TrainERGY project

Good practice - Template

Date:	09, March 2018
Place:	Thessaloniki, Greece

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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 results[1].

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.

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2 Good practice description

GP has to be related with one of the topics covered during the training (e.g. Green marketing, Technologies for reducing the consumption of raw material, Interventions identification).

You can use different resources e.g. company websites, business reports, scientific papers, ScENAT analysis results and your business experience.

Try to answer to all below questions and to not exceed 3000 words.

2.1 Objective

This document proposes a good practice that should be considered by *Plaketa Limited* . The aim is to establish how solder paste can be recycled to optimize the use of this raw material.

2.2 Introduction

Plaketa Limited is a manufacturing company of electrical components such as main PCB boards. The manufacturing process of producing these boards consists of 5 phases and the last one is the Hotflow 2/12. This machine (oven) uses controlled heat to attach electrical components to the boards by using solder paste. The solder paste is a sticky mixture that acts like a glue.

Based on the secondary data we can establish that this phase is consuming more energy that the others (4805.03 kWh) and that is why this aspect was choose to be improved.

After improving this, the company will be able not only to handle the waste they are generating but also to find a way to reduce the consumption of electricity used by the oven as it will be a collateral improvement.

2.3 Actors and Stakeholders

The beneficiaries of this improvement is the focal firm by decreasing the waste management efforts and its compliance to the law. Institution partners like the suppliers and clients/customers will benefit from this as well by being part of sustainable operations and initiatives. Last but not least, the company that will provide its expertise in recycling by offering innovative and tailored processes to help *Plaketa Limited* to add value to its performance.

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2.4 Methodological approach

The procedure of implementing the new technology is based on a chemical decomposition procedure for converting the solder paste waste into virgin grain sider products.
The process consists of the following steps:

1. Controlled collection: the recycling company will provide free metal buckets for collection waste.
2. The designated transportation service: the freight from the warehouse to the recycling company will be already set up.
3. Laboratory analysis: Samples of the materials will be taken to obtain the characteristics of the waste and tailor the recycling process.
4. Recycling certification is given after the chemical procedure is finished (ISO 14001)
5. *Plaketa Limited* is now entitle to claim the recycling process outcome – closing the loop of this raw material.

The focal firm is responsible to influence their suppliers to adopt these technologies and also to improve their processes and waste management.

2.5 Validation

The validation process of this technology adoption can be explained by the level rate of recovery that the recycling companies offer; which is almost 100%. Moreover, the certification from ISO accreditation they offer is another validation point.

Internally, the validation can be observed by the conversion and the recovering of the waste in the form of a new raw material for the Hotflow 2/12 phase and the cost reduction.

2.6 Results/outputs

The results can be seen in different areas and actors of the supply chain and operations.

1. Waste Management Efficiency
2. Outsourcing operations are easy, friendly and flexible.
3. Supplier cooperation
4. Cost reduction
5. Environmental friendly practises.

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2.7 Impact

The impact in the long term will be that Plaketa limited will encourage the upstream and downstream companies to adopt greener practises. In addition it will become a leader in its supply chain and the improvements will be measured in their corporate responsibility reports and campaigns.

Another impact could be access in terms of new customers or new suppliers that want to cooperate in the selection of new processes or technologies to continue decreasing the use of raw material consumption.

2.8 Success factors

The most common practice is to find a way to dispose the waste in an environmental caring way and not to reuse it. Another practise that is used by several manufacturing companies is related to reduce other sources of raw materials like energy and fuel.

For succeeding it is necessary to cooperate with companies which are strategies are aligned to Plaketa Limited, to create programs to educate the customers about the economic and environmental implication when not using clean technologies. Moreover, to find a supplier (recycling company) that contribute to such an improvement.

2.9 Constraints

Internal constraints: educated staff to proceed with the waste allocation, machine maintenance for the waste control, machine limitations (costly technology changes, machinery investments), environmentally friendly investments, new regulations to adopt and space limitation.

External: transportation to the recycling factory expenses, recycling expenses, limited number of suppliers, change resistance and safety regulations.

2.10 Lessons learned

The lessons learned by this practise are:

1. The sustainability and the reduction of the emissions are not always linked to the obvious factors, like the energy consumption.
2. Becoming greener could be expensive if it is not taken in small and worthily steps.
3. Thinking that companies do not need improvements is a mistake; It is not about green washing

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2.11 Sustainability

In order to make these practices more sustainable it is necessary to educate our supply chain members about the positive impacts and improvements that small changes could generate to the economic, social and environmental sector.

In terms of total cost outsourcing the waste management process can reduce the labour costs, avoid fines in terms of law penalties and staff training costs and time. On the other hand, in terms of society and environment benefits will be observed and overcome costs related to these practises.

2.12 Demonstration

Several worldwide companies are already using these strategies to minimise the waste management and raw material consumption impact. Companies by becoming greener help to reduce waste, conserve natural resources and protect biodiversity.

2.13 Related website(s) / resources

https://www.sciencedirect.com/science/article/pii/S0959652601000610

Ginsberg, J.M. and Bloom, P.N., 2004. Choosing the right green-marketing strategy. *MIT Sloan Management Review*, *46*(1), p.79.

Banerjee, S., Gulas, C.S. and Iyer, E., 1995. Shades of green: A multidimensional analysis of environmental advertising. *Journal of Advertising*, *24*(2), pp.21-31.

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