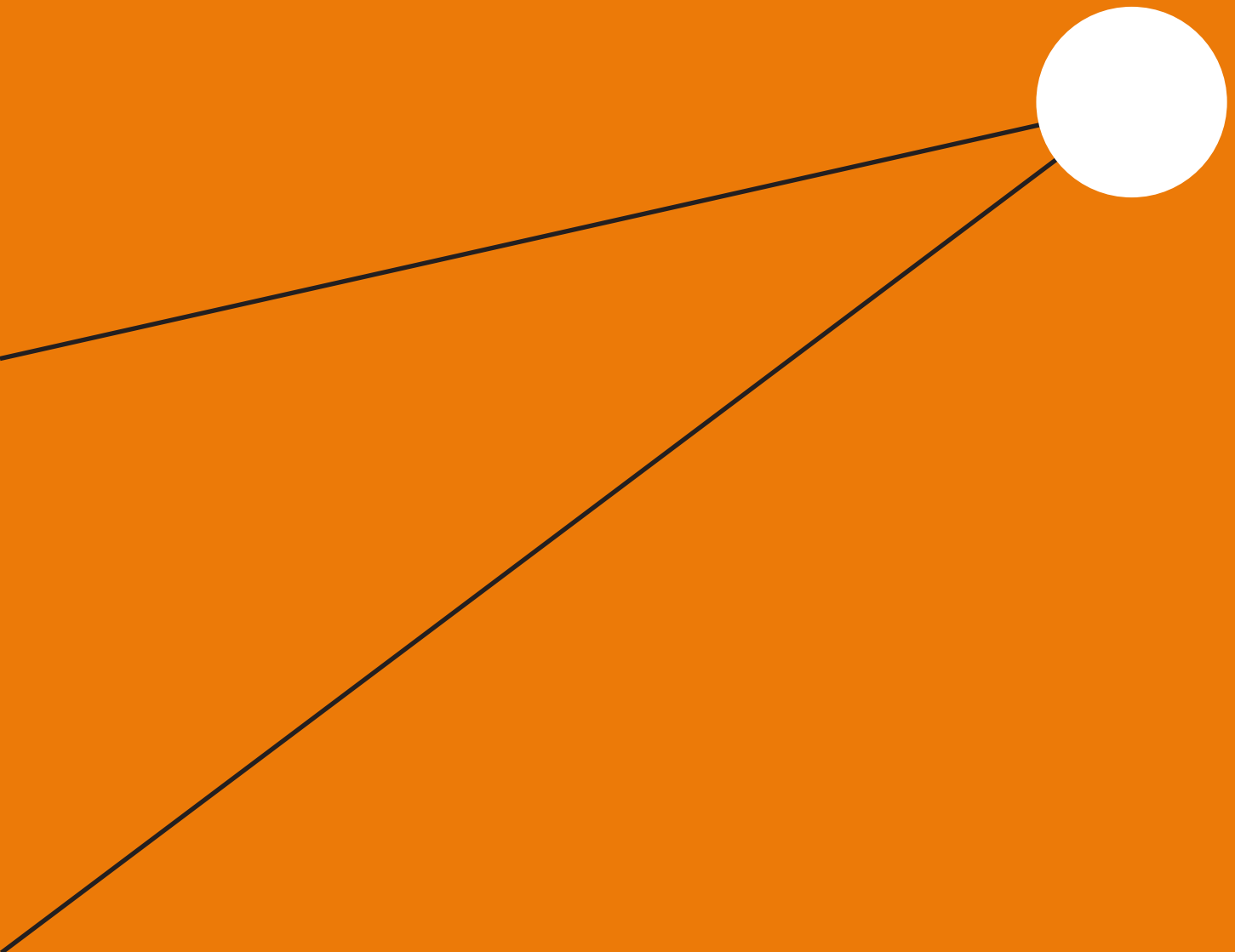


GUIDING PRINCIPLES TOWARDS IMPACT BY DESIGN

BMS Position Paper on Impact
April 2024



Paper: pp. 3-9, references and appendix pp. 10-11

Impact can, in the broadest sense, be described as *“the positive and negative, desirable and undesirable, primary and secondary long-term effects produced by your project which can be direct or indirect, intended or unintended.”* [1], or: *“a powerful effect that something, especially something new, has on someone or something”* [2]. Having an effect *on* something or someone, highlights change brought about by one’s activities. These definitions acknowledge that “impact” is a broad term and its meaning can be different from person to person, from team to team, and from department to department, and at different points in one’s career.

When talking about impact at BMS, the discussion is not to “make x times more impact”, or that everyone needs to make a certain type of impact. We would much rather have a deeper discussion on our place in society and invite you to join this discussion. We are making an impact for sure, but what impact do we wish to make, who benefits from this, and how will we do this?

This position paper aims to describe what impact means for BMS, the (type of) impact we aim to make and how, while at the same inviting you to further explore what impact means in your own work. A key part of this is adopting Impact by Design as working method, contextualised by a set of 10 guiding principles. We hope this paper gives you a vocabulary to construct your impact narrative and in doing so makes you feel proud of your work. To this end, questions and actions for individuals and teams to help reflect on their impact, are presented. Lastly, existing support is made explicit and future support offers are described.

THE IMPORTANCE OF IMPACT

Impact is high on the agenda. On a European level (e.g., concretely through mandatory impact paragraphs in grant application and a general shift to programs being shaped with impact in mind by funders [3] [4]), national policy level [5], for universities (e.g., as a focus point within the UT [Shaping2030](#) vision), and in conversations between researchers, teachers, students, and staff. This broad focus on impact can be placed alongside other developments collectively referred to as the *4th generation university* [6]. Here, research, education, innovation, and impact build on and influence each other, culminating in a university that co-creates solutions to societal challenges together with partners and other relevant stakeholders. The UT is already on the journey to becoming a 4th generation university; this co-creation has increasingly become part of our way of working, and we will continue to embed and consolidate this. Working outside-in, and with stakeholders, calls for an appreciation of a diverse set of activities.

BMS enthusiastically welcomes these developments. We are a faculty with a unique profile: a faculty of behavioural, management, and social sciences within a technical university. The intersection between social science (in the broadest sense) and technology allows us to contribute to finding solutions for wicked problems with clear societal relevance.

IMPACT BY DESIGN

To allow for discussion and reflection on the topic of impact, we hope to offer a vocabulary and develop a shared understanding of what impact can and could mean. We do this by providing ten guiding principles, covering the breadth of the discussion while being explicit in the BMS interpretation of impact.

WORKING METHOD

Principle 1: we adopt Impact by Design as working method.

BMS, in line with UT-wide developments, adopts *Impact by Design* as the preferred working method. Impact by Design calls for setting a clear dot on the horizon in terms of intended impact and then defining the path to achieve this. To do this, one can think back from the intended impact to the current situation, and see what steps are needed to get there. Reaching this intended impact is embedded in all phases of a project [7]. Making impact, in line with that dot on the horizon, is part of the very design of our activities. Impact by Design respects the differences between disciplines, projects and researchers, but does acknowledge that we can all make our own impact and plan accordingly to achieve it.

Next, we identify nine guiding principles for the transition to *Impact by Design*, using the 5W2H method [8], asking: Why, Who, What, Where, When, How, and, How much?

Image credit A, see references



WHY DO WE WANT TO MAKE IMPACT?

Principle 2: we make impact for the betterment of people and society.

BMS wants to contribute to societal challenges, we want to benefit communities, and advance knowledge. We want to make impact to make a change for the better. This asks for a reflection, because making impact is not neutral nor always good. In line with the broad impact definition above, the (long-term) effects of one's work can also be negative. This is not how we see our intended impact, instead, the reason to make impact is to achieve a "betterment" rather than just any change. We recognise and applaud all BMS colleagues in their intrinsic motivation to make a positive change. We already see this in projects on mental health, climate justice, and social entrepreneurship, to give a few examples. Per Impact by Design, let this betterment be embedded in the design of all our projects.

On the individual level, a question to ask yourself is: "who or what gets better because of my work?". Of course, not every project will have life-changing implications for a large group. Here, it is relevant to refer to the concepts of *reach* and *significance* [9]: how far does your impact reach, and how significant is the change to those being impacted? For instance, a health intervention may drastically improve the life of a handful of patients, or ever so slightly for hundreds of patients, and this is both highly valued. Still, in both cases, a betterment is made.

What's next:

(full list of actions can be found in Appendix)

- a. BMS will facilitate discussions on our intended role in society, e.g., through debates or by taking inspiration from the Recognition and Rewards talk show format.

WHAT IMPACT DO WE MAKE?

Principle 3: we make academic and societal impact, these enrich each other.

Academic and societal impact feed off each other, inspire each other, and strengthen each other; one is not replaced by the other. Nine types of impact are proposed: academic impact, and societal impact, where societal impact is specified into eight more specific types of impact (see figure 1 below). Defining these types of impact hopefully brings context and colour to the impact discussion and facilitate this discussion better. For instance, in internal vision forming of groups, career committee meetings, or just at the coffee machine on a random Tuesday afternoon.

This is not a checkbox system where you need to "reach x out of nine types". Rather, we invite you to think for yourself where your strengths lie, and which type of impact helps you reach your own impact goals, linking to the Impact by Design approach.

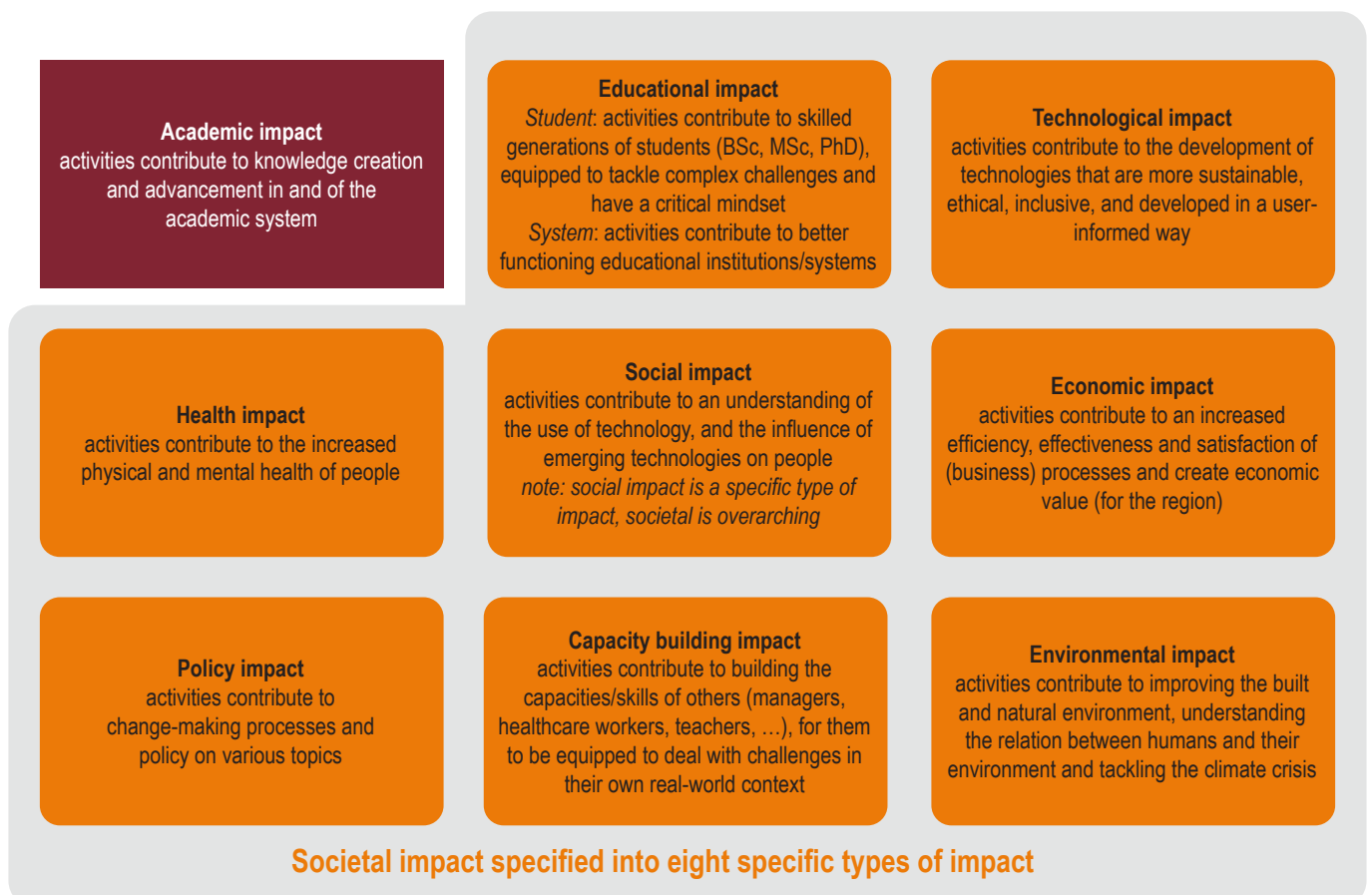


Figure 1: nine types of impact to contextualise academic and societal impact (B)

WHO IS MAKING AN IMPACT?

Principle 4: impact is made by all BMS colleagues, teams, and groups.

Everyone makes impact, in line with their own impact goal. This can be on an individual level, team level, section level, department level, or within a [BMS Strategic Research Theme](#). Different goals are better achieved by different levels of cooperation, for example, an international consortium will respond to a different need than an individual researcher with a specific expertise. Here, it is key to set the aforementioned dot on the horizon and then see who needs to contribute to achieve the desired impact.

For more complex issues, making impact is mostly the result of hard work by many people, who use their knowledge and talents to make a betterment happen. A key point here is the team; not every individual needs to (or has) all expertise and skills for this. If one team member is an accomplished grant writer, and the other one an amazing networker, they can both contribute from within their strengths. The movement to see academic achievements more as a team effort is called Team Science. BMS fully embraces this movement and will explore how this appreciation can be embedded in HR practices.

What's next:

- b. Support will be made available to help staff and groups that want to think about their intended pathway to impact. Tools like impact cases, impact pathways (see below), or tools from other universities can help in this.

- c. Investigate how Team Science can be embedded more closely in current individual-focussed career path conversations. This is a broad conversation, not just in formal career steps, but also general recognition for team efforts.

HOW WILL WE MAKE IMPACT?

Principle 5: we make impact through all our activities.

The types of impacts described in principle 3 can be realised through a variety of activities. Although research mostly seems the focus of the current impact discussion, we explicitly point to the huge importance of education. One single lecture can already transfer state-of-the-art knowledge to a large group of students, for instance. This Position Paper will continue to focus on the researcher, whereas the [UT Vision on Teaching and Learning](#) describes in much more detail how education should find a better connection to societal challenges, closely related to the impact discussion.

Beyond research and education, impact is also made through a variety of other activities: innovation-related activities, support, leadership, teamwork and academic citizenship activities. For valorisation activities, the [Knowledge Transfer Office](#) of Novel-T offers support on the commercialisation of research, in the broadest sense. Topics like starting a spin-off, licensing and Intellectual Property are part of their offer.

Impact Pathways and Theory of Change

One may recognise the Theory of Change and/or the Impact Pathway from NWO or Horizon Europe grant applications. The Theory of Change is one of the ways to describe how change happens, being “a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context. It is focused in particular on mapping out or “filling in” what has been described as the “missing middle” between what a program or change initiative does (its activities or interventions) and how these lead to desired goals being achieved.” [10] Within this, the path from outputs (insights from research) via outcomes (changes in behaviour based on these insights) to impact is called an impact pathway. [11] In an impact pathway, you work “backwards”, as illustrated in figure 2 below. This visualises the *Impact by Design* approach, as you start at your desired impact, and then plan from a current situation to that desired future impact.

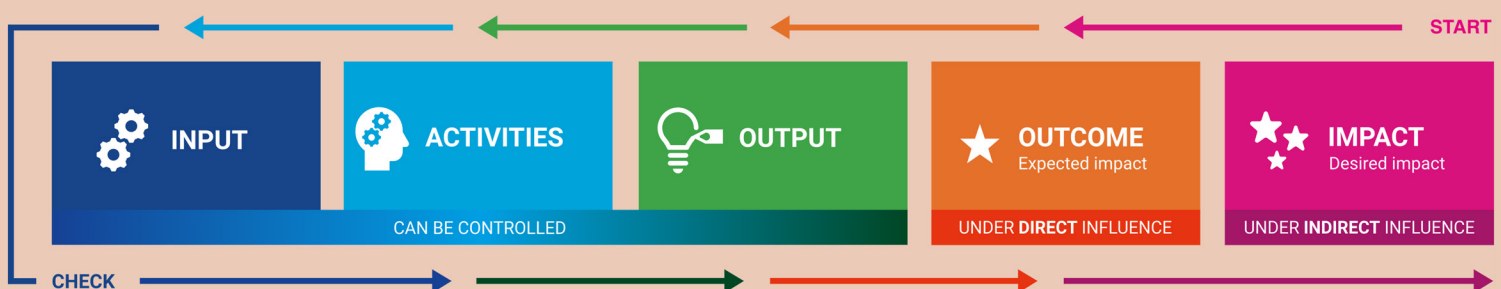


Figure 2: a model impact pathway, adapted from the [Erasmus+ Impacttool](#) (C)

(principle 5 continued)

Support staff empowers and supports colleagues to achieve their (impact) goals, colleagues in leadership roles set dots on the horizon and can help a team grow. Academic citizenship activities (e.g., non-research committee work, or being part of value-driven working groups) can also contribute to reaching a set impact goal.

This principle embodies the Recognition and Rewards (R&R) movement. This movement calls for a proper recognition of a diverse set of career paths [12]. This applies fully to the breadth of activities that contribute to making impact; if different colleagues have different impact goals, a generic assessment will not do justice to this.

What's next:

- d. Appreciation should be given to impact-related activities beyond academic impact. This will be explored further together with BMS HR and the BMS Career Committee. *Through UTIP, the central Utilizing our Impact Potential program, a "career path framework" is being developed to make these career choices explicit. This will be used as discussion starter.*
- e. Improve Knowledge Transfer Office offer for BMS and clearly communicate this.

Principle 6: we are engaged with relevant stakeholders and (societal) partners.

All BMS colleagues make an impact (principle 4). When aiming for societal impact specifically, involvement of stakeholders and (societal) partners is crucial. Making impact is a co-creation process, where the talents of BMS staff members and the expertise of partners are combined, to answer needs of stakeholders (e.g., hospitals, high schools, businesses, other academic institutions, citizens, ...). This is a two-way street, where we do not just reach out to relevant stakeholders with our output, but actively engage them throughout the process. Then, we can help solve relevant challenges of our stakeholders, true to their context. BMS serves many stakeholders, and which stakeholder to involve depends on the focus of one's work. When aiming for academic impact, or doing more fundamental research, engagement with fellow scholars or (direct) colleagues might be a more fitting collaboration. Again, this depends on the set impact goals.

Proper public engagement asks for certain skills. It takes time, effort, skills, and perseverance to involve stakeholders in all phases of your work and build a relation with them [13]. At UT level, exploring the viewpoints and support offer for public engagement is ongoing, concretely by means of setting up a Centre for Science Communication. BMS can be a test ground for such newly developed support offer.

What's next:

- f. Through the BMS Research Support Office, BMS will gladly serve as test ground for newly developed support on public engagement activities, in line with the central ongoing exploration around this topic. This will be done in collaboration with other ongoing initiatives and UT partners.
- g. BMS will develop an Open Science guide (policy, principles, best practices, to be decided).
- h. The BMS Research Support Office will overlap its support offer with the Citizen Science Hub and Open Science Community Twente to identify gaps and create support for these gaps.

In the spotlight: Citizen Science Hub Twente and the Open Science Community Twente

We would like to spotlight the Citizen Science Hub and the Open Science Community Twente, both UT-wide groups that share a mission to make science more open and informed by societal problems, and they offer support to achieve this.

Citizen Science means that "citizens are actively involved in research, in partnership or collaboration with scientists or professionals; and that there is a genuine outcome, such as new scientific knowledge, conservation action or policy change" [14]. The UT has a **Citizen Science Hub**, this Hub helps in connecting citizens and scientists, in a two-way collaboration. For this they launched **Meedoen** (Dutch for "join" or "participate"), a platform where citizens can become part of UT projects. They also help with questions specifically related to the process of doing Citizen Science, for instance an earlier case on Research Data Management when the citizen collects the data. The Hub also connects researchers with an interest in Citizen Science.

Open Science aims to make scientific knowledge openly available, accessible, and reusable for everyone, to increase scientific collaborations and sharing of information for the benefits of science and society [15]. The **Open Science Community Twente** acts as a platform to connect researchers, learn from each other, provide resources and discuss common practices. Open Science goes beyond Open Access (OA), whereas OA focusses on free access of research output, Open Science tries to make the full research pipeline transparent and open (e.g., databases). Support on specifically Open Access is available at the Information Specialists of BMS. BMS fully supports the Open Science movement and see this as a great way to broadly share knowledge and "doing research" with society.

Principle 7: we make impact in a sustainable and equitable way.

We aim for betterment (principle 2). Beyond the contents of one's work (e.g., research on the energy transition, lecture on ethics of technology), one's way of working can also contribute to this betterment, by making impact in a way that is sustainable and equitable.

Building on the 'Do No Significant Harm' principle of Horizon Europe (HE) [16], impact should be made in a way that does not harm the environment (HE uses carbon emissions as the guiding measurement unit), where we reduce environmental pollution and (land) degradation (per the [UT Sustainability Policy on Operations](#)). To make this tangible, conversations around implementing a "carbon budget" at BMS are being held right now. International travel can bring us together with research collaborators and partners and interesting events, but reducing emissions is essential. To help employees with their travel choices, the UT offers the [UT Train Map](#), which helps to easily assess the difference between travelling by train or plane to certain cities.

We also want to make impact in an equitable way. Equity is about recognising that certain groups and communities have different needs to reach the same goals [17], different from equality where everyone is (assumed to be) the equal. One's activities can help minority groups or under-privileged communities, both through the content of the activities (e.g., on the topics of wellbeing, financial stability, health) and the way of working (e.g., amplifying voices that are not heard often). We encourage you to take this into account when engaging with stakeholders, realising that your work can mean something different for different groups of stakeholders.

Being explicit in the aim for equity and sustainability also has consequences for the selection of partners (see principle 6 as well). In addition to Knowledge Safety¹ aspects, the UT [recently called on its partners](#) to commit themselves to the Paris Agreements² and make this support explicit.

1. Knowledge Safety in this context refers to critically evaluating international collaboration with certain countries, and doing research that can also be used to create weapons. The UT has a [Knowledge Safety Team](#) that has an interactive checklist to fill in, to assess your situation in case of doubt.

2. The key element of the Paris Agreement, agreed on by world leaders at the UN Climate Change Conferences (COP21) in Paris, is to "substantially reduce global greenhouse gas emissions to hold global temperature increase to well below 2°C above pre-industrial levels and pursue efforts to limit it to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change" [18].

In the spotlight: Green Hub and Climate Centre

If you are enthusiastic about sustainability (in research, education, or operations) have a look at the work of the Green Hub and Climate Centre.

The **Green Hub** is a student-driven, staff-supported hub that develops resources, connects initiatives and people, and supports transitions towards sustainability in the broad sense. They also co-organised the Sustainability Dialogues in 2023, where the UT community engaged in conversation with each other and the Executive Board on the topic of sustainability.

The **Climate Centre** is founded to connect researchers that work on topics like sustainable industry, planetary health, and renewable energy sources, all to transition to a resilient, low-carbon society. Formed in May 2023, the centre is currently building their community and setting its goals. A first round of seed funding (€190.000) was given to numerous UT projects, kick-starting a first batch of promising proposals.

At UT level, criteria are being developed to help assess new partnerships in this light, BMS gladly serves as test ground for early implementation of such a framework. This fits in a broader discussion on value alignment between us and our partners. Guiding questions can be: Does the intended partner share similar values of betterment? Do you and your partner share the same goal?

What's next:

- i. The option to implement a carbon budget will be explored, discussing implementation level (section, department, faculty), limits, and influence on the research process.
- j. Once BMS serves as a test ground for the partnership evaluation framework in development, support will be made available to guide researchers and teams through the framework.

WHERE DO WE MAKE IMPACT?

Principle 8: we make impact on different geographical scales, from the region to globally.

Two things can be true at the same time: we are a campus that connects to the region *and* an international knowledge hub. As such, impact is also made on different scales: the region, province, national, international, and global. One is not necessarily better than the other, this again depends on the impact pathway of a certain project. Different activities cover different scales and interact with other scales. Regional know-how can inspire international research consortia, and global developments are accounted for in education on our campus in Twente, for instance. Often, academic impact is already reached through international collaboration with experts from all over the world.

Focus depends again on what impact you wish to achieve: an international consortium on using Virtual Reality in the classroom can be just as impactful as doing a Citizen Science project with inhabitants of the Twekkelerveld neighbourhood in Enschede. Different support is also available to help you reach that goal, for instance support on staff exchange or with international partnerships.

What's next:

- k. Increase visibility of support by the [BMS International Office](#), e.g., with staff exchange and international partnerships.

WHEN WILL WE MAKE IMPACT?

Principle 9: we make impact through the outcomes of our activities and the process of getting there.

There is a distinction to be made between impact made through process and the impact made by outcome. An example: by involving a primary school in a study on healthy food in schools, one may change children's and teachers' mindsets over the course of the study and have made an impact there. The research output can then be used by different parties. For example, new interventions can be used by other schools, and a publication by other academics or policy makers. These uses can take place for years to come, again making an impact. This also shows that one project can have many types of impact; health impact, policy impact, and academic impact, per principle 3. Furthermore, the process of doing this research helps you build your expertise and in this specific example, build a relationship with your contacts at the primary school. The impact of a single study is so much more than just the academic outcome.

Not all activities can have process impact like the example above. In that case, a seed is planted for a change in the future. This especially holds true for academic impact; when work is cited and a source of inspiration for many years to come.

HOW MUCH IMPACT IS ENOUGH?

Principle 10: we reflect on our impact in a context-sensitive manner.

Quantifying impact is part of an ongoing discussion around impact indicators. We see impact indicators as a tool for reflection and learning, not as a measurement system or checkbox exercise. Being able to quantify impact, and/or being able to make impact explicit, can be instrumental in the way we reflect on the impact that we make. Making one's impact explicit can also help in the planning of future projects, by building on the situation as is.

Here, it is important to stress that this should be done in a context-sensitive manner. Indicators need to align with the context in which they are used. An indicator like "Number of Healthy Life Years gained" can be great for a health intervention, but not at all for a project on resource allocation in industry. Different disciplines, different projects, and types of work call for different indicators and forms of evaluation. We aim to provide a set of indicators and other instruments (e.g., impact cases or narratives) to help you. The UTIP project *Impact Pathways and Indicators* is developing an Impact Indicator Framework that can serve as inspiration when finding indicators for your own pathway. Support will be made available to use such tools and will be available via the BMS Research Support Office.

What's next:

- l. Support will be made available to help staff and groups connect indicators to their own impact pathways, e.g. by providing hands-on guidance in using the UTIP Impact Indicator Framework.
- m. Beyond indicators, tools to narratively reflect on one's impact will be provided, like impact cases. Guidance on using these tools will be provided.

LOOKING AHEAD

The transition to *Impact by Design* is something we do together, in which we learn from each other, we support you and we equip you to support each other.

With the publication of this position paper, we hope to have helped better understand what impact means, and what principles BMS holds in this. Now, the focus will be on implementing all proposed actions (the “what’s next” lists) together with the BMS and UT partners. BMS develops support offer; the BMS Research Support Office is spearheading the development of this. Existing support offer will be communicated more clearly, and behind-the-scenes collaboration will make the BMS Research Support Office a one-stop-shop for any impact questions.

If you wish to share any thoughts or questions after reading this paper, please contact Tom Boogerd from the BMS Research Support Office. We will continue the conversation with your team, your section, or at the coffee machine. Please invite us, we will gladly come to you.

What can you do next?

Are you feeling inspired after reading through this paper and are you wondering what you can do next? Here are four concrete suggestions:

Reflect on your own impact, using the principles in this paper. Even without writing something down, just going through the paper again and relating the principles to your own work may be inspiring and lead to new insights.

Discuss with a colleague or your supervisor/manager. You can use this paper as a starting point of discussion with people around you. Hopefully this paper gives a shared vocabulary to have a fruitful discussion.

Construct your first impact case or impact pathway. You can use the principles and vocabulary in this paper to help you get your own impact pathway concrete. What is your dot on the horizon and what is needed to get there? You can also look back at your work and construct an impact case; a short narrative that makes the impact of a project or line of research explicit. For the latter, a template and support are available at the [BMS Research Support Office](#).

Be proud! This paper shows that impact is achieved through many paths, and your work surely contributes. We hope that the principles and vocabulary in this paper empower you to recognise the impact of your own work and gives you means to make this explicit.

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Image credit

A. *Photograph, page 3*

Sculpture by Jancees van Westering
Photographed by Gijs van Ouwkerk

B. *Figure 1, page 4*

These types of impact are inspired by [University College Dublin](#), best practices and ideas from BMS (e.g., the outcome of the [BMS Impact Inquiry](#)), UT (the [Utilizing our Impact Potential \(UTIP\)](#) program by S&P and SBD, and ITC's capacity building vision), and [work from Erasmus University Rotterdam](#)

C. *Figure 2, page 5*

Visual adapted of the [Impacttool](#) by Dutch National Agency Erasmus+, with imagery changed from mathematical symbols to icons. CC-BY license

APPENDIX

List of all actions.

	Action	Who
a	BMS will facilitate discussions on our intended role in society, e.g., through debates or by taking inspiration from the Recognition and Rewards talk show format	BMS Research Support Office
b	Support will be made available to help staff and groups that want to think about their intended pathway to impact. Tools like impact cases, impact pathways, or tools from other universities can help in this.	BMS Research Support Office <i>Together with:</i> Strategic Business Development (SBD), Strategy and Policy (S&P)
c	Investigate how Team Science can be embedded more closely in current individual-focussed career path conversations. This is a broad conversation, not just in formal career steps, but also general recognition for team efforts.	BMS HR <i>Together with:</i> BMS Research Support Office, BMS Career Committee, Human Resources (HR) Central, Strategy and Policy (S&P)
d	Appreciation should be given to impact-related activities beyond academic impact, this will be explored further together with BMS HR and the BMS Career Committee. <i>Through UTIP, the central UTilizing our Impact Potential program, a “career path framework” is being developed to make these career choices explicit. This will be used as discussion starter.</i>	BMS HR <i>Together with:</i> BMS Career Committees, department and section chairs, theme chairs, and BMS Research Support Office
e	Improve Knowledge Transfer Office offer for BMS and clearly communicate this.	Novel-T <i>Together with:</i> BMS Research Support Office, Marketing & Communication (M&C)
f	Through the BMS Research Support Office, BMS will gladly serve as test ground for newly developed support on public engagement activities, in line with the central ongoing exploration around this topic. This will be done in collaboration with other ongoing initiatives and UT partners	BMS Research Support Office <i>Together with:</i> Strategic Business Development (SBD), Centre for Training and Development (CTD), Novel-T, Strategy and Policy (S&P)
g	BMS will develop an Open Science guide (policy, principles, best practices, to be decided).	Vice-Dean Research <i>Together with:</i> BMS Research Support Office, data stewards, Digital Competence Centre (DCC), Strategy and Policy (S&P)
h	The BMS Research Support Office will overlap its support offer with the Citizen Science Hub and Open Science Community Twente to identify gaps and create support for these gaps	BMS Research Support Office <i>Together with:</i> Citizen Science Hub, Open Science Community Twente, Digital Competence Centre (DCC)
i	The option to implement a carbon budget will be explored, discussion implementation level (section, department, faculty), limits, and influence on the research process	BMS Faculty Board <i>Together with:</i> BMS Research Support Office, researchers connected to climate-positive movements
j	Once BMS serves as a test ground for the partnership evaluation framework in development, support will be made available to guide researchers and teams through the framework	BMS Research Support Office <i>Together with:</i> International Office, Knowledge Safety Team, Marketing and Communication (M&C)
k	Increase visibility of support by the International Office, e.g., with staff exchange and international partnerships	International Office <i>Together with:</i> BMS Research Support Office, Marketing and Communication (M&C)
l	Support will be made available to help staff and groups connect indicators to their own impact pathways, e.g. by providing hands-on guidance in using the UTIP Impact Indicator Instrument	BMS Research Support Office <i>Together with:</i> Strategy and Policy (S&P), Strategic Business Development (SBD)
m	Beyond indicators, tools to narratively reflect on one's impact will be provided, like impact cases. Guidance on using these tools will be provided	BMS Research Support Office <i>Together with:</i> Strategy and Policy (S&P), Strategic Business Development (SBD)