

# GUIDELINES FOR TECHNOLOGY TRANSFER OFFICES

to support Humanities, Arts and Social Science  
Innovation in South Africa

# About this guide

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This guide is the culmination of collaborative efforts under two British Council initiatives aimed at fortifying the innovation framework within South African universities, particularly in Social Sciences, Humanities, and Arts for People and the Environment (SHAPE).

The initial project, spearheaded by Entrepreneurship Development in Higher Education (EDHE), the Human Sciences Research Council (HSRC), and Oxentia, concentrated on enriching the expertise of technology transfer professionals and academic figures across various South African institutions. Oxentia, based in the United Kingdom, conducted an extensive two-week training program, building on prior online courses. A preliminary version of this guide was conceived as one of the significant outcomes of these efforts.

Draft guidelines were co-created by workshop participants from seven South African universities who came together through a “Strengthening Commercialisation Skills programme for Humanities Arts and Social Sciences (HASS).” The residential programme was funded by the British Council of South Africa (BCSA) in partnership with Entrepreneurship Development in Higher Education (EDHE) and the Human Sciences Research Council (HSRC) and is one of the interventions aiming to address high unemployment rates in SA. Participants of this four-month development programme, which ran from December 2022 to March 2023, were a diverse group of academic research staff and technology transfer managers (TTMs) representing seven South African public universities. The residential programme was designed and delivered, and these guidelines were co-created by

a global technology commercialisation and innovation management company, Oxentia Ltd.

The second project was led by the University of Cape Town (UCT) via its Research Contracts & Innovation (RC&I) technology transfer office (TTO) in collaboration with the University of the Western Cape’s TTO and Oxentia. This initiative aimed, among other objectives, to refine and tailor the guide to resonate with the South African context. It sought to bolster the guide with an increased repertoire of local case studies and to curate supplemental toolkits and resources. These materials empower TTOs to facilitate and nurture SHAPE innovation within their research communities.

The guide is aimed specifically at technology transfer professionals. It delves into the nuances and complexities of managing SHAPE innovation, offering a more granular perspective than its counterpart, crafted for researchers, academics, and students within the Humanities, Arts, and Social Sciences (HASS) departments.

This project’s guides and ancillary materials can be downloaded from the Southern African Research & Innovation Management Association (SARIMA) at [www.sarima.co.za](http://www.sarima.co.za) under the ‘resources’ section.

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# 1 What is SHAPE Research Commercialisation?

There are many ways in which academic research benefits societies and the economy, from fundamental research aiming to advance our understanding of ourselves and the world around us to research outcomes or findings that can be developed and applied to enhance our daily lives in some way. Research commercialisation is the latter.

Historically, research commercialisation and technology transfer has been dominated by research outputs from the Science, Technology, Engineering and Mathematics (STEM) disciplines, with a much smaller focus on the Humanities, Arts and Social Sciences (HASS) disciplines. More recently, the HASS disciplines have been brought to the forefront, with the new acronym SHAPE (Social Sciences, Humanities and Arts for People and the Economy)<sup>1</sup> highlighting this importance in society. SHAPE research commercialisation is, therefore, the process by which new or improved products, processes or services derived from SHAPE research are brought to the market. It can also lead to the development and implementation of new policies, legislation or practices, beliefs and perceptions that are underpinned by the knowledge generated through SHAPE research as yet another mode of impact.

The commercialisation process's objective is to deliver sustained social and economic impact based on research outputs. Sustained points towards ensuring that an economically viable means of continuing to make an impact and through ventures, this can create far wider impact than conventional academic channels.

The UK Economic and Social Research Council (ESRC) defines knowledge exchange as “a two-way exchange between researchers and research users, to share ideas, research evidence, experiences, and skills. It refers to any process through which academic ideas and insights are shared, and external perspectives are brought into academia”.

The commercialisation of SHAPE research is typically underpinned by three foundational attributes that facilitate its translation into practical applications:

- **Market Valuable:** The work commands a market presence, evidenced by third parties' willingness to invest in it or engage with it financially, reflecting a tangible valuation of its intellectual property.
- **Utility-Driven:** The scholarly output is not solely theoretical but has a potential or actual application, demonstrating its capacity to address real-world challenges or needs.
- **Collaborative Potential:** The work invites partnership opportunities with external 'industry' entities, which, for this study, includes any organisation poised to utilise the research findings, such as government agencies, non-profit entities, corporations, or other commercial stakeholders.

<sup>1</sup> <https://www.thebritishacademy.ac.uk/this-is-shape/>

# 2 How is SHAPE commercialisation important to SA's economy?

The British Academy articulates the role of SHAPE in the economy well:

“ SHAPE research and skills are particularly valuable in the 21-st century workplace – they are vital to health, wellbeing and prosperity of the nation and to tackle grand challenges. They teach us to analyse, interpret, create, communicate and collaborate with rigour, clarity and energy – critical skills for today. And together with STEM subjects, they help us make innovation work harder for the benefit of everyone. ”

Whilst written for the UK context, the relevance to South Africa is the same. Broadly for the South African government, SHAPE-related research commercialisation can, for instance, include development and educational programmes that aim to determine effective government policy or programmes that focus on health-related topics and disease prevention.

The Department of Science and Innovation (DSI), which has historically had a strong STEM focus, has

recognised the contribution of humanities and social science in its Decadal Plan<sup>2</sup>, where it speaks explicitly to the need to embed this in the National System of Innovation, especially to “compliment discipline-specific knowledge in transdisciplinary studies so that societal grand challenges can be met”.

Humanities and social science (HSS) research inter alia provides insights and understanding that help tackle ethical considerations and the impact and mode of adoption of new technologies. Specific DSI plans

<sup>2</sup> Section 5.6, Decadal Plan insert link

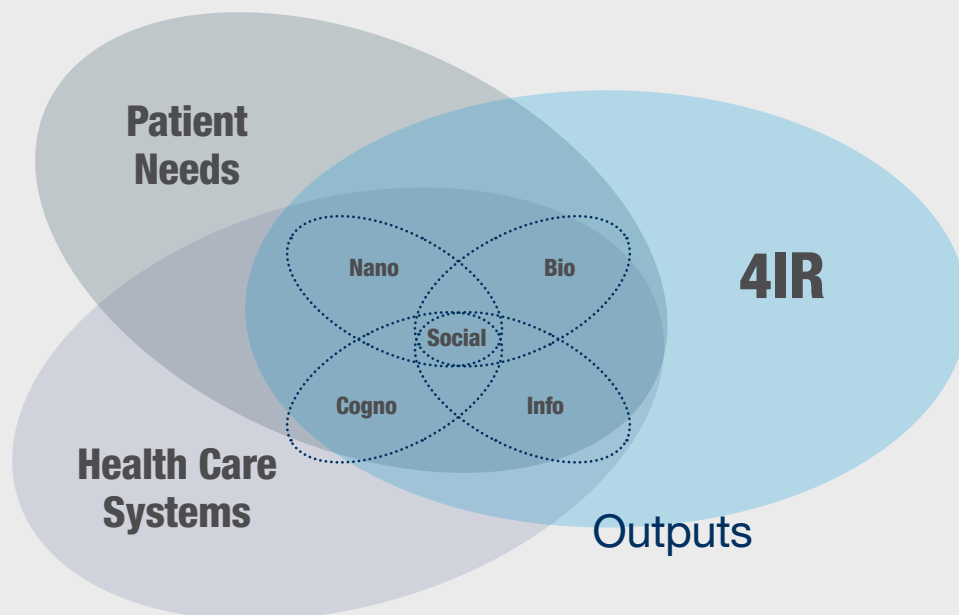
## 2 How is SHAPE commercialisation important to SA's economy?

include ensuring that funding calls enable transdisciplinary inclusion of HSS, understanding the need for 'applied' HSS institutes, and supporting interventions assisting innovation or translation of research into change and development of policy. Digital humanities is also identified as an emerging field that has considerable potential.

Wikipedia defines Digital humanities as "new ways of doing scholarship that involve collaborative, transdisciplinary, and computationally engaged research, teaching and publishing". It brings digital tools and

methods to the study of the humanities, e.g. for the visualisation of large images or data sets and 3D modelling of historical artefacts, in addition to digital archives, etc., that have existed for a while.

The Decadal Plan conceptualises how the convergence of nanoscience, biotechnology, information technology and cognitive and social sciences can impact the health sector, e.g. improved diagnostics, remote disease monitoring and management, new modes of delivery and improved patient experiences and outcomes.



# 3 Why should universities and policymakers engage in SHAPE commercialisation?

Research commercialisation can be a powerful way to achieve widespread, sustainable, positive societal impacts. Here are three reasons why the commercialisation of university-derived research is valuable to universities and policymakers:

## 3.1 For universities to demonstrate the impact of their teaching and research outcomes

Commercialising research conducted in universities can provide a basis for achieving gains in terms of reputation, income, and societal impact. There are three immediate drivers for a university:

### 1. Evidencing Impact and Excellence in Academic Contributions:

Universities can utilise the commercialisation of research as a tangible metric to showcase the societal and economic impacts of their academic endeavours. This process allows institutions to affirm the practical relevance and excellence of their research and teaching outputs. Through commercialisation, universities have the

unique opportunity to translate academic achievements into measurable benefits, reinforcing their stature and credibility in the broader community. Additionally, the revenue generated from commercialisation can be reinvested into the academic ecosystem, providing a sustainable financial model to support the ongoing research and development efforts within the SHAPE disciplines.

In the UK, this process has been driven by the Research Excellence Framework ([www.ref.ac.uk](http://www.ref.ac.uk)), which considers impact case studies as the basis for apportioning government grants to universities. It is a valuable resource for case studies, and one can filter through specific subject areas and view the case studies submitted by different institutions. While this approach has yet to be adopted in South Africa, funders are increasingly looking at the impact of the research they support.

### 3 Why should universities and policymakers engage in SHAPE commercialisation?

#### 2. Bridging the Gap between Academic Research and Market Needs:

Commercialisation bridges the theoretical and empirical research conducted within university walls with the market's and society's tangible needs. This connection validates university research's relevance in addressing real-world problems and positions higher education institutions as vital contributors to innovation and economic development. This alignment is crucial for university policymakers as it underscores academic research's role in driving national and regional innovation strategies.

#### 3. Fostering an Entrepreneurial Culture and Skill Development:

Pursuing commercialisation within the university cultivates an entrepreneurial mindset among students and staff, equipping them with the skills necessary to navigate and succeed in the competitive global market. This prepares a new generation of researchers who are not only academically proficient but also commercially astute, ensuring that the workforce of tomorrow can lead transformative projects with a broad societal reach. For policymakers, supporting such an environment means investing in the future capacity of the nation to innovate and compete on the world stage.

#### 3.2 Contributes to local economic growth and a healthy innovation ecosystem

Successful research commercialisation, for example, via creating a social enterprise, positively impacts the local economy through job creation and attracting and retaining talents to the region.

Examples of how SHAPE research can contribute to economic growth include:

##### 1. Cultural Innovation and Tourism:

SHAPE research can lead to the development of new cultural products, services, and experiences that attract tourism, a significant economic contributor. By leveraging a region's unique cultural heritage and artistic talents, SHAPE initiatives can create new tourist attractions, such as museums, galleries, festivals, and performances. These draw visitors, generate employment opportunities, and stimulate ancillary businesses such as hotels, restaurants, and retail.

##### 2. Educational Development and Skill Enhancement:

SHAPE research contributes to the development of educational content and curricula, enhancing the skill set of the local workforce. This type of research can lead to the establishment of new academic programs, workshops, and seminars that equip individuals with critical thinking, creativity, and analytical skills—traits highly valued in the modern economy. An educated and skilled workforce is more likely to foster innovation, start new businesses, and attract employers looking for talented individuals.

##### 3. Social Enterprises and Non-Profit Organizations:

The outcomes of SHAPE research often align with the goals of social enterprises and non-profits that aim to address societal issues. By translating research into actionable strategies for social improvement, these organisations can drive local economic growth. They create jobs, engage in community development projects, and address local needs, which can lead to improved health, well-being, and productivity among the local population. As these communities become more robust and resilient, they can attract further investment and development opportunities.

# 4 Why would an academic want to commercialise their SHAPE research and how to communicate this to them?

For many HASS research scientists, the overall goal of their research is to have a social impact. They aim to be relevant, influential and connected to their communities.

London School of Economics state “Knowledge Exchange and engagement activities should offer routes to impact, increasing the visibility and accessibility of your research in ways that maximise the change of it making a difference in the world outside academia”.

Below are six examples of the benefits of HASS research commercialisation to the individual academic researcher:

1. Leads to sustainability and diversification of your research funding

Income generated from research commercialisation can benefit both the individual and the University. It can not only financially benefit the academic researcher personally but also sustain and develop teaching, research, and student work carried out at the University. In this way, setting up a new business or a social enterprise can achieve sustainable and long-term impact.

2. Personally rewarding

Making a difference in the world is often a strong driver.

## 4 Why would an academic want to commercialise their SHAPE research and how to communicate this to them?

The commercialisation of SHAPE-related research is often based on mission-driven solutions for social problems and addresses pressing socio-economic challenges such as high unemployment, poverty and inequality in South Africa. It can be very personally rewarding to see your research directly impacting people's lives.

### 3. Developing new career pathways

Research commercialisation from HASS can broaden horizons for career opportunities by empowering individuals to identify different career pathways, such as stepping into industry or consulting businesses, moving from research into industry, creating new ventures, and other opportunities within the innovation ecosystem.

### 4. Provides valuable professional development opportunities

Participating in HASS research commercialisation benefits the development of new skills acquired during the commercialisation stages and ultimately helps to grow professionally.

### 5. Personal financial benefits

While research commercialisation cannot guarantee income, there may be financial returns from starting a new business or social enterprise that academic research staff and students help to create.

### 6. Creating networks with future collaborators and funders

Through creating and consolidating networks with collaborators and funders, researchers can engage with

target populations to learn what matters to them. This new knowledge can then feed back into their research, benefiting the university.

## 4.1 Communicating with SHAPE Researchers

Communicating commercialisation or innovation to a SHAPE researcher involves a thoughtful approach, considering the unique characteristics of their field and possibly an unfamiliarity with commercialisation. Here are some strategies to effectively engage with them:

### 1. Understand Their Context:

- **Know Your Audience:** Recognize that SHAPE researchers have diverse backgrounds and interests. Tailor your message to match their knowledge level, using appropriate terminology.
- **Appreciate Interdisciplinary Perspectives:** SHAPE fields often intersect with other disciplines. Acknowledge this interdisciplinary nature and highlight how commercialisation can benefit their work.

### 2. Highlight Relevance:

- **Connect to Real-World Impact:** Emphasize how commercialisation can translate their research into tangible outcomes. Discuss potential applications, societal benefits, and economic value.
- **Share Success Stories:** Showcase examples of successful commercialisation within SHAPE disciplines. Highlight how innovative ideas have transformed into practical solutions.

## 4 Why would an academic want to commercialise their SHAPE research and how to communicate this to them?

### 3. Provide Practical Support:

- **Knowledge Transfer Partnerships (KTP):** KTP programs encourage collaboration between researchers and businesses. These partnerships facilitate knowledge exchange and commercialization<sup>3</sup>.

### 4. Create a Community:

- **SARIMA SHAPE Community of Practice (CoP):** Join the CoP, which operates under the auspices of SARIMA, a network of TTOs and Research Managers focused on SHAPE commercialisation. It provides a platform for sharing ideas, best practices, and collaboration.
- **Online Festivals and Networking:** Engage SHAPE researchers in virtual events and forums. Foster connections and allow them to find their “tribe” of like-minded individuals.

### 5. Use Clear Communication Channels:

- **SHAPE Toolkit:** Use the Toolkits developed as part of this project. They cover research commercialisation, business engagement, knowledge exchange, and student entrepreneurship programs<sup>5</sup>.
- **Webinars and Workshops:** Organize sessions specifically addressing commercialisation for SHAPE researchers. Provide practical guidance and answer their questions. Standard slide sets have been developed alongside this guide and are available for you to download from the SARIMA website ([www.sarima.co.za](http://www.sarima.co.za))

Remember, effective communication involves active listening, empathy, and a genuine interest in the work. By bridging the gap between research and commercialisation, we can unlock the full potential of SHAPE disciplines.

## Source(s)

1. How Aspect advances SHAPE commercialisation - Aspect
2. What support you can get to commercialise – UKRI - UK Research and ...
3. The Aspect Toolkit: Resources to Enable SHAPE Commercialisation
4. Engage researchers with commercialisation | Best Practices Webinar
5. Tips for effectively communicating your research’s impact

# 5 What is the role of Technology Transfer Offices in SHAPE research commercialisation?

TTOs at universities serve as intermediaries between academic research and commercial and societal applications. Their primary role is facilitating the transfer of knowledge, technology, and intellectual property (IP) from university researchers to the broader society, including industry, startups, and the public sector. They play a crucial role in bridging the gap between academia and society, facilitating the translation of university research into real-world applications that benefit society and the economy. By supporting innovation, entrepreneurship, and knowledge exchange, they help universities fulfil their mission of advancing knowledge and driving societal impact while supporting academic researchers in maximising the impact of their research.

Historically, TTOs have focused on supporting the commercialisation of STEM research and, as such, have well-established processes that are specific to this. However, these processes and methodologies are often not fit for purpose for the commercialisation of SHAPE research or interdisciplinary STEM/SHAPE research.

In the foundation stages of setting up SHAPE commercialisation, there are three roles that TTOs will need to fill:

1. Cultivation of Business Development, Education, and Awareness:

TTOs are responsible for nurturing an understanding of technology transfer within the SHAPE community. They must educate researchers about the potential applications of their work and guide them through the commercialisation process. This involves organising workshops, seminars, and training sessions to increase awareness of how SHAPE research can be transformed

## 5 What is the role of Technology Transfer Offices in SHAPE research commercialisation?

into marketable products, policies, or services. TTOs also aid researchers in identifying the commercial value of their work, which in turn fosters a culture of innovation and entrepreneurship.

### 2. Fostering Industry Collaborations and Licensing:

TTOs are pivotal in building bridges between SHAPE researchers and industry partners. They actively seek collaboration opportunities, facilitate networking, and negotiate licensing agreements allowing external entities to utilise university-held IP. These efforts aim to ensure that the research outcomes from SHAPE disciplines find practical applications and are successfully integrated into the market, leading to beneficial partnerships and innovations that have a tangible societal impact.

### 3. Securing Commercial Funding and Spin-Out Support:

For SHAPE research to leap from concept to company, TTOs are essential in obtaining commercial funding and providing the necessary support to create spin-out companies. They assist in developing business plans, pitching to investors, and navigating the complexities of startup creation. By securing financial backing and offering ongoing support, TTOs help translate the creative and intellectual capital of SHAPE research into sustainable business ventures that contribute to the economy and culture.

## 5.1 Monitoring Impact

Commercialising SHAPE research presents a unique opportunity to generate economic and social value.

Engaging with global standards setters like Social Value International and the Social Enterprise World Forum, alongside leveraging insights from the Human Sciences Research Council and the ASPECT<sup>3</sup> platform, provides a rich foundation for assessing and enhancing this impact.

A recent online AUTM forum discussed the challenges and methodologies for measuring the value and impact of social innovations and social enterprises facilitated by TTOs. The following points were made:

**Measuring Value and Impact:** Traditional transaction metrics used for STEM projects do not easily apply to social innovations. New approaches are needed.

**Demonstrating Value and Impact:** This can be achieved by showing how the work benefits the audience, using stories to humanize projects, and presenting metrics to showcase substantial volume and scope across the country.

**Comparison of STEM and Social Innovation Impact:** Examples from Florida State University illustrate the impact of both STEM (Taxol drug) and social innovation (helping unwed teen mothers) projects. The extrapolation suggests that social innovations, when scaled up, can impact as many people over time as STEM products.

**European Perspective:** The UK, is highlighted for its advanced understanding and tracking of social innovation impact.

**Challenges and Considerations:** Metrics for social innovations may vary for each project and need to be tailored accordingly. The distinction between for-profit and for-purpose businesses is blurred, especially at the early stage.

<sup>3</sup> <https://aspect.ac.uk/>

## 5 What is the role of Technology Transfer Offices in SHAPE research commercialisation?

**Impact Measurement:** While metrics and statistical data are important, storytelling is emphasized as a powerful tool for communicating impact, especially to the general public and politicians.

**Need for Research:** There is a need for more research into measuring the impact of social innovations.

Overall, the discussion underscores the importance of rethinking traditional metrics and adopting more nuanced approaches to measure and communicate the value and impact of social innovations facilitated by TTOs.

John Fraser, who started the AUTM discussion, published a useful article<sup>4</sup> in the Licensing Executives Society journal regarding the emerging role of TTOs in facilitating TTOs and SHAPE commercialisation. He discussed appropriate metrics in the paper too and of particular note, the potential to use the 17 Sustainable Development Goals (SDGs) for impact. He states "... SDGs are more community-based, less transactional, and more appropriate for Social Enterprises.

As part of the online discussion, Fraser presented an analysis of a typical STEM impact study and then a similar approach for a SHAPE case study. This is presented in the box.

John Fraser compares two Florida State University cases, one STEM and the other SHAPE innovation, to show how Social Innovations affect as many people as STEM products over time.

### A STEM Example: the TAXOL DRUG

In 1996, FSU and Bristol Myers Squibb (BMS) signed a second License agreement to transfer Professor Bob Holton's manufacturing method to create the drug. In 2009, I asked my BMS contact (VP & Senior Counsel, Charles Linzner) to tell me about the Impact of using the FSU semi-synthesis licensed technology to manufacture their Taxol Drug. He responded:

- In the first 5 years (1996-2001), the Drug was used by 2 million women in their fight with breast and ovarian cancers;
- Of the \$800 charged for each infusion of Taxol in the patient (usually covered by health insurance),

one half of one cent (\$0.01) of the \$800.00 was used to pay the FSU royalty of 4.25% of the BMS sales price.

- (In the US, the distribution chain is that BMS sells (the royalty is applied here), the ready-to-use Drug vial to McKesson a drug wholesaler; who sells to Hospital buying groups; who sell to Hospitals, who sell to the Patient – each adds their own profit as they pass it along).

FSU technology was used by BMS for 9 years before they switched to a fermentation manufacturing technology (from a start-up founded by Cornell faculty).

**Extrapolation:** The FSU processed Taxol drug, if used for the 15-year life of the Patent (after FDA approval) affected say 2 million women per year globally X 15 years = 30 million women directly and 4 times that in terms of family members indirectly

<sup>4</sup> Frazer, J.A. and Fisher, R.S. (2022) The Emerging Role of University TTOs In Facilitating Social Enterprises: 'Identifying New Sources of Creativity And Mobilizing Knowledge And Resources To Address Societal And Community Problems' *LES Nouvelles*, p 228-236

## 5 What is the role of Technology Transfer Offices in SHAPE research commercialisation?

(120million). A lower estimate is: 1.5 million women/year globally X 10 years after FDA approval (Taxol approval by the FDA was faster than average) = 15 million women directly. And 4 times that in terms of family members (60 million) indirectly.

### A SOCIAL INNOVATION Example: FSU HELPING UNWED TEEN MOTHERS

The Florida State University 'Center for Prevention & Early Intervention Policy (CPEIP)' created a curriculum to help train Social Workers to help unwed teen women gain the confidence to prepare for their first birth, and then raise a successful family (see [cpeip.fsu.edu/phb/](http://cpeip.fsu.edu/phb/)). The Curriculum consisted of face-to-face Workshops with Workbooks for the Social Workers containing materials to share with the pregnant women.

I asked CPEIP Director Mimi Graham to provide me with information similar to the Taxol information. She responded: 'During one recent state fiscal year (July 1, 2018 – June 30, 2019), 22,395 curriculum Workbooks books were sold, most connected to a Workshop and an estimated 4.5 million pregnant clients have been exposed to the curriculum, and approximately 112,000 home visiting program staff members have benefited from the use of the curricular materials. This is roughly 40 women per Social Worker trained/year. In addition, we know anecdotally that some families shared their Parent Handouts (from the Workbooks) with neighbors and other families. The sale of the curriculum started in 1999, i.e. 24 years ago.'

The distribution chain is: CPEIP trainers 'train the

trainers'; who then train home visiting program staff members (Social Workers); who then work directly with the unwed teen women (and their support families).

**Extrapolation:** The Curriculum has been used for 24 years with no end in sight (no national patents are involved, as the materials are copyright protected). To estimate the Impact, let's use 12 (of the 24) years of use at an average of 50% of current rate of training social workers, then calculate the next 12 years at 100% of the current rate:  $12 \times (@50\% \text{ of } 112,000) = 672,000 + 12 \times 112,000 = 1,344,000$  million = 2,016,000 total home visiting program staff (Social Workers) directly. For every 112,000 staff trained directly, there are 4.5 million unwed pregnant teen women as clients. Thus  $112,000 \times 4.5\text{million} \times 12 + 112,000/2 \times 4.5\text{million} \times 12 = 81$  million unwed teen women impacted directly over 24 years. This is very likely a high-end estimate.

Like the Taxol patients, one could increase the calculated impact by estimating immediate family (parents, sisters, brothers etc.). But that will not be done here.

### CONCLUSION

For Taxol, 15million (lower range) to 30 million (higher range) women were directly impacted. For The CPEIP curriculum 81 million women were directly impacted (high-end range) over 24 years. A favorable calculation for a 10-year period or a 15-year period for CPEIP (like Taxol) yields a calculation of either 33 million or 50 million women directly impacted.

## 5 What is the role of Technology Transfer Offices in SHAPE research commercialisation?

Three practical tips for TTMs to evaluate impact:

### 1. Adopt a Framework for Measuring Social Impact:

- Utilise existing frameworks and standards for social value measurement, such as those set by Social Value International, to establish clear metrics for impact assessment.
- Identify key indicators of social impact that are aligned with the research commercialisation venture's objectives and relevant to the stakeholders involved.

### 2. Engage with Impact-focused Organizations for Insights and Resources:

- Collaborate with organisations such as the UCT Bertha Centre to access case studies, resources, and tools that can assist in evaluating social impact.
- Participate in workshops and training sessions provided by these organisations to stay informed about the best practices in social impact measurement.

### 3. Integrate Impact Metrics within University Strategy and Reporting:

- Ensure the impact metrics align with the university's broader strategy, enabling a cohesive approach to measuring research commercialisation outcomes.
- Incorporate social impact assessment into regular reporting structures, using it as a key component of post-deal management to track progress and guide business development activities.

- Use the social impact data to inform negotiations and highlight the venture's contributions to societal goals. This can strengthen partnerships and open new opportunities for funding and collaboration.

### 4. Demonstrating Value and Impact Through Storytelling:

- Complement statistical data with compelling narratives illustrating how SHAPE innovations tangibly benefit individuals and communities.
- Leverage the persuasive power of stories to engage a diverse audience, from the general public to policymakers, highlighting the human element behind the numbers.

### 5. Adapting Traditional Metrics for Social Enterprises:

- Recognise the limitations of conventional STEM project metrics when applied to social innovation and develop tailored measures that reflect the unique outcomes of social enterprises.
- Explore new methods of valuation that account for the broader societal impact, which may extend beyond immediate financial returns.

### 6. Advocating for Impact-Focused Research Funding:

- Encourage initiatives to commission research that quantifies the societal impact of commercialised SHAPE research.
- Support academic inquiries that seek to translate qualitative benefits into quantifiable metrics, which can inform future strategy and policy.

# 6 Intellectual property and its importance for SHAPE research commercialisation?

Ideas and knowledge are IP assets that can be protected in various ways, as illustrated in this guide. It is “intellectual” because it is creative output, and it is “property” because it is considered a tradable commodity. It can be an invention (protected by patenting), a design (design registration), a literary or artistic work (copyright), a symbol, a music jingle or even a distinctive smell (trademark). Research projects from HASS-related subjects typically generate IP assets such as copyrights, designs or brands (trademarks).

From a university’s perspective, the creation of IP is an essential aspect of its teaching, research, and knowledge exchange strategies, which in turn align with national policy and strategy. Since IP is an asset that may have commercial value, most often originating from publicly funded research, a university has a responsibility to ensure that it is managed effectively for the good of the University and wider society.

IP ownership is dealt with in an institution’s IP Policy, and these differ from institution to institution, as does the ownership of IP emanating from research; e.g. some institutions may claim copyright. In contrast, others may assign the rights to the authors. Creative works may be owned by the IP creator rather than the institution, and HASS researchers must be clear on the terms of the IP Policy at the institution at which they work.

It is in the best interests of the university and individual academic researchers to control who gets to use IP derived from educational research and how that IP is used. For example, specific local knowledge is a valuable IP form. Through the correct protection strategies, those who developed and supported the creation of this IP should be able to control who has access to the IP and who benefits from its commercialisation. In the table below, we have provided some examples of the different existing types of IP assets and IP rights. For SHAPE commercialisation, one of the most important

## 6 Intellectual property and its importance for SHAPE research commercialisation?

considerations is the freedom to operate or use the IP on which your idea is based in the marketplace. Developing a brand around the core IP is much more important at an earlier stage for SHAPE innovation than in STEM.

Furthermore, Technology Transfer Managers (TTMs) are adept at leveraging IP as a strategic asset to drive the commercialisation process. Through their expertise, TTMs can harness three key drivers to navigate the journey from creative concept IP to market reality effectively:

### 1. IP as a Navigational Tool for Ownership and Rights:

IP is crucial for TTMs as it provides a clear framework to delineate ownership rights among academics, the university, and potential external investors. This clarity is vital for negotiating agreements that respect the contributions of all parties and ensure a fair distribution of benefits derived from commercialised research. It also establishes a basis for TTMs to engage in discussions with stakeholders about the value of the research and the potential returns on investment.

### 2. Tailored IP Protection Strategies:

The role of a TTM includes crafting IP protection strategies specifically tailored to the nature of the SHAPE research output. For instance, artistic works and musical compositions are safeguarded by copyrights, while trademarks protect distinctive symbols or brands associated with the research. These strategies are not one-size-fits-all; they must be carefully developed to suit the particular type of creative output, ensuring optimal protection and commercial viability.

### 3. Facilitating Product Development and Layering:

TTMs play a significant role in understanding and guiding the development process that builds upon the original form of the IP. They must comprehend the various layers of product development to commercialise SHAPE research effectively. This involves recognising the potential applications and iterations of the original IP, advising on the development of prototypes or services, and exploring various market opportunities. The TTM must also anticipate future IP needs, such as subsequent versions or extensions of the original creation, which requires a deep understanding of both the creative process and market demands.

## 6 Intellectual property and its importance for SHAPE research commercialisation?

| IP ASSETS & RIGHTS | FOR WHAT                               | HOW                                                | LENGTH                                                 |
|--------------------|----------------------------------------|----------------------------------------------------|--------------------------------------------------------|
| Patent             | New Inventions                         | Application and Examination                        | 20 years                                               |
| Copyright          | Original Creative or Artistic Forms    | Exists automatically                               | Life +50 years (variations in different jurisdictions) |
| Trademark          | Identification of Products or Services | Use and/or Registration                            | Indefinitely (renewed every 10 years)                  |
| Registered Design  | External Appearance                    | Registration                                       | Max 15 years                                           |
| Trade Secret       | Certain methods, source code, etc...   | Employee Contracts/ Confidentiality Agreements     | Until no longer secret                                 |
| Know-how           | Information, skill, expertise          | Recorded in any form or kept in memory of inventor | Until it is discovered (may not necessarily be secret) |

### Source(s)

Intellectual Property Guide South Africa 2016, Government UK

Thomson Reuters Practical Law, "IP rights in South Africa: Overview"

NIPMO SA Act No.51: Intellectual Property Rights from Publicly Financed Research and Development Act, 2008.

## 6 Intellectual property and its importance for SHAPE research commercialisation?

### 6.1 Copyright

Copyright law is complex, with many country-specific nuances to how it is managed (e.g., duration in South Africa is the life of the author + 50 years, whilst in Europe and the USA it is +70 years). Copyright also tends to play a more prominent role in SHAPE innovation than in STEM, where patents are more dominant. Technology transfer professionals may need to upskill in copyright when looking to support researchers in SHAPE innovation.

One can appreciate the complexity associated with films, for example, where copyright is the linchpin of the enterprise; think of the credits that roll at the end of a movie and the different people mentioned. It is a collaborative endeavour with layers of rights – consider performers, the film itself, music, the screenplay, the book on which the film was based, characters (think James Bond), dubbing, and subtitles. Then, one overlays commercial contracts such as distribution, trademarks, merchandising, or placement rights where manufacturers pay for their product to be shown in the film. In their deal with Heineken – reported to be worth an estimated \$45m – the producers of the Bond movie Skyfall (2010) covered almost one-third of the film's production costs by showing James Bond drinking their beer in a scene.

Fortunately, the World IP Organisation (WIPO) has developed valuable resources such as the WIPO Review of Contractual Considerations in the Audiovisual Sector ([https://www.wipo.int/export/sites/www/copyright/en/docs/review\\_of\\_contractual\\_considerations\\_in\\_av\\_sector.pdf](https://www.wipo.int/export/sites/www/copyright/en/docs/review_of_contractual_considerations_in_av_sector.pdf))

As well as **From Script to Screen From Script to Screen (second edition) (wipo. int)**

This is an excellent training guide that details all the aspects, steps and players involved in making and commercialising films and benefit share.

Artificial Intelligence (AI) is having a significant impact on the Arts, and WIPO and Bjorn Ulvaeus (ABBA) have created an online platform called “CLIP” to empower artists to protect their IP rights. CLIP stands for Creators Learn Intellectual Property (<https://goclip.org/en/>).

AI has been trained on the artworks of specific artists, and then AI creates new artwork in the artist's style, which causes significant damage to the creative when this is done without their consent, credit, or compensation. Various technologies have been developed to prevent the training of AI systems, such as Glaze, created by the University of Chicago (<https://glaze.cs.uchicago.edu/what-is-glaze.html>). Glaze uses machine learning to alter an artwork, making minimal changes that are invisible to the human eye but making the AI think that it is a radically different ‘disrupting’ its training so that it cannot produce works mimicking the artist.

# 7 How does SHAPE commercialisation differ from STEM commercialisation?

Compared to STEM-related subjects, the commercialisation of SHAPE comprises more know-how-based innovations than patents, as it is not necessarily based on technology. In addition, the commercialisation of SHAPE academic research comes with challenges, such as promoting awareness and opportunities for commercialisation.

The table below summarises the main differences between SHAPE commercialisation and STEM commercialisation from the perspectives of the academic research staff and TTO.

## 7 How does SHAPE commercialisation differ from STEM commercialisation?

| STEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HASS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEM academic research staff:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HASS academic research staff:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>• The IP is often protected by patents – can take many years to obtain</li> <li>• Technology more likely to have a long development time, requiring sustained funding and time commitments</li> <li>• Typically, high costs involved in protecting IP and developing the technology</li> <li>• Although more costly to support, the financial returns tend to be greater in the long term</li> <li>• Strength of the IP often makes route to market decisions clearer</li> <li>• Impact is measured in terms of classic metrics such as job creation and financial return</li> <li>• More likely to be a for-profit spin-out</li> </ul> | <ul style="list-style-type: none"> <li>• The IP rarely involves patents - mostly includes copyright, design rights and brands</li> <li>• Product/service development time is usually quick</li> <li>• IP and project development costs are typically low</li> <li>• Driven even more strongly by market need and the value proposition</li> <li>• More time is needed to be spent by you and the Commercialisation Team to shape the idea initially</li> <li>• Development of your brand is key to the IP strategy and so needs consideration much earlier on</li> <li>• Freedom to operate assessment may be more complex due to the types of underlying IP</li> <li>• There is more of a social driver to Social Sciences commercialisation</li> <li>• More likely to have difficulties around scaling and growth</li> <li>• Route to market decisions may be less clear due to underlying IP type</li> </ul> |
| TTO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TTO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• Budgetary constraints can limit numbers of projects that can be supported</li> <li>• Time and effort dedicated to developing IP /patent strategy</li> <li>• Typically, IP considerations for products and brands passed on to licensee or Spin-outs</li> </ul>                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• Costs have less impact on portfolio management</li> <li>• Project selection tends to be more dependent on academic availability</li> <li>• IP due diligence focuses on identifying what IP is needed for the commercialisation, and ensuring access to the IP</li> <li>• Time to market is fast, and IP considerations can go beyond protecting the IP and include building the brand</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

# 8 How can SHAPE work with STEM to maximise innovation?

One should take care not to consider SHAPE and STEM as two separate endeavours as often one sees STEM supporting HASS innovation (e.g. graphic displays, new inks, analytical techniques that can be used to determine whether an artwork is fake, protection of artistic works from AI learning, software, etc.) but SHAPE plays a particularly crucial role in supporting STEM. Social Science plays a critical role in the adoption of new technologies and understanding their impact on society, such as through:

## 1. Understanding User Behaviour:

- Social science research helps us comprehend how individuals and groups interact with technology. We gain insights into what drives technology adoption by studying human behaviour, preferences, and motivations.
- Researchers analyse cultural norms, social networks, and peer influence. Understanding how social circles impact technology choices can guide developers and policymakers.

## 2. User-Centered Design:

- Social science informs user-centered design. By involving users in the development process, we create technology that aligns with their needs and preferences.
- Techniques like ethnographic studies, surveys, and focus groups allow us to gather user feedback. This iterative approach ensures that technology is usable, accessible, and relevant.

## 8 How can SHAPE work with STEM to maximise Innovation?

### 3. Addressing Resistance and Barriers:

- Technology adoption often needs to improve. Social science helps identify psychological, cultural, or economic barriers that hinder adoption.
- Strategies to overcome resistance include education, awareness campaigns, and tailoring technology to fit existing practices.

### 4. Policy and Regulation:

- Social science informs policy decisions related to technology adoption. It considers ethical, legal, and societal implications.
- For instance, regulations around data privacy, cybersecurity, and digital inclusion are shaped by social science research.

### 5. Change Management:

- Implementing new technology requires managing change within organisations and communities. Social science provides tools for effective change management.
- Understanding stakeholders' perspectives, communication strategies, and training programs are essential for successful adoption.

### 6. Predictive Models:

- Social science contributes to predictive models. We can forecast how new technologies will diffuse by analysing historical adoption patterns.
- For example, the Diffusion of Innovations theory explains how innovations spread through society.

In summary, social science bridges the gap between technology and human behaviour, ensuring that innovations are technically sound, socially accepted, and impactful<sup>1 2 3 4</sup>.

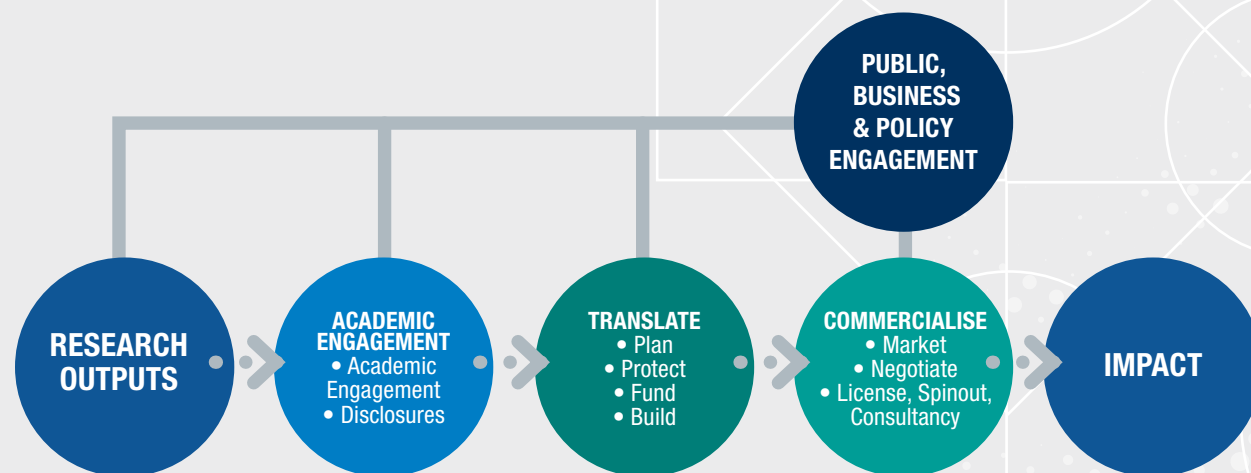
## Source(s)

1. Social influence in technology adoption: taking stock and moving ...
2. Learning Theories and Technology Adoption Models: A Review
3. 6. CHAPTER 6: ADOPTION OF TECHNOLOGY - University of Pretoria
4. Where Technology and Intelligence Meet the Social Sciences

# 9 How to commercialise SHAPE research

There are many different ways to commercialise SHAPE research. IP created at universities is typically commercialised either by licensing it to an existing third party, such as a company or organisation, or by creating a new business or social enterprise that will use the underlying IP to offer products and services directly to customers. The different vehicles to facilitate commercialisation are discussed in section 10.

The typical steps in the SHAPE innovation process are shown in the figure and each step is discussed in more detail below.



## Research outputs

Academic research staff continuously produce research outputs, some of which could be translated into business ideas. They can also use their expertise and knowledge derived from their research to benefit a particular community or community.

From the university's perspective, academic research staff are encouraged to explore the possibility of using their research-derived expertise and knowledge to benefit specific communities or societies more widely. Academic research staff members with ideas derived from their research are encouraged, especially within SHAPE disciplines, to commercialise their research outputs; however, they often need help figuring out where to start.

## 9 How to commercialise SHAPE research

### Practical tips when evaluating research outputs and designing research project for impact at the outset:

1

#### Document and Protect Emerging Ideas:

- Record all the academic research ideas, processes, and outputs meticulously. Forms part of the invention disclosure form (IDF). It has been noted that many in the HASS disciplines may not readily identify with the term "invention" and one may want to amend the form and its title for use in HASS, e.g. "Opportunity Description Form"
- Understand how to protect the intellectual property that may arise from your research.
- Consider the different forms of IP protection that could apply to academic work, such as copyright for written works or trademarks for brands and symbols.

2

#### Market Awareness and Networking:

- Conduct preliminary market research to identify current trends, needs, and gaps your research could address.
- Build a network of contacts in industries related to the academic research area. This can include attending conferences, engaging with industry experts on social media, and participating in university-industry partnership events.
- Stay informed about the commercial landscape by subscribing to relevant industry publications, databases, and news feeds

3

#### Early-Stage Funding for SHAPE Research

- Map out potential funding sources tailored to the humanities and social sciences, such as arts councils, social science research grants, cultural heritage funds, and humanities endowments. Understanding the landscape of available funding is crucial for identifying opportunities that align with the research themes.
- Craft compelling grant applications that articulate the innovation and societal value of the SHAPE research. Emphasise the potential impact on cultural advancement, social policy, or economic development to appeal to the objectives of potential funders.
- Consider crowdfunding or community-based funding platforms, particularly for projects with clear social or cultural resonance. These platforms can provide initial capital and validate the interest in the project from a broader community perspective.

## 9 How to commercialise SHAPE research

### Three practical tips that could facilitate effective collaboration:

- 1 **Develop a Mutual Understanding of Commercial Potential:**
  - Host workshops or seminars that educate SHAPE researchers about the commercialisation process, including the significance of intellectual property, market analysis, and the steps towards commercialisation.
  - Use case studies of successful SHAPE research commercialisation to illustrate potential pathways and outcomes, helping researchers visualise the process and benefits.
- 2 **Foster Collaborative Relationships:**
  - To support the commercialisation journey, create interdisciplinary teams that include SHAPE researchers, business development experts, and legal advisors.
  - Encourage regular meetings and open communication channels among researchers and the TTO to ensure goal alignment, process clarity, and a sense of shared endeavour.
- 3 **Support and Resources:**
  - Provide resources for feasibility studies or market research to validate the commercial viability of research outputs.
  - Provide assistance in identifying and applying for grants, such as innovation funds or entrepreneurship awards, designed to support the early stages of commercializing research.

## Academic Engagement

It is essential for professional staff supporting research commercialisation at their university to invest time towards academic engagement with SHAPE academic research staff to increase their awareness of SHAPE research commercialisation and the support they can offer them. This means making themselves visible and approachable to academic staff, holding informative events locally within departments or faculties, and perhaps identifying individuals within these faculties who may act as 'champions' of research commercialisation.

This will increase the probability that researchers with ideas or innovations suitable for commercialisation will engage with the TTOs. For SHAPE commercialisation, especially, it's important to start that initial conversation early on (compared to STEM) to spend more time shaping the idea.

## Translate

After evaluating the idea's commercial potential (including IP ownership), the TTO will advise whether to continue the commercialisation journey and initiate steps to discuss a suitable IP protection strategy. For SHAPE, the IP strategy will most likely be non-patent focused and may 'evolve' and happen later on as the idea is developed further. Freedom to operate or the ability to sell a product and service on the market is also assessed at this point.

In this step, the idea is developed into a product and service available on the market. This includes technically refining what the new business or social venture will do and how (its value to its customers and how they can be reached). Compared to STEM, SHAPE innovations tend to be more 'people-based', requiring more of the academic researcher's time and expertise and involving brand-building around themselves and their market offering, usually at a much earlier stage compared to STEM. At this point, translational funding or proof-of-concept funds are required for prototyping and other development activities.

## 9 How to commercialise SHAPE research

### Three practical tips focused on proof of concept and early-stage testing

1

#### Integrate the Researcher's Expertise and Personal Brand:

- Recognise that SHAPE innovations are often closely tied to the individual researcher's expertise and reputation. Develop a plan to build a personal brand around the academic that aligns with the research's commercial potential.
- Involve the researchers in public speaking, publishing, and community engagement activities that raise their profile and, by extension, the profile of the research output.

2

#### Craft a Compelling Narrative for Proof of Concept:

- When securing translational funding or proof-of-concept funds, create a compelling narrative that conveys the unique value of the SHAPE research. Highlight its potential impact, feasibility, and the difference it could make to target communities or markets.
- Storytelling and case studies make the research relatable and understandable to non-academic stakeholders and funders.

3

#### Develop and Test Prototypes in Real-World Settings:

- Develop prototypes or pilot projects for physical or experiential outputs that can be tested in real-world settings. This could include performances, workshops, or trial runs of social interventions.
- Gather feedback from early users or participants to refine the offering. Pay particular attention to the user experience and the service component, which is often critical in SHAPE initiatives.
- Consider using lean startup methodologies like Minimum Viable Product (MVP) or small-scale service deployments to test the market's response.

## 9 How to commercialise SHAPE research

Here are practical tips for commercialisation:

### 1 Refining the Business Model:

- Work with researchers to refine the business model that best captures the value of the SHAPE research. This involves deciding whether the model will be based on direct sales, licensing, subscription, or a combination thereof.
- Determine pricing strategies that reflect the value of the intellectual property to the end users while remaining competitive within the market.
- Develop a clear go-to-market strategy that outlines the channels through which the product or service will be promoted and sold.

### 2 Building the Core Team and Leadership:

- Identify individuals within or connected to the research team with the entrepreneurial spirit and skills necessary to drive the venture forward. This may include looking for potential CEOs, managers, and board members with a track record of business success in related fields.
- Consider the team's composition regarding skills, experience, and diversity to ensure a well-rounded perspective on business development.
- Foster a culture of innovation and adaptability within the team. This is particularly important for SHAPE ventures, where the market can be more fluid and less predictable.

### 3 Navigating Market Entry:

- Conduct extensive market analysis to validate the demand for the product or service and understand the competitive landscape.
- Develop a marketing plan that leverages the unique aspects of SHAPE outputs, such as their cultural or social significance, which can resonate strongly with customers.
- Establish key partnerships with stakeholders, community organisations, or industry players who can aid in the venture's launch and growth. These partners can provide market insight, customer access, and additional resources.

## Commercialise

By this point, it is essential to have identified the core concept and the definition of the venture's purpose. Networks, investors, and collaborations are crucial for this step. At the market validation stage, valuable feedback is sought from potential end users and beneficiaries of the product or service to improve further and develop the offering. Valuable customer feedback further enhances and develops the business that supports setting up a licence agreement or a new venture.

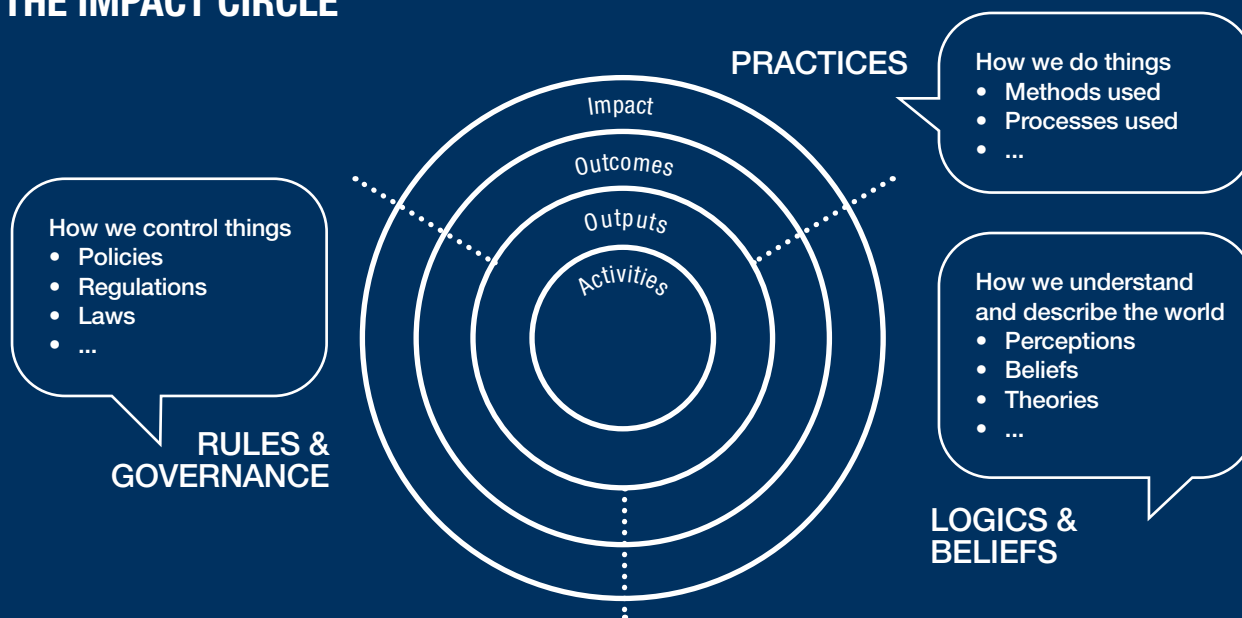
Suppose the chosen marketing route is to create a spin-out company or social enterprise. In that case, this step will include identifying a suitable CEO, forming the new company's core team and board of directors, securing investment, and engaging external partners that the new company will need, such as legal and financial services.

### Public, Business and Policy Engagement

SHAPE research has the potential to benefit the broader society through other forms of knowledge exchange – i.e. impact beyond products and services. As illustrated in the research commercialisation diagram above, there may be opportunities for the academic research staff and the TTO to engage in other forms of Technology Transfer (TT) along the commercialisation process. The boundaries between research commercialisation and different types of TT are typically less well-defined for Social Sciences research.

SHAPE innovation can also change policy, practices, logic, and beliefs, as shown in the Impact Circle below, developed by Jesper Vasell (previously Chalmers University of Technology, Sweden) and adapted by Jaci Barnett (Oxentia). One can imagine the concentric circles as ripples caused by a stone falling into a pond. The activities are undertaken within a particular project, leading to outputs. Outputs, outcomes and impact reflect change at different levels.

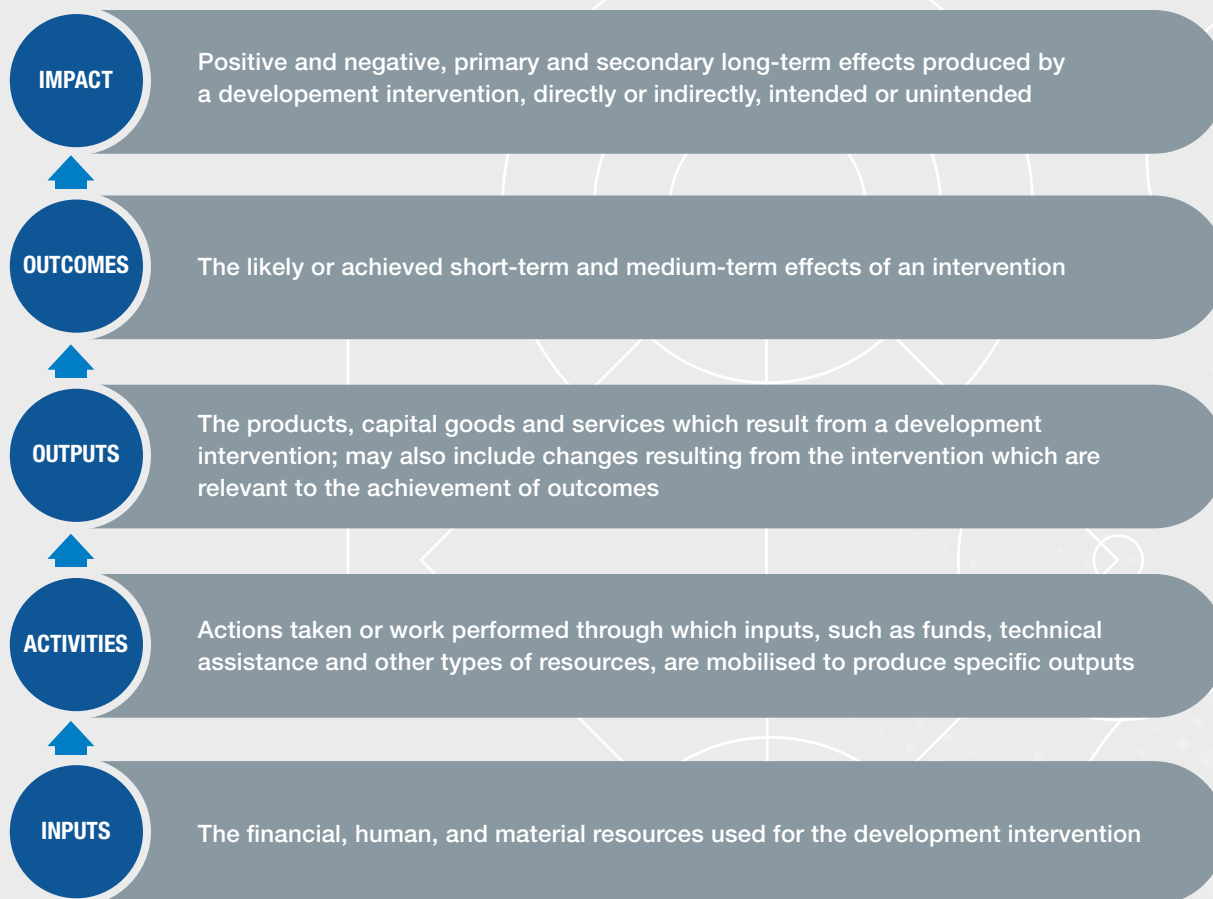
### THE IMPACT CIRCLE



Jaci Barnett  
Oxford University / Oxentia

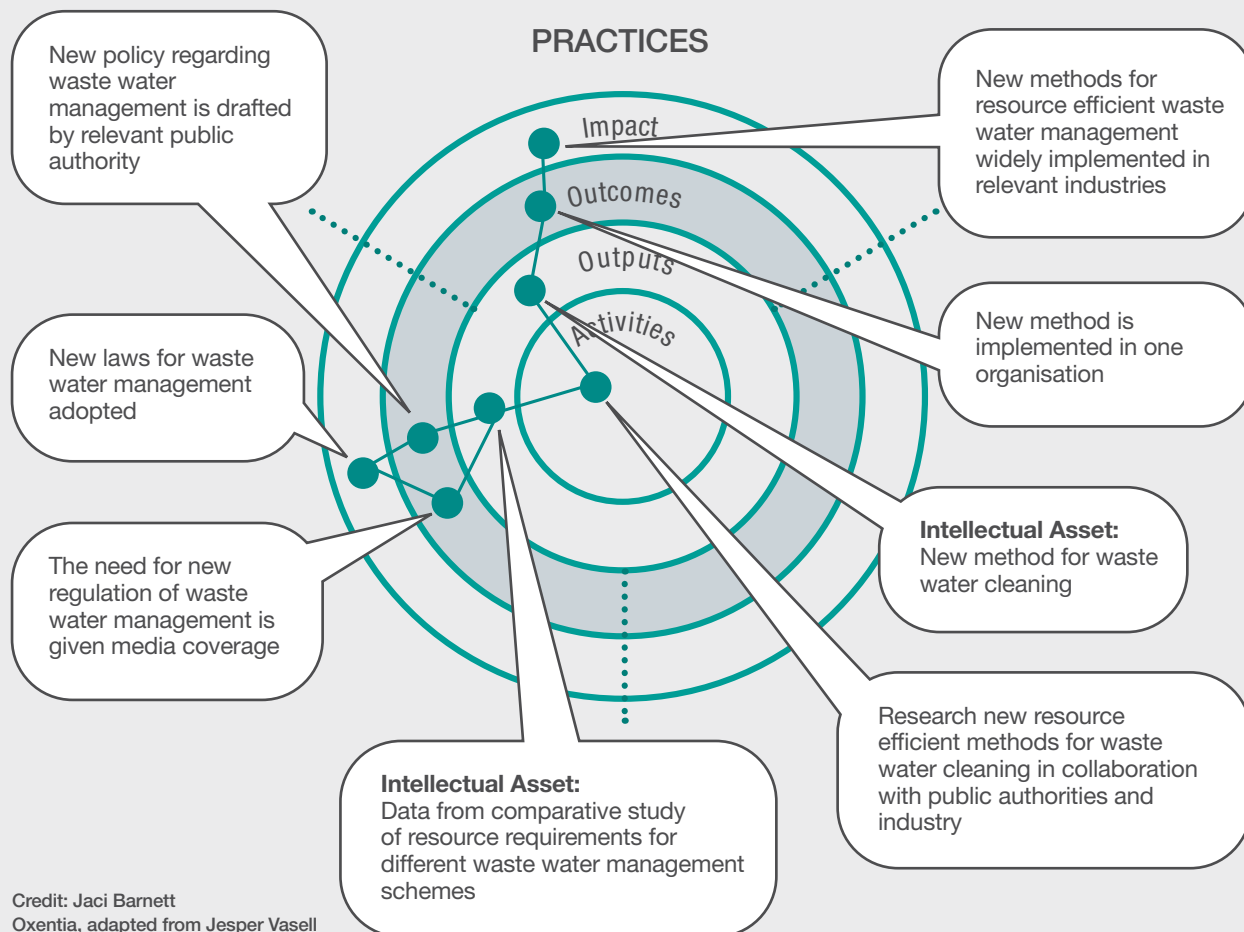
## 9 How to commercialise SHAPE research

The diagram below defines the OECD definitions of the terms used in the concentric circles within the Impact Circle.  
**Outputs-outcomes-and-impact.pdf (intrac.org)**



## 9 How to commercialise SHAPE research

The trajectories to impact the activities and outputs of a research project looking for new, resource-efficient wastewater treatment methods in collaboration with public authorities and industry are shown in the Impact Circle below.



## 9 How to commercialise SHAPE research

When aiming to develop or guide new policy based on research outcomes, consider the following key strategies to navigate through from activities to impact:

### 1 Engage Stakeholders Directly:

Involve policy-makers and relevant stakeholders from the outset of your research project.

Share research evidence with them actively.

This direct engagement ensures that your findings are considered during policy formulation.

### 2 Collaborate Throughout the Research Process:

**Include stakeholders in the design** and implementation of your research.

**Early collaboration** increases the likelihood of translating research into policy.

However, effectiveness depends on a **supportive and stable policy environment**.

### 3 Embrace Participatory and Transdisciplinary Approaches:

**Co-produce knowledge** by engaging stakeholders in participatory research.

**Address power dynamics** and work effectively across the local policy landscape.

This approach fosters better communication and informs policy decisions.

### Source(s)

1. How to bring research evidence into policy? Synthesizing strategies of ...
2. 10 tips for researchers How to achieve impact on policy? - europa.eu
3. Strategy and Policy Development | POLARIS | Policy, Performance, and ...

Remember that understanding the policymaking context, identifying key actors, and actively participating in relevant policy events are crucial steps to achieving impact on policy<sup>1 2 3</sup>.

## 9 How to commercialise SHAPE research

### Three practical tips to translate public policy:

1

#### Facilitate Knowledge Exchange Initiatives:

- Organise forums and events where SHAPE researchers can present their findings to non-academic audiences, including industry stakeholders, policymakers, and the general public. This creates opportunities for dialogue and potential collaborations.
- Develop and distribute accessible materials such as policy briefs, white papers, or infographics that translate complex research into actionable insights for business leaders and policymakers.

2

#### Leverage Networks for Policy Impact:

- Identify and engage with key influencers and decision-makers in relevant sectors to advocate for evidence-based policymaking. Utilise the networks of academic staff and alums for introductions and connections.
- Encourage and support SHAPE researchers' participation in governmental or advisory committees, think tanks, and consultation bodies to directly influence policy and practice.

3

#### Cultivate Strategic Partnerships with Industry:

- Build strategic partnerships with businesses and industry associations that can benefit from the applied aspects of SHAPE research, such as consumer behaviour studies, cultural insights, or historical analyses.
- Create platforms for ongoing collaboration, such as industry-sponsored research, joint ventures, or innovation labs, where researchers and businesses can work together on shared objectives.

## Impact

From the University's perspective, the final step is centred around post-deal management, which includes income generation and business development through re-negotiations and efficient accounting activities that promote further growth.

Impact metrics and how to measure and monitor impact are discussed in section 5.1.

## QUICK QUESTIONS TO NAVIGATE SHAPE INNOVATION

?

Transforming the commercialisation process into a series of guiding questions can help Technology Transfer Managers (TTMs) critically navigate the intricacies of bringing SHAPE research to market:

### 1. Discover and Assess IP Portfolio:

- What is the breadth and depth of the IP portfolio derived from SHAPE research?
- What are the potential applications and limitations of this IP?
- Who are the network's key academic and industry players that could influence commercialisation opportunities?

### 2. Define Value Proposition and Market Fit:

- What distinguishes this IP from others in the marketplace?
- How can we validate the market demand for this IP?
- What are the customer needs, competitive dynamics, and barriers to entry we must consider?

### 3. Strategies, Partnerships and Market Entry:

- Which industry partners could we engage to facilitate a smoother market entry for this IP?
- What collaborative models should we consider to minimise transaction costs and barriers?
- How can partnerships be leveraged to enhance the value proposition of the IP?

### 4. Select Commercialisation Pathway:

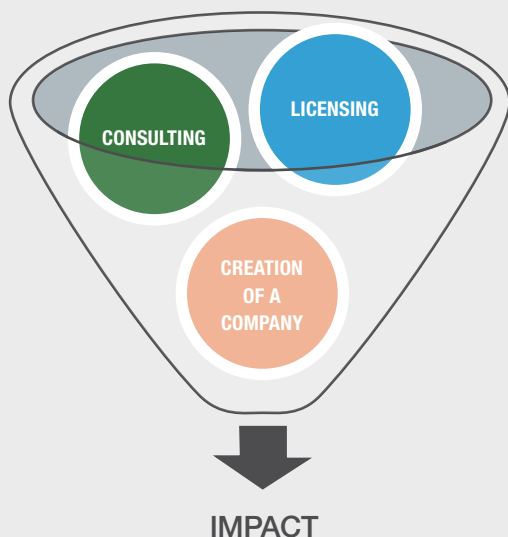
- Should we license this IP to third parties or create a new business or social enterprise?
- What are the trade-offs between maintaining control versus the resources required for start-up creation?
- How do we evaluate the scalability and market speed of the various commercialisation options?

### 5. Secure Funding and Scale:

- What funding sources are available for scaling the commercialisation of this IP?
- How can we construct pitches and proposals that resonate with the investment community?

# 10 Vehicles for *IMPACT*

There are three key 'vehicles' that can be used to achieve impact, depending on the nature of the opportunity that is being considered for commercialisation. Note that policy development and impact is deemed not to need a vehicle to achieve the impact, per se, and has been dealt with in section 9. The vehicles or modes of commercialisation include:



As discussed below, there are a variety of forms that a company may take, depending on the specific goals of the venture.

## 10.1 Consulting

Consulting is the provision of independent, specialist advice and/or implementation support to organisations across industries. Consultancy is an important initial route of transferring research findings to industry. From a business point of view, this opens opportunities for industrial clients to benefit very cost-effectively from specialist research, and it also helps to build a network, which paves the way for spinning out companies. During this journey and with guidance from the University's TTO, strategic relationships will be built that support, for example, licensing innovations and developing spin-out and social enterprise plans in the future. This is often the first step for researchers to take towards SHAPE innovation and the TTO or university should seek to provide infrastructure to support consulting activities, such as centralised contracting, financial administration, professional indemnity insurance, marketing and advertising, access portal for industry, training on the provision of consulting services.

## 10 Vehicles for *IMPACT*

### 10.2 Licensing

A license is a legal agreement that grants a third party (the “licensee”) certain rights to use IP owned by the University (the “licensor”). The negotiated agreement outlines various terms about how the licensee can use and sell IP (or products and services derived from the IP), and what the licensor receives in return – such as royalties and/or milestone and upfront payments. Licenses can also be non-exclusive, exclusive, or limit use to a specific field of geographical area. They can vary in terms of duration.

For materials protected by copyright, **Creative Commons**<sup>5</sup> also provides a useful mechanism to make reports, or patient questionnaires and scoring sheets available on a non-commercial basis. Attribution of the IP creator is common to all licenses, but specific licenses can prevent adaptation of the material, use for commercial purposes, or if derivative works are permitted, require them to be shared using a similar Creative Commons license.

Licensing of the IP may occur to the company created to commercialise the SHAPE IP, but more commonly a license will be entered into with an existing company or institution.

### 10.3 Creating a New Company

Social enterprises are one of the most common vehicles used for SHAPE commercialisation. A social enterprise is a company that aims to make a positive social, environmental, or cultural change. They achieve measurable social impact alongside financial return. They are positioned on a spectrum between for-profit commercial businesses and Not-for-Profit Organisations (NPOs) or Non-Governmental Organisations (NGOs) (where the primary driver is to achieve social value). Regardless of where the venture ‘sits’ along this spectrum, it must operate self-sustainingly. This means that a social enterprise may still generate ‘profits,’ but what is done with this profit is one of several factors that distinguish this type of venture from, for example, a for-profit company.

|                                                        |                  | FOR-PROFIT LEGAL FORMS              |                 |        |              | NON-PROFIT LEGAL FORMS |                        |                   |
|--------------------------------------------------------|------------------|-------------------------------------|-----------------|--------|--------------|------------------------|------------------------|-------------------|
|                                                        |                  | Sole proprietorships & partnerships | Private company | Trusts | Cooperatives | Non-profit companies   | Voluntary associations | Non-profit trusts |
| BUSINESS MODEL                                         |                  |                                     |                 |        |              |                        |                        |                   |
| Revenue models (not limited to the examples listed her | *Donations       | ✓                                   | ✓               | ✓      | ✓            | ✓                      | ✓                      | ✓                 |
|                                                        | Fee for service  | ✓                                   | ✓               | ✓      | ✓            | ✓                      | ✓                      | ✓                 |
|                                                        | Trade activities | ✓                                   | ✓               | ✓      | ✓            | ✓                      | ✓                      | ✓                 |

<sup>5</sup> <https://creativecommons.org/>

## 10 Vehicles for *IMPACT*

|                      |                             | FOR-PROFIT LEGAL FORMS              |                 |        |              | NON-PROFIT LEGAL FORMS |                        |                   |
|----------------------|-----------------------------|-------------------------------------|-----------------|--------|--------------|------------------------|------------------------|-------------------|
|                      |                             | Sole proprietorships & partnerships | Private company | Trusts | Cooperatives | Non-profit companies   | Voluntary associations | Non-profit trusts |
| <b>FINANCING</b>     |                             |                                     |                 |        |              |                        |                        |                   |
| External finance     | Donations                   | ✓                                   | ✓               | ✓      | ✓            | ✓                      | ✓                      | ✓                 |
|                      | Loans (secured & unsecured) | ✓                                   | ✓               | ✓      | ✓            | ✓                      | ✓                      | ✓                 |
|                      | Equity                      |                                     | ✓               |        |              |                        |                        |                   |
|                      | **Revenue-participation     | ✓                                   | ✓               | ✓      | ✓            | ✓                      | ✓                      | ✓                 |
| <b>***GOVERNANCE</b> |                             |                                     |                 |        |              |                        |                        |                   |
|                      | Broad-based                 |                                     |                 |        | ✓            |                        | ✓                      |                   |
|                      | Individual                  | ✓                                   | ✓               | ✓      |              |                        |                        | ✓                 |
|                      | Small group                 | ✓                                   | ✓               | ✓      |              | ✓                      |                        | ✓                 |

\* All legal forms can receive donations, but these are more likely to occur when the receiving part is registered as a non-profit with Donor Deductible Status (DDS).

\*\* Revenue-participation agreements are, generally, available to all legal forms. However, it should be verified on a case-by-case basis that the agreement is in line with potential accreditations and relevant legislation.

\*\*\* These should be read as generic guidance, as governance can be amended on a case-by-case basis within each legal form. For instance, a cooperative can appoint a managing director, and a private company can appoint a more broad-based management group.

Credit: Bertha Centre for Social Innovation and Entrepreneurship. UCT

A handy guide on the different forms of social enterprises in South Africa was developed by the Bertha Centre for Social Innovation and Entrepreneurship at UCT<sup>6</sup>. Their advice is sound: “A good legal form for a social enterprise is generally one that allows it to combine multiple sources of capital, private and public, philanthropic and commercial, to advance and scale the impact of the enterprise. While South Africa does not have a dedicated legal structure for social enterprises, the current structures allow for significant flexibility”.

<sup>6</sup> Bertha Centre for Social Innovation & Entrepreneurship, Graduate School of Business, University of Cape Town, (2015) “A Guide to Legal Forms for Social Enterprises in South Africa” [https://www.gsb.uct.ac.za/files/Bertha\\_GuideToLegalForms.pdf](https://www.gsb.uct.ac.za/files/Bertha_GuideToLegalForms.pdf)

## QUESTIONS THAT TTM<sub>s</sub> SHOULD CONSIDER WHEN DECIDING ON THE BUSINESS'S STRUCTURE

?

### 1. Business Model

- 1.1. Revenue Streams:
  - How can the SHAPE IP generate revenue?
  - Which revenue models (donations, service fees, trading activities) align with the nature of the SHAPE IP?
- 1.2. Service for Fee:
  - Is there a service component that can be offered for a fee based on the SHAPE IP?
  - What potential service delivery models could be implemented?
- 1.3. Trading Activities:
  - Are there tangible products or tradeable services resulting from the SHAPE IP?
  - How can these be monetised effectively?

### 2. Financing

- 2.1. Donations:
  - Could the venture be significantly supported by donations?
  - How will donor engagement and relationships be managed?
- 2.2. Loans (Secured & Unsecured):
  - What is the venture's capacity for debt, and what types of loans would be appropriate?
  - How will the repayment plan be structured in line with revenue projections?
- 2.3. Equity:
  - Is there a possibility for equity investment in the venture?
  - How would this impact control and decision-making within the enterprise?

### 3. Governance

- 3.1. Participation:
  - Who will be the key stakeholders in the enterprise?
  - How will stakeholders participate in governance – broadly or within a small group?
- 3.2. Governance Structure:
  - What governance structure (individual, small group, broad-based) is most suitable for managing the venture effectively?
  - How will this structure align with the SHAPE IP's goals and the legal form of the venture?

### 4. Legal Form Considerations

- 4.1. For-Profit or Non-Profit:
  - Should the venture be structured as a for-profit or non-profit entity?
  - What legal obligations and benefits come with each form concerning SHAPE IP?
- 4.2. Type of For-Profit or Non-Profit:
  - Within the chosen category, what specific type of legal entity (sole proprietorship, private company, cooperative, etc.) would best serve the venture's purpose and goals?
  - How does each type support the venture's financial and operational needs?
- 4.3. Alignment with SHAPE IP:
  - How does each potential legal form align with the nature of the SHAPE IP and its intended use?
  - What are the implications of each legal form for IP control, protection, and commercialisation?

These questions should lead the TTM to comprehensively evaluate the business, financial, and governance aspects relevant to establishing a social enterprise or venture for SHAPE IP, guiding them towards a legal form that best supports their goals.

# 11 Financial sustainability models for SHAPE commercialisation vehicles

Achieving financial sustainability is paramount for SHAPE ventures and should be intricately planned. This entails crafting models that support longevity and reflect the venture's core values and societal objectives. The figures below highlight the space in which Social Enterprises play.

## SOCIAL ENTERPRISES



The graphic below shows the spectrum of business objectives from philanthropy to conventional, for-profit, and financial investing. The box highlights the use of 'ESG' metrics and methodologies. 'ESG' stands for environmental, social, and governance: a set of ideas or policies that consider the effects on the environment and on society of how a business operates.

## 11 Financial sustainability models for SHAPE commercialisation vehicles

Figure 1.2 A SPECTRUM OF CAPITAL

|                    | PHILANTHROPY                                                |                                                      | SOCIAL IMPACT INVESTING                                                                           |                                                                                 | SUSTAINABLE AND RESPONSIBLE INVESTING                                                            | CONVENTIONAL FINANCIAL INVESTING       |
|--------------------|-------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------|
|                    | Traditional philanthropy                                    | Venture philanthropy                                 | Social investing                                                                                  | Impact investment                                                               | ESG investing                                                                                    | Full-commercial investment             |
| FOCUS              |                                                             |                                                      |                                                                                                   |                                                                                 |                                                                                                  |                                        |
|                    | Address societal challenges through the provision of grants | Address societal challenges with venture investments | Investment with a focus on social and/or environmental outcome and some expected financial return | Investment with an intent to have measurable environmental and/or social return | Enhance long-term value by using ESG factors to mitigate risks and identify growth opportunities | Limited or no regard for ESG practices |
|                    |                                                             |                                                      | Use of ESG metrics and methodologies                                                              |                                                                                 |                                                                                                  |                                        |
| RETURN EXPECTATION | Social return only                                          | Social return focused                                | Social return and sub-market financial return                                                     | Social return and adequate financial market rate                                | Financial market return focused on long-term value                                               | Financial market return only           |
|                    | Social impact                                               | ↔                                                    | Social and financial                                                                              |                                                                                 | ↔                                                                                                | Financial returns                      |

Source: Stylised adaptation from Organisation for Economic Co-operation and Development (OECD),<sup>6</sup> based on earlier versions from various organisations. For illustrative purposes only.

## 11 Financial sustainability models for SHAPE commercialisation vehicles

Consider the following enhanced approaches, grounded in ESG principles and innovative financing:

### 1 Innovative Financing:

Explore innovative finance instruments such as social impact bonds, venture philanthropy, or revenue participation agreements. These tools can provide capital while aligning with the venture's mission to drive social change.

Incorporate crowdfunding elements to validate market demand and secure initial funding, especially for projects with strong community or societal appeal.

### 2 ESG Integration:

Implement ESG metrics and methodologies to track and communicate the venture's environmental stewardship, social contribution, and governance performance.

Align the business strategy with ESG goals to appeal to impact investors and socially conscious consumers who value ethical and responsible business practices.

### 3 Blended Value Propositions:

Utilise a blended value proposition that combines financial returns with social impact, ensuring that every aspect of the business model contributes to the venture's sustainability.

For non-profits, this may involve a mix of grants and earned revenue through mission-related services, while for-profits might blend product sales with a vital social mission.

A robust financial strategy is the linchpin of successful SHAPE research commercialisation. The list below describes a suite of financial sustainability models, each tailored to the distinctive nature of SHAPE ventures, ensuring they are both culturally enriching and economically viable. Whether it is a transformative idea that emerges from the humanities, a breakthrough in social sciences, or an innovative artistic expression, here are the fundamental models that underpin financial resilience:

**Loans:** Loans are generally available to all the different legal forms of businesses. The loan can be structured as a normal loan with interest and regular repayments until it is settled, or both of these and the timeline can be altered to favour social return over financial.

**Social Impact Bond:** In these bonds investors, who may also be a service provider or have linked with a

service provider, partner with government to fund social programmes. The government only pays for the work once the outcome has been successfully achieved.

**Equity:** Here investors finance a company in return for equity. As shareholders, they benefit through dividends when they are declared by the company or if the value of their shares has increased when they elect to dispose of them. Equity is not an option for all social ventures as not-for-profit companies do not have shareholders. In Impact Investing investors specifically seek measurable social benefits alongside revenue.

**Fee-for-Service:** This model involves charging customers or clients for the venture's specific services. For example, a consultancy offering expertise might charge clients for research, analysis, and advisory services.

## 11 Financial sustainability models for SHAPE commercialisation vehicles

**Product Sales:** Ventures creating and selling physical or digital products related to SHAPE disciplines can generate revenue through product sales. This may include books, artworks, merchandise, software applications, or other tangible goods or digital downloads.

**Sponsorship and Advertising:** Ventures can monetise through sponsorships, partnerships, and advertising arrangements with brands, organisations, or advertisers seeking to reach their target audience. For example, a digital media platform focused on arts and culture might generate revenue through sponsored content, branded partnerships, and display advertising.

**Grants and Donations:** Non-profit ventures or initiatives focused on social impact, community development, or cultural preservation may rely on grants, donations, and philanthropic funding to support their operations and programs. This model involves securing funding from government agencies, foundations, corporations, or individual donors interested in supporting the venture's mission and objectives. Here, there is no expectation for repayment of the grant or donation. Certain grants may be available to for-profit companies too. A not-for-profit company (NPC) is registered with the Companies and Intellectual Property Commission (CIPC) and will have its objectives described in its Memorandum of Incorporation (MoI). The company can achieve a Public Benefit Object (PBO) status through registration with the South African Revenue Services (SARS). The PBO can then apply to SARS to issue "section 18A certificates" to donors, so that donors can claim tax relief for the donation made. This is discussed in detail in the Bertha publication<sup>7</sup> mentioned earlier.

**Revenue Participation Agreements.** Here an investor does not take equity, but through an agreement with the company, shares in the benefit from revenue generated (in a similar fashion to a royalty). Here the risk is shared by the investor and the company.

**Subscription-Based:** Subscription models involve offering products or services regularly in exchange for a subscription fee. For instance, a digital platform providing access to curated content or cultural experiences might charge users a monthly or annual subscription fee for access to premium features or exclusive content.

**Freemium:** Freemium models offer essential services or products for free while charging for premium features, upgrades, or additional services. This approach allows ventures to attract a broad user base with free offerings and monetise through upselling or premium subscriptions. For example, a language learning app might offer basic lessons for free and charge users for advanced features or personalised tutoring services.

**Licensing and Royalties:** Ventures with proprietary technologies, content, or intellectual property (IP) can generate revenue by licensing their assets to other businesses or organisations. This model grants third parties the right to use, reproduce, or distribute the IP in exchange for licensing fees or royalties based on usage or sales.

**Event-Based Revenue:** Ventures organising events, workshops, conferences, or cultural performances can generate revenue through ticket sales, registration fees, sponsorships, and merchandise sales. This model leverages live experiences and interactions to create value for participants and sponsors while generating revenue for the venture.

**Crowdfunding:** Crowdfunding platforms allow individuals and organisations to raise funds from many people to support their projects or ventures. SHAPE startups can use crowdfunding to validate their ideas, generate pre-sales, or fund specific aspects of their commercialisation efforts, such as prototype development, market research, or production.

<sup>7</sup> [https://www.gsb.uct.ac.za/files/Bertha\\_GuideToLegalForms.pdf](https://www.gsb.uct.ac.za/files/Bertha_GuideToLegalForms.pdf)



### CHECKLIST TO ENSURE FINANCIAL SUSTAINABILITY

- ☐ **Financial Planning and Analysis:**
  - Develop a comprehensive business plan with precise financial projections.
  - Conduct a break-even analysis to understand when the venture will become profitable.
  - Establish a realistic budget that includes all startup costs, operational expenses, and potential risks.
- ☐ **Revenue Streams and Pricing:**
  - Identify and diversify potential revenue streams for the start-up or licensed product/service.
  - Set pricing strategies based on market research, cost considerations, and customer value.
  - Create financial models for different scenarios to anticipate market fluctuations and adjust strategies accordingly.
- ☐ **Cost Management:**
  - Keep overhead costs low, especially in the early stages, without compromising on the quality of the product or service.
  - Implement efficient resource management practices to minimise waste and reduce costs.
- ☐ **Funding and Investment:**
  - Map out potential funding sources, including grants, angel investors, venture capital, and crowdfunding.
  - Prepare a compelling pitch to attract investors, highlighting the unique aspects of the SHAPE start-up or license.
- Explore government incentives, subsidies, or tax breaks available for start-ups, especially those in cultural or social domains.
- ☐ **Cash Flow Management:**
  - Monitor cash flow meticulously and maintain liquidity to manage day-to-day operations.
  - Develop a strategy for managing accounts receivable and payable to keep the cash flow positive.
- ☐ **Financial Controls and Compliance:**
  - Set up robust financial controls to prevent fraud and mismanagement of funds.
  - Ensure compliance with financial regulations and reporting standards.
- ☐ **Performance Monitoring:**
  - Establish key financial performance indicators (KPIs) to assess the business's financial health regularly.
  - Regularly review financial statements and compare them against budgets and projections to make necessary adjustments.
- ☐ **Long-term Financial Strategy:**
  - Plan for long-term financial stability, including reinvestment of profits and planning for future growth.
  - Regularly revisit and revise financial strategies to adapt to changing economic conditions or strategic shifts in the business.

# 12 Useful links and Resources

## Funders

US Agency for International Development

British Council

World Bank

UNDP South Africa - United Nations Development Programme

European Union

## Government

Human Sciences Research Council - HSRC

Small Enterprise Finance Agency (SEFA)

Technology Innovation Agency

Department of Science and Innovation

Department of Small Business Development (DSBD)

Industrial Development Corporation

Film Incentive - The Department of Trade Industry and Competition ([thedtic.gov.za](http://thedtic.gov.za))

South African Medical Research Council | SAMRC

Strategic Health Innovation Partnerships | SAMRC

## Supporting Organisations

Allen and Gill Gray Foundation

National Research Foundation

Southern African Research & Innovation Management Association - SARIMA

Universities South Africa - USAf

Entrepreneurship Development in Higher Education - EDHE



# 13

## SOUTH AFRICAN CASE STUDIES

# BackChat

Prof Henk Louw / Dr Mesuli Mbanjwa (North-West University (NWU))

## CHALLENGE

Commercialisation support for an application called BackChat that enables personalised and efficient assessment via audio feedback tool. The prototype received favourable reviews from pilot testing by a number of academics at NWU.

## APPROACH

Inventors look into expanding the user trials to other users in South African (SA) and international educational institutions, which will assist to evaluate the product-market fit and to determine route to market.

## IMPACT

The NWU pair received new skills and tools to help in evaluating alternative business models and routes for taking Backchat to Market. Various leads and networks have been created with both, SA and UK universities for further engagement and possible evaluation licence agreements for user tests.



[www.lumkani.com](http://www.lumkani.com)



**How the Lumani Device Works:**

[https://youtu.be/cR0vM3qGxT8?si=LLcXbd0k6W\\_e2450](https://youtu.be/cR0vM3qGxT8?si=LLcXbd0k6W_e2450)



**Insurance and Fire Alarm offer:**

[https://youtu.be/cR0vM3qGxT8?si=LLcXbd0k6W\\_e2450](https://youtu.be/cR0vM3qGxT8?si=LLcXbd0k6W_e2450)

## Lumkani

**Mr Samuel Ginsberg, Mr Paul Mesarcik, Mr David Gluckman, Mr Francois Petousis, Mr Max Basler, and Ms Emily Vining**

Lumkani has commercialised an early-warning system to reduce the damage and destruction caused by the spread of shack fires in urban informal settlements. Many cooking, lighting and heating methods used by people living in informal settlements produce smoke. For this reason Lumkani detectors use rate-of-rise of temperature technology to accurately measure the incidence of dangerous fires and limit the occurrence of false alarms. Density is a challenge in all urban informal settlements share and is a major risk factor that enables the rapid spread of fires. In order to provide sufficient early-warning, a communal alert is required. Lumkani's detectors are networked within a 60-metre radius so that in the event of a fire all devices in this range will ring together, enabling a community-wide response to the danger. This buys time for communities to become proactive in rapidly spreading fire risk situations.

Developed in the Electrical Engineering Department, at the University of Cape Town, the team that founded Lumkani was multidisciplinary and included Commerce students as well as a Social Science student. She added to the project considerably by understanding the social dynamics at play with the deployment of the device. It needed to be sold, albeit for a subsidised amount, to the end user in the informal settlement so that it would be perceived to have value, rather than be given as a freebie. Also, one needed to meet with, and achieve the buy-in of the community leaders of each informal settlement before the roll-out.

Once deployed, Lumkani realised that there was an opportunity to sell insurance to homeowners as insurers could provide policy cover because the fire detector had a SIM card in that provided a GPS location, i.e. a verifiable address, for the dwelling in the informal settlement.

## 13 South African Case Studies

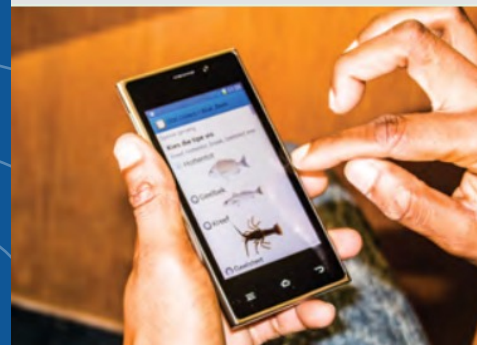
# Abalobi

With the increasing affordability of mobile devices and rapid development of internet systems and mobile apps, this ubiquitous form of communication is increasingly being used to develop sophisticated monitoring systems to address some of the world's more pressing economic, social and ecological challenges. Examples abound of development projects around the world that are making use of cellphones to empower local communities to monitor issues as diverse as natural resource use, community health and water quality, as well as to empower these same communities with marketing and management tools.

Dr Serge Raemaekers, Commerce, University of Cape Town, headed a team that developed an integrated catch management system for smallscale fisheries. The system, Abalobi, aims to empower marginalised small-scale fishers whilst at the same time satisfying the legislative requirements and improving fisherman safety and connectivity. The pending implementation of the gazetted Small-Scale Fisheries Policy in South Africa has provided an impetus for similarly novel approaches to small-scale fisheries governance, and an opportunity exists to leapfrog the traditionally marginalised small-scale fisheries sector into the forefront of fisheries management through the use of modern, mobile and cloud-based information technology.

The new Small-Scale Fisheries Policy is seen as a bold step towards recognising small-scale fishers' traditional rights and seeks to implement novel co-management approaches, decentralise resource allocation, and involve fishers in resource monitoring and compliance. At the same time, the policy aims to enable fishers to play a more empowered role throughout the value chain. This new policy environment, which will impact more than 100 000 households involved in the smallscale fisheries sector along the South African coast, provides an exciting opportunity to develop innovative information and communication systems.

Abalobi aims to enable the marginalised fishing communities to be integrated into larger information and resource networks, from fishery monitoring and maritime safety to local development as well as rapid and wide access to market opportunities. An additional mobile app is currently being funded as a TIA Seed Fund project to enable the fishermen to interact directly with restaurants in order to sell their catch.



### Cartoon on Abalobi

<https://youtu.be/yOqBbFCU344?si=3FGdhNvYh2ZjK1dS>



### Interviews of Founders, Stakeholders and Abalobi users

<https://youtu.be/VP6qrm87g8A>

## Maxhosa

Conversation with Jaci Barnett, Director of the TTO at the time:

### Tell us about the IP Protection Strategy?

- We filed 5 SA design registrations (his first designs) in black and white (not colour) so we could get wider protection. The patent attorney used a definitive statement which protects the pattern of the designs irrespective of the garment to which it is applied. We did this just before the 6 month period was up.
- As the first disclosure of the designs was in London, we were told that, in addition to filing European Community Designs (this was pre-Brexit), there was also unregistered European Community Design right protection. We filed a European Community Design with 5 designs as the additional cost per design is cheaper this way. They look like they are in colour (not sure why). The grace period in EU was 1 year so this was filed later.
- We discussed the option of copyright due to the cost of design registrations and the fact that he had new lines coming out all the time – see below Mike von Seidel's response:

Unfortunately, most fashion goods are utilitarian in nature and manufactured by an industrial process. This means that they fall within the exclusion of section 15 (3A) of the Copyright Act. In other words, those industrially produced goods are effectively excluded from copyright protection. You are therefore left with the problem that the designs must be registered, as we have done in the past.

The position may be different from country to country and if you would like us to investigate the position in any particular country, we will make the appropriate enquiries. However, you should expect very much the same result. It really is a problem of the overlap, or trying to create no overlap, between the protection afforded by registered designs and copyright protection and it is an international problem.

The only exception to this could be any new fashion statement in the manner of items that have no utilitarian purpose.

### What about Traditional Knowledge considerations?

- We didn't think about traditional knowledge at the time. I have had discussions at various points about this but I think it would have been really tricky to enforce, find the "owners", etc. And as Laduma was clearly from that region and ethnicity, it didn't get really get raised.





