

STRATEGIES FOR DESIGN AND CONSTRUCTION



ACTIONS APPLIED: TARGET GROUP LOCAL GOVERNMENT

Responsible use of raw materials and resources		Avoid premature demolition		Keep materials in the cycle	
A	B	C	D	E	
<p>minimise total AMOUNT of materials</p> <p>A1 avoid new construction; consider alternative ways to meet (spatial) needs</p> <p>A2 give preference to repurposing & renovation of existing heritage</p> <p>A3 set up inter-municipal initiatives, bring associations together, make the space publicly accessible</p> <p>A4 organise heating at district level</p> <p>A5 design neutral spaces, suitable for more than one activity</p> <p>A6 opt for structural elements with smart design (strength through geometry)</p> <p>A7 opt for visible techniques & structures, unfinished walls & ceilings (i.e. without an additional finishing layer)</p> <p>A8 opt for climate responsive design, moisture regulation by plants, shading by trees, reed fields... Passive cooling</p>	<p>minimise ENVIRONMENTAL IMPACT of materials</p> <p>B1 carry out an LCA study (via TOTEM) & opt for construction solutions with a lower environmental impact</p> <p>B2 choose recovered bricks, donor skeleton, second-hand furniture & other reclaimed material</p> <p>B3 choose: concrete with recycled aggregate & alternative binders; screeds with recycled sand & lime</p> <p>B4 opt for supporting structures in wood (engineered wood), bio-based insulation materials</p> <p>B5 choose FSC/PEFC label, quarries with a green reconversion plan</p> <p>B6 focus on insulation, compartmentalising in temperature zones, etc.</p> <p>B7 opt for PV panels, heat pumps, geothermal heat exchangers as well as use residual heat</p> <p>B8 opt for heating at a very low temperature</p>	<p>extend the USEFUL LIFE of buildings</p> <p>C1 convert the building for other functions. E.g. village house becomes a workplace, rehearsal room, emergency shelter, care home, etc.</p> <p>C2 design versatile spaces via re-mountable and/or mobile walls.</p> <p>C3 provide: increased load-capacity to enable a rooftop extension; extra height to enable another function</p> <p>C4 provide accessible pipe shafts & ducts, interchangeable technical parts</p> <p>C5 choose materials resistant to premature aging, wear, vandalism...</p> <p>C6 draw up sub-maintenance contracts, post-intervention files, building maintenance booklets</p> <p>C7 build quality houses with a long lifespan via i.e. the "Design/Build/Finance/Maintain/Operate" procedure</p>	<p>maximise the REUSABILITY of elements</p> <p>D1 choose facade bricks + lime mortar, dry-stacking systems, planks with groove & clip, loose roof membranes, dry screed floors</p> <p>D2 design with grid dimensions (standard ceiling elements, raised floor elements, etc.)</p> <p>D3 opt for components that can be reassembled, plug & play techniques</p> <p>D4 lease furniture, carpet tiles, consider product-as-a-service (e.g. light-as-a-service), energy service companies</p> <p>D5 create an inventory for reuse during renovation and/or dismantling; materials that can easily be used again</p> <p>D6 draw up a building passport, including an extensive post-intervention file</p> <p>D7 integrate elements of emotional value: bluestone or cement tiles, platines, cobblestones, design furniture ...</p>	<p>maximise the REUSABILITY OR RECYCLABILITY of materials</p> <p>E1 opt for components made out of one/easily separable (raw) material</p> <p>E2 choose low-emission paint or glue, untreated wood, unpainted wood</p> <p>E3 opt for geo-based materials (e.g. clay, shell insulation) & for bio-degradable materials (e.g. hemp, jute)</p> <p>E4 choose materials with cradle-to-cradle certificate or equivalent</p> <p>E5 negotiate a take-back agreement with a guarantee of recycling (roof membranes, mineral wool ...)</p> <p>E6 draw up a materials passport, including an extensive post-intervention file</p> <p>E7 draw up a detailed demolition inventory, reuse inventory (if necessary asbestos inventory)</p> <p>E8 offer materials: on online second-hand platforms; at construction dealers, local material banks, social enterprise</p>	