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**Sustainable Marketing as a process for innovation of sorting and  
composting system for biodegradable waste in the Municipality of  
Frýdek-Místek**

**Martin Buriánek  
The Municipality of Frýdek-Místek  
Department for Environment and Rural Affairs  
Palackého 115  
738 01 Frýdek-Místek  
Czech Republic**

E-Mail: [burianek.martin@frydekmistek.cz](mailto:burianek.martin@frydekmistek.cz)  
[mb.fm@tiscali.cz](mailto:mb.fm@tiscali.cz)

## TABLE OF CONTENTS

- 1. Introduction.**
- 2. Current situation of biodegradable waste disposal at local level.**
- 3. Targets.**
- 4. Instruments for achievement of targets.**
  - 4.1. Modification of by-law on waste management in Frýdek-Místek Municipality.*
  - 4.2. Communication tools.*
- 5. Marketing research.**
  - 5.1. Purpose of research.*
  - 5.2. The questionnaire for households.*
  - 5.3. The Evaluation of gained information.*
- 6. Conclusion.**

## **1. Introduction.**

Sustainable Marketing for innovation of sorting and composting system for biodegradable waste in the Municipality of Frýdek-Místek deal with modernisation of waste management in the municipality of Frýdek-Místek. This concept supposes to use a few traditional communication tools for improvement of selective collection of municipal solid waste and involvement of all stakeholders into the process of sorting of biodegradable waste, nevertheless, in the area of public services, higher demands are put on the right selection of these elements. The elements selection of marketing mix services will depend on the goals of both the communication and segments, which we will affect on.

## **2. Current situation of biodegradable waste disposal at the local level.**

Currently, the landfilling is the most common method of waste management in Frýdek-Místek city. However, the current capacity of landfill site is decreasing and designation of new locations for MSW disposal will be difficult, if not impossible. In 2002 was landfilled 60,000 t municipal waste in landfill site which is operated by stock company Frýdecká skládka a. s. There is only about twelve years free capacity in the landfill site at the current rates of landfilling. This corresponds with free capacity in amount of 720 thousand tonnes.

The municipality of Frýdek-Místek has a relatively highly developed system of separate collection of paper, glass and plastics. The collection, transport, sorting, recovery and municipal waste is organized by a joint-stock company Frýdecká skládka a.s. which was establish in 1992. The joint-stock company Frýdecká skládka a.s. also operates composting site and secondary sorting centre which is oriented on paper, plastics and glass waste recycling. The municipality of Frýdek-Místek owns 93 % stocks. Frýdecká skládka a. s. is the only authorized company which can operate landfill site and collect, sort, treat and dispose of municipal waste. Bins for collection of sorted wastes are situated in front of houses and blocks of flats next to bins for residual municipal waste. Total production of municipal waste per head is 350 kg per person in Frýdek-Místek municipality. Only 26 % of municipal solid waste is collected selectively.

In Frýdek-Místek municipality is collected only organic waste from local authority parks and gardens which is transferred to composting site. In 2001, only 2,7 tonnes of biodegradable waste was collected and transferred to composting site. The present annual capacity of composting site is about 12,500 tonnes. On the contrary organic matter from households [ kitchen waste, organic waste from gardens ] is not collected separately but it is deposited into the landfill site together with residual waste.

## **3. Targets.**

At the latest by 2006, the amount of biodegradable waste contained in municipal waste disposed to landfills has to be reduced to 75 % of the total amount of biodegradable waste produced in 1995 and, furthermore, it has to be reduced to 50 % by 2009, and to 35% by 2016. If more than 80 % of municipal waste were disposed of to landfills in 1995 the compliance deadline may be postponed by a maximum 4 years, i.e. compliance has to be achieved in the years 2010, 2013 and 2020 <sup>(1)</sup>. In 1995, in the Czech Republic, more than 80 % of municipal waste was disposed to the landfills. Therefore, the interim target dates for

compliance with the Directive are taken as 2010, 2013 and 2020. The Act No. 185/2001 Coll. and Regulation No. 383/2001 Coll., which implements EC Directives regarding waste, was adopted by parliament and entered into force on the 1. January 2002.

#### **4. Instruments for achievement of targets.**

##### ***4.1. Modification of by-law on waste management in Frýdek-Místek Municipality.***

In order to start the implementation of the new system, the municipality should modify or adopt new by-law concerning storing and collection of biodegradable waste.

##### *The future obligations of citizens:*

- use proper containers or bins for the storing and collection of biodegradable waste
- provide sufficient and adequate regulation containers or bins to contain collectible biodegradable waste;
- store collectible biodegradable waste outside the main building on the adequate premises only in secured regulation containers or bins made inaccessible to pests or animals;
- ensure the proper preparation of all collectible waste;
- ensure that collectible biodegradable waste is placed for collection; and
- where reasonably possible, ensure that containers or bins remain behind or beside the main building on the adequate premises except on collection day.

##### *The future obligations of service provider:*

- maintain such regulation containers or bins in good repair and in a sanitary condition;
- ensure that each regulation container is covered and secured at all times except when being emptied or filled;
- ensure suitable number of containers or bins according to the number of citizens

##### *The future obligations of the municipality:*

- involve all stakeholders in sorting of process;
- facilitate participation of private sector;
- ensure that the city council takes into consideration the necessary modifications of the by-law.

(1) Council Directive 75/442/EEC on waste modified by Council Directive 91/156/EC on the landfill of waste. This regulation established requirements for the maximum quantity of biodegradable waste that may be landfilled in target years.

## 4.2. Communication tools.

Communication mix usually uses a few traditional communication tools, nevertheless, in the area of public services, higher demands are put on the right selection of these elements. The elements selection of marketing mix of services will depend on the goals of both the communication and segments, which we will affect on. For each segment, other elements of tools of communication mix will be used, as the goals, which we want to achieve at particular segments, will differ. Public relation, personal offer and direct marketing have the biggest significance for public services marketing.

In general, the **goals of communication mix** can be characterized as defined below:

- to appropriately inform the customers on the product and its development,
- to explain the advantages of Customers involving into the process of service,
- to interpret the philosophy of the organization to the perimeter of the target Customers and
- to distinguish the offer of services from the competition.

The effective methods for delivering public information for achievement of defined targets ranked by notable recycling co-ordinators <sup>(2)</sup>

### Ranking of 10 promotional methods

Personal communication	Most effective ↓ Least effective
Hand delivered fliers	
Mailed fliers	
Reminder signs	
School education	
Television advertisements	
Enclosures in utility bills	
Newspaper advertisements	
Exhibits at fairs/shows	
Radio advertisements	

### Target groups of the Communication

1. **Segment of citizens** – Local citizens and country cottage owners belong to this group, kindergarten, schools.
2. **Segment of the organizations and business men** – Legal entities and natural persons authorized to do business belong to this group, for examples business men within the activities of whose waste being similar to municipality waste is created.
3. **Internal segment** – for examples, first of all, contact staff of the Financial Department of Frýdek-Místek municipality and contact staff of Frýdecká skládka a.s.
4. **Farmers and gardeners** – consumers of compost.

(2) Source: P Tucker, University of Paisley, Working Papers 1998. (Recycling Promotional Strategies: Statistical & Fuzzy set comparisons, J.Urban Planning and Development, 1991.)

### *Public Relations*

The main task of public relations will be to call-out positive attitudes of public to composting. Public relations can be aimed at all target groups. Such process should act continuously, but strengthening of its intensity must occur at the time of the introduction of separated collection of biodegradable waste. The citizens will have to be involved more intensively to the process of service. The citizens will have to separate another component of household waste in their households.

The main aim of the communication will be the explanation of the significance of select collection of bio-waste, which waste coming from households is bio-waste, including of advantages for citizens. As an example of public relation can be mentioned performance, which takes place each year, it is so-called "spitting of a snake consisting of PET bottles" organized by Frýdecká skládka a.s. This performance which takes place on the occasion of **the Day of Earth**, is focused on the education of children and support of separated collection of plastics. The elementary school were the most addressed group. Such sub-segment can be a too significant propagator of philosophy of separated collection of glass, paper, plastics, and biodegradable waste. The exhibition of the products made of recycled material is the integral part of such performance, including the possibility of compost take-off free of charge. The Frýdecká skládka a.s. and municipality could organize a similar performance on the occasion of launched of composting for citizens. Such means of communication are :

- Information brochure and leaflets
- Bulletin of the City Council of Frýdek-Místek
- Article published in journal "Waste" for technical public
- Days of opened doors
- Annual Reports
- Local Newspaper

Crisis solution seems to be a significant integral part of public relations as well. The municipality should compile the Manual containing the instructions how to communicate in crisis situation. Crisis occurrence can be expected within the introduction of separated collection of the other elements of municipal waste and within drop in motivations. At the same time of crisis the municipality will try to save its good reputation in the eyes of the public, i. e. it will remind to the public permanently increasing share of utilizable gained by separated collection of waste, including other success achieved in the past.

### *Direct marketing*

Direct marketing is the direct addressed communication between a customer and organization offering a service. Tools mixing of direct marketing will be focused on *the second segment and the fourth segment*. Such segment can be characterized in a big detail. The organization providing services can concentrate on legal entities and natural persons being authorized to carry out business activities, which take-away waste being similar to municipal waste to a controlled deposition place of rigid communal waste in the cadastre of Panské Nové Dvory occasionally only. Data on such business enter on database due to recording and filing the originators of waste. The organization will address both these organizations and

business men and regular services will be offered to them , i.e. take-away biodegradable waste . To tools of direct marketing belong:

1. Customers addressing per mail
2. E-mail marketing

Both of these can be use for sending information materials concerning sorting of biodegradable waste, which green material comes from households is bio-waste suitable for composting. It is necessary, the citizens understand risk of hazardous waste coming from households. It means they can not discard hazardous waste [ for instance battery, cans polluted by colour material, metal ] into a bio waste. Regular information can also cover recommendation how to produce compost on the side of their garden, i.e. on the side of creation of biodegradable waste.

#### *Personal Sales/Offers*

This element of communication mix is being applied mostly for services assuming a rush contact with the customer. Its only bi-directorial communication. Personal sales advantages in comparison with other elements: personal contact, strengthening of relation between the customer and seller, and last but not least, the emphasis of image of the organization. Within personal sales, the contact staff is able to offer other product of public services offered by authorized organization, e. g. carrying away and disposal of buildings debris within the buildings re-construction, carrying-away of bulky waste and disposal waste coming from business activities.

## **5. Marketing research.**

### **5.1. Purpose of research.**

Purpose of implementing research is to determine how many citizens are willing to sort biodegradable waste and produce compost on the side of creation of biodegradable waste.

The Questionnaire seems to be flexible and the most used tool for the collection of primary information concerning sorting of biodegradable waste. The main goals is to find out behaviour of households in connection with waste separation and the introduction of separated waste of other utilizable parts of communal waste. To be able to understand the right way of questions asking, the questioner will assist to properly fill in the questionnaire. In comparison with correspondence questionnaire method, such methods have a less risk of answers and feedback deterioration. On the other hand, the disadvantages is a less anonymity of a person to be questioned. To fill in the questionnaire should not to take to respondent more than ten minutes. To verify right option of the questions for research, pre-research will be done with about twenty respondents. After shortcomings are removed, about 100 households will be questioned for such research.

### **5.2. The questionnaire for households.**

1. Have you been living in a family houses ?
2. Which quantity of waste does your household produce ?
  - Mixed waste*
  - Paper*
  - Glass*
  - Plastics*
  - Biodegradable waste*
  - Hazardous waste*
3. Which is availability [ delivery distance ] for the disposal of separated items of municipal waste ?
4. Does exist in the vicinity the place, in which it is possible to bring hazardous waste ?
5. Does your household produce waste being appropriate for composting [ so-called biodegradable waste ] ?
6. Do you process biodegradable waste by yourself ?

### **5.3. The Evaluation of gained information.**

The information gained by marketing research will be significant for planning of other places for collection containers placement for biodegradable waste and furthermore the research will give percentage of households which are willing to process biodegradable waste by themselves and use compost for improving of soil in the garden.

Marketing research was launched in 2004 and focused on attitude of citizens in family houses in the community of Chlebovice, administrated by Authority of Frýdek-Místek, if they are willing to sort components of municipal solid waste.

The table bellow shows the numbers of households, which are willing to sort paper, plastics, glass and biodegradable waste.

<b>Sorted components of municipal solid waste</b>	<b>paper</b>	<b>glass</b>	<b>plastics</b>	<b>biodegradable waste</b>	<b>hazardous waste</b>
<b>Willingness to sort</b>	<b>60,9 %</b>	<b>73,9 %</b>	<b>89,5 %</b>	<b>43,5 %</b>	<b>69,6 %</b>

## 6. Conclusion.

The municipality of Frýdek-Místek has no experience with involving citizens into a process. Involving citizens into the process of separate collection of biodegradable waste will be very important if municipality wants to operate composting process successfully. Therefore I recommend to use communication tools of marketing of profit services for design of strategy of involving stakeholders into the process of biodegradable waste management, although waste management is the non-profit service. Citizens will have to sort biodegradable waste coming from household waste very carefully. In case they discard hazardous waste into bin for biodegradable waste then biodegradable waste will be deteriorated and utilizable for further composting process. Municipality has to prepare a communication strategy for successful delivering information to all stakeholders and involving them into the process. The submitted concept named Sustainable Marketing as a process for innovation of sorting and composting system for biodegradable waste in the Municipality of Frýdek-Místek is pilot project for innovation waste management at local level.

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