

Information for submissions in the Packaging machine engineering, technology, software category

Packaging processes and machine systems as well as innovative components for packaging systems

1. Admission criteria
2. Main point of focus
3. Not considered in this category
4. Evaluation criteria

1. Admission criteria

The automation solution/improvement to be submitted should have a direct technical reference to mechanical packaging at the place of packaging (in the food, pharmaceutical, contract packaging or similar businesses).

This includes:

- a) Main packaging operations
 - Moulds (inline)
 - Filling (including insertion, sliding into the packaging)
 - Sealing
 - Wrapping/strapping/banding
 - Combinations of these in the form of modules, machines, linked/combinable systems for consumer and transport packaging (including display packages), and loading units
- b) Other operations integrated into these main operations or their processes at the point of packaging/ in the packaging line.
 - Preparation of the packaged goods, packaging or packaging aids such as unpacking, separating, cleaning, sterilising/disinfecting/germ reduction processes
 - Dosing
 - Arranging, sorting
 - Preserving and other product protection technologies
 - Printing/labelling, tagging
 - Equipping, securing
 - Cleaning, sterilisation of machine systems
 - Conveying, handling, storing, linking,
 - Checking/controlling/identifying
- c) Software functions that enable and promote the immediate innovative functions and operations of machine packaging systems
- d) Completely or substantially new packaging line solutions

- e) New design and integration solutions for a) to c)

2. Main point of focus

All submissions must present a novel and clear improvement solution for the packaging application. In particular, there should be demonstrable improvements in relation to one or more of the criteria/sub-criteria listed below:

- a) Economic efficiency including
- Enabling higher quality and/or new products with correspondingly higher value creation; applications for inexpensive/cheaper packaging, packaging aids
 - Reducing losses due to downtime (planned/unplanned), waste and rejects
 - Operator efficiency, maintenance efficiency
 - Space efficiency (including any necessary conditioning of the process environment with regard to temperature/climate, hygiene, safety)
 - Cost savings for process and process additives
 - Significant saving of energy used in the process
 - Flexibility
- b) Resource exploitation and resource conservation/protection (including sealing/improving material and energy cycles)
- c) Safety for the operator, product and environment (including hygienic design/safe cleaning and disinfection)
- d) Sealing/improving information networking and circuits (including tracking/tracing)
- e) Ease of use/ergonomics
- f) Preservation of quality of the packaged products

The potential for innovation or improvement as well as the way the technical implementation works needs to be clearly and comprehensibly recognisable from the enclosed documentation. In addition to textual descriptions, technical data and measurable parameters, pictures, videos, patent information, descriptions of application results and cost-effectiveness certificates are particularly helpful.

3. Not considered in this category

- Machines, devices, tools, aggregates and solutions that are not directly integrated in the packaging process, i.e. operated at the place of packaging.

- These include, among other things, techniques for manufacturing and refining packaged goods, packaging materials, packaging methods and packaging aids that are not integrated into the packaging process and the systems used there.
- Technical developments, innovations and applications that have not been developed or produced in-house.
- Technical systems and applications merely composed of publicly accessible technical kits.
- Technical systems and applications whose production/technical application and suitability for production are not transparent and cannot be assessed.
- Technical systems and applications already familiar in the packaging industry, which although having a specific customer solution do not demonstrate any innovation transferable to other cases. The solutions to be evaluated must be part of a complete packaging solution and presented accordingly.

4. Evaluation criteria

- a) Degree of innovation/novelty
 - Degree of innovation of functions, processes and/or their implementation
 - Transferability to other cases/applications/areas
 - Potential (future-looking, part of the solution of strategic problems)
 - Improving the quality of the packaged product and/or the packaging itself
- b) Complexity
 - Contribution to or potential for reducing or better dealing with complexity in the application
- c) Economic efficiency
 - Enabling higher quality/new products and thus higher added value
 - Possible applications for inexpensive/cheaper packaging, packaging aids
 - Reducing losses due to downtime (planned/unplanned), waste and rejects
 - Operator efficiency, maintenance efficiency
 - Less space required, less effort for conditioning the process environment with regard to temperature/climate, hygiene, safety
 - Cost savings for process and process additives
 - Significant saving of energy used in the process
 - Flexibility
- d) Environmental sustainability
Resource utilisation/conservation/protection, sealing/improving material and energy cycles
- e) Safety for
 - Operator
 - Product

- Surroundings (including hygienic design/safe cleaning and disinfection)
- f) Improving information networking, control, regulation, machine and process monitoring (including tracking/tracing)
- g) Ease of use/ergonomics
- h) Quality of the submitted documentation
 - Understandability, comprehensibility
 - Completeness in the sense of conveying a detailed and overall impression
 - Potential for enthusiasm / innovation of the presentation