



Building awareness and local capacity on the Environmental Footprint in the Southern Mediterranean region

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Reinforcing the development of a greener industry

- Mediterranean region: a common culture based on care for the environment
- UNIDO implemented the SwitchMed initiative in the Southern Mediterranean region
 - Scaling up social and eco innovations
 - Access to the outcomes of the EF pilot phase for Egypt, Lebanon, Morocco, and Tunisia
 - Helping local companies implementing the EF methodology



We are involved as the EF expert

PRé has many years of experience in EF development

During the EF pilot phase we...

- Were part of the Technical Helpdesk
- Provided pilot-specific training
- Provided trainings about the general PEF/OEF rules
- Coordinated all training activities

Furthermore, we...

- Contributed to the creation of EF-compliant datasets
- Performed and reviewed many PEF studies

And currently we lead ...

- The remodeling consortium, developing the models of the average European products and organizations



Three-phase project

Awareness raising and technical workshops

- to expose national stakeholders to the potential impact of the EF system
- specifically for industrial branches exporting to the EU market

Nine 'environmental footprint studies ('pilots')

- to create local capacity and expertise

National dissemination events

- to share the learnings from the pilot studies



Raising awareness

Identification
of relevant
organizations



Local
awareness
raising
activities

High attendance!



Interested in
performing a
shadow PEF
study?

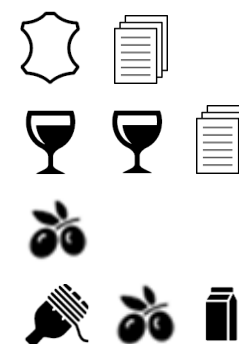


Day	Focus	Purpose
1	High level training	Explain <i>Why</i> and <i>How</i> of PEF, and what it takes to participate
2	Generic LCA training	Provide a general introduction to LCA, not specifically focused on PEF
3	In-depth training methodology of the PEF using one case	Train a handful pre-selected LCA experts on how to perform a PEF study

PEF pilot studies

- Nine studies successfully concluded (Feb-Oct '18)

Country	Local experts	Product category
Egypt	2	Leather Intermediate paper product
Lebanon	3	Wine (2x) Intermediate paper product
Morocco	1*	Olive oil
Tunisia	2	Pasta Olive oil Dairy



* In agreement with UNIDO, PRé finished the olive oil study for Morocco



Tailored support per country

We provided

- Training materials (guidance documents and webinars) on specific topics (e.g. hotspots analyses, data quality, circular footprint formula)
- Clarification on the methodological approach and requirements of the relevant PEFCRs
- Feedback on the data inventory
- Ad hoc support with questions
- Regular progress meetings to discuss the status
- Several rounds of feedback to the deliverables:
 - an inception report
 - an LCA model
 - two versions of the final report (confidential and non-confidential)



Comparing hotspots between the shadow studies
and the European screening studies:
many similarities, but also important differences



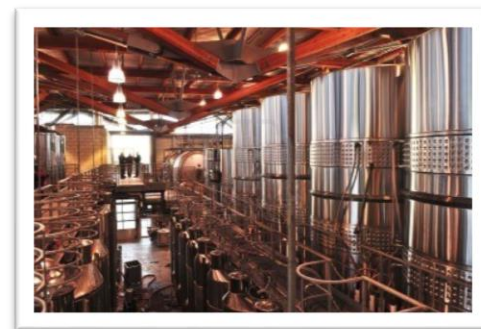
Egyptian leather hotspots

- Water resource depletion contributes to 83% of single score due to the local scarcity and accompanying high CF
- Most relevant LC stages and processes were found to be:
 - the animal slaughtering, due to water consumption
 - the hide tanning, due to water consumption, and the use of some chemicals that cause ozone depletion
- In the European screening study, :
 - the use of chemicals for hide tanning
 - livestock



Lebanese wine hotspots

- Most relevant LC stages differed per impact category, but in general: grape production and packaging
- For grape production
 - the waste management produced by pruning (burning wood)
 - the diesel consumption of agriculture machinery
- For the packaging
 - the production of glass bottles
- In the European screening study:
 - Wine making, packaging and grape production
 - Application of fertilizers and pesticides
 - Use of metals for tying the vines



Olive oil hotspots

Tunisia

- Most relevant LC stages were:
 - Olive oil production, because of soil management
 - Olive oil extraction, because of energy consumption and the mill (infrastructure)
 - Packaging, because of energy consumption and glass production
- Similar results in the European Screening Study

Morocco (regionalized water flows!)

- Most relevant LC stages were:
 - Olive production, because of water scarcity from irrigation (85%)



Applicability of the EF methodology (I)

- Severe limitations in primary data collection
 - Less than in Europe, standard routines exist for measuring and tracking all kinds of inputs and outputs along the supply chain
 - Cultural differences may cause a wariness for full transparency
- Availability of representative background data
 - For instance, the electricity generator used for paper production in Lebanon: not a perfect match in terms of technological and geographical representativeness



Applicability of the EF methodology (II)

- According to the DNM, the only way in which an existing secondary dataset may be adapted is:
 1. to change the distance,
 2. to replace the transport dataset, and
 3. to replace the electricity mix dataset

In the Egyptian leather and Moroccan olive oil pilots, huge effects from regionalising water flows

- Newly identified most relevant impact categories
 - Whereas PEFCR is supposed to cover all potentially most relevant impact categories for the whole product category...



Conclusions on local awareness and capacity

- Awareness activities showed that there is a large interest in LCA and EF in the Southern Mediterranean region
- In all 4 countries, it was easy to find companies that were interested in participating in a pilot study of their product
- In Egypt, Lebanon and Tunisia, there was already a high level of LCA expertise and through this project we managed to create local PEF capacity too
- In Morocco, LCA is not widespread, and ultimately extra assistance was needed to finish the local pilot study



Success stories so far...

Lebanese wine producer reduced bottles from 600 g to 440 g (↓30 %)



Tunisian pasta producer focused on the use of locally produced eco-friendly wheat



Coming up next ... Dissemination events

- Same audience as the awareness raising workshops
- Presentation of the national pilot studies execution and outcomes
 - PRé's experience working with the national experts and companies
 - Experienced applicability of the PEF methodology in the region
 - Update on the status and next steps of the European EF initiative
- Improvement opportunities for the companies (local experts)
- Business response to the PEF study (local companies)



Recommendations to the EC

- Enhance the available default values
 - e.g. related to intercontinental transport
 - country values for end of life parameters
- Reconsider data quality requirements
 - explore taking into account the availability of matching primary or secondary data in a region in the DNM
 - guidance on how to work with proxies
- Reconsider the degree of adaptability of secondary data
- Regular inventory of performed PEF studies & update PEFCR list with most relevant impact categories



Thank you!

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