MaM
Mind- And Makerspace

The inspiring change model of the Mind- and Makerspace

• Summary impactresearch •

howest
university of applied sciences

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Summary

Mind-and Makerspace Howest

Developing transformative skills to initiate change in the world
Bulckens, Katrijn, Holail Mohamed Hadiel, Neirynck, 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).

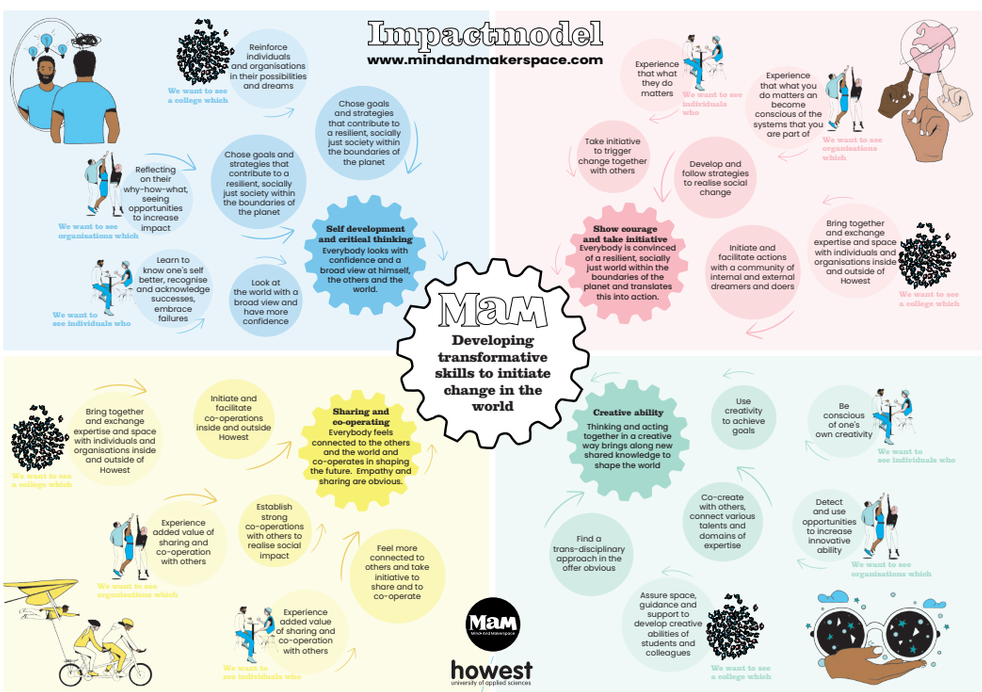

Figure 1. The MaM aims to develop 4 transformative skills

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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.

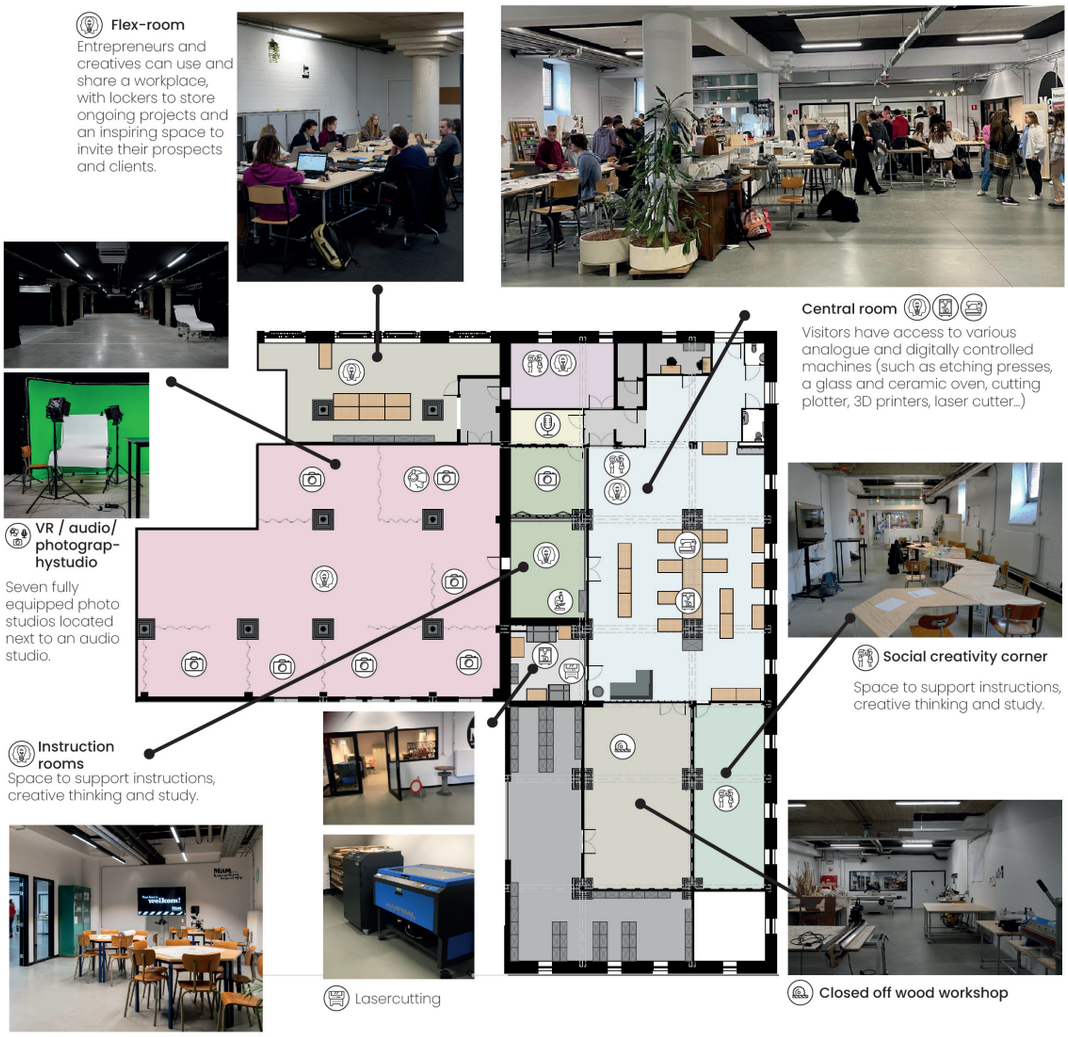

Figure 2: The infrastructure of the Mind- and Makerspace

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.

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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.

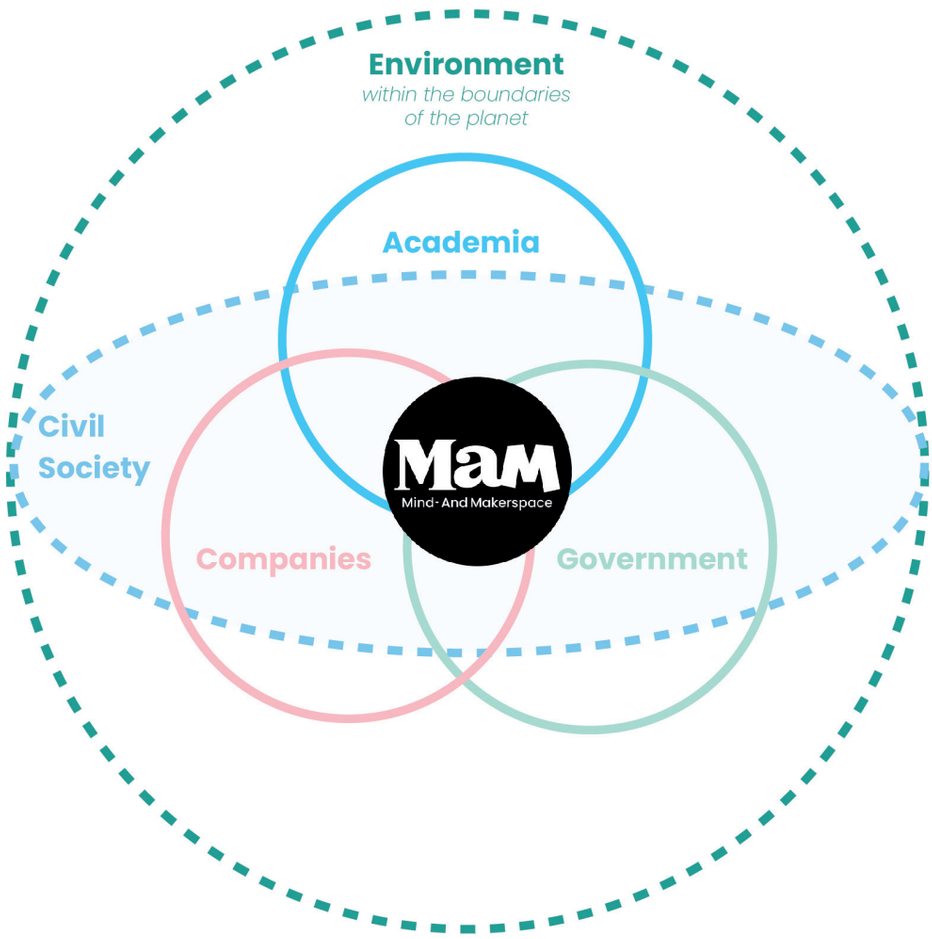

Figure 3: MaM is a hub for innovation in the quintuple helix

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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, professional field and wider community. It aims at make 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 respond to 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 out 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.

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What we do

Input for the activities of the MaM	**Activities** and **goal audience** of the Mind- and Makerspace	**Direct result** of participating in activities of de MaM
Project related financing of the MaM	**Learn, dare, make, share & care**	The user shares knowledge, experience, network and materials with others in the MaM
Project related subsidies and private donations	Build a trans disciplinarian and inclusive community	The user utilises knowledge, tools, durable materials and infrastructure of the MaM
Infrastructure, human resources, knowledge and research of Howest	Organise and manage space, machines, materials and other sources within the MaM	The user gets (customised) guidance and coaching from the MaM network
Engagement, time, expertise and financing from partners	Lifelong learning activities : short-term activities and long-term trajectories. As well open workplaces, workshops, events, activities on demand as self guided activities.	The user participates in activities and offer of the MaM
Engagement, time and expertise from MaM-team and freelancers	We offer a platform for learning, sharing of knowledge and matchmaking for individuals and organisations inside or outside	Expertise, tools and methodologies to develop transformational skills
Engagement, time, expertise and financial contribution from users	Organise and facilitate (common) projects and co-operation	Encounters between divers individuals, groups and organisations inside or outside Howest
	Sensitization and communications actions	Common projects and co-operations between (local)individuals, groups and organisations
	Everybody is welcome, from inside and outside	Encounters between the work field and Howest students and colleagues
		Learn users to know Howest
		Extension of the MaM community
		Make expertise, space and infrastructure of Howest accessible for a broad public

JUSTIFICATION

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 disciplinarian thinking

Transition and impact focussed acting

STEAM appreciation and enthusing

Sharing culture

What we want

That is why

Change on the short term: **during/immedia tely after participation** in the MaM offer

Change on the middle long term: after **frequent participation** in the MaM offer

MaM develops **skills** in individuals and organisations to trigger together **small and large changes** in the world

SELF DEVELOPMENT AND CRITICAL THINKING
Everybody looks with confidence and a broad view at himself, the others and the world.

SHARING AND CO-OPERATING
Everybody feels connected to the others and the world and co-operates in shaping the future. Empathy and sharing are obvious.

CREATIVE ABILITY
Thinking and acting together in a creative way brings along new shared knowledge to shape the world

SHOW COURAGE AND TAKE INITIATIVE
Everybody is convinced of a resilient, socially just world within the boundaries of the planet and translates this into action.

We want to see **individuals** who

Learn to know one's self better, recognise and acknowledge successes, embrace failures	Be conscious of one's own creativity	Look at the world with a broad view and have more confidence	Use creativity to achieve goals
Experience added value of sharing and co-operation with others	Experience that what they do matters	Feel more connected to others § take initiative to share and to co-operate	Take initiative to trigger change together with others

We want to see **organisations** which

Reflecting on their why-how-what, seeing opportunities to increase impact	Detect and use opportunities to increase innovative ability	Chose goals and strategies that contribute to a resilient, socially just society within the boundaries of the planet	Co-create with others, connect various talents and domains of expertise
Experience added value of sharing and co-operation with others	Experience that what you do matters an become conscious of the systems that you are part of	Establish strong co-operations with others to realise social impact	Develop and follow strategies to realise social change

We want to see a **college** which

Reinforce individuals and organisations in their possibilities and dreams	Assure space, guidance and support to develop creative abilities of students and colleagues	Chose goals and strategies that contribute to a resilient, socially just society within the boundaries of the planet	Find a trans-disciplinary approach in the offer obvious
Bring together and exchange expertise and space with individuals and organisations inside and outside of Howest	Bring together and exchange expertise and space with individuals and organisations inside and outside of Howest	Initiate and facilitate co-operations inside and outside Howest	Initiate and facilitate actions with a community of internal and external dreamers and doers

Developing transformative skills to initiate change in the world

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

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MaM
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Welcome everyone

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

Together toward a resilient, socially just society within the limits of the planet.

MaM is powered by:

howest
university of applied sciences

west-vlaanderen
de gedreven provincie

Vlaanderen
verbeelding werkt

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