

PLAY CIRCULAR HAPPY FAMILIES

Age: 6+

Players: best for 3-6 players, but 2 can play

Objective: collect 4 member cards of the same family to build a circular family. Whoever collects the most families wins.

RULES

1. The dealer shuffles the deck after having removed the joker and letter cards and deal 5 cards to each player (7 each for 2 players). The remaining cards are placed face down to form a stack. Players do not show their cards.
2. The player on the left of the dealer begins. The player, whose turn it is, asks another player for a specific member in a family. Each family card has the names of all 4 family members written on it. The member that the players hold in their hands is highlighted with the description of the implemented strategy. For example, the asker can say: "Jack, please could I have the TAKE member of the Circular Builders family?". The asker must already hold at least one card of the same family.

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CIRCULAR FAMILIES GAME



3. If the asked player has the card, they must hand it to the asker. The asker receives the card and reads out loud the "name of the family member", and the "social innovation strategy" below the name of the family member. If the asker forgets to read loudly, they have to return the card to the asked player, and the turn passes on to the next player on the left. If the asker reads loudly, they continue.
4. If the asked player does not have the wanted card, they say "not at home!" and the asker draws a card from the stack. In the unlikely event that the asker draws the asked card, they get another turn; if they draw anything else, the turn passes to the next player on the left.
5. When the stack runs out, players carry on playing. If a player doesn't have the card asked for, the turn passes on their left.
6. Completed families are placed face down in front of the owner. The game continues until someone has no cards left in their hand. The winner is the player who has the most circular families.
7. At the end, players select their preferred social innovation strategy from the play cards and identify the circular citizen type they would like to become on the upper right part of the selected card. Then they discover the features of their citizen type on the related Circular Citizen-ID card into the Circular Citizen-ID Flyer.

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CIRCULAR FAMILIES GAME



PLAY CIRCULAR LOOPY FAMILIES

Age: 6+

Players: 3 up to 12 using one card deck; more if two or more packs are used

Objective: collect 4 member cards of the same family to build a circular family. The last player to notice that someone has built a family is the loser.

RULES

1. The dealer shuffles the cards after having removed the letter cards and deals them until each player has four cards. The remaining stack is placed to the left of the dealer.
2. Players begin by choosing any three of the four cards, and discarding the fourth card by passing to the player on the right. They continue passing and receiving the cards in the same direction. The dealer draws cards from the stack, and the player on the dealer's left places unwanted cards face down on a discarded pile.
3. During the play, players can never hold more than four cards at a time, and they can only discard and draw one card at a time.
4. The dealer can discard cards and draw replacements from the stack as fast as they like. The other players are restricted only by the speed at which the player before them passes on cards. When the stack is exhausted the discarded pile is used as new deck.

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CIRCULAR FAMILIES GAME



5. Players continue until someone collects four of a family. Joker cards can be used to represent any family member card.
6. If a player collects all four family members, they quietly touch the end of their nose with the index finger and stay in that position. As soon as one player touches their nose, all the other players may do the same, even if they do not have four of a family themselves. The last player to touch their nose loses.
7. The loser drops out of the game. It is not necessary to adjust the deck as players leave the game. When there are only two players left, the winner is the first to collect a family.
8. Alternatively, all players can have three lives. Each life lost gives the player a letter of the word "OUT". Players drop out when they complete the word "OUT" by losing three lives. When only two players remain, the winner is the first to collect a family.
9. At the end, players select their preferred social innovation strategy from the play cards and identify the circular citizen type they would like to become on the upper right part of the selected card. Then they discover the features of their citizen type on the related Circular Citizen-ID card into the Circular Citizen-ID Flyer.

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CIRCULAR FAMILIES GAME



A4

CIRCULAR FAMILIES GAME

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DIY Print & Play

For more information, please see:

www.cardiff.ac.uk/research/explore/find-a-project/view/circubed



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 793021

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The Circular Families Game introduces players to social innovation initiatives to build a circular economy. The aim is to find members of the same circular family. There are 13 circular families which are divided into five urban sectors: building, product, food, green infrastructure, and mobility. Each family is composed of four members, and each member has to use a social innovation strategy to implement one of the circular actions "take", "make", "use" and "recover" to build a circular loop in their sector.

Each card contains: on the upper left side, the action implemented by the family member highlighted in bold; on the lower left side, the name of the family member highlighted with the social innovation strategy applied to implement a circular loop and the name of the other family members; on the upper right side, the belonging citizen type; and on the lower right side, the sector of implementation.

Download and print out the DIY & play brochure of the game from the CircuBED website (see link in the acknowledgement card); then assemble the cards (see instruction card) and play the two variants of the game, the first called "Circular Happy Families" and the second called "Circular Loopy Families" (see rules cards). After having played, select your preferred strategy on the play cards and identify the belonging citizen type on the related card. Download the Circular Citizen-ID Flyer from the project webpage, and discover features of your citizen type on the related Circular Citizen-ID card.

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CIRCULAR FAMILIES GAME



ACKNOWLEDGEMENT

The Circular Families Game was created by Dr Marianna Marchesi. It is based on results developed in the H2020-MSCA-IF research project CircuBED conducted at the Welsh School of Architecture in Cardiff University (UK).



For more information, please see: www.cardiff.ac.uk/research/explore/find-a-project/view/circubed



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The graphic design of the game was created by Yogi Communications Ltd with Dr Marianna Marchesi.

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REFERENCES

Marchesi, M. & Tweed, C. 2021. Social innovation for a circular economy in social housing. Sustainable Cities and Society, article number: 102925. (10.1016/j.scs.2021.102925).

TERMS OF USE



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CIRCULAR FAMILIES GAME



MAKE THE GAME

1. Download the DIY & play game brochure from the CircuBED project webpage.
2. Colourprint the brochure on A4 on both paper sides.
3. Cut the papers following the dotted lines to make:
 - 1 introduction card
 - 1 acknowledgement/terms of use card
 - 5 rules cards to play the game
 - 52 deck cards
 - 2 joker cards
 - 10 letter cards
4. Build an origami envelope by folding the A4 paper on pg. 19 following the step-by-step instructions on pg. 21.

PLAY THE GAME

1. Select a version of the game from the rules cards and play it sitting in a circle.
2. After having played, select your preferred social innovation strategy and identify the circular citizen type you would like to become on the related card.
3. Download the Circular Citizen-ID Flyer from the project webpage and discover the features of your citizen type on the related Circular Citizen-ID card.
4. At the end of the play, place all the cards in the origami envelope to hold the game for future play sessions.

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CIRCULAR FAMILIES GAME





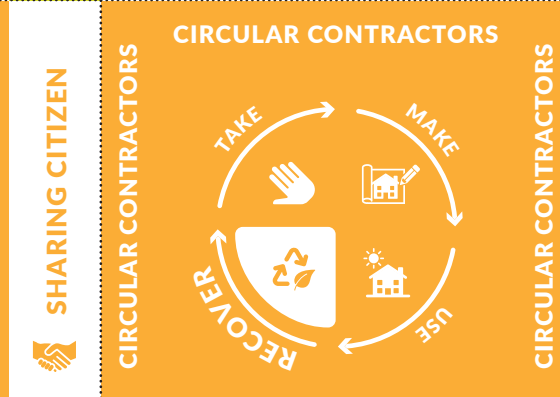
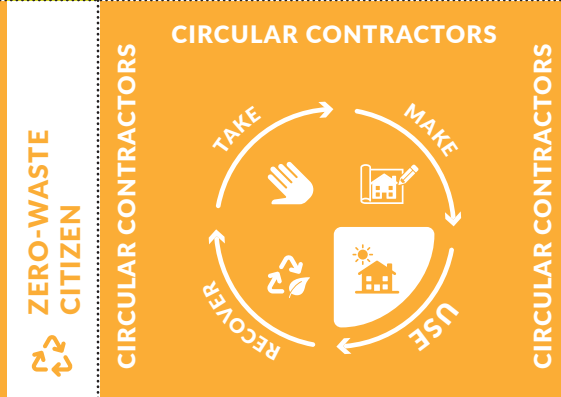
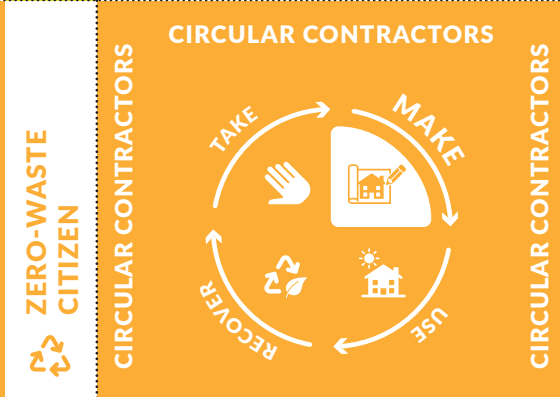


- Place holder**
take a vacant or underutilized site temporarily for community use to facilitate the site redevelopment (example: Pallet Pavilion, Christchurch)
- Open space maker**
- Co-trader**
- Intersection repairer**

- Place holder**
- Open space maker**
create temporary or permanent public open spaces by reclaiming underutilized land or parking spaces (example: Greening the Rubble, Christchurch)
- Co-trader**
- Intersection repairer**

- Place holder**
- Open space maker**
- Co-trader**
share retail spaces for mutually supportive uses to nurture new businesses and sustain existing ones (example: Winn Lane, Fortitude Valley)
- Intersection repairer**

- Place holder**
- Open space maker**
- Co-trader**
- Intersection repairer**
Reclaim temporarily neighbourhood street intersections for public gathering (example: City Repair, Portland)

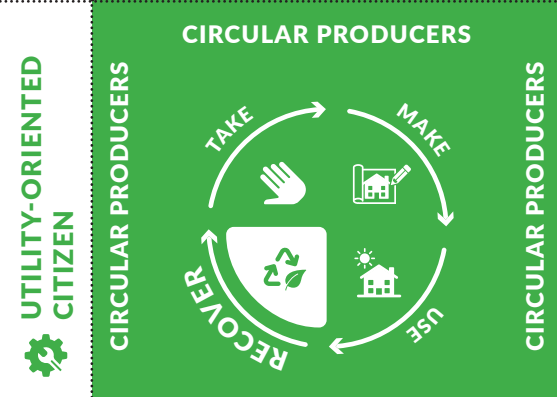
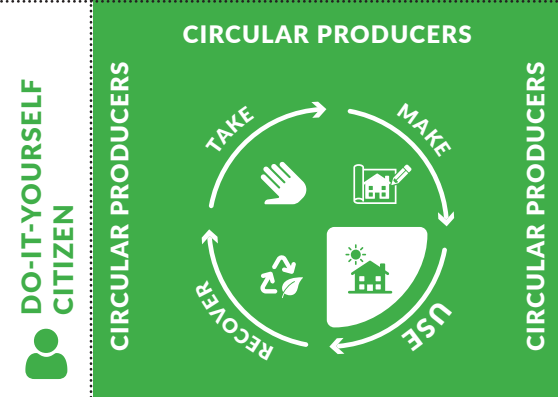
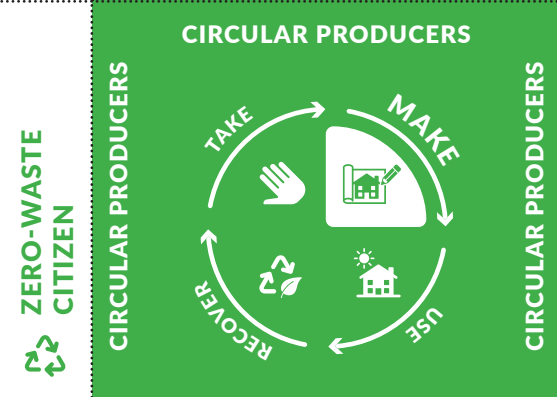
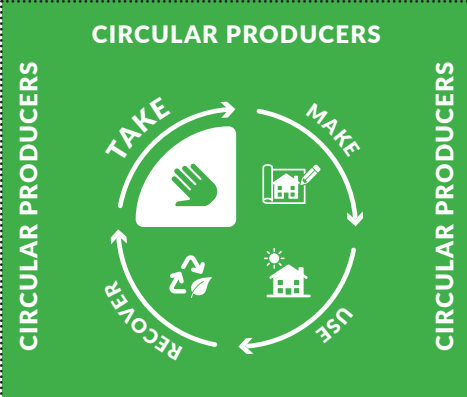


- Material grower**
collect, process and distribute cultivated materials or natural resources for constructions (example: Kawayan Collective)
- Local maker**
- Abode sharer**
- Material up-cycler**

- Material grower**
- Local maker**
fabricate locally furniture designed by independent designers and made available globally through a virtual platform (example: Opendesk)
- Abode sharer**
- Material up-cycler**

- Material grower**
- Local maker**
- Abode sharer**
share a home at a low cost in exchange for support and companionship (example: Homeshare International)
- Material up-cycler**

- Material grower**
- Local maker**
- Abode sharer**
- Material up-cycler**
recover reusable construction materials for upcycling and reuse (example: Community Wood Recycling or The Wood Store)

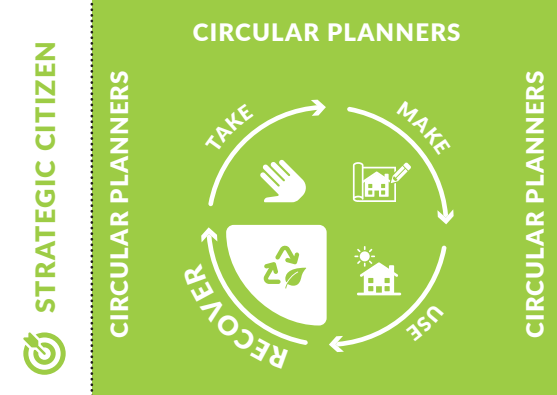
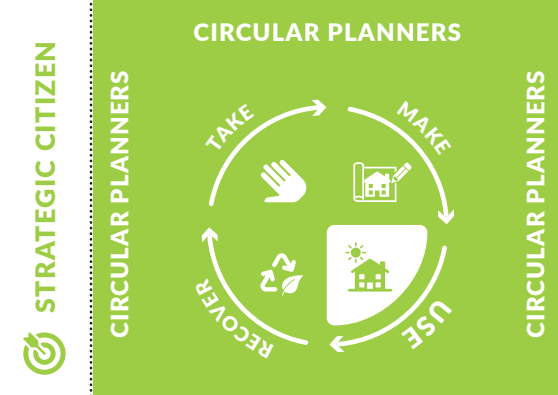
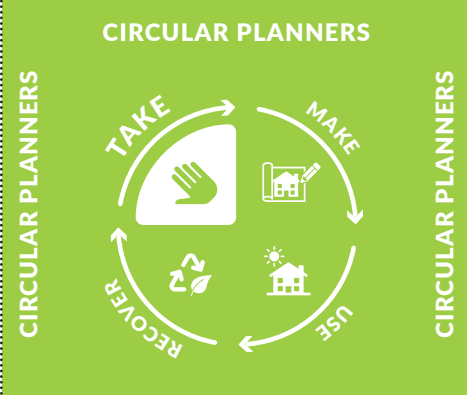


- Bio-based material provider**
collect bio-waste to convert it into feedstock (example: Pro Natura, Belgium)
- Self-producer**
- Product sharer**
- Product rescuer**

- Bio-based material provider**
- Self-producer**
self-produce digitally manufactured custom-built objects by accessing digital fabrication (example: FabLab)
- Product sharer**
- Product rescuer**

- Bio-based material provider**
- Self-producer**
- Product sharer**
use only rented items through an online platform (example: Fat Llama) or borrowing them through a local facility (example: Library of Things)
- Product rescuer**

- Bio-based material provider**
- Self-producer**
- Product sharer**
- Product rescuer**
salvage discarded products such as devices, furniture, textiles and toys from the landfill to re-sell at a discounted price (example: Halle 2, Munich)

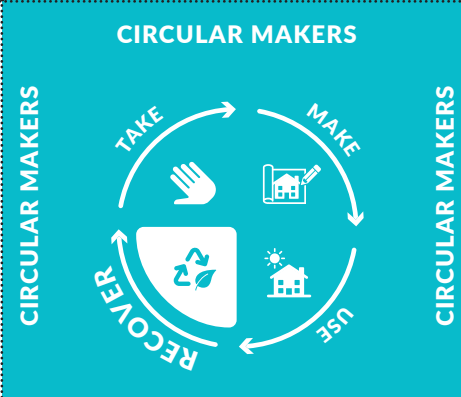
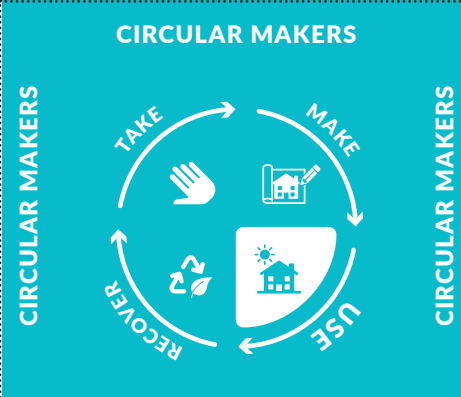
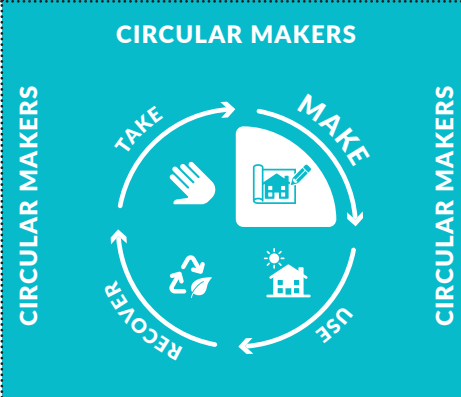
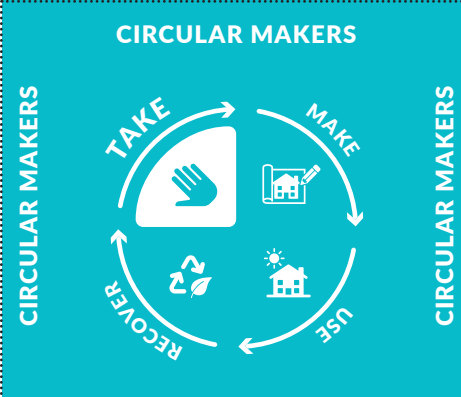


- Material saver**
take salvageable material from the local stream for building quality public seating (example: chair bombing)
- Neighbourhood gardener**
- Pop-up retailer**
- Park reclaimant**

- Material saver**
- Neighbourhood gardener**
create greenery and gardens in public strips and underused spaces for communal planting (example: Northcote Library Food Garden)
- Pop-up retailer**
- Park reclaimant**

- Material saver**
- Neighbourhood gardener**
- Pop-up retailer**
use vacant retail spaces, parking lots and underutilized public spaces temporarily for commercial and community purposes (example: PopUpHood, Oakland)
- Park reclaimant**

- Material saver**
- Neighbourhood gardener**
- Pop-up retailer**
- Park reclaimant**
convert temporarily car parking spaces to parks for rest, relax and play (example: PARK(ing) day)



Co-designer
co-design collaborative services for local production and consumption such as services for exchanging goods and skills (example: Cittadini Creativi, Milano)

Co-producer

Co-user

Co-repairer

PRODUCT

Co-designer

Co-producer
co-produce knowledge, through data collection and sharing, on challenges faced by citizens through projects led by them with institutions support (example: Citizen Science)

Co-user

Co-repairer

PRODUCT

Co-designer

Co-producer

Co-user
exchange books locally at assigned public places to promote sharing and collaboration (example: Little Free Library)

Co-repairer

PRODUCT

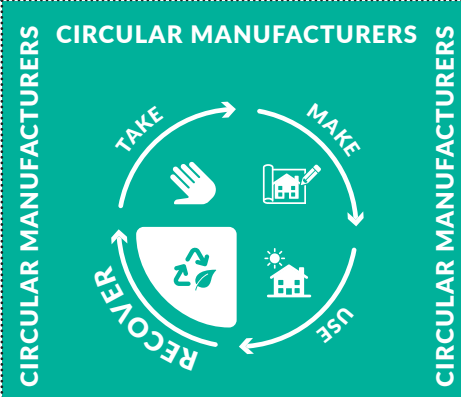
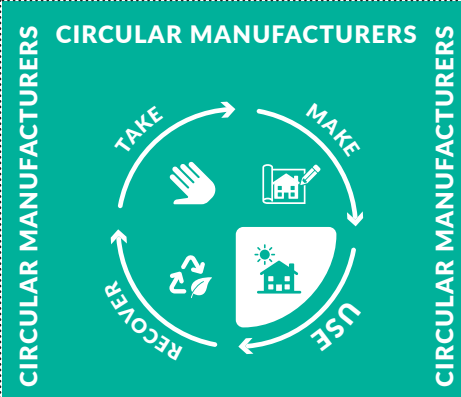
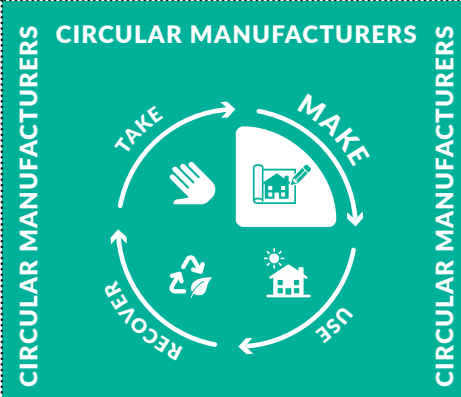
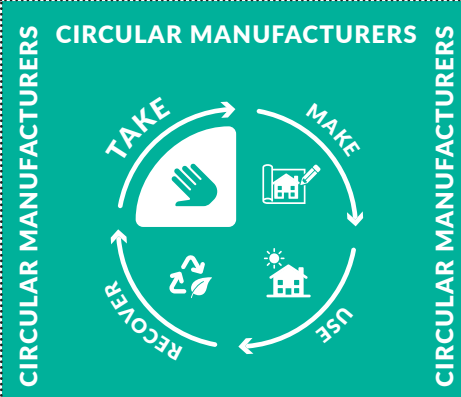
Co-designer

Co-producer

Co-user

Co-repairer
repair broken or faulty products with specialists' help in local workshops (example: Repair Café) or on digital platforms (example: iFixit)

PRODUCT



Raw material rescuer
substitute raw materials with recovered resources from the landfill to reduce the use of raw materials and waste (example: Goldfinger, London)

Self-maker

Product sharer

Product up-cycler

PRODUCT

Raw material rescuer

Self-maker
make products, through collaboration and skill sharing, by accessing technology in public spaces (example: Makerspace)

Product sharer

Product up-cycler

PRODUCT

Raw material rescuer

Self-maker

Product sharer
exchange usable items within the local community to reduce waste and save precious resources (example: Freecycle)

Product up-cycler

PRODUCT

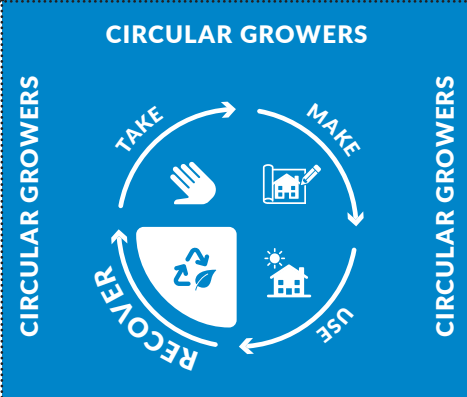
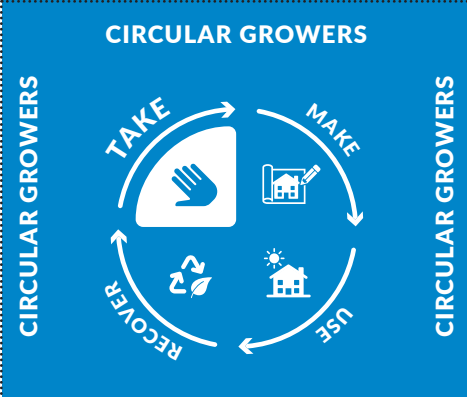
Raw material rescuer

Self-maker

Product sharer

Product up-cycler
convert waste materials and unwanted products into new quality products (example: Recycling House, Gothenburg)

PRODUCT



Community gardener
collaboratively convert a communal space in the neighbourhood into a community vegetable garden (example: StadtAcker, Germany)

Supporting grower

Local consumer

Food rescuer

FOOD

Community gardener

Supporting grower
partner with growers to share responsibilities, risks and rewards of farming (example: Community Supported Agriculture like Sims Hill Shared, UK)

Local consumer

Food rescuer

FOOD

Community gardener

Supporting grower

Local consumer
shop local sustainably produced food to support local producers and small businesses (example: Cambridge Food Hub, UK)

Food rescuer

FOOD

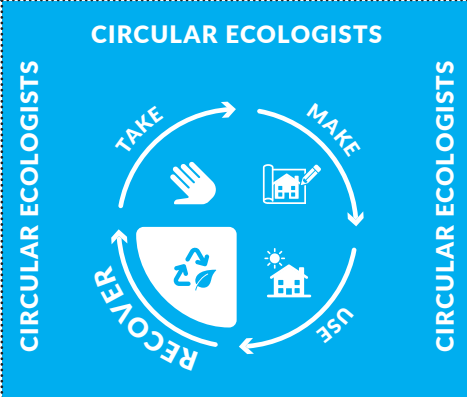
Community gardener

Supporting grower

Local consumer

Food rescuer
salvage unwanted and overproduced food in households and businesses to redistribute them locally (example: Zero Foodwaste Rotterdam)

FOOD



Land steward
online identify vacant lots in the surrounding to convert into green spaces (example: Living Lots NYC)

Urban beekeeper

Ethical purchaser

Bio-waste reclaimer

FOOD

Land steward

Urban beekeeper
produce honey by collaborating with bee-friendly gardeners in the urban environment (example: Bybi, Copenhagen)

Ethical purchaser

Bio-waste reclaimer

FOOD

Land steward

Urban beekeeper

Ethical purchaser
collectively purchase food at a fair price from producers or retailers that guarantee social ethics and respect the environment (example: Ethical Purchasing Groups, Italy)

Bio-waste reclaimer

FOOD

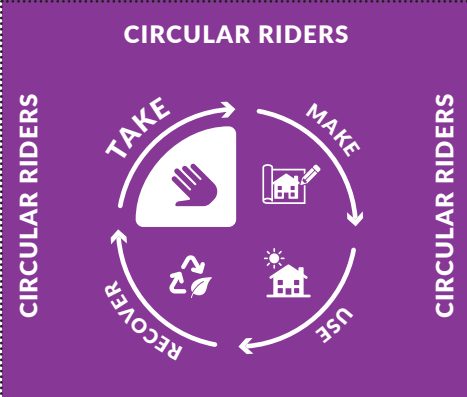
Land steward

Urban beekeeper

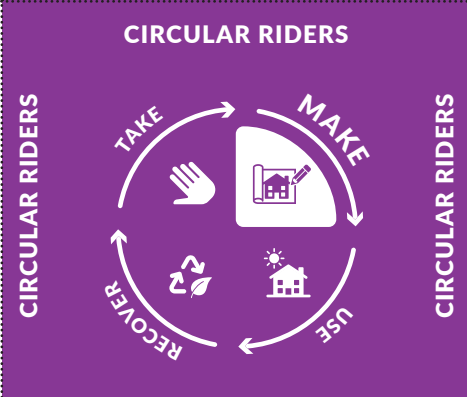
Ethical purchaser

Bio-waste reclaimer
reclaim locally generated organic waste to be processed and used as fertilizer (example: Community-scale composting)

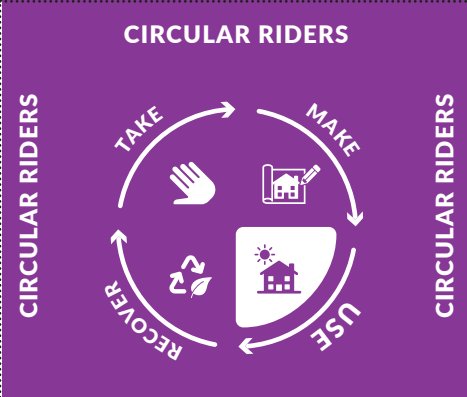
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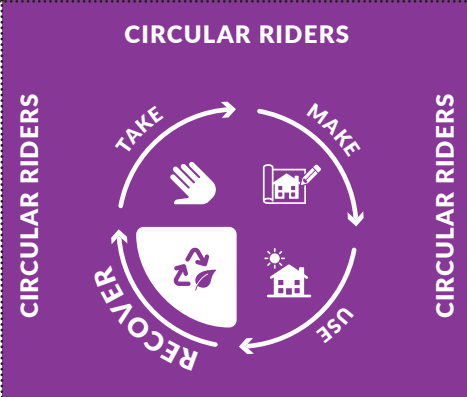
STRATEGIC CITIZEN



STRATEGIC CITIZEN



SHARING CITIZEN



DO-IT-YOURSELF CITIZEN

Cycling supporter
take cars off streets for all/half day to experience the city without cars (example: Car Free Days)

Cycle-path maker

Ride sharer

Bike repairer

MOBILITY

Cycling supporter

Cycle-path maker
create streets that make walking, wheeling, skating and cycling safer temporarily (example: Open Streets) and permanently (example: Sustrans)

Ride sharer

Bike repairer

MOBILITY

Cycling supporter

Cycle-path maker

Ride sharer
share or rent a bike on short-term for free or a price through a digital service from a public or private sharing system (example: Spinlister)

Bike repairer

MOBILITY

Cycling supporter

Cycle-path maker

Ride sharer

Bike repairer
repair and maintain your bike by yourselves through online tutorials (example: Cyclo, Belgium) or participative workshops (example: The Bike Station, Edinburgh)

MOBILITY



ZERO-WASTE CITIZEN



ZERO-WASTE CITIZEN



ZERO-WASTE CITIZEN



DO-IT-TOGETHER CITIZEN

Edible landscaper
take underutilized spaces in the city like rooftops and sidewalks to turn into edible green gardens and food forests (example: Coöperatie Ondergrond)

Food interconnector

Gastronomy innovator

Food carer

FOOD

Edible landscaper

Food interconnector
link local farmers, growers, producers with local consumers via a platform which collects orders and deliver (example: Rechtstreex)

Gastronomy innovator

Food carer

FOOD

Edible landscaper

Food interconnector

Gastronomy innovator
revisit food and cooking practices in a sustainable and culinary way to introduce people to food culture (example: Jack Bean)

Food carer

FOOD

Edible landscaper

Food interconnector

Gastronomy innovator

Food carer
conserve local fair healthy food and preserve local food cultures to foster food awareness (example: Slow Food International)

FOOD



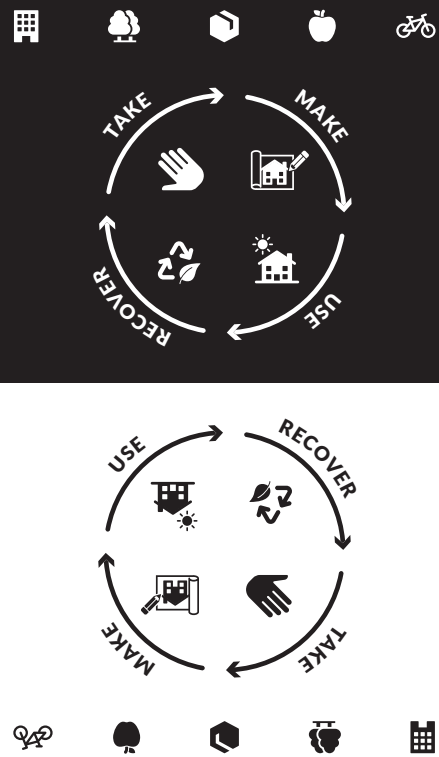
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UTILITY-ORIENTED CITIZEN

CIRCULAR COMMUTERS



CIRCULAR COMMUTERS

ZERO-WASTE CITIZEN

CIRCULAR COMMUTERS



CIRCULAR COMMUTERS

SHARING CITIZEN

CIRCULAR COMMUTERS



CIRCULAR COMMUTERS

ZERO-WASTE CITIZEN

Car-free dreamer
Commit to living without a private car using alternative transport modes (example: car-free housing)

Green deliverer

Mobility sharer

Frugal fixer

MOBILITY



Car-free dreamer

Green deliverer
deliver purchases from big stores to homes in urban centers using clean delivery vehicles like electrically assisted freight bikes (example: La Petite Reine, France)

Mobility sharer

Frugal fixer

MOBILITY



Car-free dreamer

Green deliverer

Mobility sharer
connect people travelling in the same direction to share a car (example: Liftshare.com) or rent a car owned by a private or rental organisation (example: My Wheel)

Frugal fixer

MOBILITY



Car-free dreamer

Green deliverer

Mobility sharer

Frugal fixer
adapt and repair through frugal means by focusing on core functionalities and minimising the use of materials and financial resources (example: Jugaad)

MOBILITY



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CIRCULAR CITIZEN-ID FLYER

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DIY Print & Play



For more information, please see:
www.cardiff.ac.uk/research/explore/fimd-a-project/view/circubed



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A4

Who you are
You enjoy self-producing and extending the life of goods by accessing facilities that provide space, equipment and support and by enhancing your competencies through networking and knowledge transfer.

What you do
You engage in replacing current production and consumption behaviours in the product system with eco-design, self-production and repair practices with the support of facilities and knowledge exchange networks.

Your challenges
As a service provider, you may need to diversify the service to develop a sustainable business model while being sustained by external support. Build stable partnerships locally and share experience globally.

Your impact
You have an impact: on the urban environment by reducing material consumption; on social groups through civic engagement, skills building and social inclusion; on the local economy by money-saving and job creation.

DO-IT-YOURSELF CITIZEN

CIRCULAR CITIZEN-ID

Who you are
You enjoy collecting and sharing data for knowledge building to improve understanding of environmental and societal issues in topics of your interest, to increase awareness and to advocate for sustainability changes.

What you do
You engage in initiatives such as citizen-science and science-shop projects promoted and/or led by citizens with the support of institutions in which participants contribute to knowledge production by data collection and sharing.

Your challenges
You may need to diversify the participation, look at both social and technical aspects of sustainability and handle tensions with the traditional academic science.

Your impact
You have an impact on the environment by providing knowledge and evidence about environmental and social issues and on social groups through civic engagement, building interest and awareness toward sustainability.

SENSOR CITIZEN

CIRCULAR CITIZEN-ID

Who you are
You enjoy sustainable lifestyles and aim to promote changes in established production and consumption practices promoted by local businesses and organizations for products and food.

What you do
You engage in promoting alternative patterns by producing or consuming food and products as well as providing or subscribing services that reduce resource use and avoid waste in production and consumption.

Your challenges
You may need to establish partnerships and stable supply chain networks to build sustainable business models. Invest in building skills and knowledge exchange, and look for access to infrastructures and financial support.

Your impact
You have an impact: on the urban environment by improving resource use and reducing waste; on social groups by promoting skills, social cohesion and self-reliance; on the local economy by job creation.

ZERO-WASTE CITIZEN

CIRCULAR CITIZEN-ID

Who you are
You enjoy renting and letting of products, spaces and transportations to avoid redundant ownership and increase utility value while dealing with the rise in costs for living.

What you do
You engage in promoting utility-oriented consumption practices that allow you to satisfy your needs for products, spaces and transportations without owning them through letting and renting services.

Your challenges
As a lender, you may need to build credibility and adopt protection insurance. As a service provider, you may need access to infrastructures and support, building skills and a sustainable business model.

Your impact
You have an impact on the urban environment by the reduction of waste generation and raw material demand and on personal finance by savings and profits through renting or letting.

UTILITY-ORIENTED CITIZEN

CIRCULAR CITIZEN-ID

Who you are
You enjoy collaborating on long-term projects in a group that shares your values towards alternative production-consumption practices for a closed loop in the building and food systems and across systems.

What you do
You work in informal groups or no-profit organizations to implement alternative practices, share information, resources and skills and increase awareness.

Your challenges
You may need building skills as well as advice for coordination and sustainable business model development. Look for financial and infrastructure support from institutions by showing measurable evidence of your impact.

Your impact
You have an impact on the urban environment by reducing waste through alternative production-consumption practices and on social groups by increasing skills, community cohesion and a sense of ownership.

DO-IT-TOGETHER CITIZEN

CIRCULAR CITIZEN-ID

Who you are
You enjoy collaborating in a group formed for a short period based on shared values and concerns on environmental and social issues (such as public land use) and governmental shortcomings in the built environment.

What you do
You engage collaboratively in temporary co-created and co-produced projects promoted by facilitators to respond to communal issues, increase awareness and promote alternative ways of resource use.

Your challenges
You may need to plan for the financial sustainability of projects if performed regularly and help from facilitators for networking. Engage with the local institutions for support on the implementation of projects.

Your impact
You have an impact on the urban environment by influencing city planning and on social groups by promoting groups with an interest in communal issues and increasing their knowledge and awareness.

STRATEGIC CITIZEN

CIRCULAR CITIZEN-ID

Who you are
You enjoy replacing current consumption patterns by sharing and exchanging practices in groups to maximize resources use.

What you do
You engage collaboratively to satisfy communal needs by sharing resources such as goods and information through facilities (services and virtual platforms/networks) in the product, building and mobility systems.

Your challenges
As a service provider, you may need to build skills for implementing and running a service. Look for financial support to develop it. As a supplier in a service, you may need to build credibility and trust.

Your impact
You have an impact on the urban environment through the reduction of waste and resource consumption; on social groups through local community involvement; on your personal finance by money and space-saving.

SHARING CITIZEN

CIRCULAR CITIZEN-ID

