Behavioural change towards sustainable and resilient communities

The role of community involvement, green co-design and gamification tools

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Premises 1/2

- When applying the principles of landscape ecology to urban systems, a significant role is recognized to participative practices, aimed at building collaborative and aware communities contributing to the complex systems sustainability, resilience and ecological functionality.
- Citizens are viewed as empowered actors with resources with which they can contribute to the resilience and climate change adaptation of their communities.
- Citizens are encouraged to take up responsibilities and get involved in all kinds of community initiatives: home management and community care, green space maintenance, sharing mobility, renewable energy collectives, …
- The initiative and creativity of citizens are desirable and needed in addition to governmental action: citizens involvement presumes a shift of responsibilities for public goods/services away from or in addition to governments and businesses.
- The government roles shift from a regulating and steering towards a more collaborative and responsive government that enables and facilitates community initiatives in which other actors play prominent roles.

Premises 2/2

The contribution of community initiatives (“good anthropocene practices”) requires individual behavioural change that is “any (positive) transformation or modification of human behaviour”

- *There is no change unless there is behavioural change*
- *Cultures are not created by training, change behaviours get culture*
- *Engage is better than communicate. Co-design is better than engage*
- *For every PUSH, orchestrate a PULL (ie. Mobility Charge Area vs sharing mobility development)*
- *Peer-to-peer (“people like me”) influence has greater power than hierarchical*
- *Triggering behaviours is the easy part. Real change needs scaling up behavioural change*
- *Change, transformation is “behavioural epidemic”, not “information tsunami”*

From: Large scale behavioural change: Viral Change™ Leandro Herrero

Behavioural change «in practice» needs tools and technologies:

- Tools support expressing the community contribution to innovative, sustainable and adaptive lifestyles are key to increase the resilience of the communities themselves with regard to environmental and social changes
- Tools combine aspects of communication, active involvement and co-design, training as well as components of collaborative technology and ICT gamification, aiming at sensitizing and empowering people, building awareness of the effects of their actions, catalysing change and measuring the results.

Two practical examples

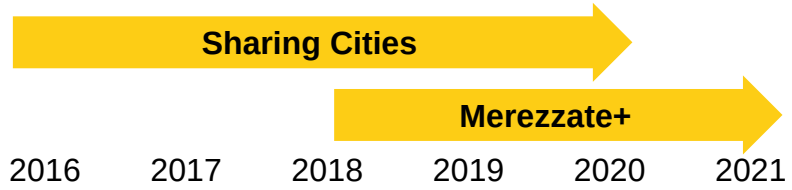
EU projects developed by Poliedra in Milano, with strong emphasis on local based processes towards sustainability and social innovation goals

- Merezzate+ A living lab for the integration of clean energy, sustainable mobility and circular economy

  A path of co-designing, testing and implementing green community and collaborative services and activities focused on circular and low-carbon economy in a district in development phase

- SharingMi - The sustainable citizens community

  An ICT tool using gamification as a trigger for the orientation towards sustainable behaviours, focussed on an existing neighbourhood but open to the hole city



Climate-KIC is supported by EIT, a body of the European Union

Smart Sustainable District (SSD) programme: *"Transforming cities one district at a time"*

Merezzate+: A living lab for the integration of clean energy, sustainable mobility and circular economy

REDOMilano is an affordable housing "smart" district under construction in the south-east of Milan, an area subject to a deep process of urban regeneration

REDOMilano counts 800 apartments, 615 of which dedicated to social housing (with an investment of about 80 Mln€)

REDOMilano benefits from the activities of MEREZZATE+ thanks to which further innovative actions and sustainable urban practices will be implemented to reduce greenhouse gas emissions and environmental impacts and strengthen social inclusion.

Total cost: 3.3 Mln € (1.7 Mln @ | Climate KIC funding)

More infos: http://www.poliedra.polimi.it/en/project/merezzate http://www.redomilano.it/progetto/merezzate

Merezzate+

Community engagement and behavioural change

- ✓ Inclusive approach to co-design and actions implementing
- ✓ Awareness rasing and training
- ✓ ICT (smart app) for gamification

Circular economy

- ✓ Green purchasing groups
- ✓ Shared vegetable community gardens
- ✓ Workshops on repairing and reusing products and objects
- ✓ Information and training on waste management and recycling

Sustainable mobilty

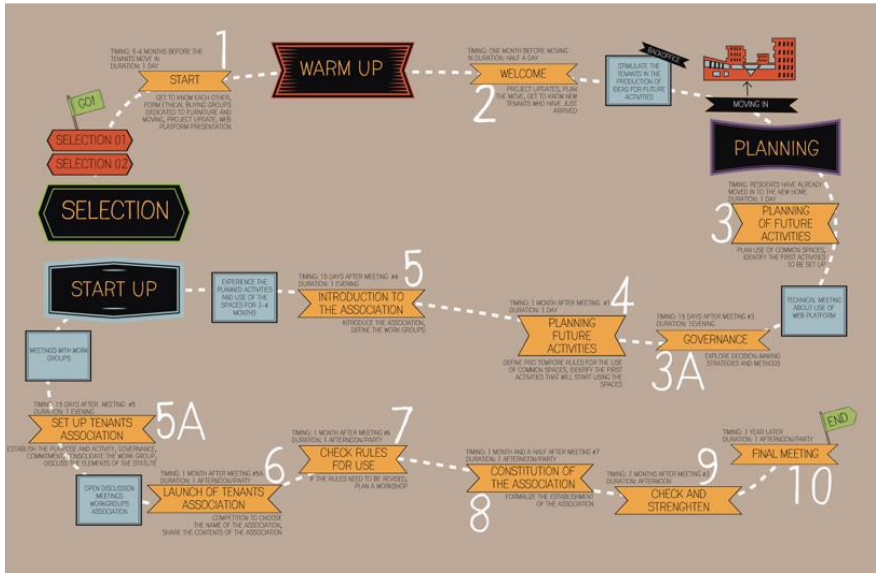
- ✓ Design and analysis of people's travel behaviour and optimization proposals
- ✓ E-mobility and shared community mobility services
- ✓ District Pedibus for children

Clean energy and energy efficiency

- ✓ Design, testing and implementation of a new generation 4GDH - low temperature district heating network
- ✓ Technological tools for the improvement of comfort, the reduction of consumption and allowing the tenants to control the thermal energy and electricity use

Merezzate+ The «eco» community building process

- The “Starting up Community” process for collaborative housing and social innovation is the starting point for tenants and local community M+ engagement activities
- Merezzate+ is enriching, customizing and strengthening such process in the light of M+ sustainability pillars (circular economy, mobility and energy), introducing new and customized co-design activities and tools towards greater awareness of the environmental footprint of each inhabitant and pushing to change behaviours to make the community (and the city) more resilient



FHS Starting up Community process – as is. Source: FHS

Hashtag for Social Cards “ZeroImpact | Abitare a impatto zero”

#piùbiodiversità, #filieracorta, #iononspreco, #acquistiverdi, #energiadicomunità, #plasticfree, #stoplittering, …

New/green Social Cards

Coltiviamo Insieme, Creiamo Biodiversità, Eco Pic Nic, Plogging, …

Hints and advice to reduce community events and workshops environmental impact

Guidelines for green purchasing for home furnishing and removals

Merezzate+ The «eco» community building process

First results after producing new co-desing tools and organizing the “selection phase” community activities

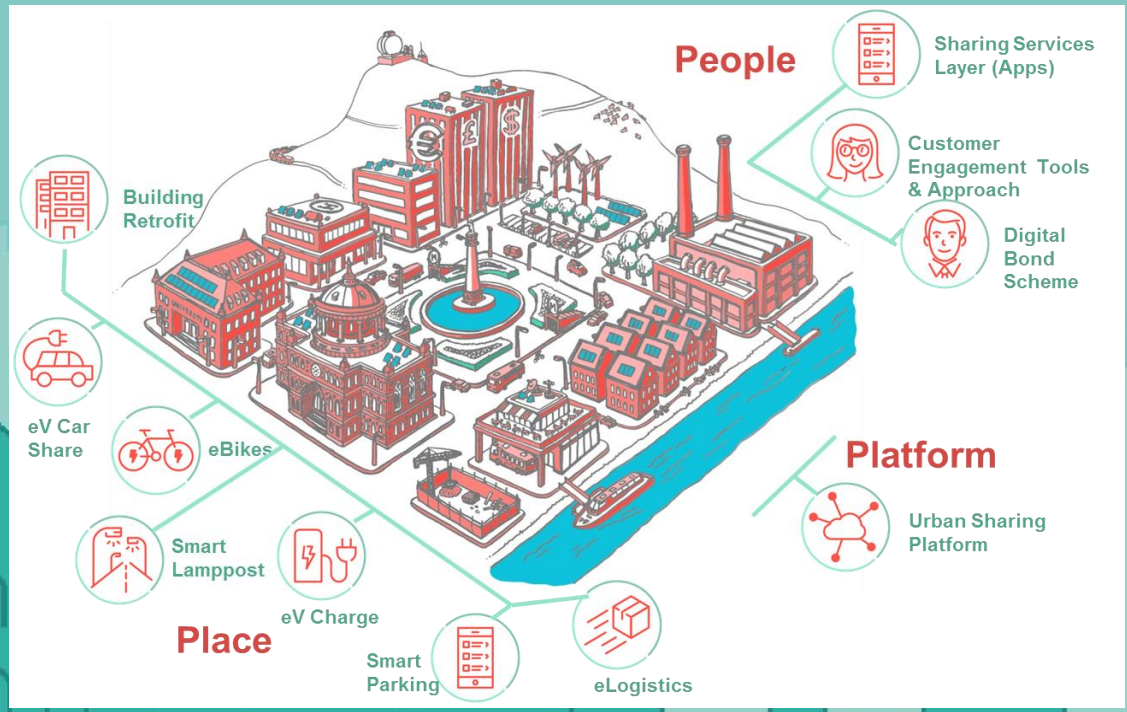
Group	Proposed activity
1	No REDO No Party
2	L’alfabeto della Banca del tempo
3	RedOrto
4	Cineforum
5	viveREDOmani
6	Banca del tempo
7	Banca del Tempo
8	INVEStempo
9	Evento di quartiere
10	REDO Grill

The sustainable citizens community

Sharing Cities project (Lighthouse Smart Cities - H2020 SCC-01-2015) aims at creating NEARLY-ZERO EMISSION DISTRICTS

35 PARTNERS (17 Italians): cities, industry representatives, NGOs and academia

Total estimated cost:
24 Mln € (8.6 Mln € for the Milano partnership)



More info: www.sharingmi.it - www.sharingcities.eu

Powered by GREENAPES NEU / CATAPULT Future Cities

Comune di Milano

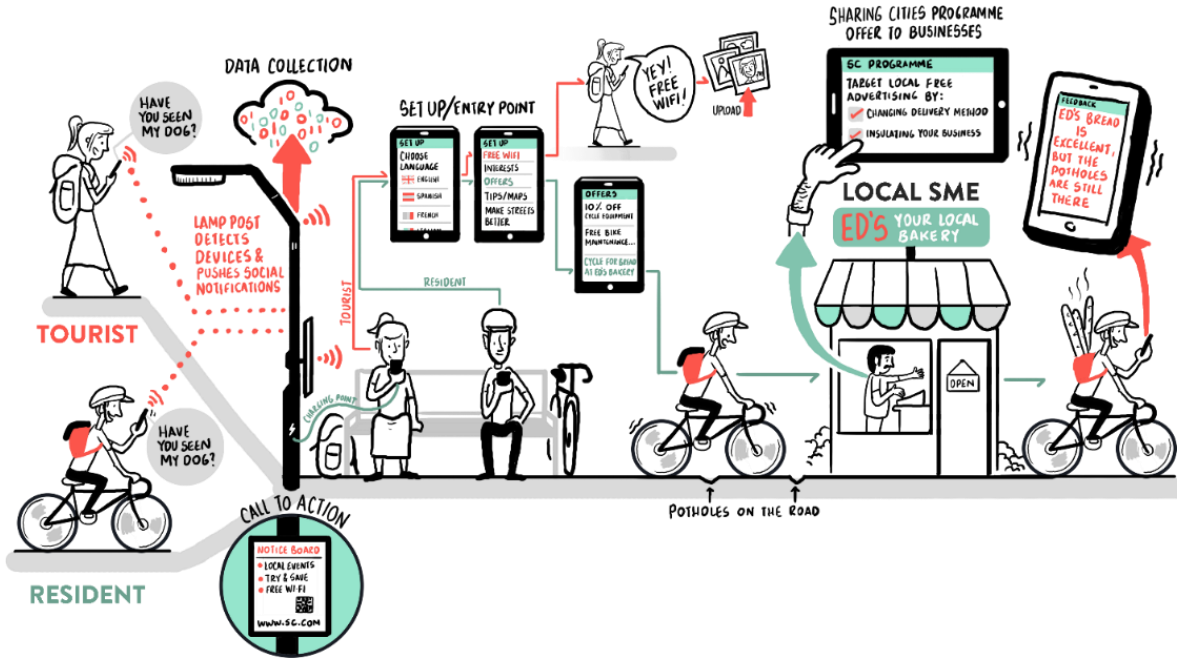
Poliedra Politecnico di Milano

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Grant Agreement N° 691895

Milano Digital Social Market: the SharingMi community

PROJECT GOAL

Implementation of a rewarding system to encourage eco-behaviors, increasing citizens' desire to contribute to their community sustainability, offering incentives through fun and personal rewards and supporting local businesses and urban economy



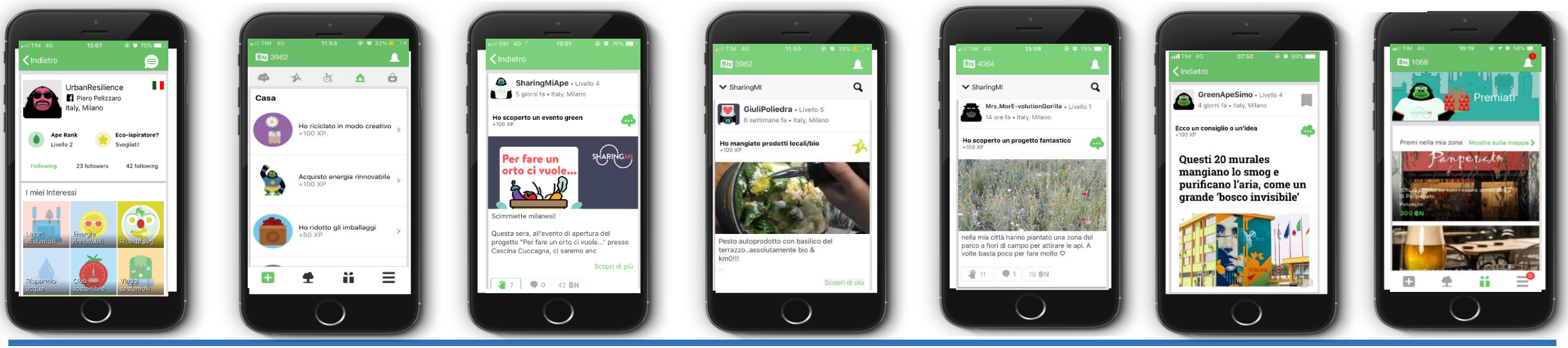
SharingMi – what is it?

SharingMi is a web-based community that rewards eco-sustainable citizens.

By downloading greenApes app and selecting Milan, users can access a community of people that share stories and ideas, concrete certified positive behaviors (trough integrated third party sensors, apps and services), tips for a more sustainable lifestyle.

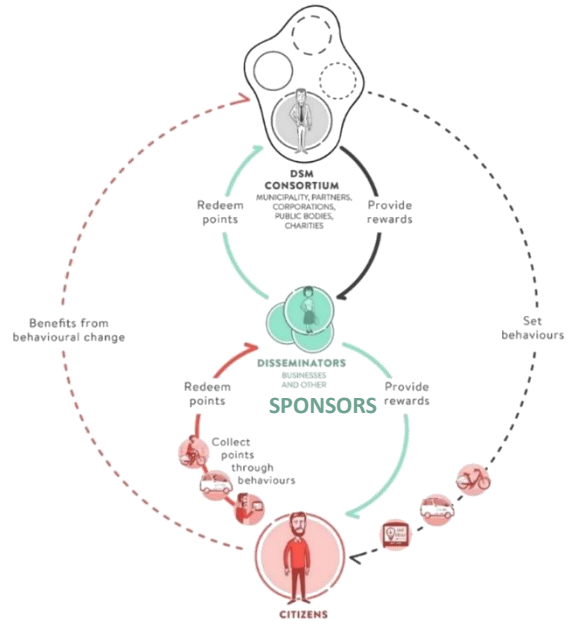
Users can be inspired by others and interact with their opinions (claps and comments, that means having more points)

The points earned are reedemable in prizes and discounts offered by the shops and activities participating in the project and have the same eco-values



SharingMi – what key innovative features?

- **Behaviour change at its core:** SharingMi provides a unique entry point for people seeking to learn, engage with or champion sustainable activities in the city
- **Adaptability:** SharingMi structure can be shaped and fine tuned to support the on-going eco-agenda of the city, be it urban resilience, life-style habits, mobility, energy management, community engagement
- **Appealing Alternatives:** The DSM approach makes the eco-themes more stimulating and engaging
- **Reciprocal Cycles**: The DSM connects and aligns the needs of local government to the aspirations of citizens and businesses in order to create reciprocal relationships and impact.
- **Digital meets Physical:** The platform seeks to create meaningful change by connecting citizens with pro-environmental services via integrated digital platforms.



SharingMi – how it is going?

KPIs from 21st Feb – 21st June

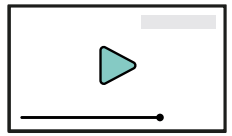
1,190 users signed up

Over 4,060 stories have been shared

Over 15,100 claps were sent

30 rewarding businesses - 36 rewards claimed

The website has been visited ca. 2,700 times

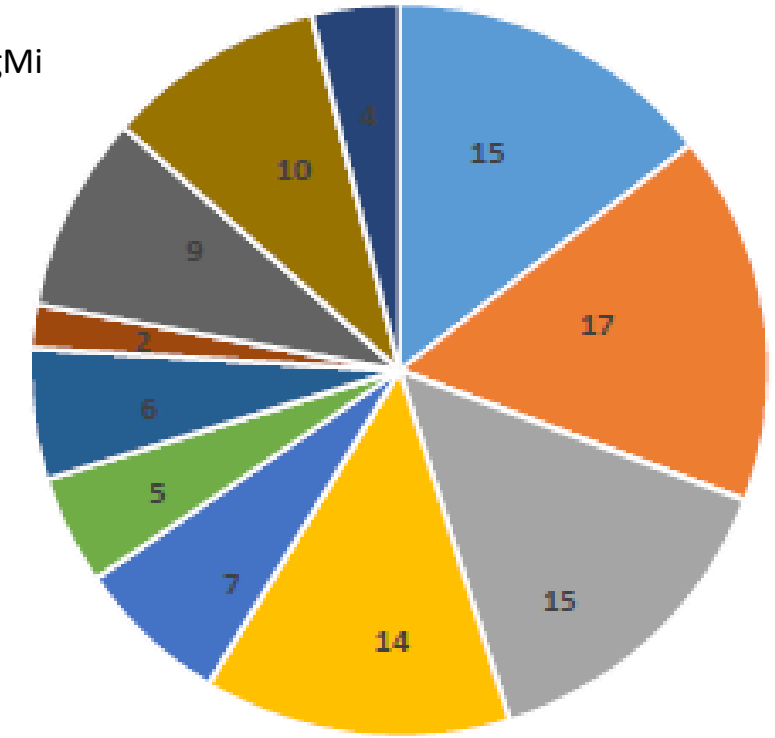


Animation video had 8,850 views on Facebook

Has using the SharingMi app impacted your behaviour in any way?

on-line survey – 52 responses up to now

- I am more aware of where I buy things and where they've come from, such as groceries and clothing
- I am having more conversations about the topics in the app with friends and family
- I feel more connected to important global sustainability campaigns
- I feel more connected to important sustainability initiatives and projects ongoing in Milan
- I walk, cycle or scooter more often since joining SharingMi
- I use public transport more often, instead of driving
- I shop more locally than I used to
- I've participated in or run a sustainability event
- I've repaired or up-cycled something



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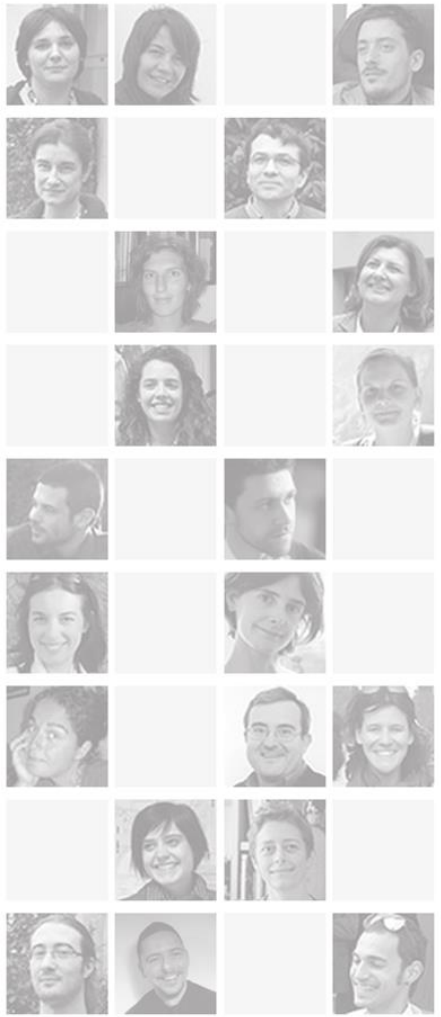
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