

PRINCIPLES OF DESIGN TO PREVENT MARINE LITTER

- foster emotional connection to product
 - create timeless aesthetic
 - design upgradeable products
 - design products that can be customised
 - design for maintenance and easy repair
 - design for reuse
 - encourage low-consumption user behaviour by developing and supporting awareness-raising campaigns

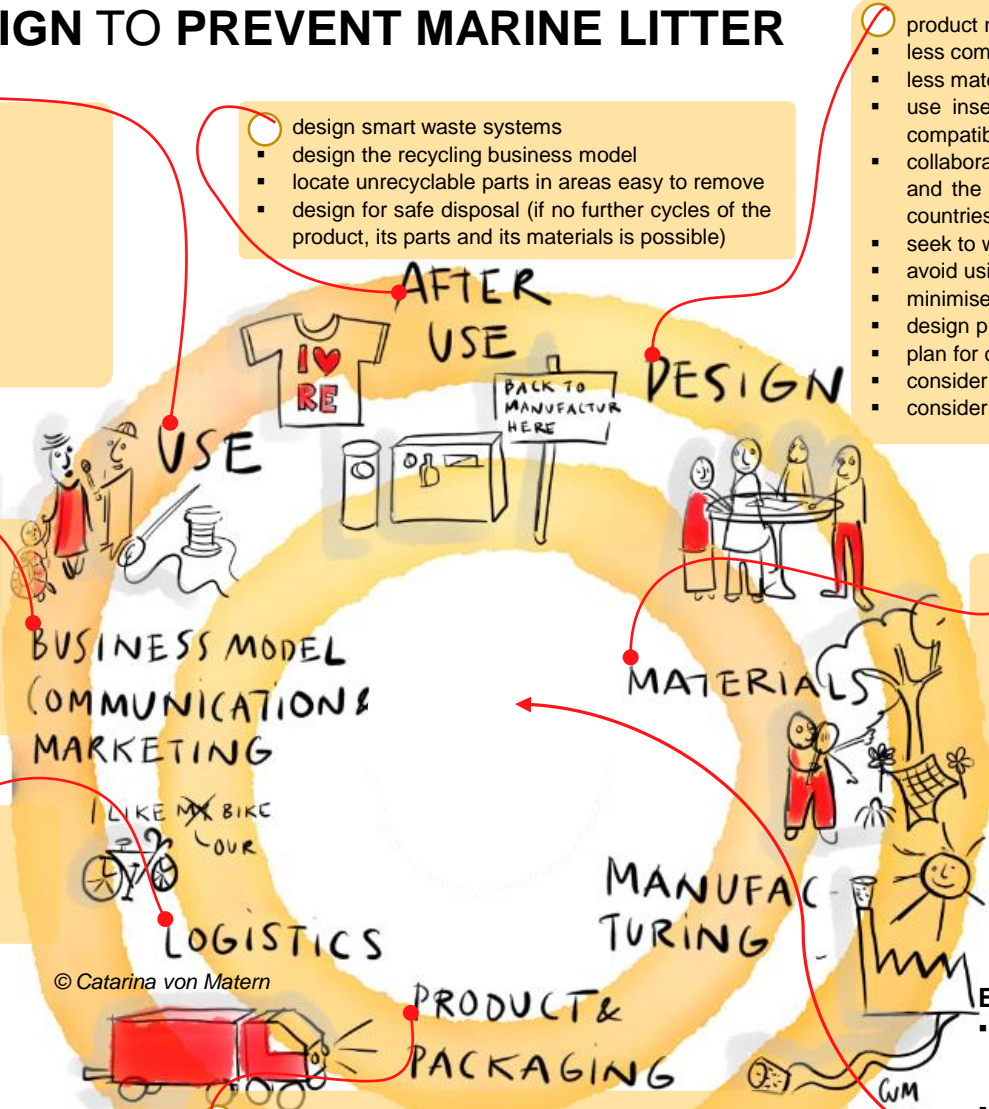
- design smart waste systems
 - design the recycling business model
 - locate unrecyclable parts in areas easy to remove
 - design for safe disposal (if no further cycles of the product, its parts and its materials is possible)

- product necessary? service?
 - less components
 - less material diversity
 - use inseparable joints for components made of the same or a compatible material
 - collaborate & share, involve stakeholders in the problem definition and the solution design process, reach out to other sectors and countries to learn about their best practice examples
 - seek to work with other disciplines, practice systemic thinking
 - avoid using parts that require frequent replacement/repair
 - minimise losses within the life cycle of a product
 - design products and services for a circular economy
 - plan for continual improvement
 - consider product-service systems
 - consider packaging in the design phase

- communicate environmental excellence of the product (customer group specific)
 - introduce a label that indicates designs which use resources as efficiently as possible and which integrate environmental impacts, such as marine litter, into the life cycle of the product

- use materials with low environmental impact in the entire life cycle of a product
 - use recyclable non-toxic materials
 - use recycled materials
 - minimise composites
 - identify / label materials
 - further R&D in developing sustainable "alternative materials"

- consider the logistics of transporting and the transport distances of materials



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- inform about materials used in the products & packaging
 - less packaging to what is necessary for the product (consider, amongst others, transport before and after use as well as the use phase)
 - avoid pre-portioned single use packaging (designers, industry, conscious decision of customers)
 - enable reuse of packaging
 - integrate marine litter aspects
 - favour products intended for immediate (and local) consumption, which require less durable packaging

Enabling environment and systemic issues

- minimise awareness on own influence on the marine litter issue among designers and all other life cycle actors
- support and inform broader public (including all life cycle actors) on best practice examples in re(design) / circular design, sustainable production and business models for a circular economy and good consumer behaviour
- include environmental costs in the price of products to incentivise the purchase of products that produce less environmental costs
- create a regulatory framework that enables ecodesign policies, sustainable production and consumption
- consider the ban of high impact products

