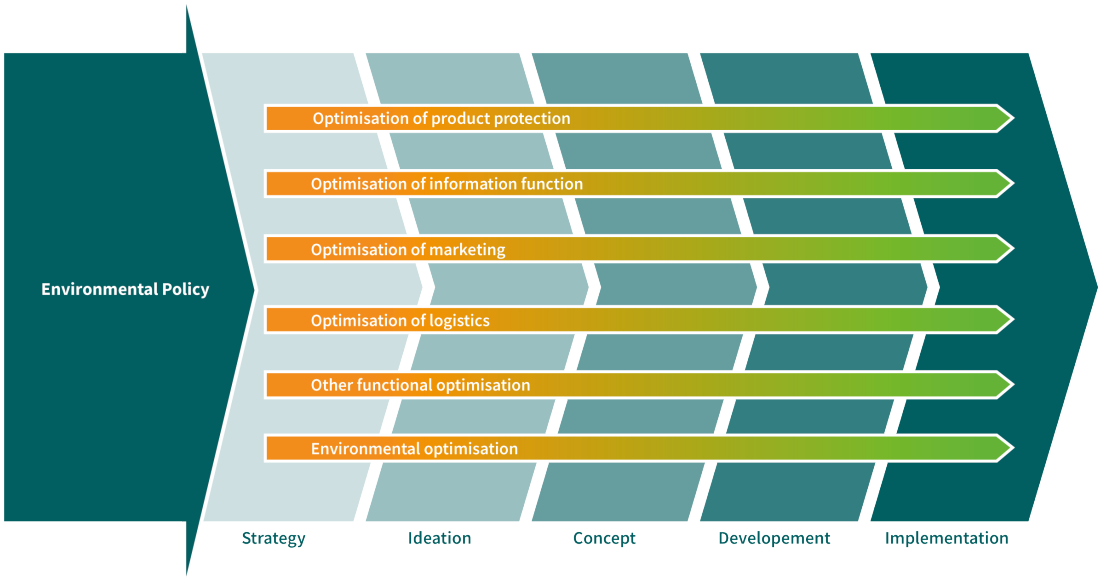
# Checklist
# Management of Eco Design in Packaging Projects

## Variety of optimization processes




## Project

| | |
|---|---|
| **Project name** | [Please fill in] |
| **Project number** | [Please fill in] |
| **Project manager** | [Please fill in] |
| **Date** | [Please fill in] |

# Questions and Documentation

| Question | Explanation | Instructions | Result |
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| Has a decision been taken by management that reducing negative environmental impacts is a key requirement for company/brand packaging? | Only if reducing negative environmental impacts is an (equal) key requirement for the packaging is there a basis for a systematic Eco design. | If **YES**: provide relevant documentation.<br>If **NO**: either obtain a corresponding decision from the management or terminate (or do not carry out) the Eco design project. | [Please fill in] |
| **Step 1: Defining environmental goals for the packaging design project** | | | |
| Does the environmental strategy of the **company** include clearly formulated environmental goals? | Here, the environmental strategy is to be reviewed for appropriate environmental goals. | If **YES**: for example, refer to the environmental strategy and list the key environmental goals.<br>If **NO**: give reasons and continue. | [Please fill in] |
| Can specific environmental messages and environmental goals be derived from the **brand message** (of the packaged good)? | The brand conveys a large number of messages. These may also include environmental goals such as climate change mitigation, sustainability or protection of the natural environment. | If **YES**: list the brand's environmental goals and/or the environmental goals that can be derived from the key brand messages.<br>If **NO**: give reasons and continue. | [Please fill in] |
| Have relevant environmental goals been selected for this packaging design **project**? | It is essential to select "relevant environmental goals" for an (Eco design) project.<br>When selecting these, the two review questions listed above should be taken into consideration. At this stage, there is no need to prioritise or quantify the goals.<br>The fact sheet "Environmental Goals for Eco Design Projects" includes appropriate proposals.<br>Possible environmental goals include, for instance, reducing greenhouse gas emissions (contribution to climate change mitigation), using a smaller amount of materials (contribution to conserving resources) or increasing recyclability. | If **YES**: attach a list of the selected goals, giving reasons for accepting/rejecting the primary environmental goals.<br><br>If **NO**: select goals (if necessary, working through the previous review questions once more) or terminate the Eco design project. | [Please fill in] |
| Has the type and order of priority of the environmental goals been established? | In order to allow a structured further workflow, it is essential to prioritise the environmental goals. | If **YES**: list the selected environmental goals and the priorities set.<br>If **NO**: set the order of priority or terminate the Eco design project. | [Please fill in] |
| **GATE 1**<br>Have all review processes of step 1 been worked through, environmental goals for the packaging design project set and the decisions for all subsequent decision-making processes made available? | The results of decision-making processes should be documented and made accessible for the further workflow in order to ensure internal process quality and, if necessary, to facilitate subsequent communication activities (see step 5). | The review results and specifications (selected environmental goals each with a short explanation and order of priority) for the relevant design project resulting from step 1 should be documented and signed by the project manager. | [Please fill in] |

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| **Step 2: Developing the Eco Design strategy** | | | |
| Have "suitable" Eco design strategy elements been selected? | For the selected environmental goals, "suitable" Eco design strategy elements should be chosen that implement the review and optimisation appropriately.<br>The Eco design strategy elements can (to some extent) be ranked according to the order of priority of the environmental goals.<br>The fact sheet "*Environmental Goals for Eco Design Projects*" provides relevant information on this. | If **YES**: compile a list of strategy elements, if applicable, ordered in line with the priorities of the environmental goals for the design project.<br>If **NO**: stop until the list has been compiled. | [Please fill in] |
| Has design leeway for the project been established? | The design project is subject to a series of basic specifications. These apply to logistics requirements, marketing requirements, filling technology etc. These specify a fixed framework and the (remaining) design leeway for the Eco design project.<br>The more specifications are set here, the more restricted possible solutions are.<br>For example, specifications at (logistics) system level determine whether multiple-use solutions would also be conceivable as an alternative to a single-use solution. | If **YES**: document the key requirements established for the design project and remaining design leeway.<br>If **NO**: stop until the specifications have been finalised. | [Please fill in] |
| Are all environmental goals measurable? (Have all environmental goals been made measurable?) | Suitable metrics for the selected environmental goals should be chosen (for example, $CO_2$ equivalents for the emission of greenhouse gases, class A-F according to RecyClass certification or x per cent according to the Institute cyclos-HTP for recyclability).<br>This basis should be used to set environmental goals (minimum requirements and optimisation goals) (semi-quantitative).<br><br>This can most easily be done in relation to an existing benchmark (e.g. the existing packaging) – for instance, as x per cent reduction of the environmental impact (to date). | If **YES**: list the (semi-)quantitative metrics for the environmental goals selected in step 1.<br>If **NO**: check whether non-quantifiable environmental goals are indeed "relevant" for the design project. Justify or delete each goal accordingly. | [Please fill in] |
| **GATE 2**<br><br>Have all review processes in step 2 been worked through and the results documented and made available for all subsequent decision-making processes? | Both to ensure the internal process quality and, if necessary, to facilitate later communication activities (see step 5), results of the decision-making processes should be documented and made accessible for the further workflow. | The review results and specifications for the relevant design project resulting from step 2 should be documented and signed by the project manager. | [Please fill in] |
| ➔ ***The specifications (results of steps 1 and 2) are incorporated into the creative process (ideation).***<br>➔ ***The next stage, step 3, builds on the packaging option(s) arising from this creative process. Step 3 needs to be repeated for each of these initial options.*** | | | |

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| **Step 3: Implementing specific elements of the Eco Design strategy** | | | |
| ➔ ***Step 3 is based on the packaging variant(s) resulting from the creative process (ideation phase). Step 3 is to go through for each of these packaging variants.***<br>➔ ***For each strategy element selected in step 2, the approaches described in the guidelines (and the fact sheets) should be used, as well as the relevant checklist.***<br>➔ ***Then the following questions need to be answered:*** | | | |

| Question | Explanation | Instructions | Result |
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| Was the checklist for the relevant strategy element used? | Review the packaging options using the corresponding checklist(s) of the strategy element. | If **YES**: document the review results using the relevant checklist.<br>If **NO**: stop until the review has been completed. | [Please fill in] |
| What selection or modification of the packaging options results from this? | One or several (in principle) suitable (new) options can result from reviewing the packaging option(s) using the checklist. | Description of the selected/modified packaging options ("Final option(s) resulting from strategy element") | [Please fill in] |
| What difficulties became apparent? | When the checklist is used, it may turn out that, given the degree of leeway in the design project, no optimisations of the packaging item(s) were possible. | Obstacles to optimisation already identified should be documented. | [Please fill in] |
| Are there any conflicting goals that arise from optimising the other strategy elements reviewed? | When the optimisation review is carried out, it may also turn out that modifications resulting from applying the previous strategy element are obstructive (and/or must be partly reversed). | If **YES**: document the conflicting goals.<br>If **NO**: continue. | [Please fill in] |
| **GATE 3**<br><br>Have all review processes in step 3 been worked through, and the results documented and made available for all subsequent decision-making processes? | Both to ensure the internal process quality and, if necessary, to facilitate subsequent communication activities (see step 5), results of the decision-making processes should be documented and made accessible for the further workflow. | The review results and specifications for the relevant design project resulting from step 3 should be documented and signed by the project manager. | [Please fill in] |

➔ ***As a result of this step 3, for each initial option (packaging options from the ideation), a packaging option can be identified that has been further optimised ("modified") according to the optimisation reviews. If there are any conflicts between the various optimisation approaches, it may also ultimately mean several modified options in each case, however.***

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| **Step 4: Reviewing the optimisation effects achieved** | | | |
| ➔ ***The input in step 4 is not necessarily identical to the result of step 3, since in real packaging design projects parallel testing and optimization processes in other areas (e.g. in terms of requirements for the marketing function, etc.) may result in further limitations of the number of variants.*** | | | |
| Have the 'optimised' packaging alternatives (results of step 3) been evaluated in terms of their environmental impacts? | An evaluation is to be carried out using appropriate tools (streamlined LCA for quantifiable categories; expert-based qualitative evaluation for other categories; specific evaluations for recycling; ....). | If **YES**: document the results of the evaluation.<br>If **NO**: stop until the evaluation has been completed. | [Please fill in] |
| Is there one or several permissible options? | The results of the previous evaluations should be compared with the minimum requirements relating to the environmental goals (see step 2).<br>Options meeting the minimum requirements are deemed to be "permissible". | **If there is no permissible option:**<br>○ Recursion: check whether it is possible to increase the design leeway in the project. Then repeat the process starting from step 2.<br>○ If it is not possible to have more leeway or if after a recursion the answer is (still) **NO**: check whether individual minimum requirements (see step 2) can be weakened. If this also does not produce a result: terminate the Eco design project.<br>**If there is only one option**: document the results for all environmental goals of the Eco design project and continue with review step "*If there is one permissible option*".<br>**If there are several options**: for all of these, use the checklist "*Handling Conflicting Environmental Targets*" and continue with review step "*If there are several permissible options*". | [Please fill in] |
| **If there is no permissible option:** | | | |
| Can the degree of design freedom for the Eco Design project be increased? | Changing the basic design requirements for the entire packaging design project may (also) open up the scope for environmental improvements. (see step 2). | If **YES**: Change basic specifications for the project. Then repeat from step 2<br>If **NO**: continue | [Please fill in] |
| Can individual minimum requirements for environmental objectives be adapted? | It can be examined whether certain minimum requirements of the Eco Design project can be set a little less ambitiously without countering the fundamental goal of reducing the environmental impact as well as the environmental messages of the brand and the company. | If **YES**: Change individual minimum requirements for the project. Then repeat from step 2<br>If **NO**: Cancel Eco Design project | [Please fill in] |
| **If there is one permissible option:** | | | |
| Does the resulting option meet the previously established optimisation goals? | The effects achieved must be compared with the previously formulated optimisation goals. | If **YES**: continue at gate 4<br>If **NO**:<br>○ Check whether it is possible to increase the design leeway. Then repeat the process starting from step 2.<br>○ If (still) **NO**: document the results and, if applicable, describe which aspects prevent the goals from being (fully) met. | [Please fill in] |
| **If there are several permissible options**: | | | |
| 1) Does one or do several resulting options meet the previously established optimisation goals? | The effects achieved must be compared with the previously formulated optimisation goals. | If **NO**: check whether it is possible to increase the design leeway.<br>○ Then repeat the process starting from step 2.<br>○ If (still) **NO**: document the results and, if applicable, describe which aspects prevent the goals from being (fully) met. | [Please fill in] |

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| 2) Was the checklist "*Dealing with Conflicting Issues*" used and a possible solution opted for? | Refer to using the checklist "*Dealing with Conflicting Issues*". | If **YES**: continue at gate 4.<br>If **NO**: use the checklist "*Dealing with Conflicting Issues*" | [Please fill in] |
| **GATE 4**<br><br>Have the results of step 4 been documented and made available for all subsequent decision-making processes? | Both to ensure the internal process quality and, if necessary, to facilitate subsequent communication activities (see step 5), results of the decision-making processes should be documented and made accessible for the further workflow. | The review results and specifications for the relevant design project resulting from step 4 should be documented and signed by the project manager. | [Please fill in] |

➔ ***At the end of step 4, according to the proposed course of action, there is only one resulting option. In step 5 its environmental properties are filed and communicated in a structured and targeted manner.***

➔ ***Depending on the nature of the project, real packaging design projects are followed by a series of further development, test and implementation steps, especially with regard to the technical realization of the new packaging variant. This may also always result in the need for one or more re-runs (also) of the Eco Design process (from step 2 or step 3). The result will be (again) a result variant.***

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| ➔ ***Step 5 concludes the Eco Design project by sorting and processing the environmental aspects of the resulting option specifically for external and internal communication.*** | | | |
| **Step 5: Using transparent and effective communication** | | | |
| Have aspects been selected and processed that can/should be used as part of proactive communication with the end customer? | Here, the relevant successful optimisations achieved need to be carefully checked to determine<br>- whether they are (also) perceived as relevant by the customers and stakeholders and<br>- how they can be credibly communicated in conjunction with other brand messages. | If **YES**: continue<br>If **NO**: select and prepare appropriate environmental aspects and related facts and key messages | [Please fill in] |
| Is the preparation and external communication of the improved environmental properties in line with communication standards? | To ensure the resilience and transparency of environmental communication and unfair statements that distort competition, a set of standards for transparent environmental communication has been developed at various levels | If **YES**: document the application / compliance with the relevant standards accordingly<br>If **NO**: Selection and application of suitable communication standards or justification why this should be waived for the specific project | [Please fill in] |
| Have aspects been selected and processed that are needed to respond to (any) critical queries? | In addition to the successful optimisations achieved, the difficulties identified in the course of the project which prevent further optimisations are also of particular relevance. | If **YES**: continue<br>If **NO**: in addition to the above, document any obstacles encountered as well as key justifications., then continue to Gate 5 | [Please fill in] |
| **GATE 5**<br><br>Have all statements, decisions and results of the overall project been fully documented and made available for subsequent Eco design projects? | The final documentation serves the dual purpose of both internal quality assurance and a knowledge base for future (Eco) design projects. | The completeness and future accessibility of the documentation of results should be checked and signed by the project manager. | [Please fill in] |
| **Completion of the project** | | | |