

4. PRODUCTS

INTRODUCTION

The following elements focus on assessing the potential for improving the environmental, economic and social value of a product, giving in the meantime inspirations to guide the company's effort in this direction.

Once the company has selected one of its products (or a line of products), these elements represent a wide set where to find the most suitable and important ones for the specific case, since the company has not to follow each and every one of them, because, for example, some of them can be not significant for the selected product and some can be in contrast with some others and an expert decision is needed.

Table 1.3 is designed to support this screening and prioritization activity, allowing to "switch off" some of the elements and focus only on the most important ones.

In addition, these indications have to be integrated and balanced with other design factors, such as, for instance, functionality, aesthetics, and cost.

**One sub-section about
ANALYSIS**

**Five sub-sections about
ENVIRONMENTALLY
SUSTAINABLE DESIGN**

**One sub-section about
SOCIALLY
SUSTAINABLE DESIGN**

4. PRODUCTS

ANALYSIS OF THE ENVIRONMENTAL IMPACTS OF THE PRODUCT LIFECYCLE

4.1 Evaluation of consumption of resources (materials, water and energy) related to the product life cycle					
NA	Absence	Preparation	Integration	Proaction	WEIGHT
0	Nothing has been done yet	Data about the consumption of resources are available from different stakeholders and different product life cycle phases	A qualitative or quantitative analysis has been performed	We evaluate the consumption of resources related to each of our products and use that as an indicator when selecting among different design choices (e.g. water footprint)	A B C
	1	2	3	4	
S _{our.}	Int				
R _{em.}	For considerations about the packaging of the product, please refer to element 4.17				

4. PRODUCTS

ENVIRONMENTALLY SUSTAINABLE DESIGN (ECO-DESIGN) FOR THE DISTRIBUTION PHASE

4.17 Design for the minimization of environmental impacts related to packaging (material consumption minimization, use of renewable materials, use of not hazardous materials, use of returnable/reusable packaging)					
NA	Absence	Preparation	Integration	Proaction	WEIGHT
0	Nothing has been done yet	We are assessing different packaging options on the market in terms of their environmental profile	We design the packaging for our products in order to reduce its environmental impact	We design our products to reduce the need for packaging and, when needed, we design it to be reusable, as packaging or part of the product	A B C
	1	2	3	4	
Sour.	Int				
Rem.					

4. PRODUCTS

SOCIALLY SUSTAINABLE DESIGN

4.31 Design products that enable or promote low-impact lifestyles (e.g. sustainable mobility, healthy recreational activities, reduction of wasteful consumption)					
NA	Absence	Preparation	Integration	Proaction	WEIGHT
0	Nothing has been done yet	We are collecting information from the market about how our products integrate and influence the lifestyle of our customers	When designing our products we always take into consideration the impact they will have on the lifestyles of our customers	We collaborate with different stakeholders such as schools, the national health system, local authorities, waste management companies, to design our products in order to make them contribute to the local (and global) wellbeing.	A B C
	1	2	3	4	
Sour.	Int				
Rem.	For considerations about the packaging of the product, please refer to element 4.17				

Suggested tool: Life Cycle Assessment

- Life Cycle Assessment (LCA) tools (e.g. Umberto, GaBi, SimaPro, OpenLCA)
- Simplified LCA tools (e.g. eVerdEE, ECO-it, GaBi lite, Sustainable minds)

PRESOURCE Example of application

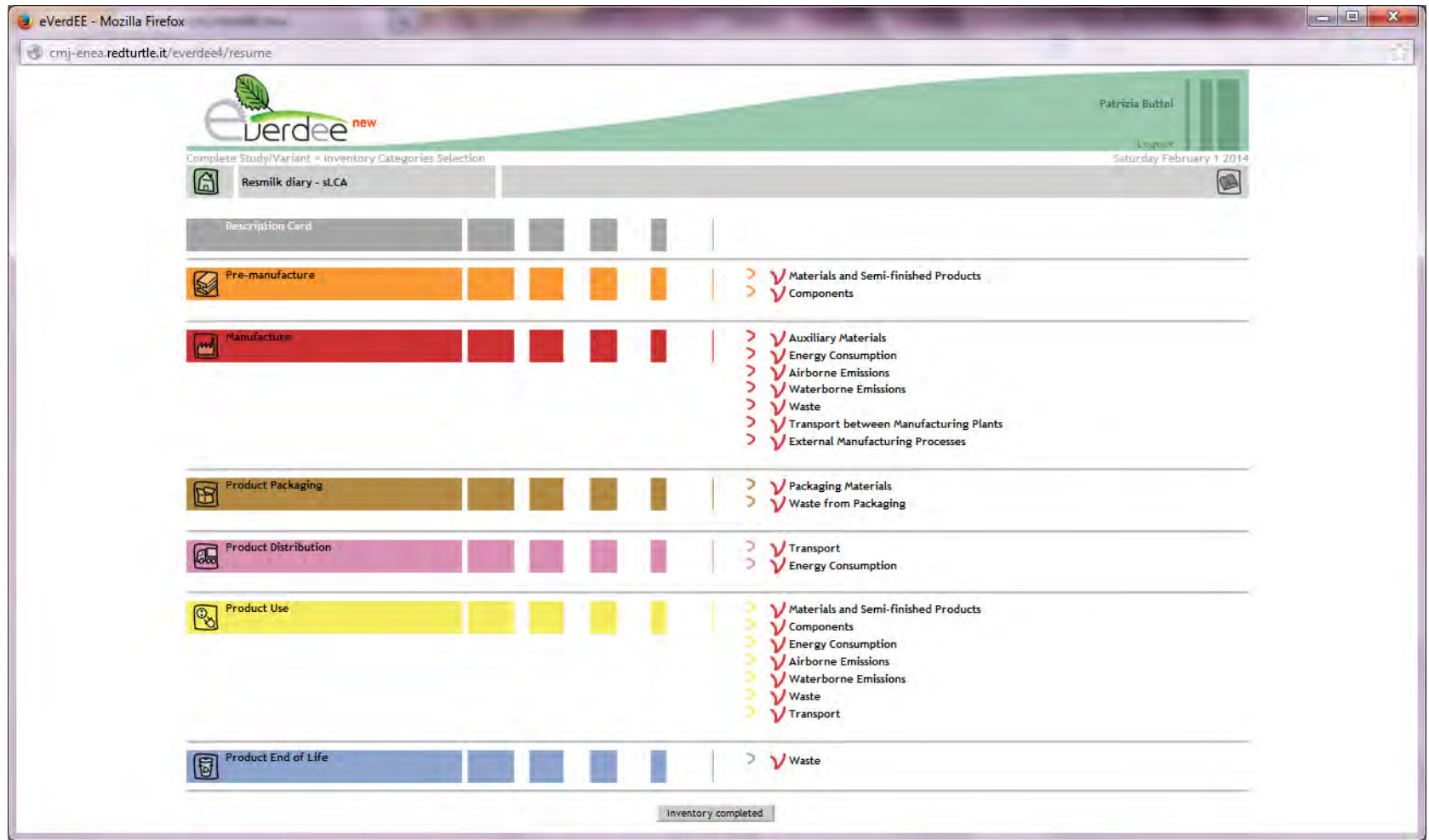
EverdEE: cmj-enea.redturtle.it/everdee4/login2



The screenshot shows a Firefox browser window with the address bar displaying "cmj-enea.redturtle.it/everdee4/login2". The page title is "eVerdEE Login Form". The main content features the "everdee" logo, which includes a stylized green leaf and a gear. Above the logo, there are links for "English", "Portuguese", and "Italiano". To the right of the logo is the word "new" in orange. Below the logo, there is a message: "Either your work session has timed out, or you have not logged in yet. Please insert your username and password to access eVerdEE." followed by a link: "To obtain a username and password please subscribe below". Below this link is another link: "Click here if you have forgotten your log in information". The login form consists of two input fields: "User Name:" and "Password:". Below these fields is a "Login" button. In the bottom right corner, there is a logo for "eco SMEs".

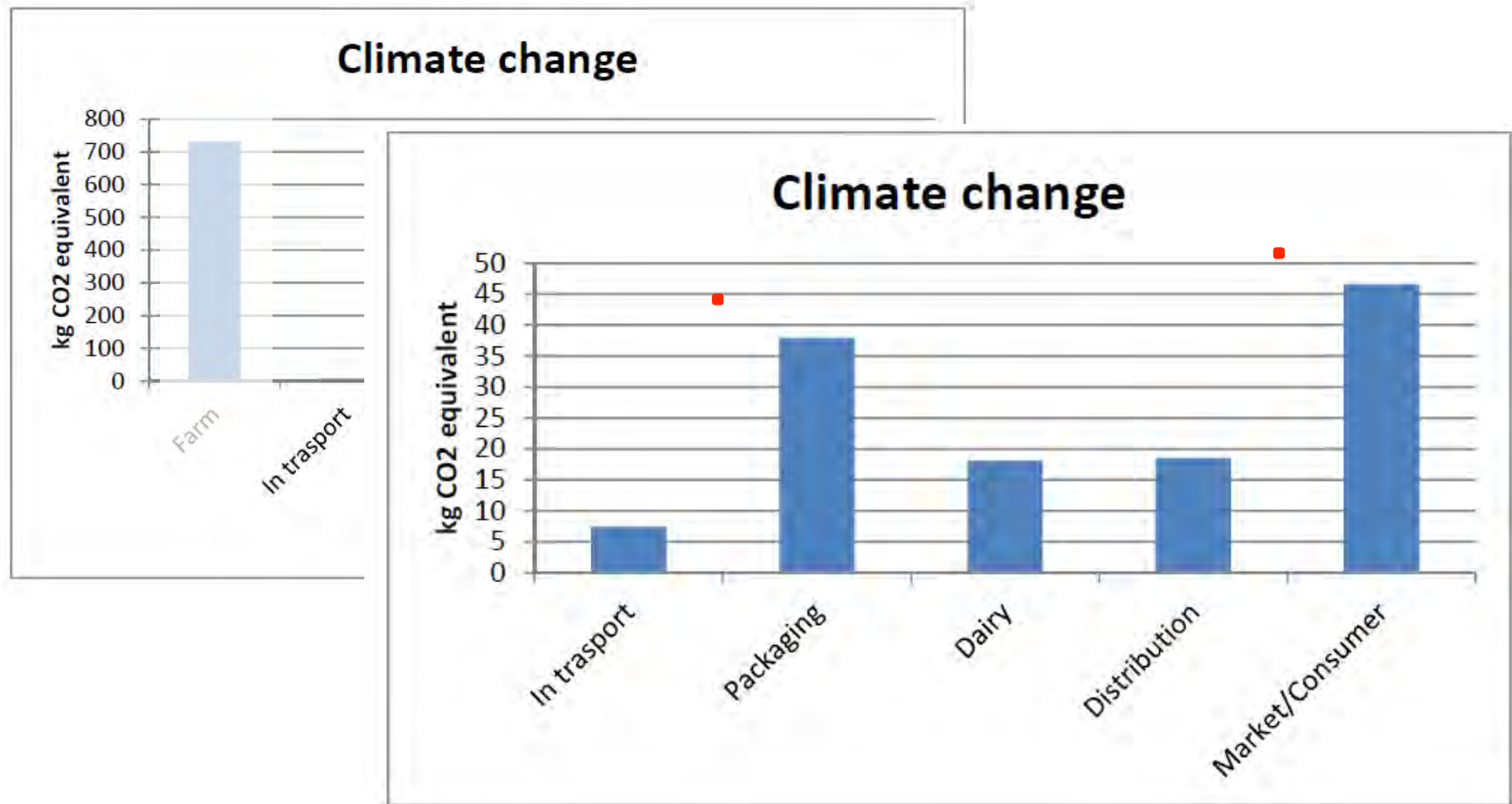
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PRESURCE Example of application



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PRESOURCE Example of application



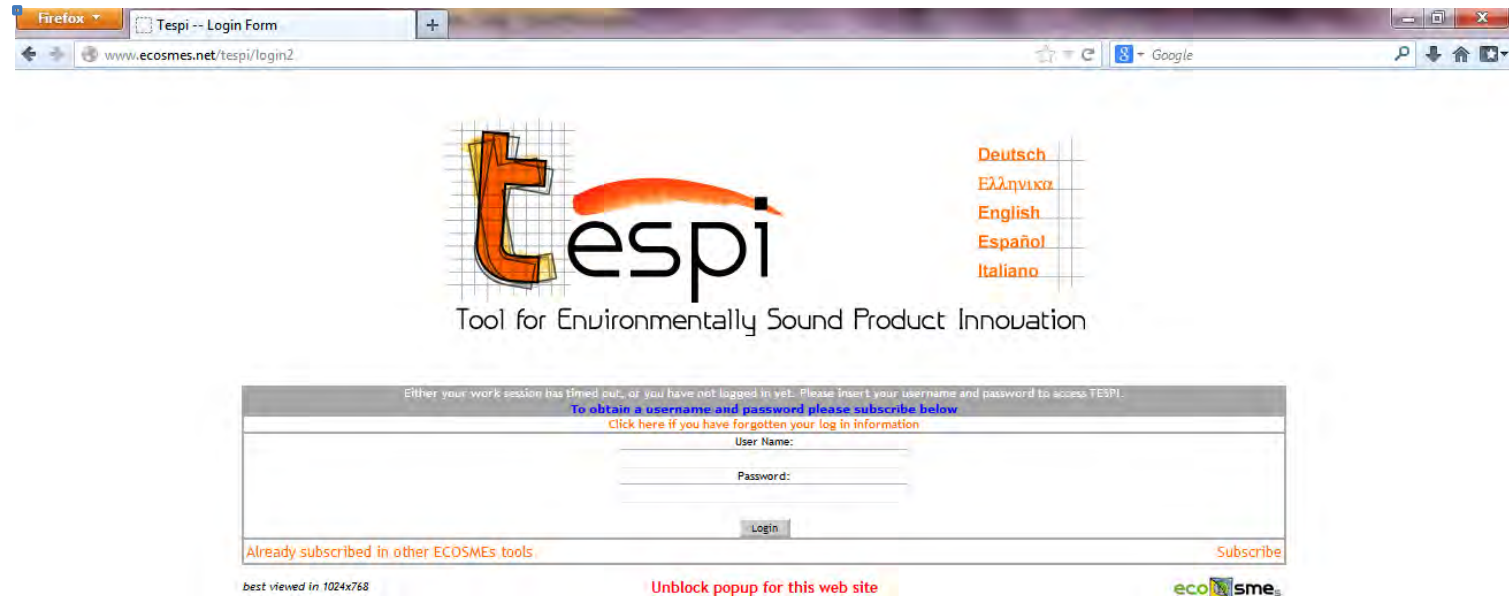
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PRESOURCE Suggested tool: Eco-design

- Tespi
- SIS Toolkit
- Design for Sustainability (D4S)
- EcoDesign Pilot
- Cambridge Sustainable Design Toolkit
- ...

PRESOURCE Example of application

Tespi: www.ecosmes.net/tespi/login2



The screenshot shows a Firefox browser window with the address bar displaying www.ecosmes.net/tespi/login2. The page features the Tespi logo, which consists of a stylized orange 't' and the word 'espi' in black. Below the logo is the text 'Tool for Environmentally Sound Product Innovation'. To the right of the logo are language links: Deutsch, Ελληνικά, English, Español, and Italiano. The main content area is a login form with a message: 'Either your work session has timed out, or you have not logged in yet. Please insert your username and password to access TESPI.' Below this message are two input fields labeled 'User Name:' and 'Password:', followed by a 'Login' button. At the bottom of the form, there is a link 'Already subscribed in other ECOSMES tools.' and a 'Subscribe' link. The footer of the page includes the text 'best viewed in 1024x768', a red banner that says 'Unblock popup for this web site', and the 'ecosmes' logo.

Individualize by clicking View > Header and Footer



PRESOURCE Example of application

QFD -- Environment Valutation - Mozilla Firefox
www.ecosmes.net/tespi/needPartTg

tespi Tool for Environmentally Sound Product Innovation
Sara Cortes
Saturday February 1, 2014

Modify study/variant > Study/variant selection > Environmental topics > Product evaluation
Resmilk dairy - Packaging re-design

Pre-manufacture
Here you will consider the material inputs into the manufacturing plant to produce the product being studied. Select the statement that suits your product best.

Name	Evaluation
 Material quantity	☐ This issue is not relevant for the product ☒ The size (weight/volume) of the product has already been minimized in accordance with its function ☐ The product size (weight/volume) can be reduced
Comment	
 Use of recycled materials	☐ This issue is not relevant for the product ☐ The percentage of recycled materials is >70% ☒ The percentage of recycled materials is <70% Modify parts contribution
Comment	
 Use of renewable and sufficiently available materials	☐ This issue is not relevant for the product ☐ All reasonable alternatives from renewable material have been applied/no scarce materials have been used ☒ The use of scarce/nonrenewable material was not widely reduced Modify parts contribution
Comment	
 Use of harmful materials	☒ The product does not contain harmful substances ☐ The content of harmful substances has already been minimised ☐ Other
Comment	

Save Go on Suspend

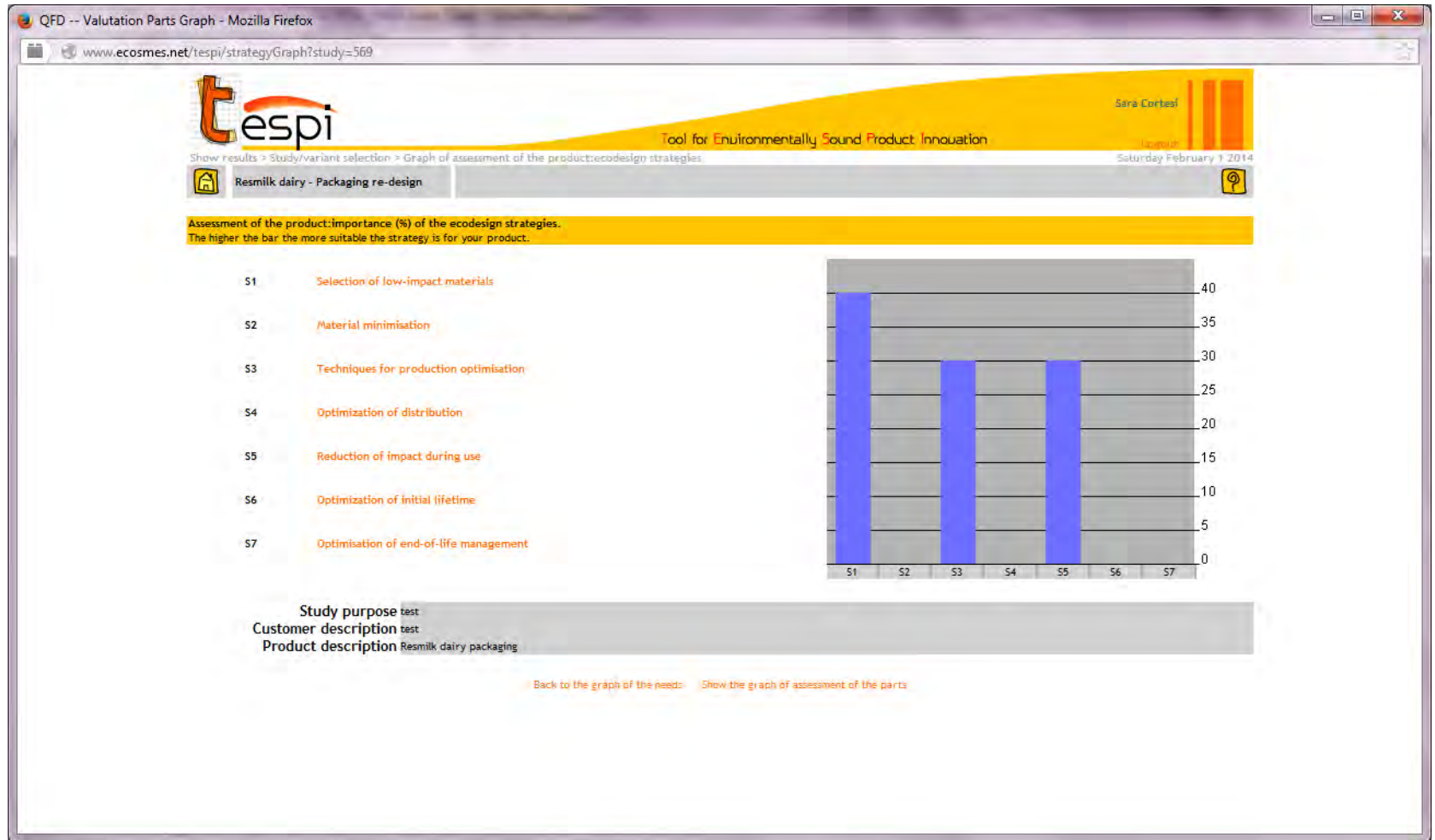
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PRESURCE Example of application

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Comment	
 Use of renewable and sufficiently available materials	☐ This issue is not relevant for the product ☐ All reasonable alternatives from renewable material have been applied/no scarce materials have been used ☒ The use of scarce/nonrenewable material was not widely reduced Modify parts contribution
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 Use of harmful materials	☒ The product does not contain harmful substances ☐ The content of harmful substances has already been minimised ☐ Other
Comment	

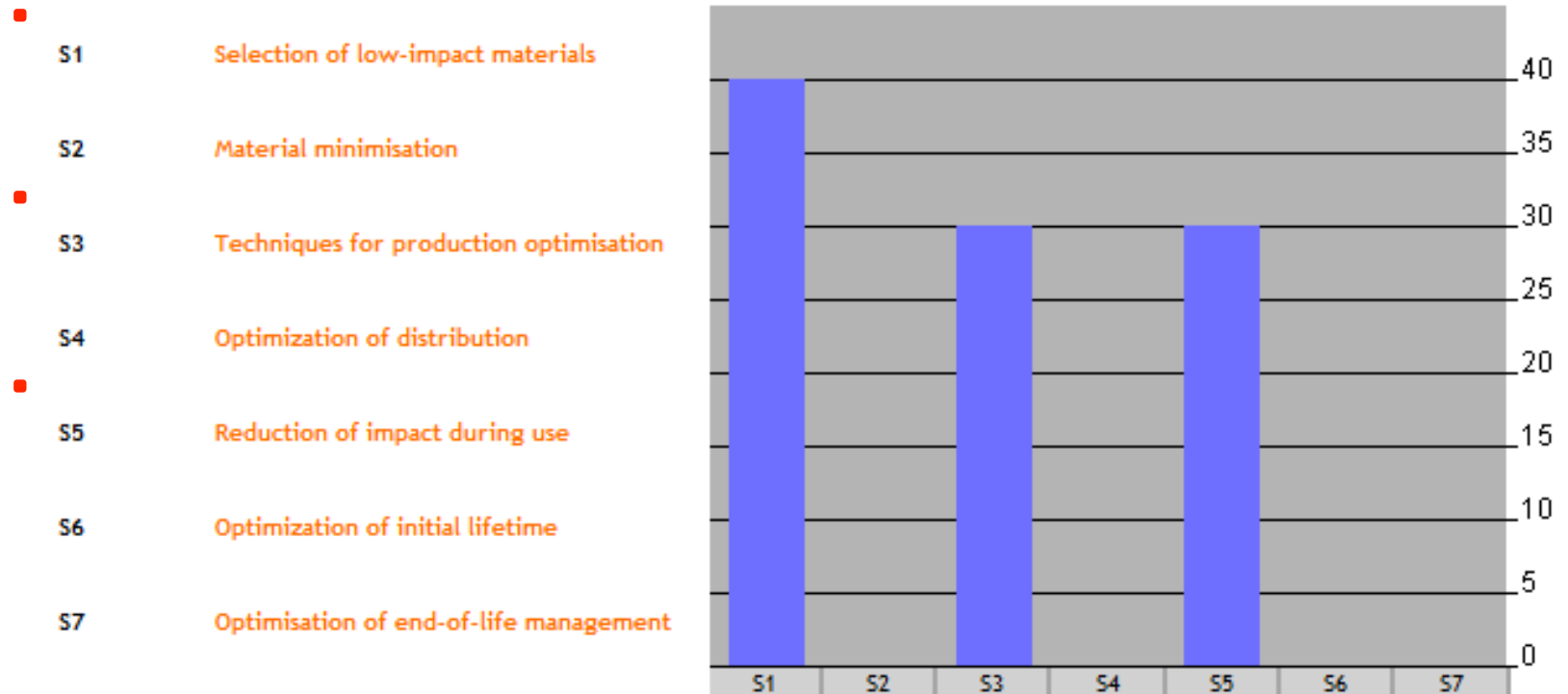
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PRESOURCE Example of application



Individualize by clicking View > Header and Footer

PRESURCE Example of application



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Suggested tool: Socially sustainable design

- Sustainability Design-Orienting (SDO) Toolkit



PRESOURCE Example of application

SDO Toolkit: www.sdo-lens.polimi.it



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PRESSOURCE Example of application

The screenshot shows the SDO Sustainability Design-Orienting Toolkit application running in a Firefox browser. The browser's address bar displays 'www.sdo-lens.polimi.it'. The application interface includes a sidebar on the left with a logo and navigation menu. The main content area is titled 'test' and features a 'Socio-Ethical Sustainability - Set Priorities' section. This section contains a list of sustainability goals, each with a checkbox and a priority selection (N, L, M, H). A 'Check list' section on the right contains a question about client/user acknowledgment. The interface also includes a top navigation bar with options like Menu, Save, Reload, Print, Logout, and Help.

SDO
Sustainability Design-Orienting Toolkit

PROJECT RECORD

Sustainability Dimension

- ☐ Environmental Sustainability
- ☒ **Socio-Ethical Sustainability**
 - ☒ **Set Priorities**
 - ☐ Orientate Concept
 - ☐ Check Concept
- ☐ Economic Sustainability

Radars

- ☐ Environmental
- ☒ **Socio-Ethical**
- ☐ Economic

test

Socio-Ethical Sustainability - Set Priorities

- ☐ Improve employment and working conditions
priority: ☐ N ☒ L ☐ M ☐ H
- ☐ Improve equity and justice in relation to stakeholders
priority: ☒ N ☐ L ☐ M ☐ H
- ☒ Enable a responsible and sustainable consumption
priority: ☐ N ☐ L ☐ M ☒ H
- ☐ Favour/integrate weaker and marginalized strata
priority: ☐ N ☒ L ☐ M ☐ H
- ☐ Improve social cohesion
priority: ☐ N ☐ L ☐ M ☒ H
- ☐ Empower/ valorise local resources
priority: ☐ N ☒ L ☐ M ☐ H

Existing System

Case Study 1

Case Study 2

Check list ☐ ☐ ☐

Is the client/final user able to acknowledge clearly and easily the social (un)sustainability along the whole value production chain?

☐ Menu ☐ Reload ☐ Logout
☐ Save ☐ Print ☐ Help

Individualize by clicking View > Header and Footer