

TrainERGY project

Good practice – Waste reduction technology

Date:	
Place:	

Training for Energy Efficient Operations - TrainERGY

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1 Introduction

1.1 Good practice definition

Good practice is a method or technique that has been generally accepted as superior to any alternatives. It has been proven to work well and produce good results¹.

1.2 Good practice criteria

The following set of criteria will help you to determine whether a practice is a 'good practice':

- **Effective and successful**
A good practice has proven its strategic relevance as the most effective way to achieve a specific objective; it has been successfully adopted and has had a positive impact on individuals and/or communities.
- **Environmentally, economically and socially sustainable**
A good practice meets current needs, in particular the essential ones of the world's poorest, without compromising the ability to address future needs.
- **Technically feasible**
Technical feasibility is the basis of a good practice. It must be easy to learn and implement.
- **Inherently participatory**
Participatory approaches are essential, as they support a joint sense of ownership of decisions and actions.
- **Replicable and adaptable**
A good practice should have the potential for replication and should therefore be adaptable to similar objectives in varying situations.
- **Reducing disaster/crisis risks, if applicable**
A good practice contributes to disaster/crisis risk reduction for resilience.

¹ Nash, J. and Ehrenfeld, J., (1997), "Codes of environmental management practice: assessing their potential as a tool for change." Annual Review of Energy and the Environment 22, pp. 487-535; Bretschneider, S., Marc-Aurele, F.J., Jr., and Wu, J. (2005), "Best Practices" Research: A methodological guide for the perplexed, Journal of Public Administration Research and Theory, (15) 2, pp. 307-323.

2 Good practice description

The good practice described in the document is a case of a Mexican company, which is aimed at using waste to produce final goods from them. The good practice, although implemented in Mexico can be transferred to any country which is open for usage of waste as a resource for product and value creation.

2.1 Objective

The main aim of the document is presentation of a best practice related to waste management especially in terms of international practice.

The basis for the good practice presentation is Mexican company called “Suhab”. Still, the best practice can be applied to any kind of business related to modern design, green marketing and green production. It is that way because of a unique attitude of the company towards contemporary business challenges. Of course, it is the easiest to implement the good practice for the companies which are related to design, nevertheless municipalities are also interested in the scheme, considering their problems with waste reuse and redistribution.

2.2 Introduction

The reason of creation of the Suhab company was a hard situation on the labour market and the need to find relatively stable job. The owners of the company are designers, which made their situation at labour market even harder. They observed the surrounding reality and were searching for any kind of possibilities to fulfil the challenges of staying in a Mexico and still earning enough to be independent. Basically speaking, they noticed, that there is one major problem in Mexico City related to waste distribution. The special type of waste which was taken into consideration were tyres. They analysed the documents and reports which suggested that car tyres are the most popular type of waste gathered in Mexico. What was even more important, the tires where were either burnt or collected. There was no possibility to use them again or to reduce their amount without a great harsh made to the environment. They decided that tyres collected in a few waste centres in Mexico can be reused and transformed in two more environmentally friendly products. It took them about a year to improve technology and to make it ecological enough to be presented as the green one. This was crucial because of the final customers' expectations. Similarity the opinion of local authorities and interest groups was equally important. Although no one before used to the tires, some parties thought that's the business can and should be stopped. This is why the benefits for local customers and interest groups was of the utmost importance. So with the aim of the good practice was to reuse the tires answers to transform them ecologically in a

new product. The value was not only the product itself, but also the great benefits to the environment and the improvement living conditions.

To be correct, the solution of changing tyres into notebooks, because of this was the final solution, shouldn't be treated as the practice to be implemented directly. The good practice is to use the potential of waste produced locally as a competitive advantage which could be unique worldwide.

2.3 Actors and Stakeholders

The main actors of the good practice can be divided into two groups. The first one are the internal stakeholders who are interested in creating the jobs (here they are managers and local labour force) and external stakeholders. In the second group there are those who are in the nearest area, which can be called the closer environment of the company, and more distant ones, mainly including clients.

As far as an interest of implementing the good practice is concerned, the first thought it is the company, which is interested in acquiring waste in that or some other form. They can learn how to use waste to create a value to all the interest groups. The second target group can you be broadly defined municipality, because thanks to the company's operations it is free of economic and environmental cost of waste stocking. Not to mention the enhancement of employment in the area. Last but not least it is impossible to forget about the clients. Unfortunately, in the analysis to good practice, the final product is too expensive to be affordable for local customers. Nevertheless, when we look at the general economic benefits, the money return to local customers through taxation system and then they are redistributed in the form of local and social services. It is worth to remember that companies will be the most interested in implementing the practice. As for the other mentioned target groups, make and become a stimuli for the companies, especially the local ones. Although it is impossible to force a company to create a product from waste, the system of local financial support, distributed by the municipality authorities can be helpful for creating a framework in which companies could create innovative practice.

2.4 Methodological approach

The first step to practice implementation it is a careful observation of the reality. At that stage analysis of the final reports from where are you waste management systems can be helpful. This is crucial to notice which type of waste is the most common one and which one should be used to reduce waste and to be useful for the local economy. The second stage is different when will look at it from the perspective of the company and from the perspective of the municipality. For the first one the most challenging element will be creation of a business model in which the waste gathered from local sources are a stable supply chain and after the production the final product is interesting enough to create demand for it. From the perspective of the municipality, the case is much more complicated. In modern, liberal economies it is impossible for the municipality two fours some companies to implement a specific type of a business model. Still, the knowledge of the market in terms of resources (which are at the same time waste and existing companies) gives the municipality a chance to intervene in the existing business models with a form of public support. The third stage is related to business model implementation and normal operations including standard business processes and R&D projects. The second one is important from the perspective of the company as the one that has to survive in a highly competitive market, but also from the perspective of the municipality which needs to be sure about the waste distribution and employment potential to be sustained.

The gender case in this particular example is irrelevant, because sustainability stays in line with gender equality and equal opportunities policy.

2.5 Validation

The validation process is easy to be conducted due to the specific benefits that are required by the target groups. The satisfaction of the company will be determined with stable sales and high profit margins. Local authorities are mainly concentrated on the quality of lives of the community. The result of the citizens' satisfaction can be the final result in local elections. Of course there is a possibility of researching citizens' satisfaction in a form of questionnaire distribution and data collection. The validation process becomes more complex when those three groups are supposed to be analyzed together. It is worth mentioning that the final customer satisfaction is equally important, even though it is not directly presented in validation process.

There can be a few measures of success implemented:

1. CO² emission
2. Amount of waste collected
3. Amount of waste re-used
4. Standard of living of the citizens

2.6 Results/outputs

The good practice it's important for the companies because of their need to earn and acquire resources at the lowest price possible. Waste, such as tires, can be perceived as a good and stable resource. Adding value through the production process makes the final product more valuable than the cost analysis would suggest. The reason for the situation is the need it of the societies to live in a clear and sustainably developed world. For that reason the company gives a chance to dispose the waste by municipality, but also delivers value to the final customers who are ready to pay more for more satisfying reality.

The final product for the analysed case it's not just a notebook. When a customer decides to buy the product made by Suhab, he or she buys clear air and water, satisfied and thoroughly treated employees of some poor Mexican village, not to mention the perception of their living style within the social strata.

2.7 Impact

As mentioned before, the results of good practice implementation can't be perceived only from the perspective of a single company. The companies that decide to implement waste collection in cooperation with local authorities and creating a final good which will be targeted at the reach Western societies can benefit economically, but also they are good example to the other companies in developing countries which tried to build their competitive advantage on a niche and sustainable, green product. The possibility to measure the final success of a good practice implementation is the waste reduction in a municipality, but also the level CO² emission, which should be reduced thanks to a different management of waste instead of burning them.

2.8 Success factors

The described good practice is different from the other ones because of the scope of local authorities' involvement. The municipality is involved in the process of distributing and selling the waste (which in this case are tyres), but also helps to improve the supply chain of the company. Additionally, the tires are not an obvious waste, such as paper, metal or glass. The success factor of the Suhab Company is the ability to find the most urgent ecological problems, and perceive them as a challenge, and then rebuild them to product creation and the value delivery process. The other success factor it is the unique ability to

find, use and apply changes in accordance to the trends (in both - micro and macro scale). The technology of waste reduction starts at the level of resource searching and technology modification. The key element is also the ability to keep the company's secret which on the one side makes it impossible to present the technology in details, but on the other hand - prevails the market for the company.

2.9 Constraints

The major barriers in implementing the good practice literally can be the limitations of the technology of waste reduction and reuse. On the other hand, the philosophy of a good practice is to create the product in relation to local situation which can be different in different countries. To achieve success while implementing the good practice, the company should pay a careful attention to the situation in local waste market to be able to search for technologies which are adequate the resources possible to be extracted or acquired.

The other barrier it is the attitude of local authorities. They can be reluctant for new technologies, especially if they managed to cope with the problem for a long period of time. Then the ability to implement change management it's also crucial.

The attitude of locals can be a tremendous barrier in terms of plant location and operation. Usually working with waste is related to huge social pessimism, which should be overcome before the production starts.

2.10 Lessons learned

1. Always observe the market (both: clients and deliverers).
2. Use the business opportunities in a sustainable way.
3. Acquire waste in cooperation with municipalities to guarantee the stability of sourcing.
4. Concentrate on delivering the value, not only a product.

2.11 Sustainability

The element of sustainability can be analyzed from a few perspectives. The analysis will be presented in a table.

	<i>elements needed</i>	<i>cost - benefit analysis</i>
<i>institutional</i>	<i>1. openness for cooperation 2. awareness of the possibilities and challenges related to waste management solutions 3. Ability to acquire information on the waste problems and possibilities for cooperation in the municipalities</i>	<i>A cooperation which guarantees the additional benefits in terms of future gains for both sides. The cost can be an additional amount of work related to waste management system implementation of modification.</i>
<i>social</i>	<i>Awareness of the problem of waste and sustainable product creation process.</i>	<i>There are hardly any costs. The benefits are cleaner environment (especially air) and reduction of waste.</i>
<i>economical</i>	<i>Demand for ecological products.</i>	<i>The cost of job reduction in waste collection</i>

		<i>system can be equalized with the employment enhancement in sustainable company. The economical benefits are related to taxation and unemployment reduction.</i>
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2.12 Demonstration



This is a notebook, in which a cover is created out of modified tyres. Although the project was created and implemented in Mexico, the good practice, understood as usage of waste to create a final product, can be implemented in any country of European Union.

2.13 Related website(s) / resources

<http://suhab.com.mx/home/>