SHARING CITY

-The future is here

Tiina Hirvanen | Laura Kinnunen | 31.1.2021



DESIGN PROCESS

Double Diamond Model





Oodi

Helsinki library FINLAND

KIEPPI

Partnership model for sustainable neighbourhoods:

Kera in Espoo

Hiedanranta in Tampere

Tiedepuisto in Turku

Tyyssija

FINLAND

Student Village Turku FINLAND

Kuokkalan Kalon

Ecological and communal neighbourhood Jyväskylä FINLAND

Park 20 20

Cradle to Cradle optimized working environment
Amsterdam
NETHERLANDS

Circle House

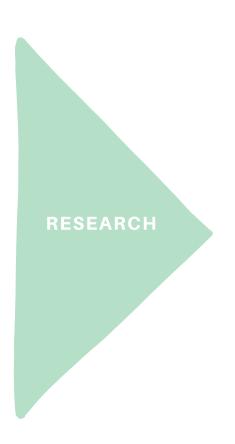
Circular construction project, Lisbjerg DENMARK

Green Solution House

Holistic approach to Cradle to
Cradle building
Bornholm
DENMARK

Toppilan Punainen Mylly

A block house where has cherished the local history as a part of a modern architecture Oulu
FINLAND



Green building Council

Sitra

Ellen MacArthur Foundation

Motiva

International Institute of Sustainable Development

Ympäristöministeriö

Suomen Ympäristökeskus SYKE

Ecochain Technologies. 2020 Life Cycle Assesment

Design School Golding. 2018 Sustainable Design Cards

McDonough, W & Braumgart, M, 2009. Cradle to Cradle

Circular Ecology. 2020 Sustainability and Sustainable Development- What is sustainability and What is Sustainable Development?

Available: https://circularecology.com/sustainability-and-sustainable-development.html

Ecolife. 2020 What is Sustainable Design?

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Elinkeinoelämän keskusliitto. 2020 Mikä ihmeen kiertotalous?

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Euroopan parlamentti. 2018 Mitä kiertotalous on ja miksi sillä on merkitystä?

Available: https://www.europarl.europa.eu/news/fi/headlines/economy/20151201STO05603/mita-kiertotalous-on-ja-miksi-silla-on-merkitysta

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Available: https://ym.fi/vahahiilinen-rakentaminen

Albatici, R; Serpelloni, A; Gialanella, S. 2016 Cradle to Cradle: Architecture beyond LCA(verkkodokumentti).

Available: http://artecweb.org/ojs2/index.php/TeMA/article/view/96/91

International Institute of Sustainable Development. 2013

Available: http://test.iisd.org/business/tools/bt_dfe.aspx

Suomen Ympäristökeskus SYKE. 2013 Elinkaariarviointi, jalanjäljet ja panos-tuotosmalli.

Available: https://www.ymparisto.fi/fi-

FI/Kulutus_ja_tuotanto/Tuotesuunnittelu_ja_tuotteet/Elinkaariarviointi_jalanjaljet_ja_panostuotosmalli

Ecochain Technologies. 2020 Lice Cycle Assesment(LCA)- Complete Beginner's guide.

Available: https://ecochain.com/knowledge/life-cycle-assessment-lca-guide/



SUSTAINABILITY

Sustainability was described by the 1987
Bruntland Commission Report as
"development that meets the needs of
the present without compromising the
ability of future generations to meet their
own needs."

This may be illustrated with a sustainability Venn diagram, as shown On the picture: to achieve true sustainability we need to balance economic, social and environmental sustainability factors in equal harmony.

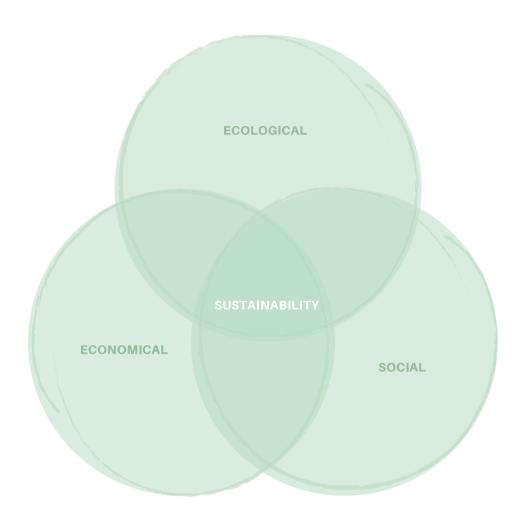
www.circularecology.com

CHALLENGES OF SUSTAINABILITY

Linear economy is based on consumption and endless growth. It has to change if we want to continue living on this planet. Ecological sustainability requires that we consider nature in every decision that we make.

The challenges of social sustainability are excisting as long as we have inequality, unstability or hunger.

All the sustainable decisions has to be in balance with each other and our systems are making it hard to put it into practice.





SHARING ECONOMY

A new kind of economic thinking, in which the opportunity to use goods and services is regarded as more important than owning them. Different digital platforms and applications provide a forum for residents to find neighbourly help and stuff, enable it in practice.

www.sitra.fi

CHALLENGES OF SHARING ECONOMY

Sharing requires a sense of community. We are living in a individualistic culture where the communality has not enough foothold. We need functional and user friendly platforms, applications and new rules for sharing culture. The legislation does not support enough the sharing economy. It is also a big problem that now it's easier to buy new goods instead of getting the old one fixed. It takes more effort to find your clothes on second hand-market than go to the store and buy new ones.

SHARING ECONOMY

WHO'S SHARING

Organizations and foundations

Business to people

People to business

People to people

Business to business

WHAT CAN BE SHARED

Food

Spaces

Materials

Vehicles

Living

Transportation

Information

Knowhow

Land

Equipments

Culture

Connections

Goods

WHERE IT HAPPENS

Social media

Physical places

Libraries

Sharing platforms

Communities

Online

Applications

WHY

To progress sustainability

To share knowledge

To progress circularity

To save natural resources

To aim zero carbon emissions

CIRCULAR ECONOMY

CIRCULAR ECONOMY

A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. It's a new way to design, make, and use things within planetary boundaries. Shifting the system involves everyone and everything: businesses, governments, and individuals; our cities, our products, and our jobs.

Cradle to Cradle (C2C) is about seeing garbage as an eternal resource and doing the right thing from the beginning.

C2C builds on the concept that "waste = food", meaning that what is considered waste can become food in a new product cycle.

www.ellenmacarthurfoundation.org www.sustainabilityguide.eu

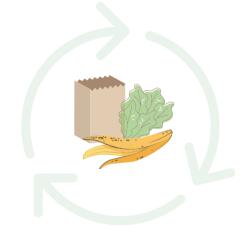
CHALLENGES OF CIRCULARITY

Take it- make it- waste it- thinking is still running wild on design and industrial processes. Mixed and toxic materials are problematic for circularity to become reality. We have to do a lot of changes to the way that we design products and processes if we want to make the most out of existing materials. We need to question about that is it right to see nature as an endless resource bank instead of rich and life nourishing biodiversity.

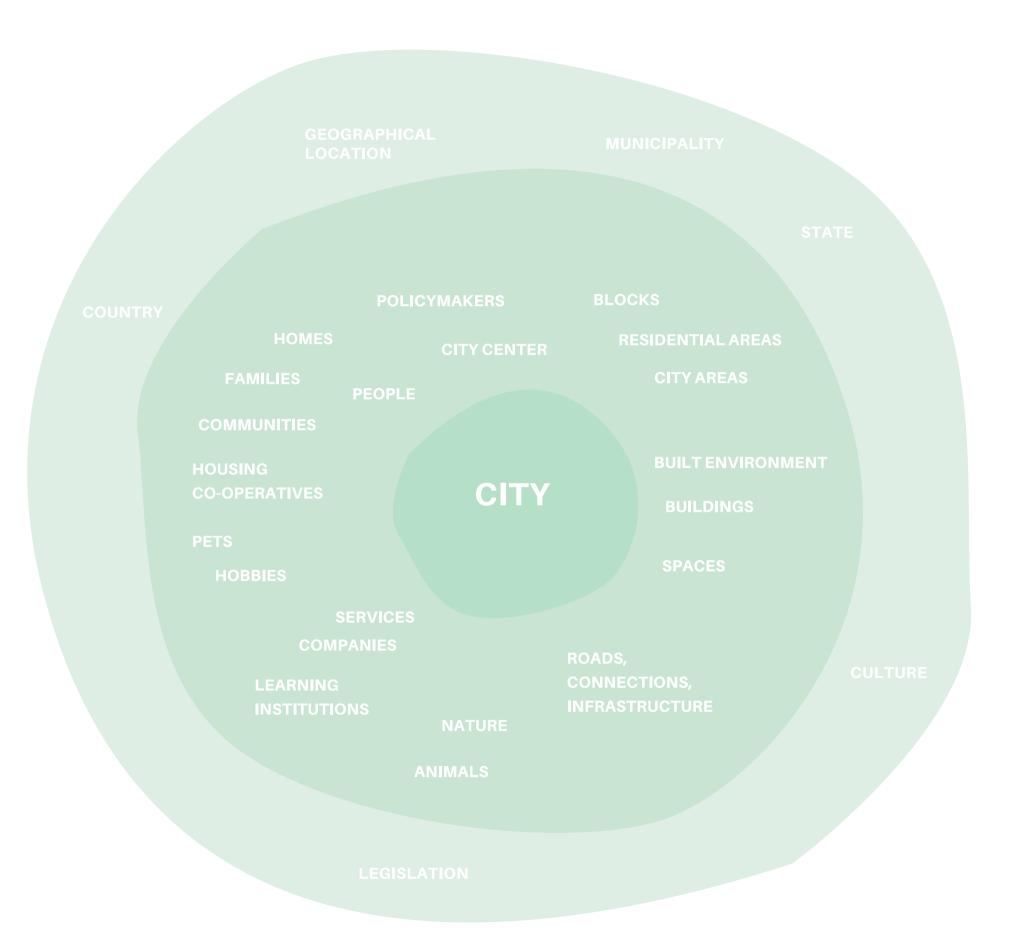


INDUSTRY

TECHNICAL



BIOLOGICAL



STAKEHOLDER MAP

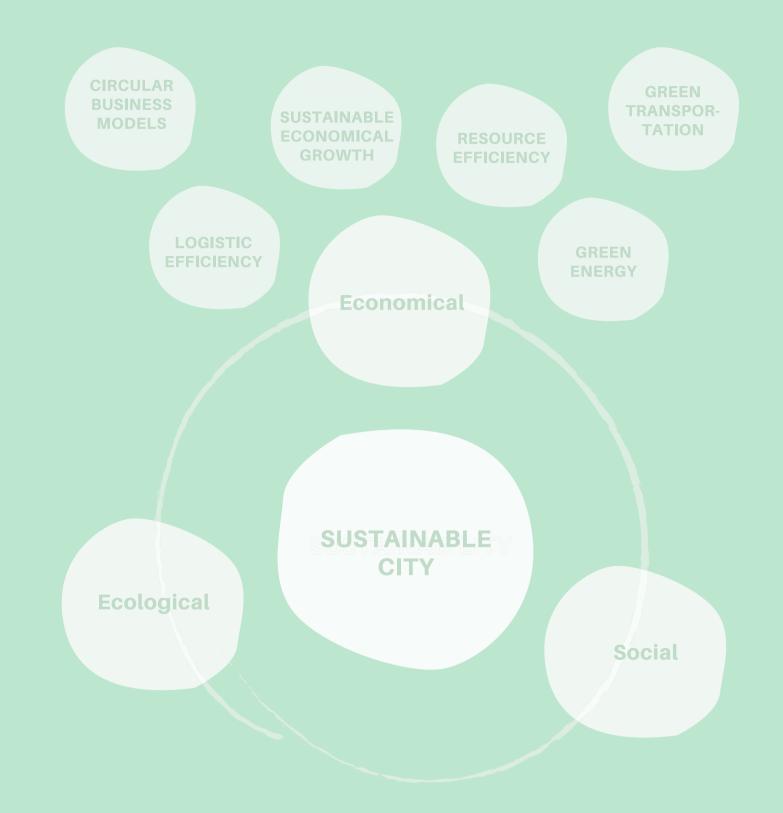


- Energy
- Transportation
- Construction
- Economical resources
- Social interaction
- Built environment and nature in balance

THE MAIN FACTORS IN SUSTAINABLE CITY

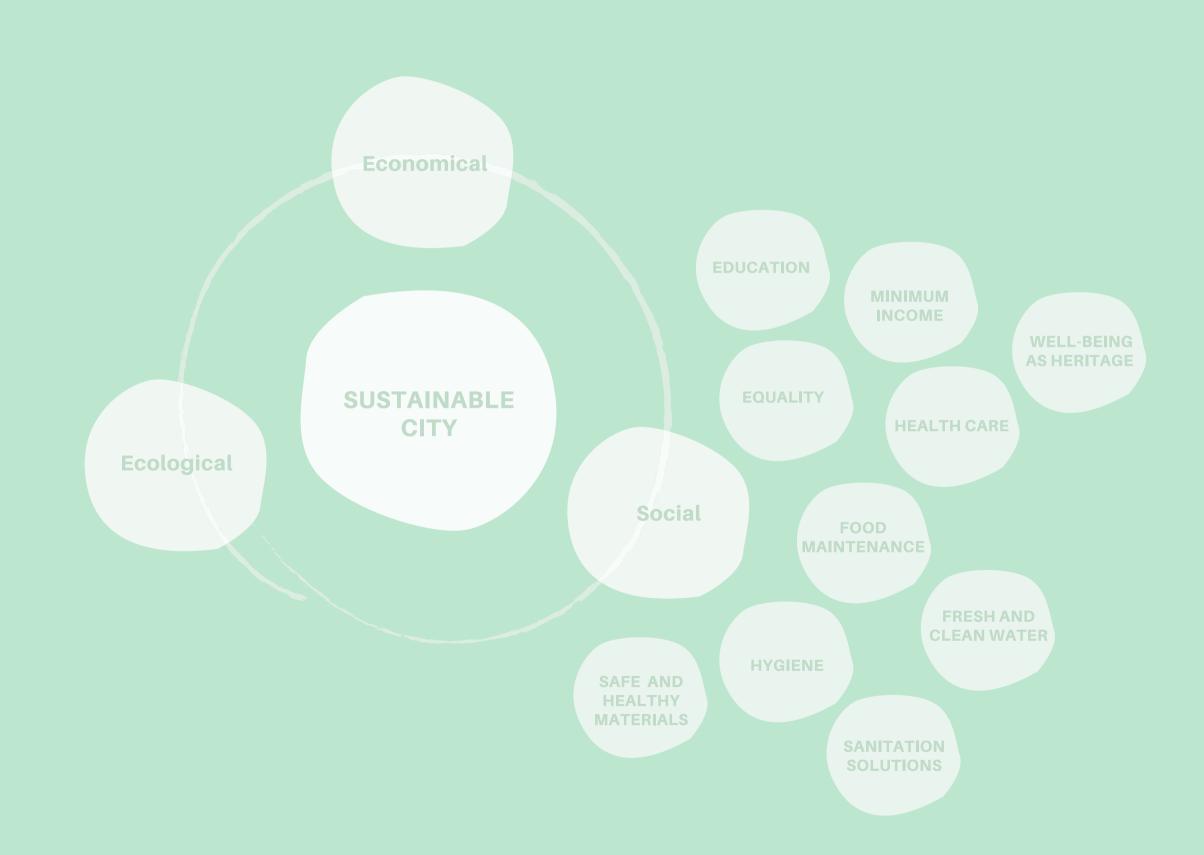


THE ECONOMICAL FACTORS IN SUSTAINABLE CITY



THE ECOLOGICAL **FACTORS IN** SUSTAINABLE **Economical** CIRCULAR CITY LIFECYCLES WISDOM **SUSTAINABLE** CITY Ecological NON-TOXIC Social **MATERIALS** CLEAN **ENVIRONMENT PRODUCTION BIODIVERSITY**

THE SOCIAL FACTORS IN SUSTAINABLE CITY



BRAIN-STORMING IDEATION SKETCHING

Be wild, be creative. Nothing is too weird now. Share your thoughts with others and make them flourish!

100 Ideas, 20 minutes Distant thinking method Six Thinking Hats

Best parts of ideas, collect the pieces together and make the puzzle complete of seamless results.

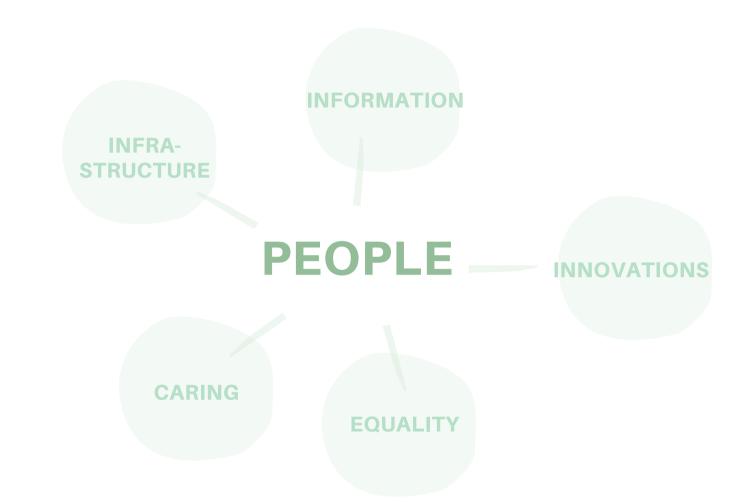
CITY AS A SHARING PLATFORM

People make it happen.



THE NECESSARIES

These elements are the foundation of the city as a sharing platform. We need more information and innovations. Equality and caring are mandatory elements in sharing city. To make the system work, we need to create infrastructure which supports the city as a sharing platform.

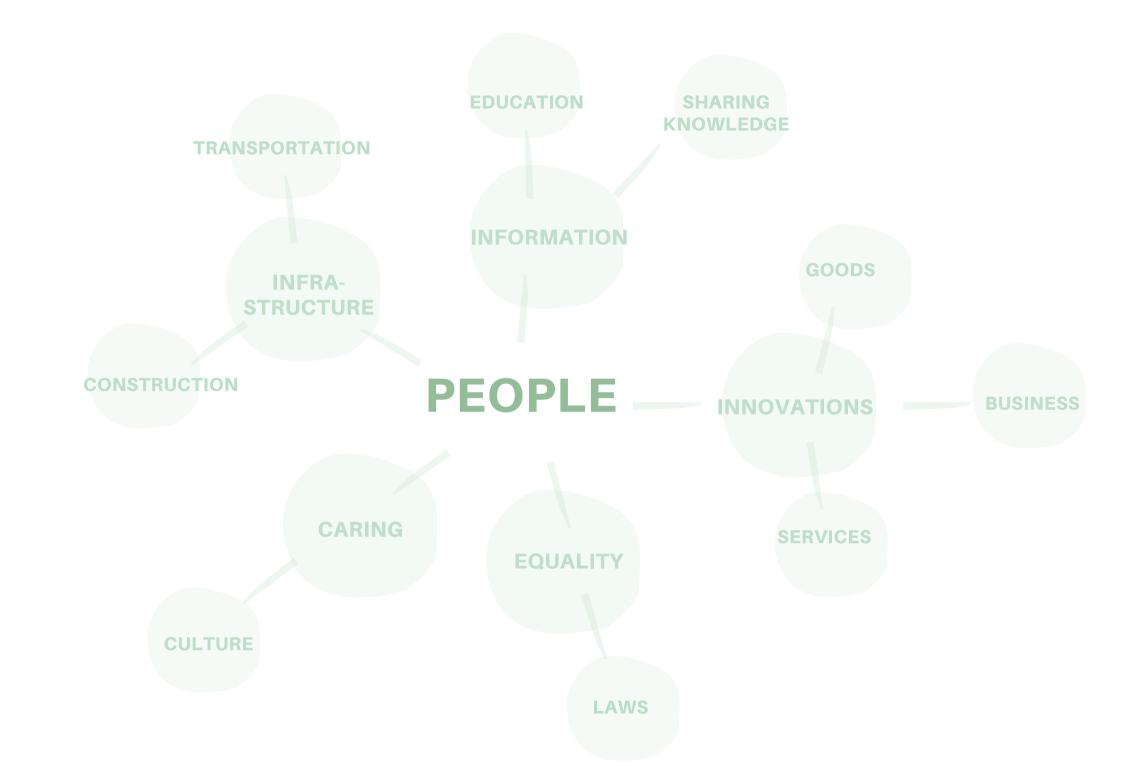


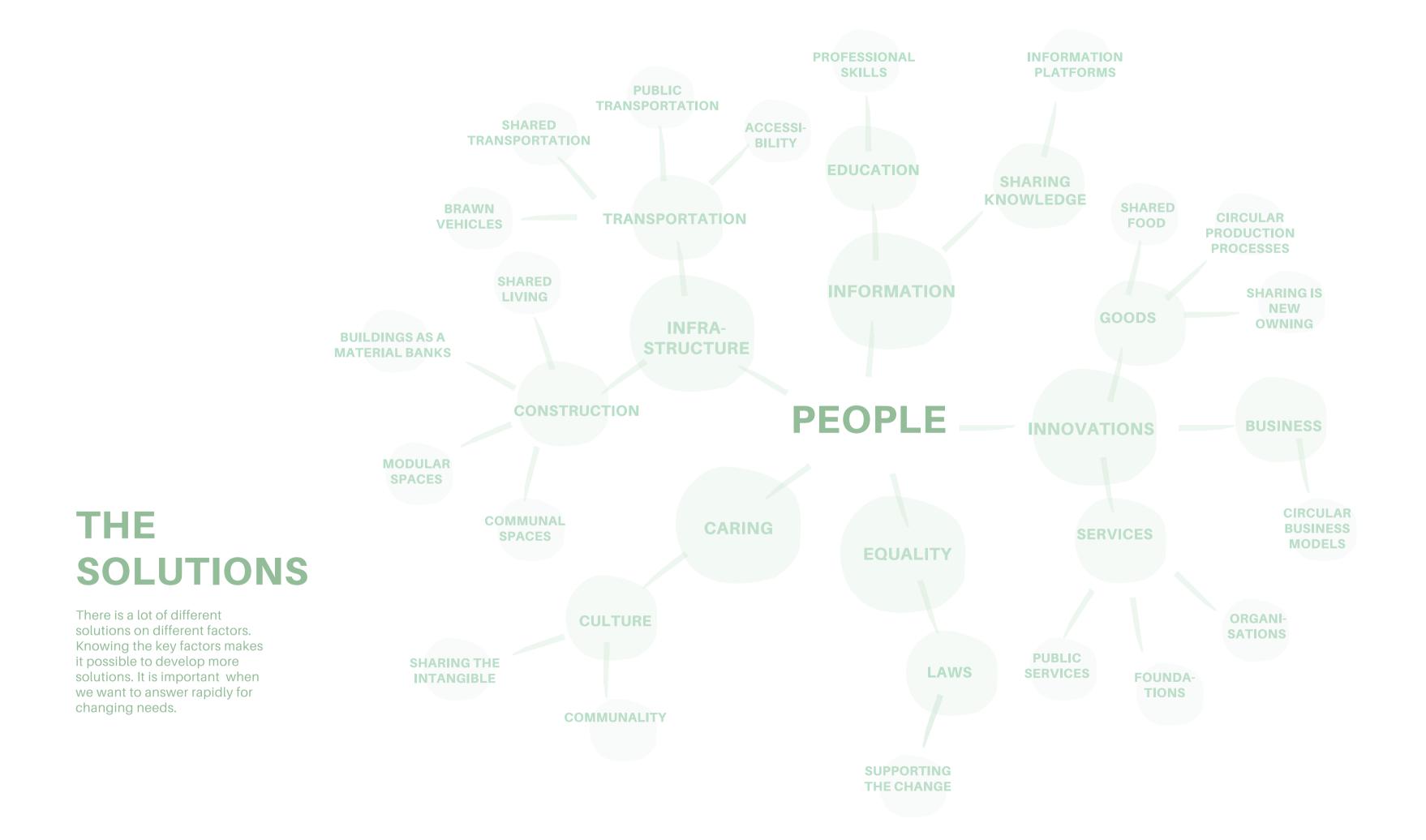
THE ENABLERS

The enablers are the main factors that are related to each other making the change possible together.

To make the sharing platform real, it's

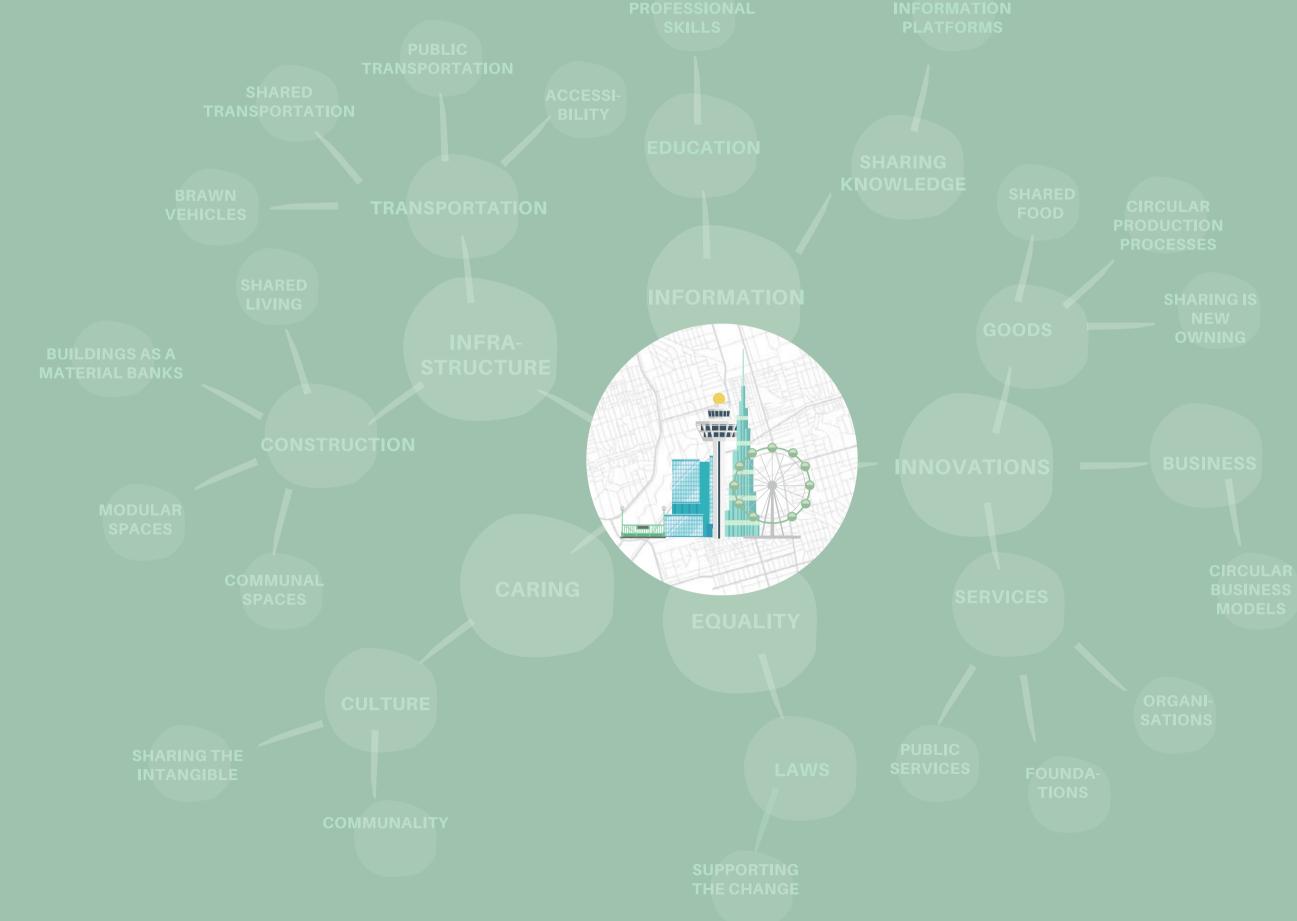
To make the sharing platform real, it's important to observe these factors and develop them to support the system. The enablers can be either blockers or possibilities.





SHARING CITY

Sustainable & Circular Living



Sharing City consists of a different residential areas. Each residential area is working as a sharing zone for the citizens.

WHY SHARING ZONES:

- It makes the logistics easier for sharing
- Smaller areas strengthens the communality
- Personal and unique areal brands give the feeling of belonging
- It is easier to pay attention for the loca environment
- It is easier to swap or share the goods in a smaller circle
- Different sharing needs a different sharing zones to work
- Less need for traffic when the residents car have all the basic services on their own area



SAFE AND SILENT

NATURE EXPERIENCE

COWORK AND DEVELOPMENT

CITY CENTER
Heart & soul
Brand and face of
the community

The city center is a visiting card of the city. Sharing city center supports services, experiences and sharing the intangible rather than consuming. It is the cultural center of the city and it stimulates all five senses. The city center gives the nature experience on built environment and can purify the air through the buildings and vehicles instead of polluting.

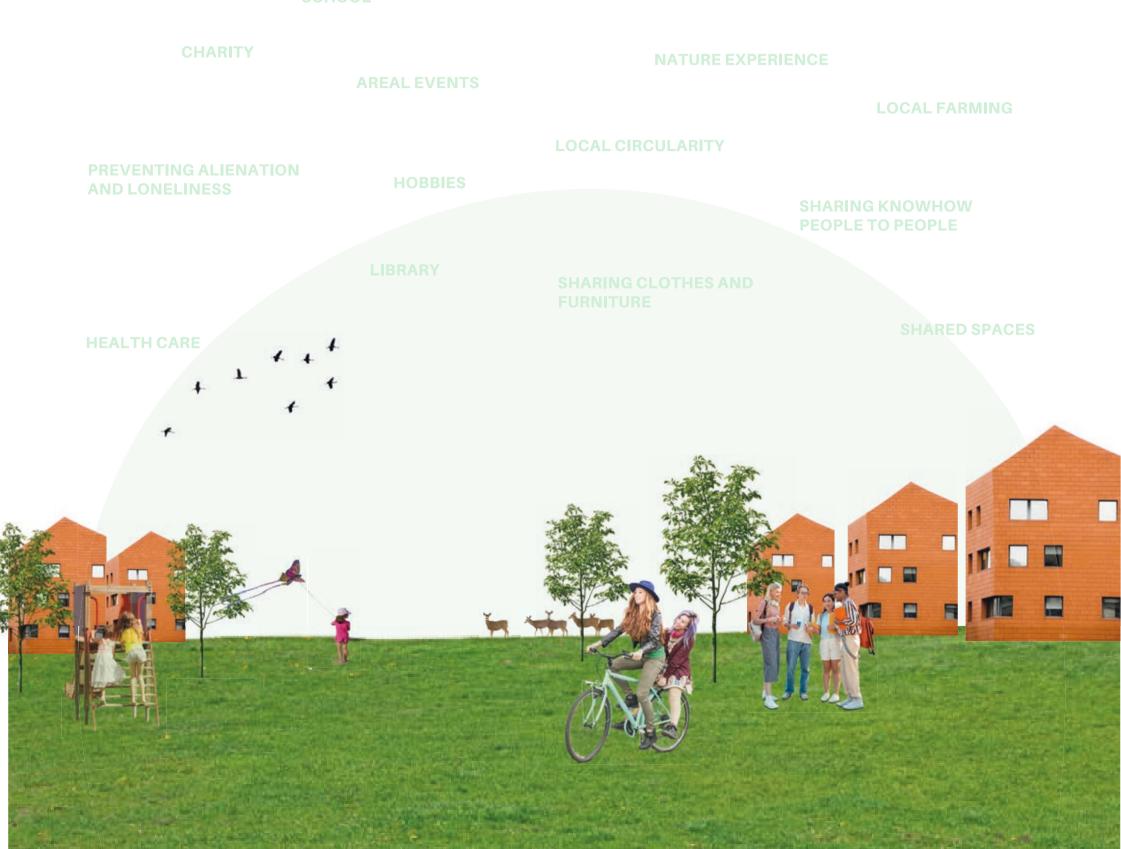


RESIDENTIAL AREAS Unique & characteristic Feeling of belonging

Sharing city has a different residential areas with their own personality and character. The personality of the areas make them unique and easy to adapt for the citizens. The residential areas fill all the basic needs for living and makes it more easy to cope without owning a car. Each area has their own sharing center which provides for example sport equipments for all the local citizens.

SOCIAL PLATFORMS

SCHOOL



BLOCKS Caring & communal My block, my community

The blocks of the sharing city are especially supporting caring, communality and more personal sharing. It prevents alienation and loneliness. Social platform is the key for communication between block residents. The platform makes it easy and effortless to share left over-food, offer neighbour help or donate useless goods. The blocks have their own social- and sharing based events and shared spaces for working and hobbies. It is possible to grow food together with your block neighbours.

SPORTS

FOOD SHARING

BORROWING GOODS

SOCIAL PLATFORMS

SHARING CLOTHES AND FURNITURE

SHARING KNOWHOW

LOCAL FARMING

STORAGE FOR FREE GOODS



HOUSING COOPERATIVE Individual & personal Neighbour caring

The housing cooperatives are constructed of homes. It makes it possible to share and borrow the daily goods between the residents. It is the most communal place on sharing city. The housing cooperatives are the easiest places to start sharing and offering your help to the neighbours. It is more pleasant to arrange daycare or grocery help if you know the helper at some level. The housing cooperatives also support their residents by offering spaces for working, socializing and sharing. Knowing the neighbour makes the sharing easier and prevents loneliness and alienation.

SHOPPING HELP

GUEST HOUSING

HARING SPACES

WAPPING FURNITURE

BORROWING

OCAL FARMING

WAPPING HOUSING EQUIMPENT

SHARING FOOD

SHARED TRANSPORTATION



SHARING APPLICATION

Sharing at one platform.

EASY SHARING ON ONE PLATFORM

The city offers an application which works as a sharing platform for goods, people to people services, charity work and announcements for sharing events etc.



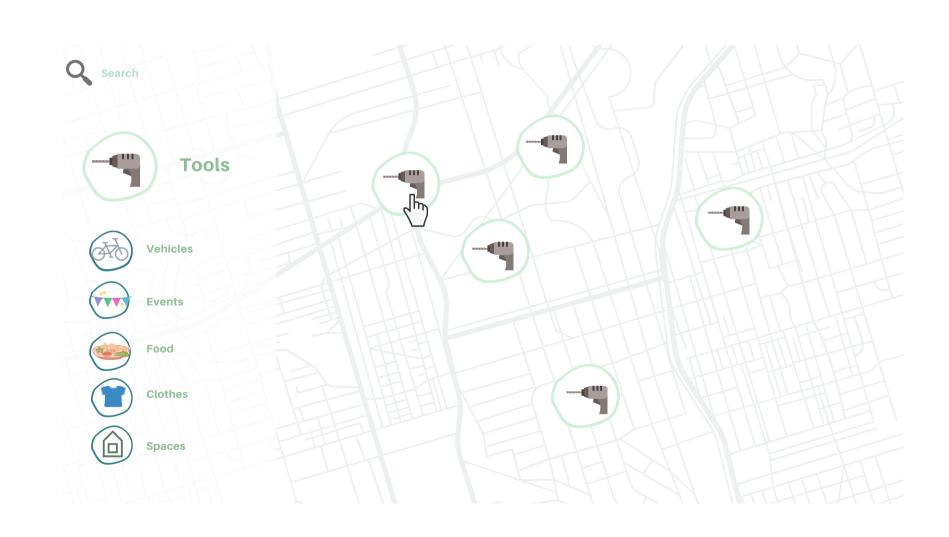


INEED A DRILL. COULD I BORROW IT FROM SOMEBODY?

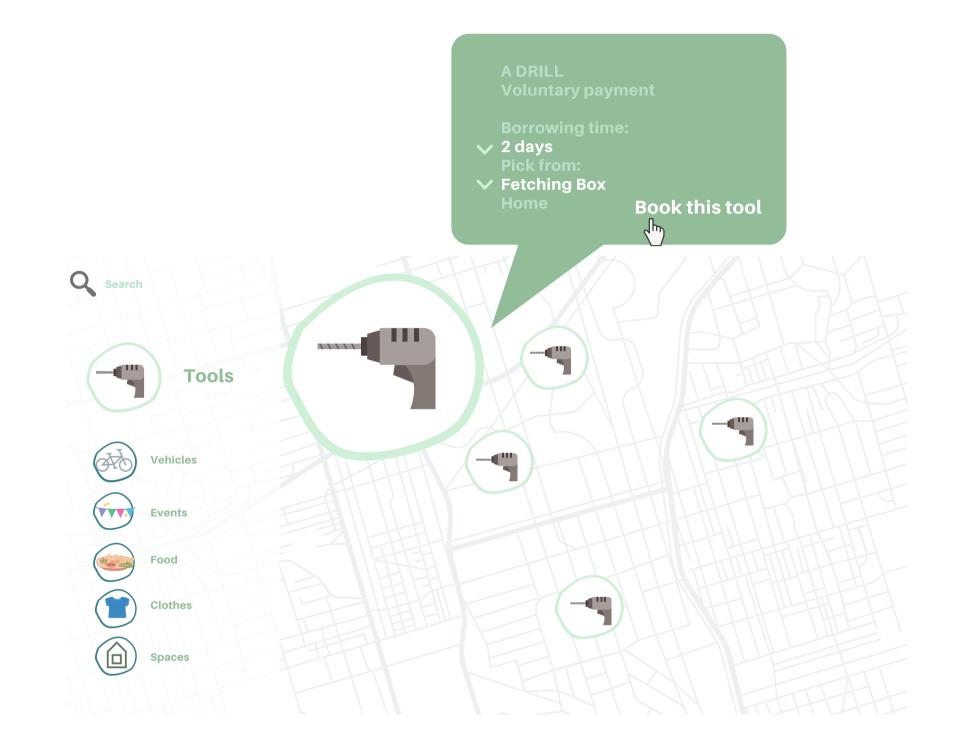
Let's see if there is a available drill nearby the city center.



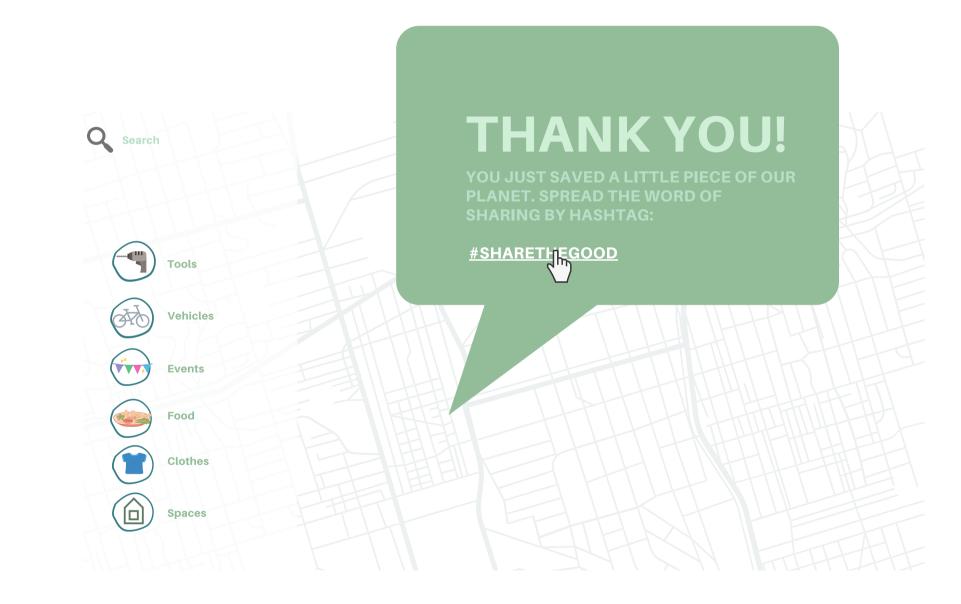
Five options in my area.. I'll take the closest one.



I'll pick it up from the Fetching Box, it is more easier option for me.



Let's make the good things grow!
Share the good actions, shares or your experiences to the others.



SHARING IS CARING.

Together for Sustainable Future.

We believe that design is one of the key factors towards sustainability. The designer is most of all a problem solver and we want to use our skills for good things. To progress a circular economy, realise sustainability and taking care of others will make the world a better place for the people and the ecosystem.

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