implementing sustainable behaviour change. So, it was defined that four elements are needed for change to happen: opportunity, involvement, encouragement and setting an example, and then over time human action becomes a certain norm (Figure 1).



Source: Department for Environment, Food & Rural Affairs (DEFRA) of Government of the United Kingdom, 2011

Fig. 1. **4Es model of behaviour change**

Moreover, WRAP developed guidelines based on the 4E model with four main steps to be taken in order to change consumer habits and make waste sorting a self-evident daily activity.

1) **Enable** – making it easier: provide people with the support they need to make responsible choices (e.g. by building food waste champions, and providing cookery courses).
2) **Encourage** – give the right signals: understand and offer the benefits to change which are as important as providing regular feedback (e.g. using members of the public as case studies, providing food waste diaries to record progress, prize draws and equipment trials).
3) **Engage** – get people involved: involve people early on so that they understand what they need to do – help them develop a sense of personal responsibility. Work with the grain of lifestyles and through trusted partners and intermediaries to develop 'social norms' (e.g. printed media and PR, and using businesses as intermediaries to host events).
4) **Exemplify** – local authorities need to lead by example: Review internal policies and take action to 'exemplify' the same behaviour (WRAP, 2015).

The option is to make waste sorting easier, that's the starting point – there's no point asking residents to sort waste if they don't know how to do it, or if they know how to sort waste but don't have the

infrastructure to do it. People need help to make choices, so education, skills and quality information must be provided. On the other hand, encouragement means giving the right signals, choosing the most effective techniques to force a change in behaviour and promote waste sorting.

3. Characteristics of types of waste and the divided waste management system in Latvia

The waste management sector is one of the most important sectors in the country, and the waste management system is one of the most important directions in EU and Latvian legislation in the field of environmental protection and good management and management of resources. In general, this field is regulated by more than 40 regulatory acts and documents in Latvia, of which the Waste Management Law is considered the main regulatory act of the industry.

According to the Waste Management Law, waste is any object or substance that its owner gets rid of, decides to get rid of or is forced to get rid of. A waste generator is any natural or legal person whose activities generate waste (the original waste generator) or who performs waste pre-treatment, mixing or other activities, as a result of which the composition or properties of waste change. The classification of waste according to its origin is as follows: hazardous waste is waste that has one or more properties that make it dangerous; household waste is waste generated in the household, trade, in the process of providing services or elsewhere, if it is similar in terms of characteristics to waste generated in households; production waste is waste generated during the production process or construction; biological waste is biodegradable waste from gardens or parks, food and kitchen waste from households, restaurants, public catering establishments and retail premises and other similar food production waste (Saeima, 2010).

The law also defines what waste sorting is – manual separation of certain types of waste from the total waste flow at the point of waste generation, manual or automated separation from the total waste flow at waste collection and sorting sites, as well as in waste recovery and waste disposal facilities. On the other hand, waste recovery (any activity, the main result of which is the beneficial use of waste in production processes or the economy, replacing with them other materials that would have been used for the relevant activity, or the preparation of waste for such use) and waste recycling (waste recovery activity, in which waste materials are processed into products, materials or substances according to their original or other use) (Saeima, 2010) is closely related to today's essential aspects of sustainability, the importance of which is growing year by year.

The basis of an environmentally friendly waste management system is its sorting by people, consumers of goods and services. For this purpose, specialized containers and waste machines are placed in Latvia, so that residents separate their waste by type: paper, plastic, glass, metal, bio-waste. Next, the waste divided into containers is taken to sorting centres, where the waste is re-sorted – according to the type and quality of the material – into useful, suitable for utilization and waste for disposal. Useful waste from sorting centres is sent to factories for processing, unsuitable for recycling – to landfills (Zolt, 2022).

4. Sorting of biodegradable waste and examples of its communication in Latvia

Bio-waste is defined as biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises, and comparable waste from food processing plants. It does not include forestry or agricultural residues, manure, sewage sludge, or other biodegradable waste such as natural textiles, paper or processed wood. It also excludes those by-products of food production that never become waste (European Commission). Recently revised waste legislation within the EU's circular economy strategy has introduced a number of targets and provisions that will drive both the prevention and the sustainable management of bio-waste. Recycling of bio-waste is key for meeting the EU target to recycle

65 % of municipal waste by 2035 (European Environment Agency, 2020). About 60 % of bio-waste is food waste. Reducing the demand for food by preventing food waste can decrease the environmental impacts of producing, processing and transporting food. The benefits from reducing such upstream impacts are much higher than any environmental benefits from recycling food waste. The Sustainable Development Goals' target of halving food waste by 2030 has helped to put preventing food waste high on the policy agenda in most European countries (European Environment Agency, 2020).

Separate collection and recycling of organic waste such as food and garden waste is important for several reasons. First, it helps reduce the amount of waste going to landfill. Second, in the sorting plant, where unsorted household waste is sorted and prepared for further waste management operations, other waste arrives drier and cleaner and thus has a better potential for further recycling. Thirdly, by processing biological waste, technical compost and biogas can be produced, which are further used for the production of electricity and heat (Dukalska, 2023). The residents' understanding of what should go in the brown bio waste container is quite different, however, the overall trends paint a positive picture. If households are educated and offered convenient sorting solutions, such as small containers and special bags (compostable bags), the amount and quality of sorted waste increases. Biological waste in compostable bags was the most carefully sorted compared to the contents of other bags. Those sorters who do not use bags should also be praised. In the composition of the received biological waste, the most frequently observed additives were such household waste as, for example, paper napkins, beverage packaging, food that was not removed from plastic packaging, the contents of the cat's toilet. This waste should be sorted in other containers or placed in an unsorted household waste container. One of the factors to increase the motivation to sort organic waste is the monthly waste removal bill. If currently the tariff for the removal of household waste and organic waste is approximately the same, then in Estonia, the removal of organic waste is half the price. The results of the pilot project for the sorting of biological waste of Riga residents show that the wider education of the population about what kind of waste should not be placed in the biological waste bin and direct communication will be of the greatest importance on the way to the introduction of high-quality separate collection of biological waste not only in the capital, but also in the whole of Latvia (Dukalska, 2023).

In order to evaluate the communication with citizens about the sorting of biowaste and its possibilities to change the sorting habits, the information on the websites of three Latvian waste management companies was analysed. The companies were selected based on the fact that their offer included a bio-waste sorting service. The Clean R group (company 1) consists of six companies delivering more than 40 different environmental services to 50,000 clients around Latvia in such fields as waste management, property maintenance, cleaning and improvement of indoor and outdoor spaces, as well as cleaning of roads and public access areas. Services of the environmental management company LLC Eco Baltia vide (company 2) are available to every resident and company in Latvia. The company provides the widest range of environmental management services – collection of household and sorted waste, management of used packaging, construction waste and bulky waste management, cleaning of premises and territories, and different seasonal services. Lautus Vide PS (company 3) is a general partnership of two waste and environmental management companies, established in 2020 for the implementation of a common goal – a cleaner capital city – in the territory of Riga, combining the forces of the managers Pilsetvides serviss Ltd. and Lautus Ltd.

During the content analysis, it was found that all companies use not only abundant text, but also images and video materials in their communication about the waste sorting. The first company has placed information on the separation of biodegradable waste on its website. Added a visual explanation,

information on eligible waste types, container type and costs. Information about the need for special waste bags could be confusing for consumers, it can create additional difficulties for the sorting of biodegradable waste. Information on the conditions for separating bio-waste can be found on the second company's website. However, the information is textual and descriptive, with particular emphasis on the type of waste container. Specially marked 120-liter bags for garden waste are available in all Eco Baltia environmental management districts. On the website of the third company, very extensive textual information is available, the specifics of bio-waste sorting are described in detail. Information on container types and specialized bags is available.

However, since the rules of waste management in each company (and therefore also in each territory managed by these companies) are different and sometimes even mutually contradictory, in general, a unified, clearly perceptible and understandable message about the sorting of bio-waste in Latvia is not created for consumers. The situation is also made more complicated by the fact that these rules differ in each municipality, and sometimes even within the same municipality, as is the case, for example, in the Adazu district, where waste management is carried out by two of the mentioned companies – Clean R and Eco Baltia vide, and the inhabitants are often confused and do not understand why there are one set of rules in the neighbouring village, but different rules in the village itself, and how it should actually be on the scale of the whole of Latvia.

5. Interviews with communication experts about waste management communication in Latvia

In order to evaluate the communication of waste management companies with citizens about waste sorting, three interviews were conducted with communication experts. All experts have more than 15 years of experience in the field of public communication (Table 1).

Table 1

List of experts

Nr.	Name	Status
1.	Vineta Vitolina	Head of the Development Department of Turiba University, former long-time head of Public relations of Kekava region
2.	Jana Bunkus	Head of the J. B. Spark Communication Ltd., Board member of the Latvian Association of Public Relations Professionals (LASAP)
3.	Jolanta Derkevica	Head of the Board JDP Integrated Communications, Ltd.

Source: created by the authors

All the experts admit that in order to promote a change in the citizens' behaviour in waste sorting, it is not enough just to provide communication and provide information about how important waste sorting is, what its benefits are, and what its impact is on our environment and the country. This issue must be solved in a complex way, that is, at the same time as the change of society's values and communication with the society, suitable conditions and infrastructure must also be created, so that it is convenient for the consumer to realize his intention – to live "green" and sort waste. Otherwise, if the infrastructure and process for waste sorting are not organized, including legislation, most people will not be motivated to change their usual and routine daily habits. In this case, human nature and laziness work, only for the minority – consumers with fanatical "green thinking" beliefs – the disorganized infrastructure may not be an obstacle. Therefore, the involvement of all parties is essential in changing the behaviour of the society – the person himself, the state, the municipality and entrepreneurs, waste managers.

As one of the successful examples, one of the experts cites Kekava county, where in 2019 the municipality started a pilot project with a waste manager to promote waste sorting directly in the villages of private houses, where the population is not as dense as in cities, and where it is easier to organize and provide waste sorting points. This pilot project provided that the residents of the neighbourhood of private houses, where five or more private houses are concentrated, and where sorting containers near apartment buildings are not available, can apply for the creation of a sorting point. The municipality surveys the possible location of the point and accepts it if it is technically suitable, for example, it is easily accessible to the waste manager. This pilot project provided that the residents of the neighbourhood of private houses, where five or more private houses are concentrated, and where sorting containers near apartment buildings are not available, can apply for the creation of a sorting point. The municipality surveys the possible location of the point and accepts it if it is technically suitable, for example, it is easily accessible to the waste manager. In this way, all the "players" are involved in this process, and citizens must take responsibility or be given the opportunity to be co-responsible. And here communication is like an effective binder.

The opinion of the experts fully agrees with the 4Es model of behaviour change mentioned earlier in this article, and the creation of communication about waste sorting, including in the bio-waste segment, should be integrated into broader general policies as one of the means of achieving an optimal result throughout the country: 1) enable – making it easier for business and consumers to act (e.g. ensuring availability and building understanding of green choices); 2) engage – getting businesses and consumers involved (e.g. simplifying regulations, exploring ways to make it easier to make sustainable choices); 3) exemplify – demonstrating greener behaviours e.g. procuring greener products and moving to more sustainable operations; 4) encourage – providing incentives (e.g. through regulation and fiscal measures).

Conclusions, proposals, recommendations

1) Sustainable consumer behaviour is a concept that increases its importance every year. Entrepreneurs can influence sustainable consumer behaviour, while sustainable solutions for entrepreneurs are influenced by consumers. It is very important to act in such a way that both parties interact in the context of sustainable solutions and to naturally find a factor that would motivate one of the parties to initiate change.
2) The main barriers that prevent consumers from engaging in waste sorting are complex system, too little information, as well as between municipalities and companies. Everyone involved has own procedure and approach to waste sorting, which confuses consumers. Nor is there one a great solution to involve the majority of the public in waste sorting, but there is a need to change for the entire industry and consumer mindset, as well as innovation.
3) In Latvia**,** the field of waste is regulated by more than 40 regulatory acts, as well as the internal regulations of different municipalities. Also, for each waste manager are different rules for waste sorting, which are not explained in communications with consumers, or are explained only partially. Their consumers do not develop a common understanding of the need for waste sorting and, after that, do not encourage the desire to change their habits.
4) The creation of communication about waste sorting, including in the bio-waste segment, must be dealt with in a complex manner, at the same time as the change of society's values and communication with society, suitable conditions and infrastructure must also be created so that it is convenient for the consumer to realize his intention – to live "green" and sort waste.

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