

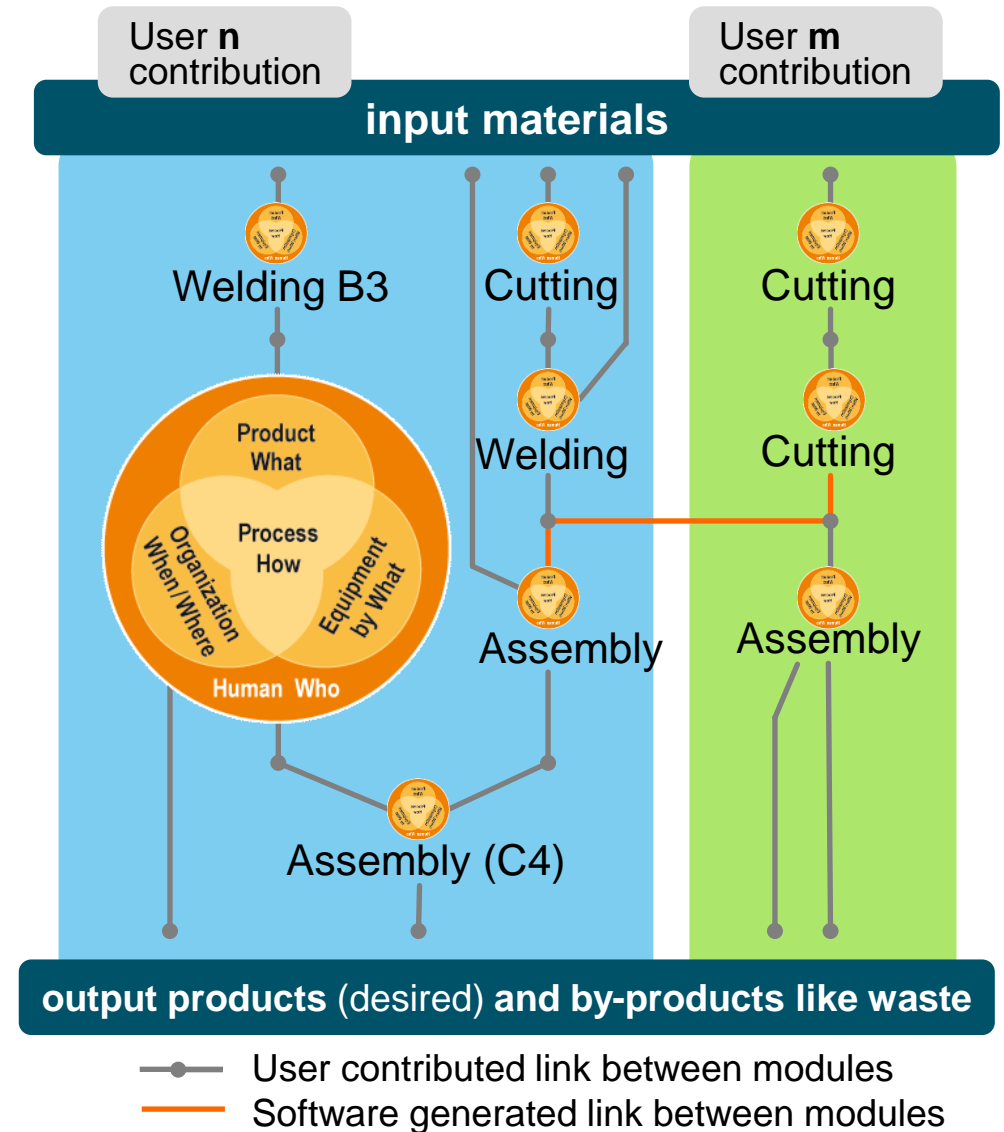
B6 Integration Shop – Challenge

- ▶ Resource efficiency
 - ▶ Identification and promotion of material cycles by combining manufacturing and recycling processes
 - ▶ Challenge is to collect as many actual manufacturing and recycling processes as possible
- ▶ Sustainable Manufacturing Community
 - ▶ Get people with innovative ideas to contribute their use cases and application
 - ▶ Offer a web platform for developing and sharing ideas, concepts, use cases and application
- ▶ Integration
 - ▶ Combining manufacturing and recycling processes as value creation modules to constitute a value creation network
 - ▶ Identifying and promoting of best practices in sustainable manufacturing
 - ▶ Constituting demonstrator as joint undertaking to show potentials of sustainable manufacturing



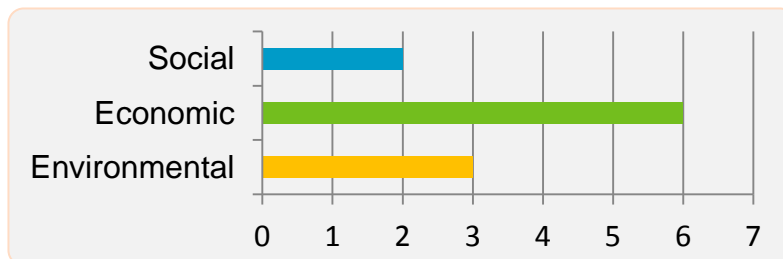
B6 Integration Shop – Approach

- ▶ Value creation factors
 - Each factor - process, equipment, organization, human - is described by a flexible extendable set of attributes
- ▶ Value creation modules
 - ▶ Single or aggregated process steps for manufacturing / recycling
 - ▶ Linked via input material and output products
- ▶ Value creation network
 - ▶ Modules, linked vertically along the technological process chains and horizontally
 - ▶ Combination of different user contributions

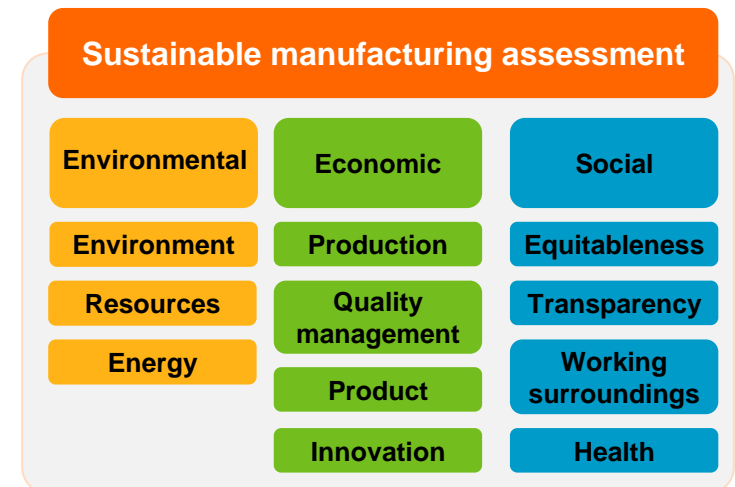


B6 Integration Shop – Results 2012

- ▶ Building up a knowledge pool for sustainable manufacturing with an online representation
 - ▶ Implemented functionality in 2012
 - ▶ Contributing and visualizing of value creation modules and factors
 - ▶ Analysis regarding input materials output products
 - ▶ Identification of material suppliers and product customers
- ▶ Developing a methodology for Rapid Sustainable Plant Assessment (RSPA)
 - ▶ Tools to capture strengths and weaknesses of a company regarding its sustainability quickly and precisely
 - ▶ The sustainable manufacturing assessment is split into 3 categories and then 7 subcategories



Overall evaluation of production facility, Berlin 2012



RSPA Subcategory Break Down Structure