

# Deliverable B2

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*PEF report summary*

*Company 2*

*Product 1: Homeoffice  
Single Desk 4499*

**Life Effige**

| Environmental Footprint  
| For Improving and  
| Growing Eco-efficiency



Pilot company description	
Productive field	Homeoffice product furniture
Number of employees	100
Turnover/year	15M/2017
Nation	Italy

## 1. Methodology

This Product Environmental Footprint (PEF) study has been performed as a supporting study in the framework of the Life EFFIGE Project with the main objective of testing the Product Environmental Footprint Category Rules (PEFCR) developed for the product category “Homeoffice desk”

This supporting study has been carried out in compliance the Draft PEFCR for office chair published on 27 July 2018, the requirements of the PEF Guide (Annex II to Recommendation 2013/179/EU) and the PEF Pilot Guidance v.6.3. Since some of the requirements of the latest PEF Guidance (i.e. Impact assessment method, default dataset, etc.) can only be applied within the EU PEF Pilot Phase on products category covered by existing PEFCR, some modelling choices that differ from requirement of Guidance v.6.3 have been made, based on older versions of the document and expert judgment.

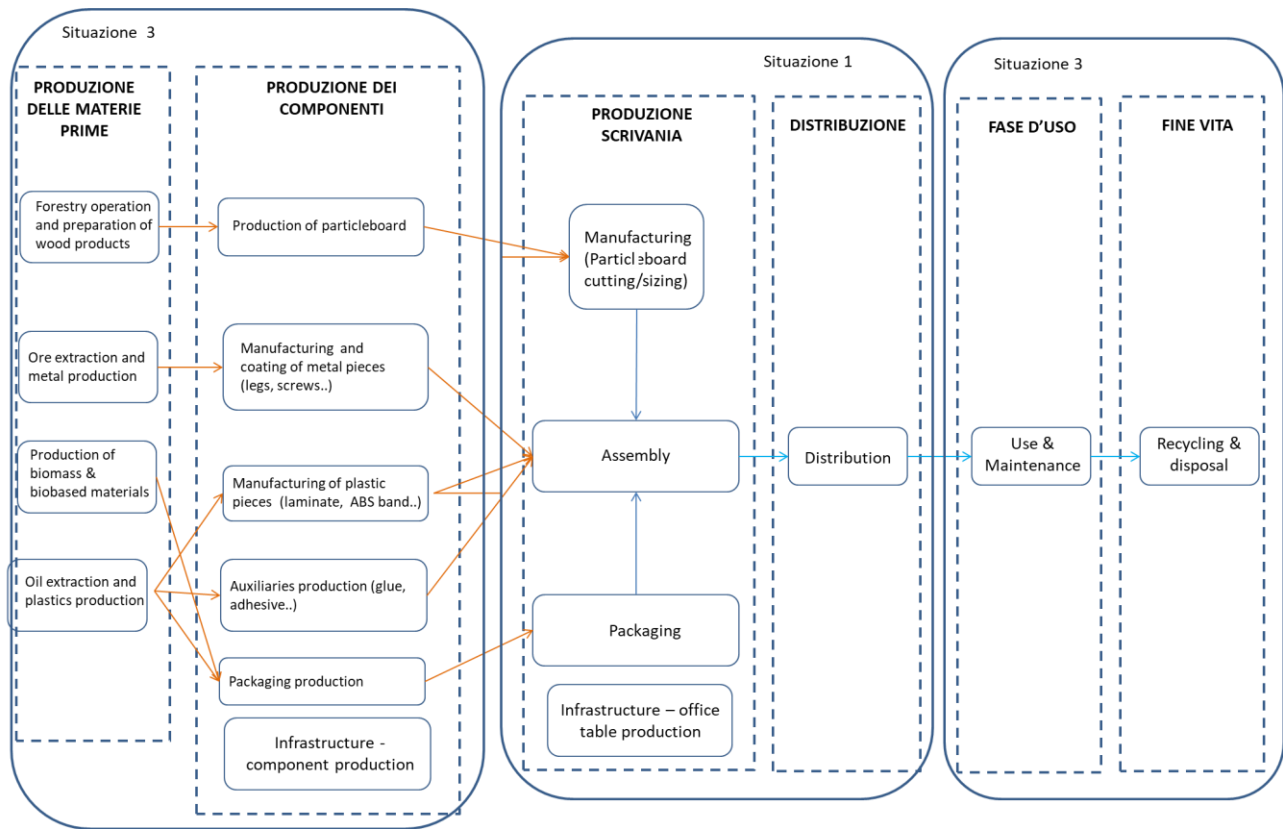
The default normalization factors provided by the PEF Guidance have been applied for the default impact categories.

## 2. Functional unit and system boundaries

The functional unit, as defined in the PEFCR, is one Homeoffice Single Desk 4499 and the system boundaries were set from cradle to grave.

The system boundaries are "cradle to grave" e includes all the processes, namely:

- Production and supply of raw materials;
- Production and supply of components and packaging;
- Production and assembly of the Homeoffice Single Desk 4499, within the company productibve site;
- Distribution of the Homeoffice Single Desk 4499
- Use and maintenance;
- End of life of the Homeoffice Single Desk 4499 and of the packaging.



Primary data have been collected for the production and manufacturing office table process, referred to year 2017.

### 3. Product environmental footprint results

In this supporting study the relevant life cycle stages, processes, elementary flows and impact categories have been identified for the Homeoffice Single Desk 4499 analysed and compared to that identified in the screening study.

For Homeoffice Single Desk 4499, the most relevant impact categories are:

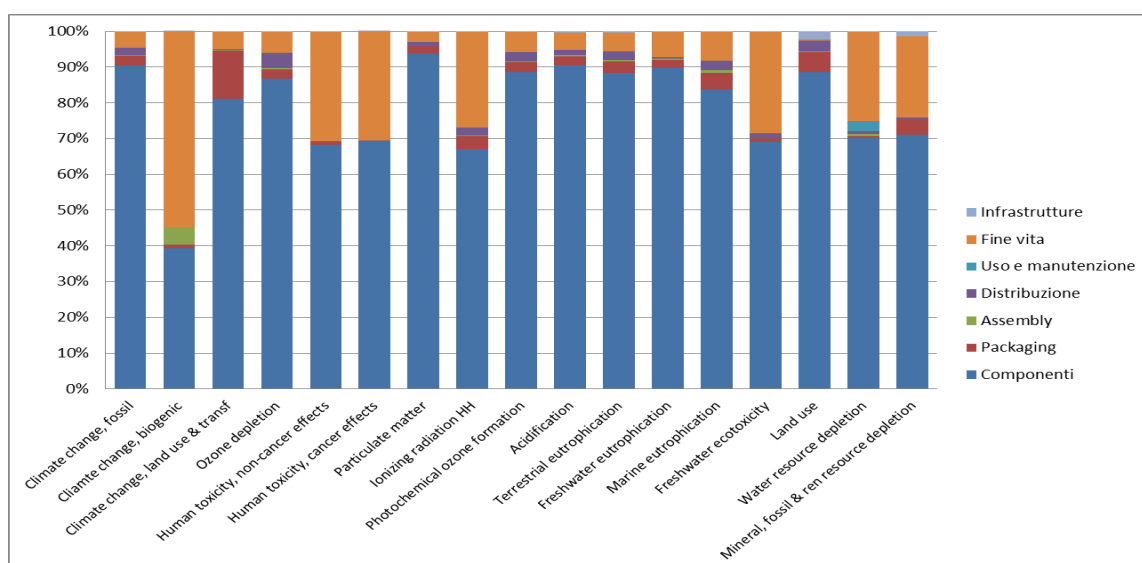
- Climate change, fossil;
- Particulate matter;
- Photochemical ozone formation;
- Acidification;
- Terrestrial eutrophication;
- Mineral, fossil and renewable resource depletion;

The PEF supporting study confirms the relevant impact categories emerged in the PEF screening study, but adds the terrestrial eutrophication impact category.

Categoria d'impatto	Scrivania singola ONLINE
Climate change, fossil	9%
Climate change, biogenic	0%
Climate change, land use & transf	0%
Ozone depletion	0%
Particulate matter	19%
Ionizing radiation HH	4%
Photochemical ozone formation	8%
Acidification	10%
Terrestrial eutrophication	5%
Freshwater eutrophication	5%
Marine eutrophication	5%
Land use	3%
Water resource depletion	1%
Mineral, fossil & ren resource depletion	31%

#### Homeoffice Single Desk 4499 Relevant Impact categories

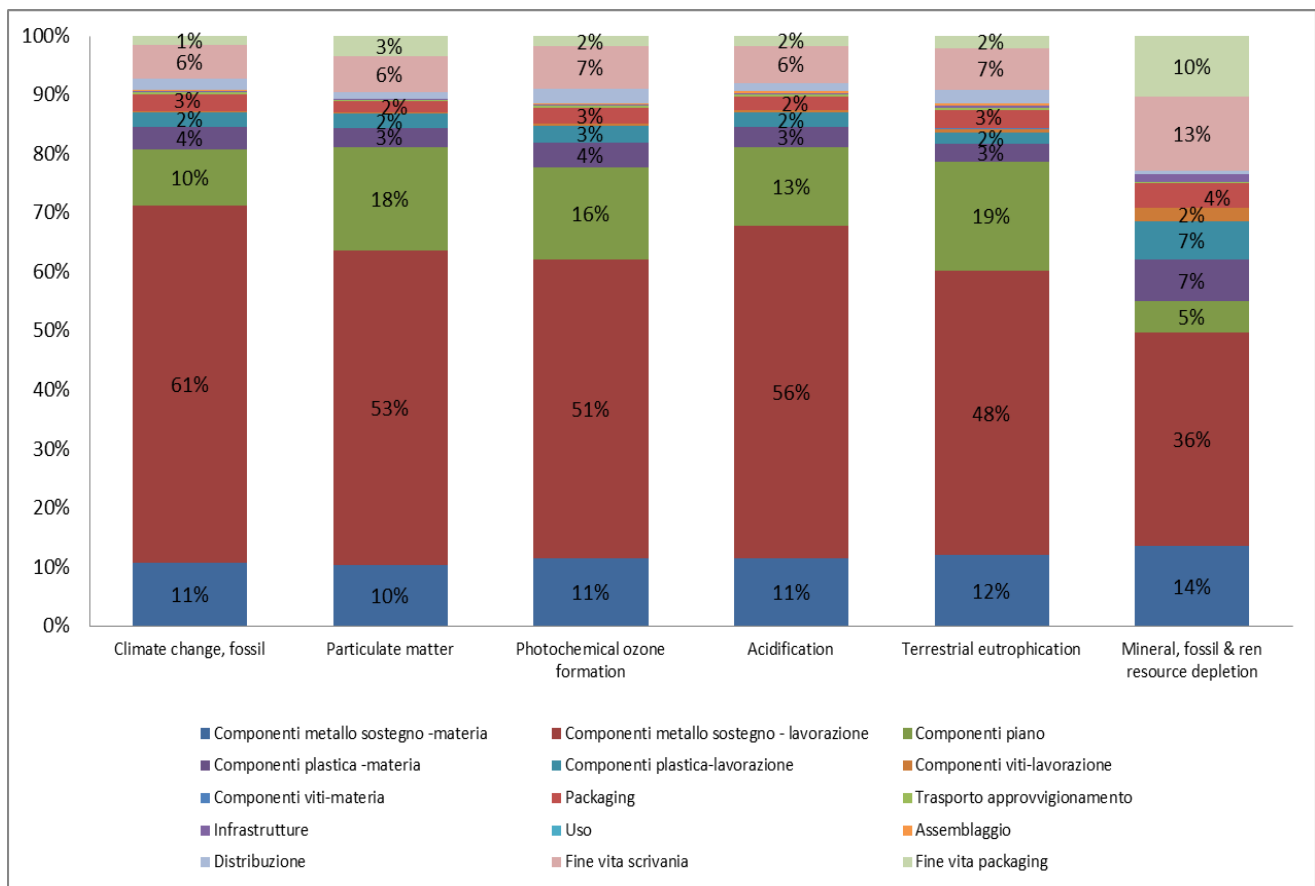
For all the impact category, the most relevant life cycle stage is the components production, which contribute ranges from 71% to 94% and, for the mineral, fossil & ren. resource depletion category only, the end of life.



#### Homeoffice Single Desk 4499 Relevant Life Cycle Phases

The most relevant processes identified are:

- metal components of the support (legs and beams);
- forming and powder coating processing;
- laminated chipboard top;
- End of life of packaging;
- End of life of desk;
- Plastic components processing;



### Homeoffice Single Desk 4499 relevant processes

The most relevant elementary flows are:

- Mineral and fossil resource depletion from the desk's end of life and the packaging's end of life phase;
- Mineral and fossil resource depletion from the first and second processing phase of plastic components
- Terrestrial eutrophication from the laminated chipboard top processing phase
- Particulate matter and Mineral and fossil resource depletion from the components processing, in particular aluminium components
- Metal components processing for the all impact category

As an input for the improvement of the PEFCR it is suggested to add additional alloying elements within the list on mandatory data to be included in the PEF Study.