

Smart Cities

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Design Concepts

The concept ideas shown here are my responses to issues and insights identified while exploring the idea of waste avoidance in cities and towns, and how initiatives under that perspective are usually absent from smart city projects. Each concept connects differently to at least one of the four target groups.

These ideas are not meant to be radically new. Rather, the intention is contributing to build a systemic, commons-based approach that allows society as a whole to benefit from the potential value that can be generated through secondary flows of matter.

Grouped Concepts

Data and Things

Universal Registry of Things

Open database about objects, to support the reuse (repair, recirculation, upcycling) and help evaluate the potential of objects for secondary markets.

Point and Reuse

An app that allows users to take a picture of any object, match it against the Universal Registry of Things and instantly evaluate or learn about its potential for reuse and upcycling.

Save this Thing

Geo-referenced open directory of shops, professionals and groups that offer alternatives to reuse materials.

Transparency / Visibility

Make Waste Visible

Urban interventions exposing the volume of waste generated by towns and cities.

Reuse Dataset

Open Dataset about different kinds of reuse of materials in urban environments.

Reuse in the City

Reuse Commons

Ecosystem for the collective stewardship of post-consumption materials.

Transformation Lab

Blueprint of facilities for reuse / upcycling of materials in urban contexts.

Reuse Bin

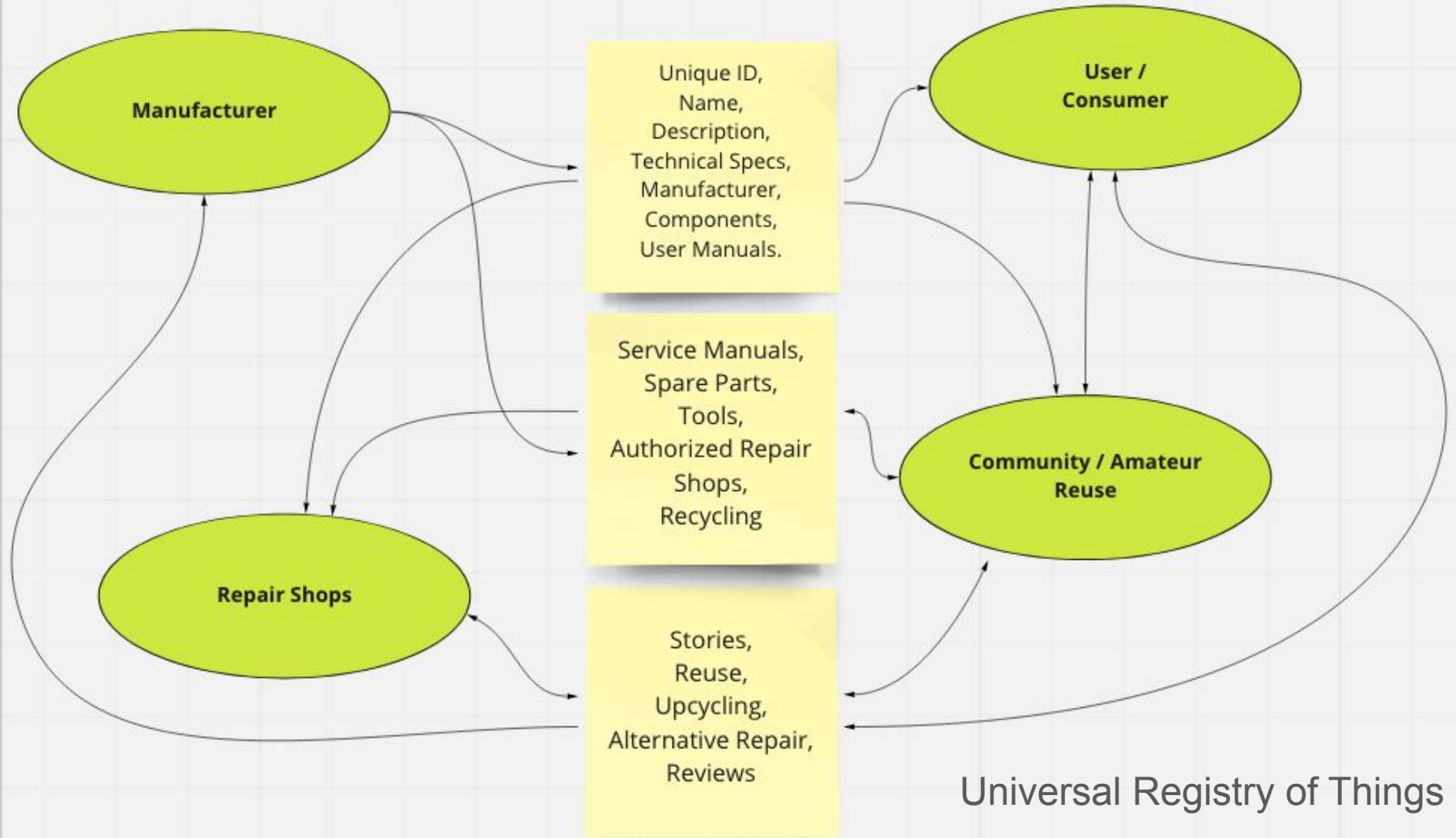
Track what is made of your donations.

Data and Things

Universal Registry of Things

The Universal Registry of Things is a trusted source of information about how to reuse objects. It covers information about repair, customisation and repurposing of virtually any kind of thing.

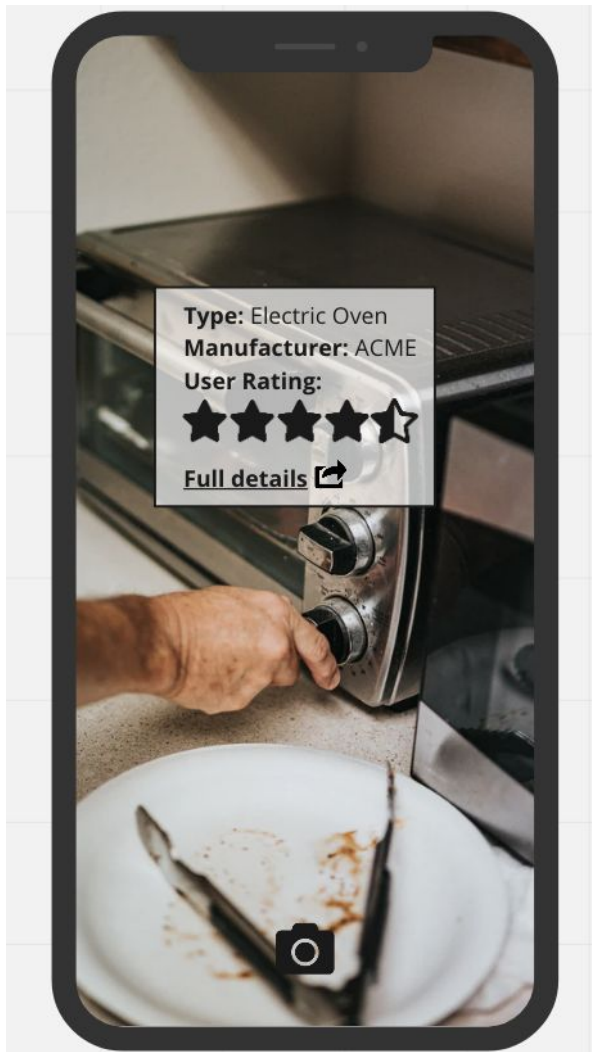




Point and Reuse

An app allowing citizens, members of zero waste initiatives, repair professionals or anyone interested to quickly evaluate the potential value of an object, and find information on how to reuse it.

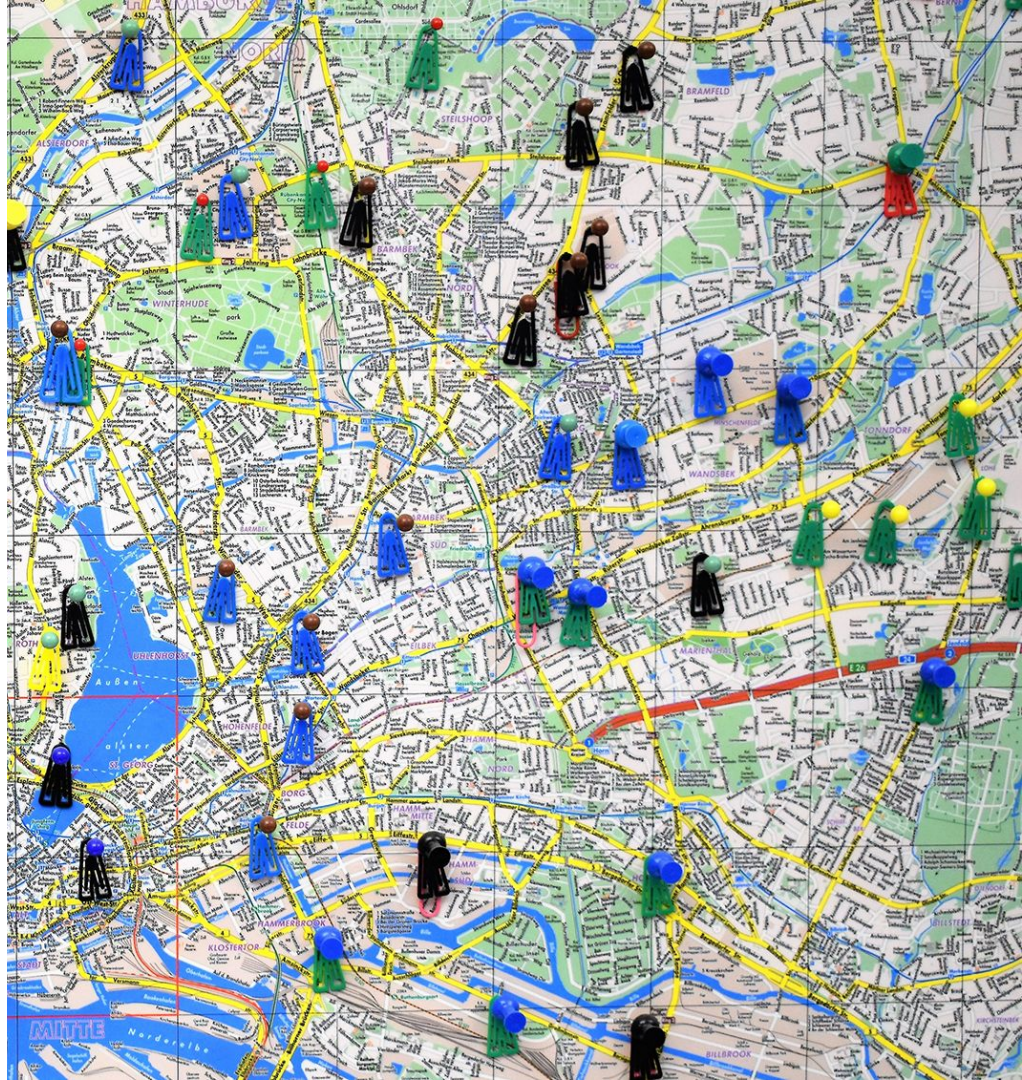




Point and Reuse

Save this Thing

Save this Thing is a geo-referenced and user evaluated open directory of repair professionals, zero waste initiatives (community repair, upcycling, swap shops, etc), craftspeople, hardware stores, maker spaces, charity shops, recycling points, etc.





Save this Thing

Transparency and Visibility

Make Waste Visible

Many projects in the urban waste field adopt the perspective of making waste disappear as efficiently and quickly as possible from citizen's eyes. Despite the good intentions, this approach might make local societies unaware of the volume of waste it generates, and by extension to the cost and socio-environmental impact of managing it.

Invite artists, designers and activists through residence programs, hackathons and commissions to inform local populations about the volume of waste generated, reused and recycled.





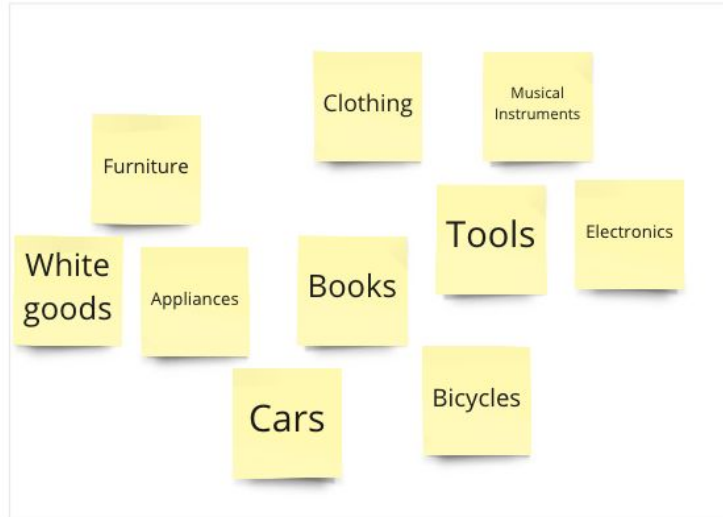
Make Waste Visible

Reuse Dataset

There is strong evidence that often times recycling is not the most appropriate solution for waste, particularly when there are still potential uses for the discarded materials. However, there is little available data to inform society of the social, economic and environmental outcomes of reuse when compared to data about recycling.



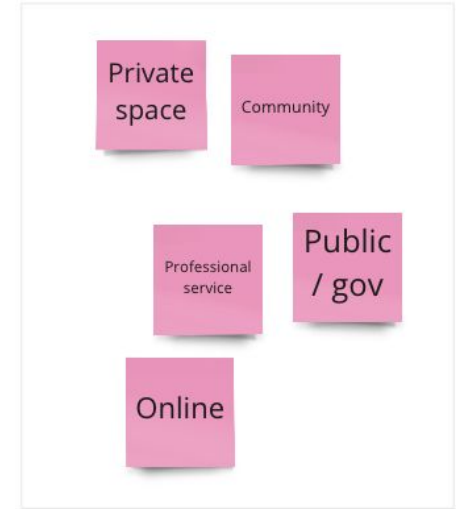
Types / Categories of Material



Kind of reuse



Where



Reuse Dataset

Reuse in the City

Reuse Commons

Reuse Commons is a model for a multi-stakeholder body governing the reuse of discarded materials in a city or region.

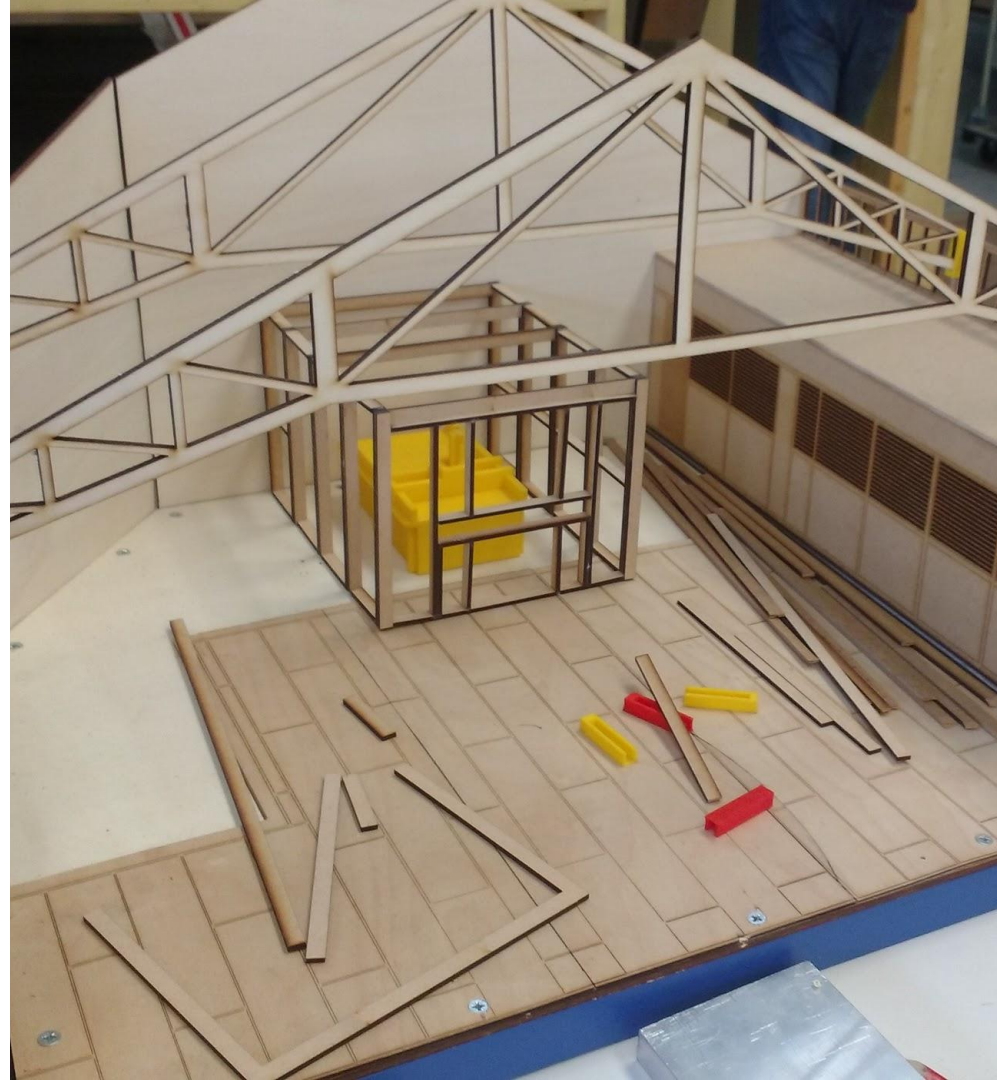
One of the main motivations behind the reuse commons is to create ways for people and organisations to be rewarded for reusing materials themselves, or allowing others to reuse - instead of discarding things that would then be "downcycled" at best.



Transformation Lab

Plans for setting up urban infrastructure for reuse / upcycling / redistribution of used materials. Recommendation of equipment, data sources and processes. Plans for creating new kinds of devices and equipment that allow the reuse of materials.

Transformation Labs are oriented toward social and environmental outcomes. There may be different types of Transformation Labs that carry out diverse activities, according to the potentialities of different parts of the city.



Reuse Bin

A system of kerbside bins that allow citizens to donate unused objects. Each unit generates a tracking code which allows donors to learn where the objects are taken to, what is made of them and their social/economic impacts along the way.

