Marketing TEST to companies

HANDOUT 1 – tasks

I. Before visiting the company

Within the marketing phase of TEST to companies, a dairy company has been identified as a potential candidate for an initial visit. Before conducting the Initial Screening visit, you, as a TEST service provider, checked the website of the company to get a preliminary understanding of its activities. You found that the factory, which produces mainly pasteurised and UHT milk, is certified ISO 9001 for quality, and ISO 22001 for food safety.

Task 1 – discuss the following:

- ***Why should the service provider attempt to collect company information before the visit?***
- ***What other information would you look for before visiting the company?***

II. Company visit

The visit started with a meeting to brief the management about which benefits on Resource Efficiency he/she could expect by implementing the TEST approach. The company management expressed the following concerns:

- "We **do know our priority**, it is Energy. Our monthly energy bill is over 100 000 USD!"
- "Our factory represents **state of the art processes**! Why would we participate in TEST?"
- "I am not going to pay any **cost share** to the project, until you can identify realistic saving measures."

After knowing the company concerns, you offered to conduct a **"Walk Through"** in the production line of the factory to get a better understanding of the conditions, after which you shall revert back to provide your feedback and answers to company concerns.

During the tour, you took note of the following production losses and you have also noticed some potentials for improvement:

- A significant amount of milk is wasted in the packing hall and processing area
- Lack of insulation for some hot and cold surfaces
- Low electrical power factor
- Flame colour indicating poorly maintained boilers and lack of control over the combustion process resulting in excessive consumption of fuel

- No sub-meters for water and energy management
- Solid waste stored in open areas constituting fire risk
- Compressed air network leakages
- Oil used for truck maintenance facilities was drained to factory sewers
- Product return from market was drained also to factory sewer (blockage of drain, odours, increase the load of wastewater)

After the tour you are preparing the business case focusing on the value added for the company and if feasible also on some practical improvement examples.

Task 2 - How would you respond to the company concerns?

You can use role playing to simulate a real discussion here. The lecturer can play the role of top management representative and trainees can play the role of service providers. If there is not sufficient time to involve all participants, this exercise can be based on direct involvement of selected volunteers only and the other trainees can learn from observation and listening, feedback provided by the lecturer and related discussion.

HANDOUT 2 – possible solutions

Task 1: Before visiting the company

This task is intended to discuss the desk review process and the relevant information to be acquired to prepare for the company visit. In general, companies that target export markets are more prone to accept ideas of technology transfer, resource efficiency and environmentally friendly actions.

The lecturer can attempt to guide the discussion to address the following aspects:

- Background data about the company, products, markets and information about related production systems provides understanding of the process including specific terminology used in the sector.

- Service providers shall look for any information relevant to the financial statement of the company and company credit worthiness as well as news items. Companies with critical financial situation are in general not recommended to be considered for implementation of TEST, as they most likely will not afford implementing investment needing measures.

- Collect and review case studies and best practices on resource efficiency related to the same sector, possibly within the country. UNIDO has developed an extensive database of case studies and best practices database.

- Industry benchmarks and best practices relevant to the specific company sector shall be collected and reviewed. The company management is usually interested to know how they perform in regards to international benchmarks, and this can be a strong selling tool during the site visit. Also knowing the best practices applicable for the industrial sector shall support the service provider in identifying potential room for improvement.

Example of Benchmarks for milk production

Flow	Unit of Measurement	Benchmark	Source
Energy	$MWh/ton_{raw\ material}$	0.05 - 0.85	*Best Available Techniques (BAT) Reference Document in the Food, Drink and Milk Industries,* Final Draft (October 2018)[1]
Water	$m^3/ton_{raw\ material}$	0.33 - 12.61	
Milk loss	%	1.9	
Fat loss	%	0.7	
Solid waste	$Kg/ton_{processed\ milk}$	I.7 - 45	

[1] https://eippcb.jrc.ec.europa.eu/reference/BREF/FDM/FDM_02-10-2018BW.pdf

Task 2: Company visit

Situation 1

The company attempts to direct the project towards a predefined flow, which in most cases means that they are prejudiced to work on certain areas only. "We **do know our priority**, it is Energy. Our monthly energy bill is over 100 000 USD!"

The TEST service provider should reassure the company management that energy will be looked at as a priority. Yet the TEST methodology of UNIDO can provide additional benefits to the company by highlighting further important savings in other resources such as raw materials and water. If water is scarce in the country, and the process is water intensive, we can identify even water as one of the priority flows. A specific tool, the MFCA calculator, will be utilized to set up priorities for the detailed analysis, and this will help to focus on the most important improvement potentials. You can support the argument with observations from the site tour for example by material loss that is noted in the packing hall and processing area etc. but, you can also report important savings realized by other companies in the same sector in that country (use the TEST fact sheets/case studies as references and example to indicate the magnitude of possible savings).

The service provider can also quote particular examples of best practices from a specific sector (dairy in this case) that have been collected prior to the top management meeting. In this case, a large potential for improvement could also be in the area of products returned from the market and you can introduce best practice example (for example a case study from the Guidelines as presented in step 1.7).

Situation 2

This is a common situation when the factory is built in recent years or has undergone a technological modernization, and the management is challenging the availability of any improvement. "Our factory represents **state of the art processes**! Why would we participate in TEST?"

Although the technology is the state of the art, it doesn't imply that production is running according to the best practice techniques. Cases from MEDTEST II include better process control, change in operating parameters, training of operators, or replacing oversized equipment. Savings can also be realized through the management of production planning, or matching the market demand. Benchmarking can be discussed, as this may show some potential.

Make the management aware that the company's success does not depend on machines only but also on how they are operated. Case studies showing examples of companies with state of the art technology and management systems, where potentials for RECP improvements and the application of the TEST methodology brought high benefits, can be found for here.

Situation 3

The company is doubtful on the feasibility of options that will be identified, or the magnitude of savings. Possibly they had bad experience from previous projects. "I am not going to pay any **cost share** to the project, until you can identify realistic saving measures."

The TEST service provider should explain that the cost share paid by companies is way less than the anticipated savings, and can be paid in two instalments (beginning and end of the service). Documented savings through MEDTEST II indicate average resource savings per company compared to baseline in the range of 24% for energy, 20% for water and 5% for raw materials. 43% of the identified measures had a payback period of less than 6 months. The service provider should not commit to any saving percentage, yet these figures can be mentioned to support their arguments.

Another approach can be through utilizing benchmarks. In the case of the dairy company example, since the observations relate mainly to losses of energy and milk, the service provider can ask approximate ratio of energy use per unit of incoming milk (MWh/ton raw milk), and approximate percentage of milk loss.

For instance, a company that consumes more than 1.2 MWh/ton raw milk, which compared against benchmarks from Europe (showing best practice being less than 0.85 MWh/ton raw milk) indicates a significant area for improvement and economic savings which can be roughly quantified.

If the company is unable to provide such basic annual data, or at least give an estimation, you could question if this is simply due to the lack of available information or if company is hesitating to share its data due to confidentiality reasons. This could lead to discussion on the need to share detailed data on inputs and outputs and later also on priority flows as precondition for implementing TEST. Lack of trust can be reason to refrain from starting TEST in a company which is not willing to share its data even under confidentiality agreement which is natural part of an external technical assistance within TEST.