

The logo for Mam Mind- And Makerspace, featuring the word 'Mam' in a bold, white, sans-serif font inside a black circle. The background of the entire page is a photograph of children working in a makerspace, with a black and white diagonal striped pattern at the top.

Mam

Mind- And Makerspace

The inspiring change model of the Mind- and Makerspace

• Summary impactresearch •

howest
university of applied sciences

PWO Connecting the Dots (Howest)

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Summary

Mind-and Makerspace Howest

Developing transformative skills to initiate change in the world
Bulckens, Katrijn, Holail Mohamed Hadiel, Neiryneck, Evelien en Verbeke, Tijs (2023)

To make a difference in the world, we need transformative skills. The Mind and Makerspace (MaM) is an open meeting and learning environment where everyone can develop these skills. Learning, daring, making, sharing and caring' are at the core of every MaM activity. It aims to be a platform for social creativity, building bridges between individuals, organisations and Howest.

The MaM was founded by Howest University of Applied Sciences in Bruges. The university is a member of Ghent University Association, and offers bachelors, associate degrees and postgraduate certificate programs. All with a strong practical focus in the areas of business & management, industrial sciences & technology, digital design, architecture, healthcare, education and social sciences.

1. Vision and mission

The world is changing at lightning speed. It will not be enough to patch up or rebuild current structures to achieve a socially just future within the ecological limits of our planet. It challenges us to act radically differently. "To boldly go where no one has gone before!.", Howest's vision is summarised in this famous quote from the Star Trek film. Not to see obstacles, but opportunities to achieve goals. By creating an environment where opportunities are given, talents are developed and the courage to do things differently is encouraged, Howest aims to anticipate the future with its community. The values of service, empowerment and care are part of Howest's DNA.

The creation of the Mind-and Makerspace on the Bruges campus in 2019 is another expression of this DNA. An open place to learn and meet, where everyone can develop skills for the future. The MaM aims to help develop 4 transformative skills: (1) self-development and critical thinking, (2) creativity, (3) sharing and collaboration, and (4) courage and initiative. These are skills that will enable everyone to make small and big changes in the world. They are inspired by the Inner Development Goals model (Jordan, 2011) and the 4Cs (communication, critical thinking, collaboration, creativity) from the P21 Frameworks for 21st Century Learning by Battelle for Kids (2019).

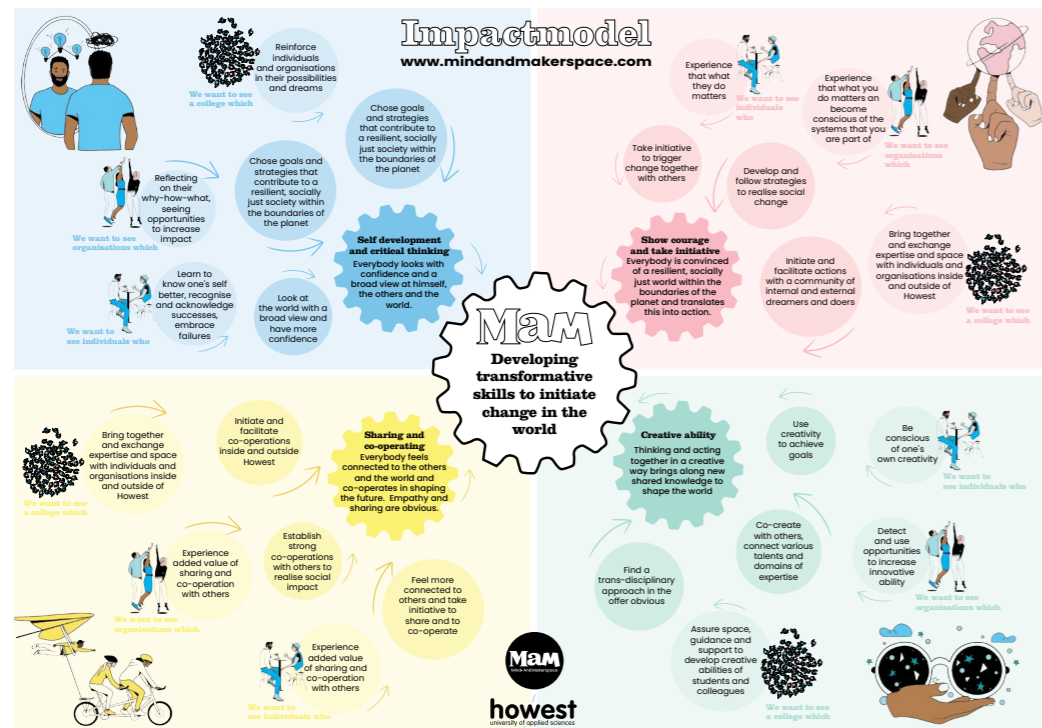


Figure 1. The MaM aims to develop 4 transformative skills

2. The MaM-activities

The MaM provides infrastructure, network, knowledge, methods, activities and guidance to achieve these impact goals. The MaM credo is 'learn, dare, make, share & care'. These 5 elements are present in every MaM activity.

MaM operates a physical space with many materials and equipment available to diverse audiences. It occupies much of the ground floor of the Howest campus in Bruges, easily accessible from the city's central station. The site is divided into several rooms, each of which has a specific function. The MaM offers access to a mix of various analogue and digitally controlled machines, such as an etching press, a glass and ceramic kiln, a cutting plotter, a 3D printer and a laser cutter. Other facilities include a woodworking shop, five fully equipped photography studios, an audio studio, and spaces to think, study and collaborate. The infrastructure allows for multi-functional use and encourages cross-fertilisation of ideas. It inspires creative thinking as well as action, allowing users to exchange experiences across disciplines; encouraging the sharing of knowledge, skills, materials and infrastructure.

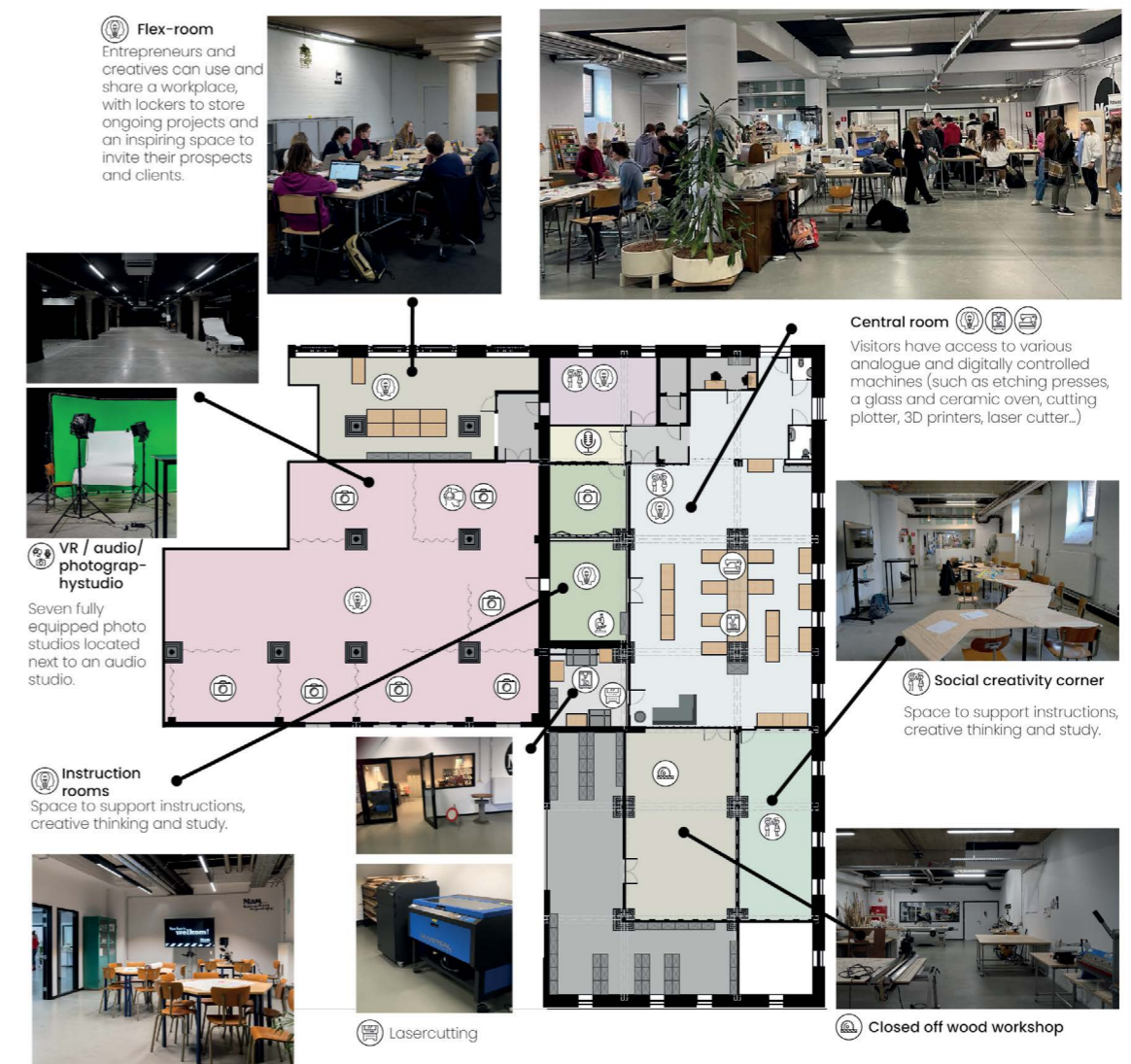


Figure 2. The infrastructure of the Mind- and Makerspace

But MaM is more than a physical space. It's a learning, knowledge-sharing and networking platform, both offline and online. A diverse team provides lifelong learning activities beyond what you would expect from a university or formal learning. They build bridges between individuals, organisations and Howest, fostering a transdisciplinary and inclusive community. The team engages in co-creation with the users and provides support where it is needed. Through the identification of opportunities and the promotion of collaboration at individual and organisational level, the MaM is an important node in a broad and strong network. Not coordinating everything, but always participating.

3. Background

3.1. Quintuple helix for social innovation

Like any organisation, MaM is influenced by the context in which it operates. The social, environmental and economic challenges facing the world are huge and complex. There is a need for transitions: fundamental and irreversible changes in culture, (institutional) structures and ways of working at system level. This context calls for new skills and new ways of thinking today and certainly for the future. As a university of applied sciences, Howest has an important role to play in transitions. Social engagement is one of the spearheads in Howest's strategic vision '22-'28.

MaM was born out of the knowledge and experience of passionate Howest students and staff who wanted to create an inspiring and open space for social creativity. From the outset, the common denominator was an open infrastructure, accessible to all. In addition to space, equipment and materials, experience and knowledge are also shared assets within the concept. The MaM supports exchanges between people involved in different programmes, research projects and other university spaces, as well as with people from outside the university, such as makers, entrepreneurs, businesses, social organisations and other citizens.

The MaM is a gateway for Howest to connect with citizens, organisations, government and other knowledge institutions. This functions as a quintuple helix for open innovation. This model underlines the role of society as a key actor in social innovations, and the importance of actively involving the public in innovation projects.

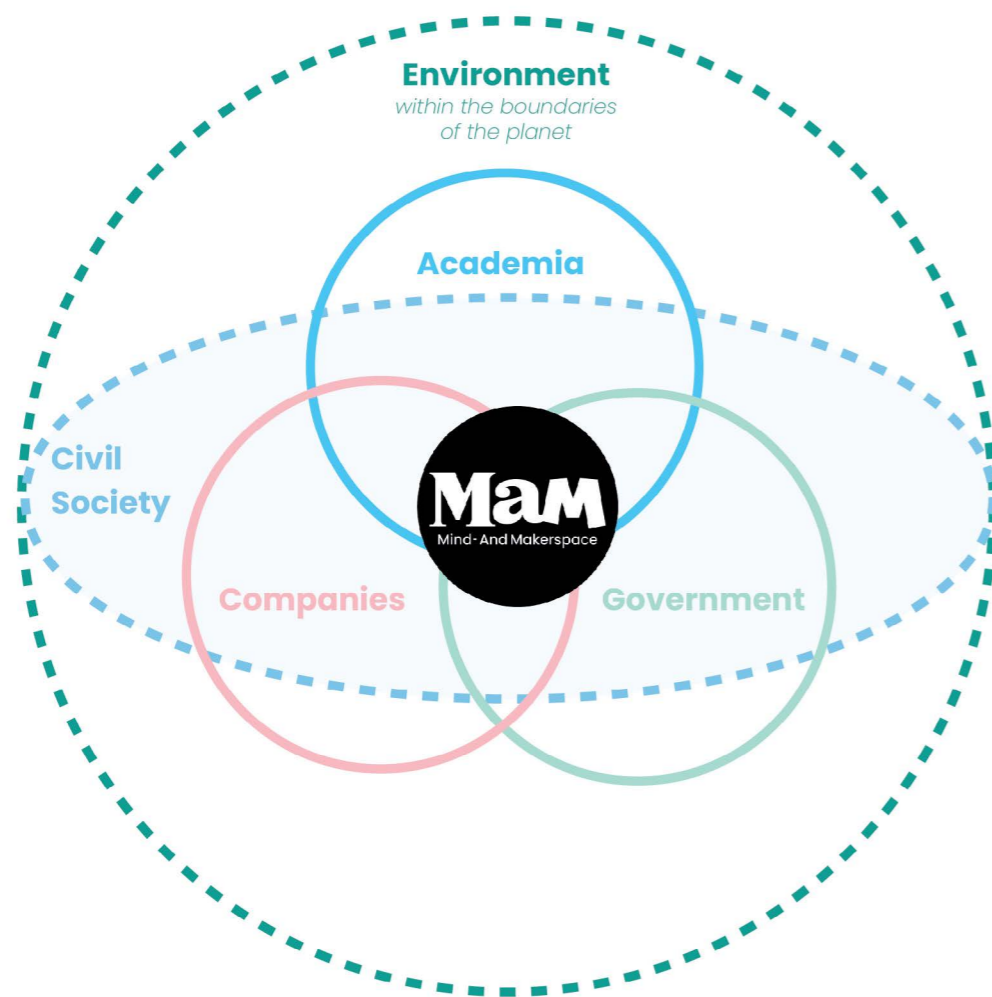


Figure 3. MaM is a hub for innovation in the quintuple helix

3.2. Open education

The MaM allows Howest to function as an open school in Bruges, a city of craftsmen and makers. An open university, not an island in town. Open Education is one of the European guidelines for modernising higher education and promoted by the Flemish regional government. Through Open Education, everyone is able to access educational opportunities, including content, courses, support, assessment, certification and networking, which are tailored to meet their needs. Having multiple ways to access and combine formal and nonformal education is crucial. MaM serves as a crossroad between Howest's programmes, research projects, the professional field and the wider community. It aims at making lifelong learning and the new digital and entrepreneurial skills and competences needed for employment, personal development and social inclusion more accessible. The transdisciplinary model is designed to synergize and thus create added value for everyone involved.

3.3. Strong local roots

In recent years, Bruges has seen a rapid growth in makerspaces: House of Time (Triennale Brugge 2018, Brugge Plus), Het Lab (2018, Het Entrepot) and the MaM (2019, Howest). This has been driven by an urgent need for creative space. Under the label 'BOA - Bruges Open Ateliers', these three open makerspaces collaborate.

The City of Bruges has many initiatives and partners promoting entrepreneurship and entrepreneurial skills among individuals, organisations and universities. The MaM strengthens these initiatives with its activities. Through the platform, the MaM highlights and stimulates entrepreneurship, shares knowledge, supports matchmaking, cooperates with other initiatives and promotes transformational skills among entrepreneurs. Bruges wants to position itself as a sustainable city and is committed to change. The MaM wants to capitalise on initiatives that make the city a better place to live. As a creative place, the MaM wants not only to think along, but also to participate the initiatives of the public.

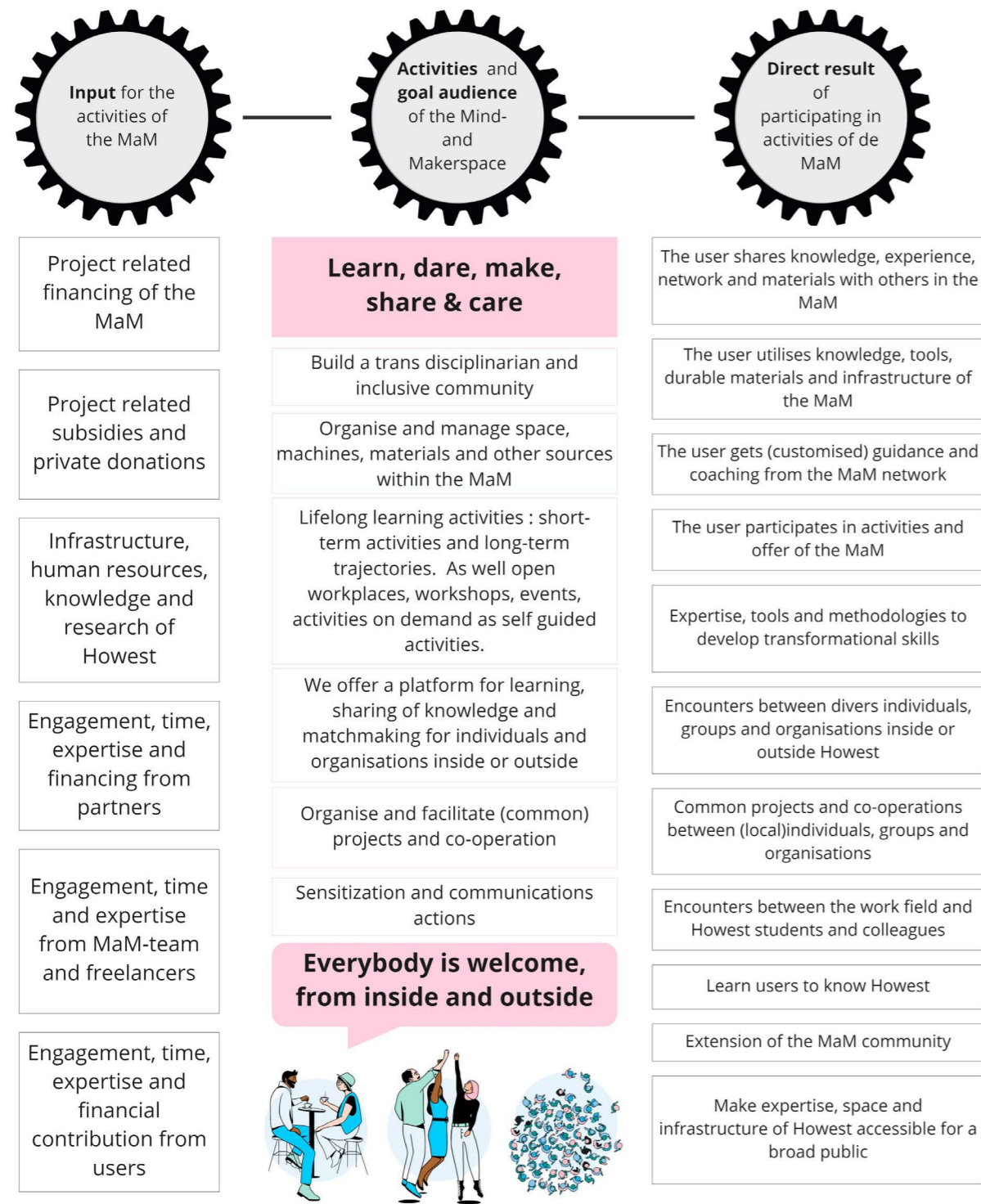
4. Impact research

The activities of social entrepreneurs are aimed at creating change and social value. This is what defines them. Impact is the change that occurs in society as a result of actions, both direct and indirect, intended and unintended, positive and negative (Mohout & Peeters, 2020). Measuring the impact of activities provides valuable information. It is not about defending the approach, but about enabling organisations to make targeted improvements and increase their impact. It requires openness and the courage to be vulnerable as an organisation.

Howest facilitated a two-year research project to evaluate the impact of The Mind and Makerspace. The project had three aims: to map the model of change that is driving the implementation of MaM, to find out if and under what conditions the MaM approach works, and what changes it brings for users and other stakeholders. The study has taken 'program theory' or 'theory of change (TOC)' as a starting point. A TOC describes how a practice is supposed to work linking resources and activities to outputs ('what we do'), intermediate outcomes and long-term impact ('what we want'). The model is a graphical representation of these elements, and how they work together. The change model speaks of the desired impact at 3 levels: the individual level, the organisational level and the Howest level.

Impact research has given us an understanding of how MaM operates, how to reach our target audiences and how to achieve our impact goals. The change model tells us what the MaM approach is about and how it relates to the change we want to achieve. It gives us a clear message to share with our stakeholders. By comparing impact targets with the impact achieved, we can adjust the MaM approach. We are committed to make measuring and maximizing impact an integral part of driving MaM forward.

What we do



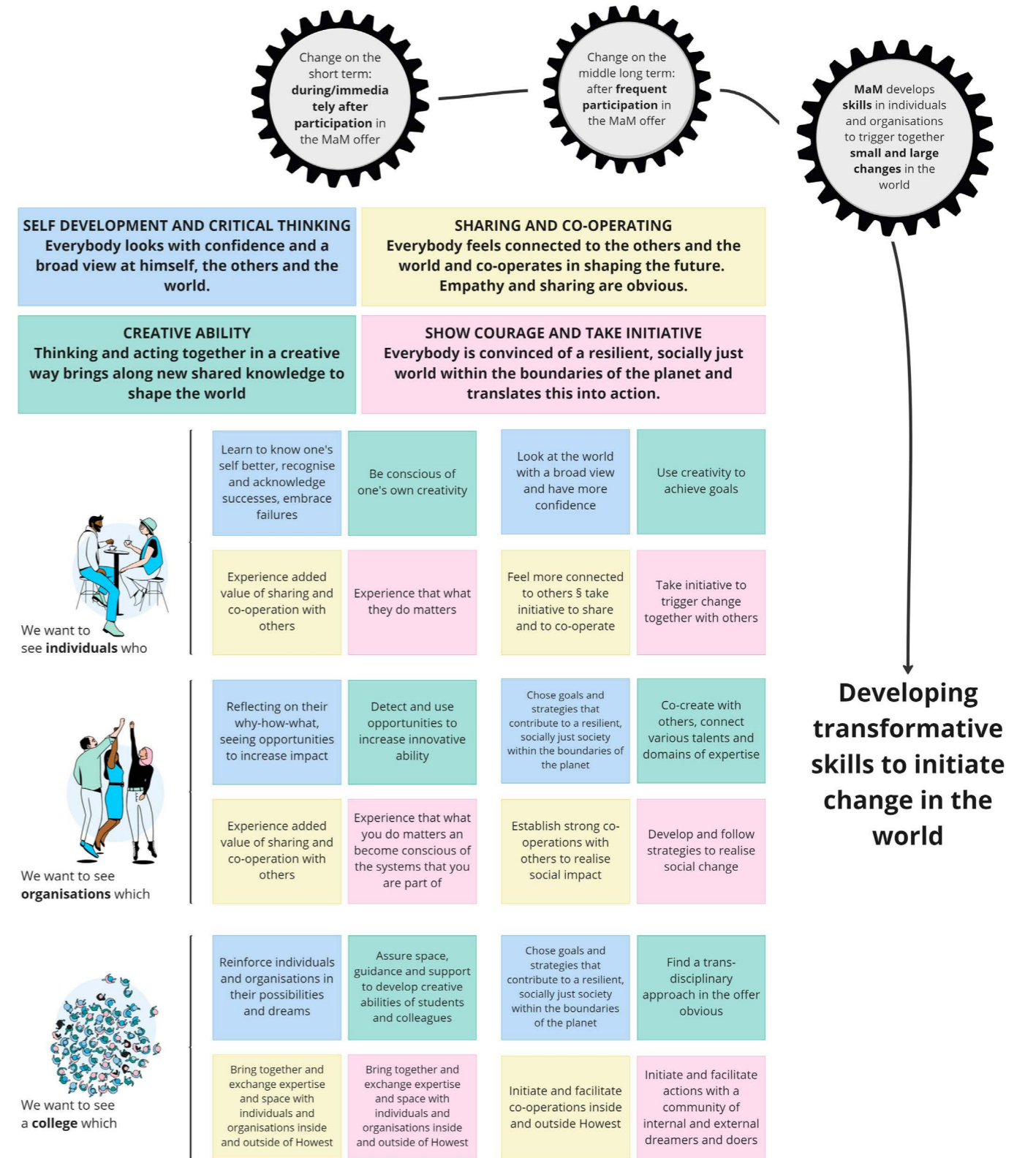
21st century skills with focus on 4C's Inner Development Goals

Social and creative entrepreneurship
Talent and power focussed acting
Theory of creative ability
Trans disciplinary thinking

Transition and impact focussed acting
STEAM appreciation and enthusing
Sharing culture

What we want

That is why



CONTEXT

Strategic goals of Howest '22-'28

Needs within Howest
Educational innovation
MaM as hub
Connecting is crucial

Is locally anchored in Bruges

Need of space for creativity
Bruges as a city for craftsmanship and makers
Entrepreneurial city
Policy of the city - sustainability
Initiatives that live in the city

Transition

A fast changing world makes sustainable transitions indispensable e.g. SDG's
Measuring of the impact
Lifelong learning



MaM

Mind- And Makerspace

Welcome everyone

**Let's learn, dare,
make, share & care!**

**The goal of MaM is to develop skills within
individuals and organizations, empowering
them to initiate small and significant
changes for a better world.**

MaM is powered by:

howest
university of applied sciences

west-vlaanderen
de gedreven provincie



Vlaanderen
verbeelding werkt

www.mindandmakerspace.com