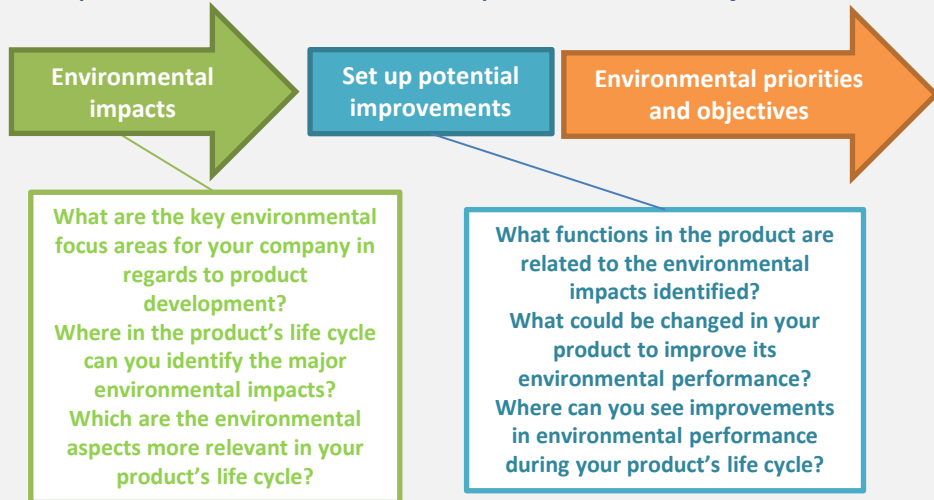# Selecting product-related EPIs in 5 steps
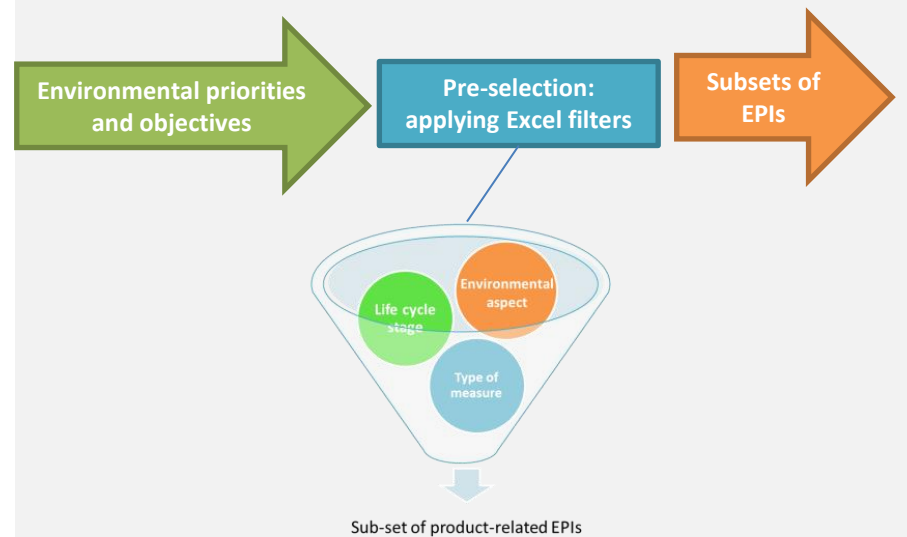
This poster is a support material for the guide : "PRODUCT-RELATED EPIs: A guide to support the selection of product-related EPIs". The Guide proposes a step-by-step procedure to select the most suitable environmental indicators according to your company's goal, in order to improve the environmental performance of the developed products in their whole life cycle. Each step contains the main activities to be carried aiming to select and implement the most suitable EPIs for your company.

## Step 1: Define environmental priorities and objectives

**Environmental impacts** → **Set up potential improvements** → **Environmental priorities and objectives**

**What are the key environmental focus areas for your company in regards to product development?**
**Where in the product's life cycle can you identify the major environmental impacts?**
**Which are the environmental aspects more relevant in your product's life cycle?**

**What functions in the product are related to the environmental impacts identified?**
**What could be changed in your product to improve its environmental performance?**
**Where can you see improvements in environmental performance during your product's life cycle?**

Another important way to start performing this step is to identify what your stakeholders expect in terms of environmental efforts and achievements, considering also market's needs, legislation, image improvement, labeling, etc., and establish potential improvements for your products to improve their environmental performance.
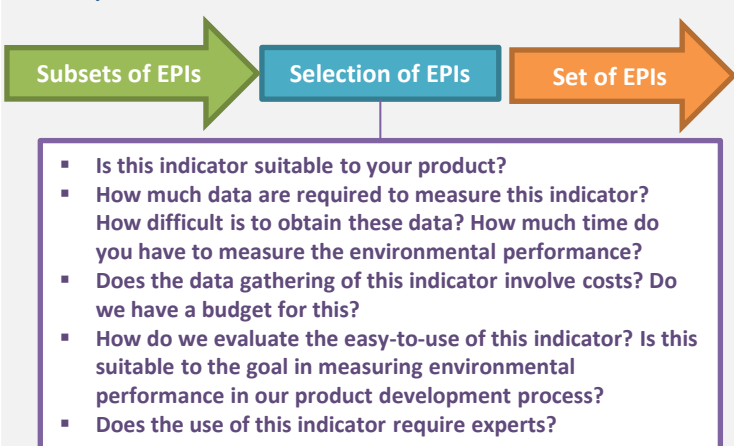
## Step 2: Pre-select EPIs

**Environmental priorities and objectives** → **Pre-selection: applying Excel filters** → **Subsets of EPIs**

Life cycle stage — Environmental aspect — Type of measure
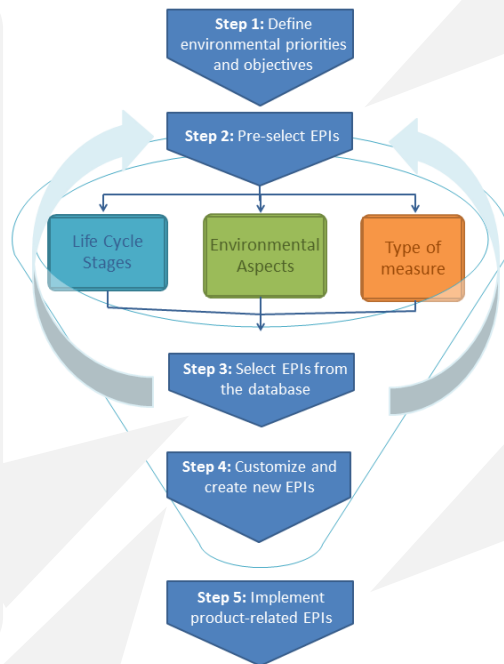
Sub-set of product-related EPIs

Step 2 in selecting product-related EPIs consists in the pre-selection of the indicators the **Product-related EPIs Database**. This procedure can be applied several times, as an iterative step, and for each sub-set of indicators obtained you should go for step 3.

*For more information about the classification criteria, check the Appendices of the Guide.
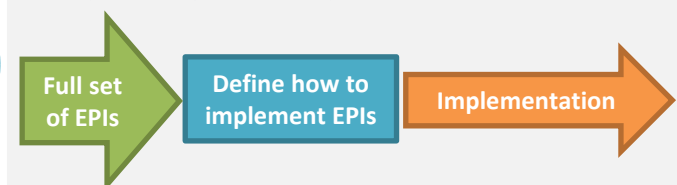
## Step 3: Select EPIs from the database

**Subsets of EPIs** → **Selection of EPIs** → **Set of EPIs**

- **Is this indicator suitable to your product?**
- **How much data are required to measure this indicator? How difficult is to obtain these data? How much time do you have to measure the environmental performance?**
- **Does the data gathering of this indicator involve costs? Do we have a budget for this?**
- **How do we evaluate the easy-to-use of this indicator? Is this suitable to the goal in measuring environmental performance in our product development process?**
- **Does the use of this indicator require experts?**

The selection of EPIs from the subsets is based in a set of criteria in applying and measuring the indicators. The main question to be answered here is: which are the fundamental indicators to be selected?

### (Central diagram)

Step 1: Define environmental priorities and objectives

Step 2: Pre-select EPIs

Life Cycle Stages — Environmental Aspects — Type of measure

Step 3: Select EPIs from the database

Step 4: Customize and create new EPIs

Step 5: Implement product-related EPIs

## Step 4: Customize and create new EPIs

**Set of EPIs** → **Customization** → **Identification of missing EPIs** → **Full set of EPIs**

For the customization, it is important to keep in mind the nature of your product and its particularities, for instance the raw materials used and the energy resource. It leads to the adequacy of them to the operational activities conducted during the life cycle of a specific product.

- Does the set of selected EPIs covers all the life cycle stages?
- Does the set of selected EPIs comprise all environmental aspects?
- Which type of measure will bring better results?

## Step 5: Implement product-related EPIs

**Full set of EPIs** → **Define how to implement EPIs** → **Implementation**
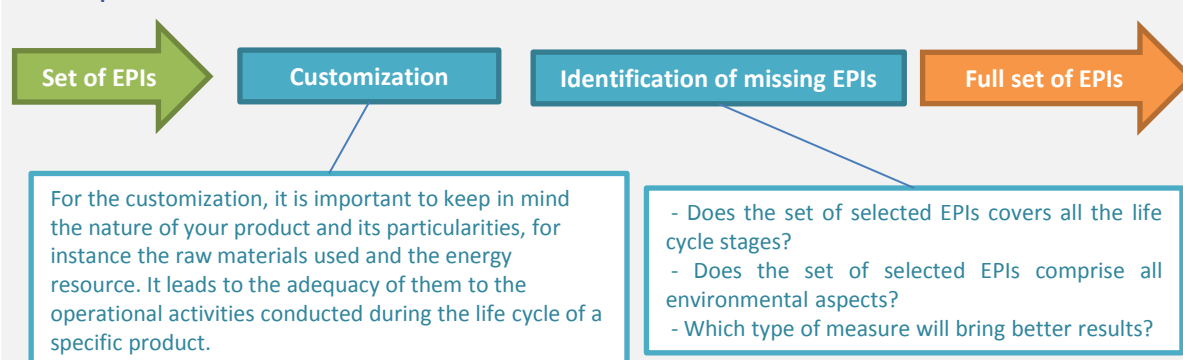
You should define:

- **Responsible for measuring**: define who will be responsible for measuring and communicating the product-related EPIs;
- **Period of tracking**: define how often the indicators will be measured;
- **Improvement**: define goals to improve the environmental performance, and also the responsible staff to achieve them;
- **Communication**: define who will be communicated about the results of the environmental performance measurement.

It should be also defined when a new selection of indicators for product development is required.

**Authors:**
Isabela Issa, USP Environmental Engineering
Daniela Pigosso, DTU Mechanical Engineering

**Supervisors:**
Henrique Rozenfeld, USP Industrial Engineering
Tim McAloone, DTU Mechanical Engineering

ei2   Eco-M2 Ecodesign Maturity Model   USP   DTU   FAPESP