

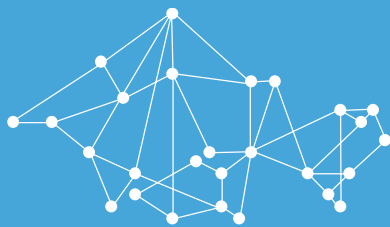


 **Waide** Strategic Efficiency

van holsteijn en kemna
research - design - engineering

 **Fraunhofer**

viegand
maagøe
energy people



IMPLEMENTATION ISSUES

Paul Waide, 10/03/2017

IMPLEMENTATION ISSUES

- » The 10 methodological steps outlined in Task 3 are designed to work and complement the existing MEERP methodology and the overall Ecodesign regulatory process
- » Once a preparatory study is launched it would assess the scope (Task 0/1), the markets (Task 2), users (Task 3), and technologies (Task 4)
- » LCA impacts are determined in Task 5 and ecodesign design options are assessed in Task 6

IMPLEMENTATION ISSUES

- » Through this process clarity is gained regarding the following:
 - The importance of the various environmental impact parameters via the EcoReport tool and LCA of Task 5
 - The representative duty profiles (via Task 4)
 - The representative reference case products and application groups (via Task 4)
 - The ecodesign options and whether or not these entail a mix of cardinal, ordinal and qualitative data (via Task 6)

IMPLEMENTATION ISSUES

- » After the assessment of the design options in Task 6 it will be clear whether the design option impacts can be assessed with purely cardinal data, in which case a traditional Ecodesign approach will be valid, or whether it is necessary to include ordinal and/or qualitative data, in which case a points-system approach could be merited
- » Thus, the moment following on from the assessment of Task 6 would be the logical moment to conduct Steps 1 - 5 of this suggested analytical framework, to decide whether a points system approach is merited or not
- » If the conclusion is that it is, then the remaining Steps 6 to 10 of this framework should be conducted

IMPLEMENTATION ISSUES

- » At this stage some iteration would be required compared with the standard MEERp process. While Steps 1-5 are relatively straightforward to conduct the subsequent Steps 6 to 10 are more involved and may require adjustment of the Preparatory Study's schedule and resources. These are:
 - Step 6 Assessment of the implications of product modularity
 - Step 7 Assessment of the implications of product performance sensitivity to the final application
 - Step 8 Determination of environmental impact budgets
 - Step 9 Normalisation and awarding of points
 - Step 10 Support to regulatory decision making

IMPLEMENTATION ISSUES

- » Stakeholder comment and regulatory development and decision making stages need to be built into the decision-making process. E.g. following MEERP Task 6 the consultants (with guidance from the Commission) present an assessment of the following:
 - » a) The case of whether a points-system approach needs to be countenanced or is unnecessary or unhelpful (from Step 5)
 - » b) In the event that they consider that it is logical to consider a points-system approach they would need to report their thinking with regard to:
 - » c) The environmental impact parameter or parameters to be assessed via a points approach (from Step 3)
 - » d) The product scope (i.e. simple product, extended or modular product, or product system) that the points system would aim to address (from Step 2)
 - » e) The life cycle stages that would be included in the assessment (from Step 1)
 - » f) The assessment of the product intervention phases (from Step 4)

IMPLEMENTATION ISSUES

- » If the Commission deems it is sensible to proceed then the consultants would be tasked with conducting Steps 6 to 9
- » This would entail reaffirming that the product reference cases are appropriate for:
 - the modularity of the product determined in Step 6, and each pertinent application group derived in Step 7
 - It would be likely to necessitate undertaking a more thorough appraisal of the product reference cases than would have initially been performed in MEERP Tasks 1-4
 - Once the reference cases are clarified then the impact budgets as a function of the set of design options can be conducted as per Step 8 and a normalisation process and points award process conducted as per Step 9
 - The results of these analyses could then be presented to a final Stakeholder group and amended as deemed appropriate

van holsteijn en kemna
research - design - engineering

 Waide Strategic Efficiency

IMPLEMENTATION ISSUES

- » The rest of the process to derive Ecodesign requirements would follow the same process as is normally undertaken i.e.
- » the Commission would take the findings from the stages above and use this to derive a Working Document with its initial regulatory proposal via the Regulatory Development process set out in Step 10
- » Note that the derivation of this working document is likely to require an additional assessment of the products on the market to establish the points that would be associated with the Least Life Cycle Cost and BAT levels, as well as the Reference Cases
- » If points-based energy labelling is envisaged it may also be valuable to see how current products are distributed in terms of their points allocations for energy performance
- » Once the working document is developed it would undergo scrutiny and potential amendment via the Consultation Forum and the Regulatory Committee, in the usual manner for Ecodesign and Energy Labelling regulations

van holsteijn en kemna
research - design - engineering

 **Waide** Strategic Efficiency

OBSERVATIONS ON CONFORMITY ASSESSMENT

- » The generic methodology set out in Task 3 does not pose any insurmountable problems for conformity assessment, but it is inherently more complex than simply submitting a product to a laboratory for an energy performance and associated impact parameter test
- » If a points system is being used it will be because of the presence of non-cardinal data necessary to evaluate one or more ecodesign impact criteria, or because some blend of generic and specific Ecodesign requirements is being considered within a single evaluation framework
- » Thus while there will be more types of aspects to assess and there will be a need to put them within a single accounting framework (the points system) to determine compliance, none of the individual elements that go into the foundation of the points system need present any greater challenge for conformity assessment than were they being assessed as ecodesign features that are measurable purely via cardinal data

OBSERVATIONS ON CONFORMITY ASSESSMENT

- » Checklist approaches are likely to be needed to determine whether products have ordinal or qualitative design features and in principle the process of doing this can be codified into standard assessment guidelines or standards
- » The precise route to follow would need to be assessed on a case by case basis and determined by the appropriate bodies (Commission, standards committees and MSAs and/or conformity assessment bodies)
- » Although the process of determining the points scores adds a layer of complexity to a standard product conformity evaluation it is not inherently more complex than the process that would already be required to assess a domestic heating or hot water system for compliance with the energy label

DATA STORAGE SYSTEMS

The Data Storage System



Assess E-Star/SNIA test results

User/set-up guidance

Operational guidance

Non-energy issues

MARKET SURVEILLANCE FOR DATA STORAGE SYSTEMS

Two levels:

- » Calculate based on SNIA / ES data
- » Test the products
 - » SNIA recognised tester program
- » Good Commissioning Guidance: Subjective judgement
- » Large and expensive...
- » ... but possible

MARKET SURVEILLANCE FOR MACHINE TOOLS- FRAMEWORK

- Machine tools are very heterogeneous and therefore compared to products, where the MSA test the actual product's energy performance, the approach for conformity assessment according to the presented methodology is different
 - » The requirements set out are either:
 - » procedural , as for the stages 1 - Product development stage and 3 - Use phase
 - » or technical as for stage 2 - Detailed design stage
- The conformity assessment would therefore be of an audit type

MARKET SURVEILLANCE FOR MACHINE TOOLS- INFORMATION TO BE PROVIDED

- » For a conformity assessment the machine tool supplier would have to provide evidence on the following information:
 - » The check lists followed in Stages 1 and 3 with supporting evidence
 - » The duty profile(s) the machine tool is designed to satisfy
 - » The energy consumption of the machine tool when tested under those duty profile(s)
 - » The list of energy savings from the relevant design options, completed to show which options were excluded and why, and which options were selected for each module, with their predicted (and/ or measured) effects
 - » Documentation of the calculations, preferably in a pre-defined format

MARKET SURVEILLANCE FOR MACHINE TOOLS- PROCEDURE

- » Stages 1 and 3 (Check lists):
 - » The MSA would only check, whether the evidence provided is appropriate and correct
 - » For selected cases, the MSA could also check, whether the procedural requirements are actually implemented in the company
 - » Regarding selected issues in stage 3, such as the user information, the MSA can check, whether this information is actually provided
 - » Stage 2 (Calculation):
 - » the MSA would first have to check plausibility, completeness and accuracy of the information provided by the manufacturer
 - » The MSA would then need to enter the information into the appropriate algorithms (ideally using a software tool) to check the points calculation
- This is evidently a more complex process than is followed to verify compliance for less complex product types but is technically feasible