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Roma and people with disabilities in Social Enterprises for contemporary WEEE management: Framework of a Hellenic study on related organizational issues

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Abstract

This paper discusses some developing procedures for the formulation of appropriate conditions towards the development of social services for waste of electrical and electronic equipment (WEEE) reuse and recycling, by the inclusion of Roma and people with disabilities in this evolving market. Application areas for the related project are the Hellenic regions of Thessaly and North Aegean, which generally suffer from professional and social exclusion. The reduction of the occupational desegregation of the two aforementioned target groups, in parallel with the efforts for implementing related Hellenic and European legislation in the frame of sustainable WEEE management are examined. Finally, the networking and the cooperation at local, regional and central level between small enterprises – entrepreneurships and local authorities are examined so that these social enterprises support to the development of the Hellenic alternative WEEE recycling system.

Keywords: Social enterprises, entrepreneurships, local authorities, WEEE recycling.

1. INTRODUCTION

Social enterprises (SEs) are part of the social economy sector. Although there is no universally accepted definition of a SE, its key distinguishing characteristics are the social purpose combined with an entrepreneurial spirit of the private sector. SEs focus on their activities and reinvest their surpluses to achieving a wider social or community objective, either in their members' interest or a wider [1]. The phenomenon of SEs is the latest development in the evolution of the social economy, which began in the nineteenth century and incorporated various forms of organisations such as co-operatives, mutual-benefit societies and associations. In Europe, the term 'social economy' is identified as a so-called 'third sector' (next to the business private and public sector) and comprises of non-profit and other organisations as shown in Table 1. Cooperatives are particularly prominent in certain fields, such as banking, crafts, agricultural production and retailing. Mutual societies are predominantly active in the insurance and mortgage sectors, whilst associations and foundations figure strongly in the provision of health and welfare services, sports and recreation, culture, environmental regeneration, humanitarian rights, development aid, consumer rights, education, training and research. Some Social Economy bodies work in competitive markets while others work close to the public sector. Cooperatives, for example, which are formed on the basis of fulfilling the

interests of their members (producers or consumers) play an important role in several markets and contribute to effective competition [2].

Table 1. Social Economy's organisations characteristics [2].

| Organisations | Characteristics |
|--|---|
| Co-operatives | Voluntary and open membership - equal voting rights - resolutions carried by majority - members contribute to the capital which is variable - autonomy and independence - the sector of agriculture, manufacturing, banking, retailing and services are of particular importance. |
| Mutual Societies | Voluntary and open membership - equal voting rights - resolutions carried by majority - members' fees based on insurance calculations (where relevant) - no capital contributions - autonomy and independence - medical, life and non-life insurance; guarantee schemes; home mortgages |
| Associations/ Voluntary Organisations | Voluntary and open membership - equal voting rights - resolutions carried by majority - members' fees - no capital contribution - autonomy and independence - service providers, voluntary work, sports and advocacy/representative - important providers in health care, care for elderly and children and social services |
| Foundations | Run by appointed trustees - capital supplied through donations and gifts - financing and undertaking of research, supporting international, national and local projects; providing grants to relieve the needs of individuals, funding voluntary work, health and elderly care. |
| SEs | No universally accepted definition - have a social and societal purpose combined with an entrepreneurial spirit of the private sector - reinvest their surpluses to achieving a wider social or community objective - are registered as private companies, as co-operatives, associations, voluntary organisations, charities, or mutuals; some are unincorporated. |

The enterprise orientation is the direct involvement either in producing goods or providing services in every field they activate.

In United Kingdom, the SEs already exist in a wide range of industries and sectors, empowering communities, protecting the environment, addressing poverty at home and abroad, and helping to improve public services. In the same country, 55,000 SEs existed in 2006, employing half a million people, while playing a greater role in the delivery of public services according to their capacity for innovative and flexible solutions [3]. Especially, in the field of waste management, they play a determinative role by adopting the European legislation and implementing the basic activities by providing viable services in this field.

In this study the role of SEs is examined, towards to the incorporation of informal recycling sector into the formal one. Informal recycling sector refers to the waste recycling activities of scavengers and waste pickers [4, 5]. There are a lot of examples in different countries where scavengers and waste pickers formed micro-scale enterprises facilitating their integration into the formal Municipal Solid Waste Management (MSWM). In Greece informal recycling known as 'grey recycling' is still carried out by marginalized social groups, usually Roma people whose main occupation is scavenging or waste picking. There are examples of other countries where people from discrete social groups or people who belong to minorities (such as Roma people, rural migrants, immigrants



Figure 1. SEs' application areas and the most important Roma settlements (dots) [3].

and religious minorities) are also informal recyclers. On the other hand, there are some other social groups (people with disabilities) that face up the unemployment and the social marginalization. SEs comprised a suitable tool in order to deal with the aforementioned social issues and to provide also waste management services. For instance, nowadays in Greece, specifically in Mitilini two social enterprises are existed staffed by people with disabilities concerning paper recycling.

The long-term purpose of this study is to deal the environmental pollution resulting from the non-alternative management of WEEE, through the employment of people with disabilities and Hellenic Roma in new targeted SEs. Another target is to investigate collaboration ways between the proposed under construction SEs and local authorities (LA), and the licensed national management entitled (Recycling Appliances S.A.) in order to contribute to the development of the Hellenic alternative WEEE recovery system. For each enterprise a pilot preliminary stage and a business plan will be compiled and prepared in order to achieve the targets of the Hellenic [6, 7] and European legislation [8, 9] concerning WEEE management. These enterprises will be located in Tirnavos and in Mitilini (figure 1) and staffed by Hellenic Roma and people with disabilities respectively.

2. STATE OF THE ART

2.1 Characteristics of target groups

The existence of any kind of long-term illness and disabilities are an important parameter of a population's health-related quality of life. In European Union of 15 (EU15) it was estimated that people with disabilities represent 11.5% of overall population in the period 1991-1992. In Greece, according to the same estimate, people with disabilities represented only the 9.3% of the total population, which is the smallest proportion among the other EU countries for which these data have been compiled [10]. The Hellenic Roma population that is concerned has not been yet precisely defined. There have been a lot of estimations for different organisations. According to Hellenic public, National Commission for human rights the Roma people estimated to be around 250,000 [11]. Roma settlements exist all over the Greece but the most important are those that they are depicted in figure 1. These people are often trading useful waste materials, which have non-negligible and often significant economic value. The materials most commonly collected are various types of glass, metals and plastic. Obsolete appliances are particularly preferred by these people, almost everywhere in the world, mostly because of their high content of ferrous metals [12]. The existed Hellenic licensed system (cf. chapter 2.2) has not excluded this social team from its operations, because doing that might generate some additional social problems by pushing them to other 'grey' or even fully illegal and even criminal activities (figure 2, long dash dot).

2.2 WEEE in Greece

The WEEE quantities in EU15 are rising at a rate of 16 - 28% every five years and especially three times faster in relation with municipal solid waste [13]. Moreover, for the period of 1990-1999 the quantities of produced WEEE estimated between 3,3 and 3,6 kg per resident, while it has been estimated between 3,9 and 4,3 kg per resident for the period of 2000 - 2010 according to Widmer et al. [14]. The mean annual WEEE production of domestic origin in Greece for the time period of 2003 till 2006 was around 170.000 and 175.000 t, representing about the 3,8% of total domestic solid waste. Moreover, it has been estimated that the 90% of WEEE for the same time period was mixed with other municipal solid waste or was recycled with other materials (e.g. scrap), without pre-treatment ('grey recycling') [15]. In order to deal with this growing problem, the operation of the (so far unique) authorised collective alternative WEEE management system (CAMS) commenced in July 2004. The main objectives of that system are its organisation and its viable operation concerning activities such as WEEE collection, transportation and treatment in a specified unit in the greater area of Athens. The system collected in 2005 very low WEEE quantities, namely 31.396 t of large household appliances, 52.54 t of small household appliances, 12.54 t of IT and telecommunication equipment, 9.24 t of consumer equipment and 1.7 t of electri(oni)c tools, that

means 107.42 t WEEE domestic origin [16]. The flow chart of the operation of the aforementioned system is illustrated in figure 2 and specifically in the right branch. Even today (beginning 2007) despite the fact that CAMS WEEE has already started its operation, many appliances are uncontrolled disposed as a result peddlers collect them and to transfer them in companies that deal with the marketing of metals (figure 2, solid lines). The left branch of the figure 2 (dash lines) represents the proposed operation of SEs in WEEE recycling and the contribution of them in the Hellenic authorised system. The incorporation of informal recycling into the authorized CAMS WEEE system is carried out with the contribution of SEs as long as the qualified authorities recognize the economic, social and environmental benefits which result from informal recycling.

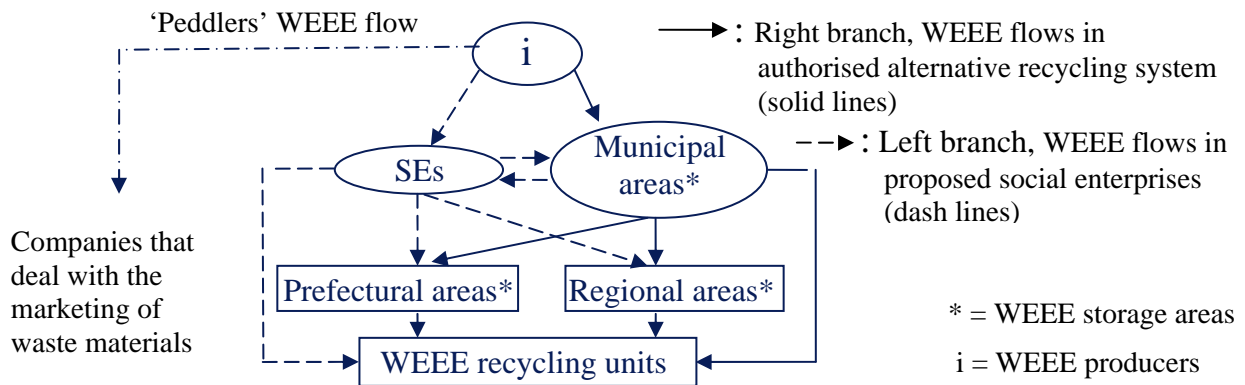


Figure 2. Existing situation in WEEE recycling in Greece. Operation of the authorised Hellenic alternative recycling system and SEs contribution.

2.3 Proposed operation of SEs

The innovation of these proposed enterprises is based on the employment and on the reinstatement of people with disabilities and Hellenic Roma. The development and the implementation of new educational tools and training programs on WEEE recycling for the aforementioned target group represent the innovation.

Taken into consideration the target group's characteristics and construction and operation costs' of a WEEE treatment unit, it is obvious that will take place not complete WEEE recycling into the SEs, but only a first classification of them according to National legislation [6, 7] and then transportation to the existent WEEE treatment unit. According to Reeves and Barrow [17], there are two main approaches in collecting recyclable materials, 'bring' and 'collect' systems. With the 'bring' system, recyclables are brought by the waste generator to a point of collection. In this study, the collection point located into the SEs. Social managers', staff of the SEs, main activities are the placement of the incoming WEEE in containers and the completion of protocols concerning its condition. The purpose of protocols completion is only for statistics reasons and specifically to calculate the WEEE quantities in the application areas. The completed protocols constitute an indicator of its operation. The flow chart of the SEs is depicted in figure 3.

3. BENEFITS OF SEs IN WEEE RECYCLING

The formation of SEs offer significant financial benefits to the community. From a macroeconomic perspective, SEs have a large potential to reinforce the activity of Hellenic CAMS WEEE system by minimizing capital expenditures and maximizing manpower. Furthermore, by expanding SEs activities, they provide a secondary supply of raw materials for local manufacturing industry which should then replace the more expensive imported ones. Furthermore, collection with the 'bring' system and classification of the recyclables which will occur to the SEs as part of recycling, by definition reduces the quantity of waste and thus reduces the cost of CAMS WEEE system and preserves void spaces in landfills disposal sites for wastes with no potential value as recycled materials [5].

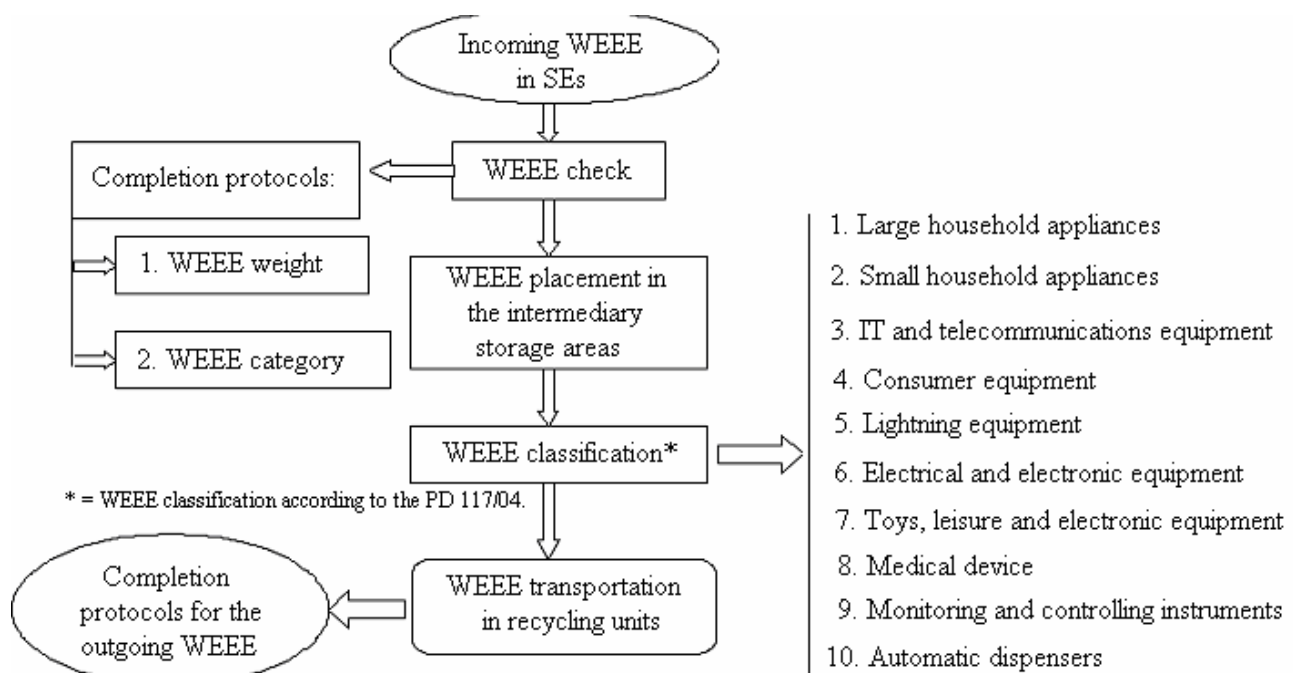


Figure 3. SEs flow chart.

On the other hand, SEs provide employment for marginalized and vulnerable individuals or social groups. Unemployment is detrimental for vulnerable social groups leading to social exclusion and isolation. As a result of their marginalization, these groups are often subject to harassment, have limited access to facilities and infrastructure or to social scheme [5]. Alternatively, the ability to work and to feel as useful member of the society eventually leads to the reduction of their professional prohibition, their social integration, their equal accession and facilitates a better quality of living. In parallel, the aforementioned initiative will result in the implementation of the Hellenic and European legislation [5-7] in the frame of sustainable WEEE management. Finally, the formation of SEs is a way to reinforce the activities of CAMS WEEE system by understanding and ‘building’ on the existing informal recycling system.

4. CONCLUSIONS AND PROSPECTS

The organization of logistics recycling activities has crucial affects on the income generation, working conditions and social status of the groups involved. Organizing and training people who traditionally work into informal recycling sector into the SEs give them the opportunity to involve in legal and organized forms of enterprises. Formation of scavenger enterprises can enhance the position of these groups in order to negotiate direct with the LA by legitimizing their activities and increasing their income. On the other hand, it is a great challenge to change the perception and existing attitudes, particularly of local officials and also of the general public, towards those involved in informal waste recycling sector in order to sensitive social groups be part of the solution to the growing problem of MSWM and recycling.

This study has revealed that SEs in the field of MSWM is a first step towards integration of ‘grey recycling’ into the Hellenic CAMS WEEE system, via the inclusion of sensitive social groups in this evolving market. By supporting SEs, the recyclables collection could be extended at a low cost, creating jobs and benefiting low-income communities. SEs can promote the recycling of WEEE in an economically viable, socially desirable and environmentally acceptable and sustainable way.

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6. ABBREVIATIONS

| | | | |
|------|----------------------------------|------|--|
| CSR | Corporate Social Responsibility | SE | Social Enterprise |
| LA | Local Authority | CAMS | Collective Alternative Management System |
| MSWM | Municipal Solid Waste Management | | |
| PD | Presidential Decree | WEEE | Waste from Electric and Electronic Equipment |

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