

GUIDELINES FOR HUMANITIES, ARTS AND SOCIAL SCIENCE INNOVATION RESEARCHERS IN SOUTH AFRICA



About this guide

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.

and delivered, and these guidelines were co-created by, Oxentia.

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 researchers working in Humanities, Arts and Social Sciences. 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 under the 'resources' section.

List of authors

First Project

Sarah Allison (Oxentia)
Alexandra Bush (Oxentia)
Irene Dal Poz (Oxentia)
Franziska Guenther (Oxentia)

Second Project

Luan Africa (UWC)
Andrew Bailey (UCT)
Ana Casanueva (UWC)
Irene Dal Poz (Oxentia)
Ellen Fischat (The Story Room)
Niall Naidoo (UCT)

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

March 2024



Contents

About this Guide	
1 What is SHAPE Research Commercialisation?	2
2 How is SHAPE commercialisation important to SA's economy?	3
3 Why should universities and policymakers engage in SHAPE commercialisation?	5
3.1 For universities to demonstrate the impact of their teaching and research outcomes	5
3.2 Contributes to local economic growth and a healthy innovation ecosystem	6
4 Why would an academic want to commercialise their SHAPE research?	7
5 Impact Beyond Products and Services	9
What is the role of Technology Transfer Offices in SHAPE research commercialisation?	13
6 Intellectual property and its importance for SHAPE research commercialisation?	14
6.1 Understanding copyright and the importance of protection	18
6.2 Understanding copyright protection: important information for creators	18
6.3 Defending and leveraging your rights	19
6.4 Identifying yourself as the rights holder	19
6.5 Commercialising your rights	19
6.6 Licensing and assignment	20
6.7 Protecting your copyright	20
6.8 Creativity and copyright	20
7 How does SHAPE commercialisation differ from STEM commercialisation?	22
8 Vehicles for IMPACT	24
8.1 Consulting	24
8.2 Licensing	25
8.3 Creating a New Company	25
9 Financial sustainability models for SHAPE commercialisation vehicles	27
10 Useful links and Resources	31
11 South African Case Studies	32

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. It is a knowledge exchange (KE) or technology transfer (TT), i.e. the application of academic research and knowledge outside of the university through providing products and services to solve societal problems.

The University of Cape Town Innovation Working Group, has defined innovation as “**the creation and successful implementation of new ideas and inventions that make a real difference through the generation of tangible outcomes with social and/or financial value**”.

Historically, research commercialisation and technology transfer has been dominated by research outputs from the Sciences, 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)¹ 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

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

- **Market Valuable:** The work (scholarly output) has value in the market for which third parties’ are willing to invest in or engage with financially.
- **Utility-Driven:** The work 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 ‘non-academic’ entities, which, for this guide, includes any organisation poised to utilise the research findings, such as government agencies, non-profit entities, corporations, or other commercial stakeholders.

¹ <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 Plan², 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”.

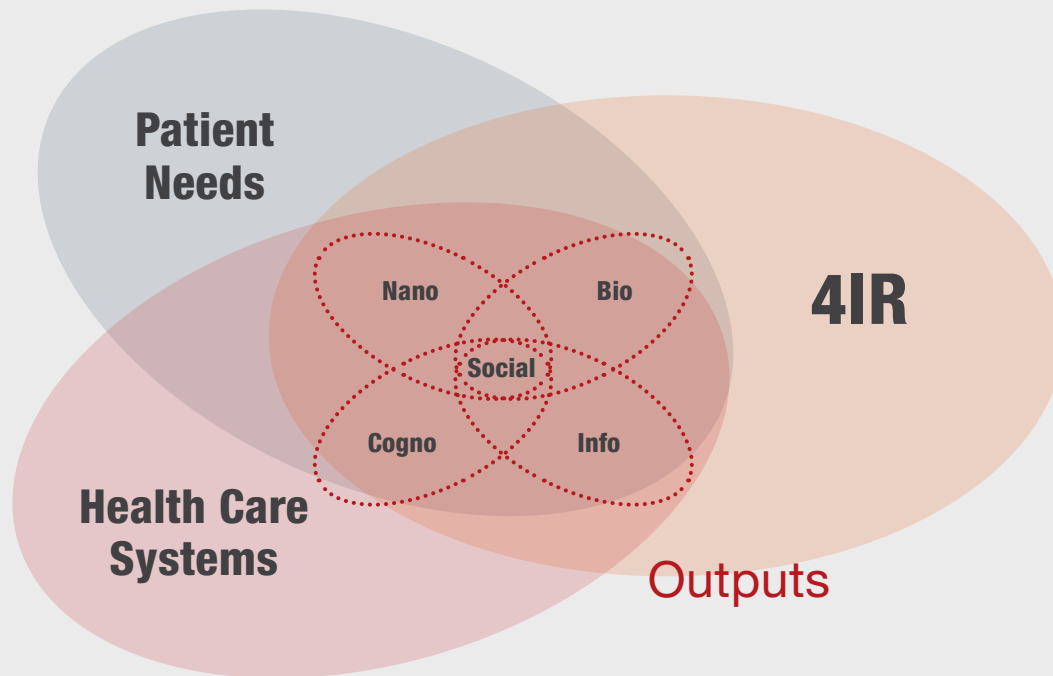
¹ Section 5.6, Decadal Plan

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 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 impact. 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), 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.

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?

For many HASS researchers, 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. 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.

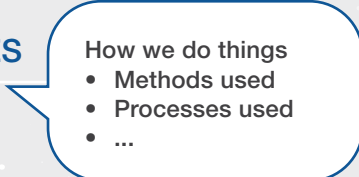
5 Impact Beyond Products and Services


SHAPE innovation results not only in new products and services. It 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 (Oxford University Innovation). One can imagine the concentric circles as ripples caused by a stone falling into a pond. The activities undertaken within a particular project lead to outputs. Outputs, outcomes and impact reflect change at different levels.

THE IMPACT CIRCLE



PRACTICES

- 
- How we do things
 - Methods used
 - Processes used
 - ...

- 
- How we understand and describe the world**
- Perceptions
 - Beliefs
 - Theories
 - ...

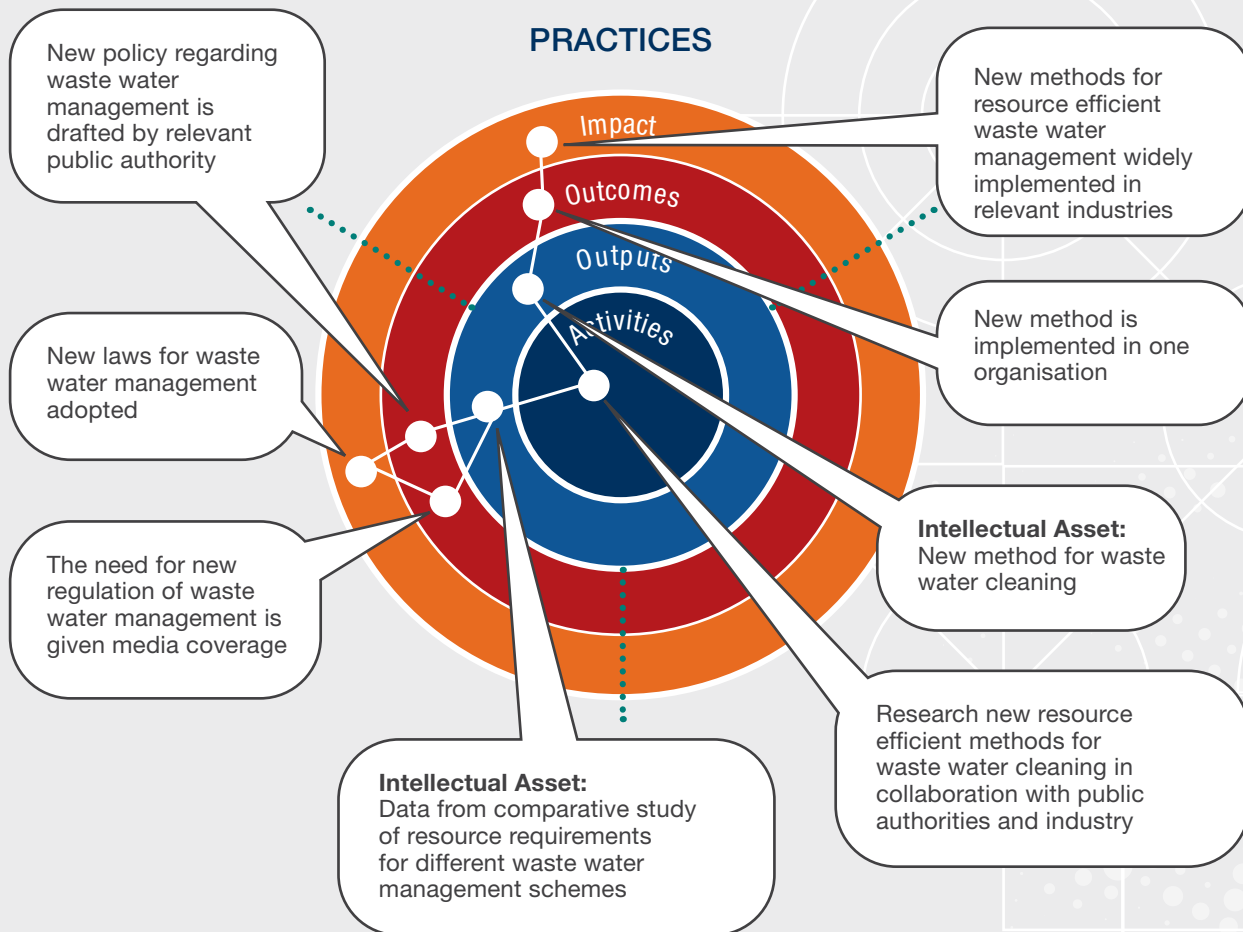
LOGICS & BELIEFS

Jaci Barnett
Oxford University / Oxentia

The diagram below defines the OECD definitions of the terms used in the concentric circles within the Impact Circle. [Outputs-outcomes-and-impact.pdf \(intrac.org\)](https://www.intrac.org/output-outcomes-and-impact.pdf)



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.



Credit: Jaci Barnett
Oxentia, adapted from Jesper Vasell

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 ².

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

Technology Transfer Offices (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 specific to this. However, these processes and methodologies often need to be more fit for purpose for the commercialisation of SHAPE research or interdisciplinary STEM/SHAPE research.

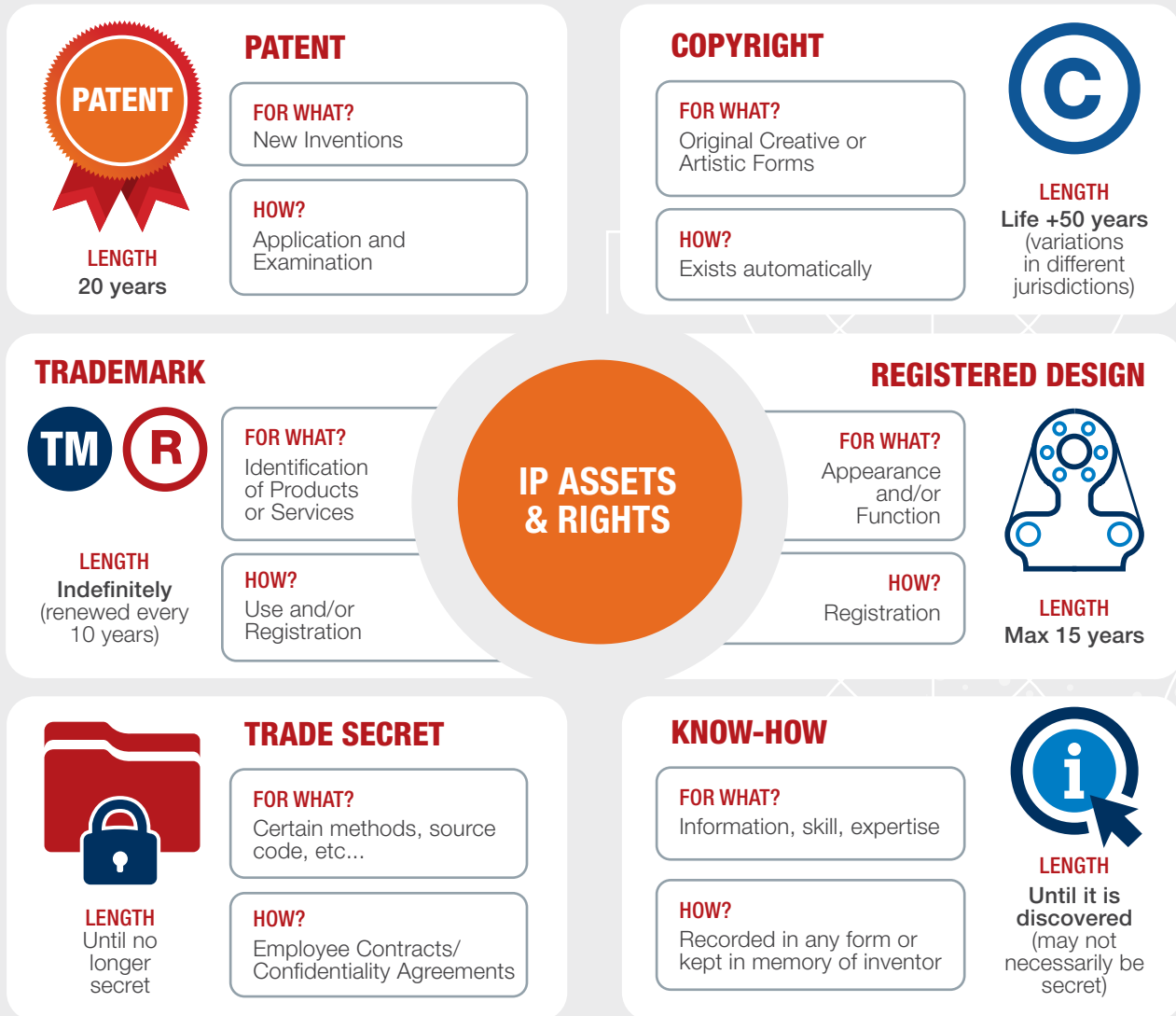
6 Intellectual property and its importance for SHAPE research commercialisation?

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.

TYPES OF IP



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.

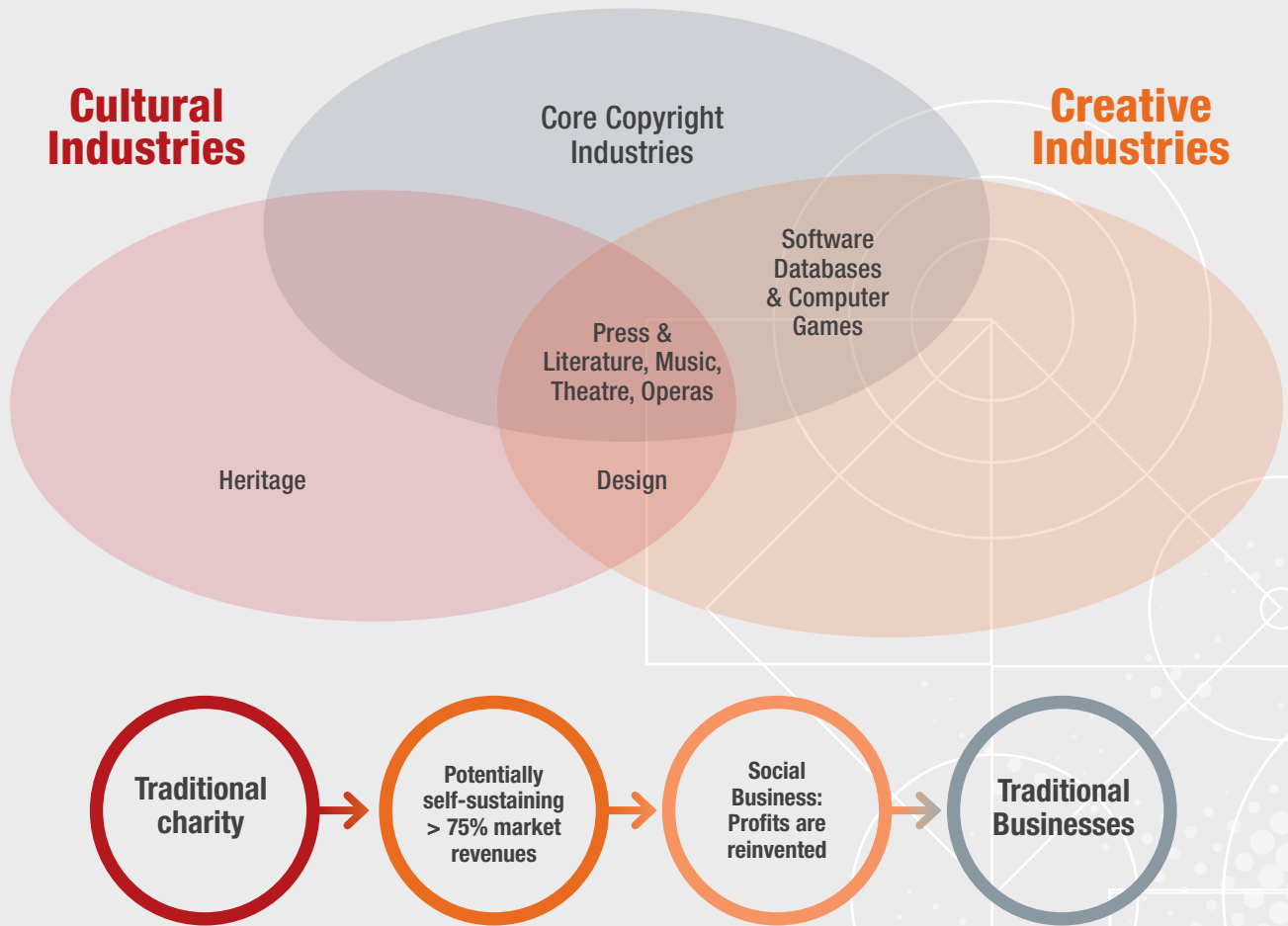


Figure 1: Mapping the creative industries

Note: The core copyright industries here represent WIPO's definition, while the cultural industries are derived from the United Nations Economic, Scientific and Cultural Organization (UNESCO) (2009) and the creative industries from the United Kingdom Department for Culture, Media and Sports (DCMS) (2011).

6.1 Understanding copyright and the importance of protection

Intellectual property (IP) encompasses creations of the mind, including inventions, literary and artistic works, designs, symbols, and images used in commerce. Creators can safeguard and control the use of their works through methods such as copyright, design rights, patents, and registered trademarks. Copyright, especially crucial for the creative industries, preserves an idea's creative or artistic expression. Copyright law allows the owner of rights in literary or artistic works to manage their use, including reproduction and adaptation for commercial purposes. It protects every original work, irrespective of its merit, and incentivises continued creativity. By balancing the interests of creators and the wider public, copyright aims to foster an environment where innovation and creativity can flourish. This booklet delves into how copyright supports diverse creative individuals in earning a livelihood from their original literary and artistic works. In addition to copyright, other intellectual property rights relate to specific areas of art:

- **Design rights** protect the unique shape, configuration, colour, or composition of 2D and 3D designs.
- **Patents** apply to the technological invention or innovation behind an idea rather than its inclusion in an original creative work.
- **Trademarks** reflect brand value and can be registered about particular products or services. They include:
 - Business names, logos, product names, and other signs;
 - Distinctive packaging;
 - Graphic symbols, screen displays, graphical user interfaces (GUIs), and web pages; and
 - Slogans and sounds.

- **Trade secrets** are confidential business information that provides an enterprise with a competitive edge in some countries.

Artists, authors, designers, musicians, and other creators all depend, to varying degrees, on the commercial use of intellectual property (IP). Their creations and the associated IP rights collectively form the backbone of the creative industries.

6.2 Understanding copyright protection: important information for creators

It may be important to understand the rights owned in one's work, ensure proper identification as the creator, comprehend the concept of "leveraging" a literary or artistic work, and understand the meaning of "protection." There are four main steps to managing one's intellectual property:

1. Understanding the rights you possess in your original work is crucial for protecting your intellectual property. By being aware of these rights, you can effectively determine how others may use or share your work and ensure you are credited and compensated appropriately for your creations.
3. Please ensure that you have a well-defined plan for leveraging your IP, including exploring licensing options and assigning your rights. Additionally, consider appointing agents to represent you and your work in situations that can yield the highest returns.
4. In the case of intellectual property rights infringement, it's important to understand the available steps to stop the infringement and seek compensation. Depending on the situation, this could involve sending a letter to the infringing party, negotiating a licensing fee,

or taking legal action with the help of a specialist. Knowing these options and their associated costs is crucial before bringing your work to market.

6.3 Defending and leveraging your rights

Copyright is not a single right. It allows the holder to do a number of things, including:

- Prevent others from making copies of the work;
- Make and distribute copies of protected works;
- Authorise live and recorded performances;
- Broadcast the work;
- Communicate it to the public, including making work available online and on demand;
- Rent or lend physical or digital copies of the work;
- Modify a work or permit others to modify it to create a new work in another art form (e.g., adapt a novel into a film); and
- Authorise the publication of a translation.

Various forms of intellectual property rights, including copyright, can be transferred to others for financial gain through licensing or assignment. These rights are known as “economic rights.” Additionally, copyright includes rights that remain with the creator and are not transferable. These are known as “moral rights”, and generally, there are two types:

- The right of integrity allows creators to challenge any change to their work that would negatively affect their reputation.
- The right of attribution gives creators the right to be named or credited if their work is used or played in public. In some countries, other moral rights are available to creators.

6.4 Identifying yourself as the rights holder

Under the terms of the Berne Convention, creators do not need to register works to benefit from copyright protection formally; rather, copyright exists automatically as soon as the work is created and fixed in a tangible form. This rule applies in most of the world’s countries. In South Africa, this is true for most creative works except cinematographic films, which need to be registered for copyright. Despite the automatic copyright protection, creators should take steps to identify themselves as the copyright owner of any work they create, for example, by including a copyright notice. Many countries also operate systems for registering copyright; in some countries, the ability to enforce copyright may be limited if it is not registered.

6.5 Commercialising your rights

Intellectual property rights are essential for creators to reap economic benefits from their work. Copyright serves as a tool to help creators earn a livelihood by ensuring they can capitalise on the market value of their creations. It is crucial for content creators to receive proper compensation for their artistic and literary work, as this enables them to continue producing valuable content. The phrase “Content is king” underscores the significance of original content in driving innovation and generating profits in the creative industries. These industries are experiencing rapid growth worldwide, fuelled by the expanding opportunities presented by digital creation, replication, distribution, and consumption of cultural content.

6.6 Licensing and assignment

Creative industries encompass various sectors with sprawling, intricate, multinational organisations. Managing all aspects of these structures while also concentrating on one's creative endeavours can often be challenging.

- Certain rights, such as performing rights and streaming rights, are aggregated at an industry level, and payments are distributed based on a calculation that considers the overall volume and value of transactions rather than individual negotiations.
- It's important to note that in certain cases, gaining access to distribution, such as for films, may necessitate individuals to transfer their rights to a single entity. To ensure that creators' interests are safeguarded and maximised, it is often beneficial to license or assign their rights to third parties, whether commercial entities or collective organisations.
- By licensing their rights, individual creators maintain ownership of their copyright and related rights but sell the authority for a third party to use these rights under clear conditions.
- When an individual creator assigns their rights, they transfer full ownership of their copyright to a third party, usually in exchange for a carefully negotiated value.
- Collective management organisations (CMOs) use collective bargaining power to negotiate and manage rights and collect and distribute payments to creators to use their work.

6.7 Protecting your Copyright

We have seen how IP is inseparable from value ideas in the creative industries. Adequate legal enforcement of copyright laws is necessary to protect those industries

and to make international copyright agreements credible and effective.

There are some important caveats, however:

- The value of intellectual property lies in its defensibility. Therefore, aligning your rights with the intended use of the material is a crucial aspect of your business strategy.
- Despite a common reliance on IP as the basis of their earnings, not all creative industries share the same business model. Different rights holders have different views of the best way to protect and exploit IP, partly determined by the branch of the creative industries in which they work.
- The growth of digital creation, copying, and distribution of cultural products presents new challenges for copyright enforcement.

A well-thought-through IP strategy can help literary and artistic creators minimise the risks and costs associated with protecting and exploiting an original work. If IP rights are breached, there are also different ways in which the rights holder can either try to stop their work from being used without their permission or ensure payment of unpaid remuneration.

6.8 Creativity and copyright

The concept of copyright is well-defined, encompassing a set of economic and moral rights granted to authors for controlling the use of their works. It serves as a financial mechanism to reward creators and forms the basis for the operation of vast industries. Copyright is a category with distinct economic characteristics, functions, and consequences.

Copyright is a legal right given to the creators of original works, allowing them exclusive rights to use, distribute, and modify their work for a specific period of time. This protection ensures that creators can control and benefit from their intellectual property. Copyright encompasses a range of exclusive rights provided by law to the authors of literary, artistic, or musical works for a limited duration. It safeguards the unique expression of ideas in tangible form and enables creators to be compensated for the use of their works (World Intellectual Property Organization (WIPO), "What is Copyright?" WIPO). This is a nuanced law with specific variations in different countries (e.g., in South Africa, the duration is the author's life plus 50 years; in Europe and the USA, it's plus 70 years). Moreover, copyright tends to significantly impact SHAPE innovation more than STEM, where patents are prevalent. Therefore, technology transfer professionals may need to enhance their understanding of copyright to better support researchers in SHAPE innovation.

One can appreciate the intricate complexities associated with films, particularly in terms of copyright, which serves as the linchpin of the enterprise. Consider the extensive list of credits that roll at the end of a movie, encompassing various individuals. Film production is a collaborative endeavour consisting of multiple layers of rights, including those of performers, the film itself, music, the screenplay, the original book, iconic characters such as James Bond, dubbing, and subtitles. Additionally, commercial contracts involve aspects like distribution, trademarks, merchandising, and product placement rights. For instance, in a significant deal with Heineken, the producers of the Bond movie Skyfall (2010) reportedly offset nearly one-third of the film's production costs by showcasing James Bond drinking their beer in a scene, with the deal estimated to be worth \$45 million.

Fortunately, the World Intellectual Property Organization (WIPO) has developed valuable resources such as the WIPO Review of Contractual Considerations in the Audiovisual Sector (WIPO Audiovisual Sector) and From Script to Screen (second edition). This excellent training guide details all aspects, steps, and players involved in making and commercialising films and benefit sharing.

Artificial Intelligence (AI) is significantly impacting 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.

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.

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' 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.

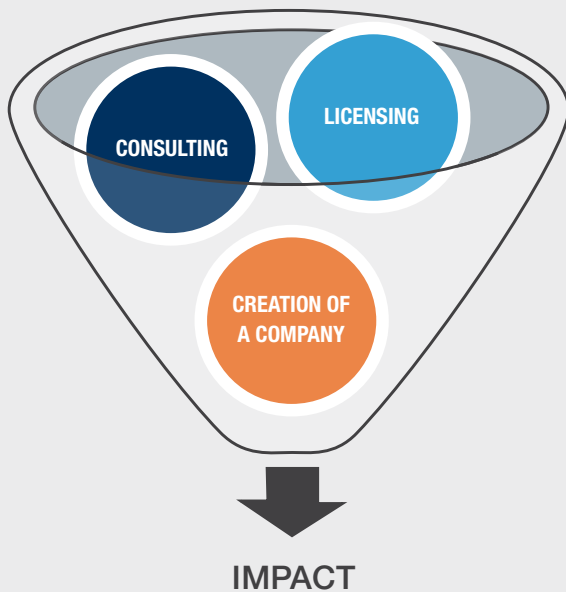
The table below summarises the main differences between SHAPE commercialisation and STEM commercialisation from the perspectives of the academic research staff and TTO.

THE DIFFERENCES BETWEEN STEM AND SHAPE COMMERCIALISATION

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

8 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:



- Consulting
- Licensing
- Creation of a company

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

8.1 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.

8.2 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** also provides a useful mechanism to make copyright works developed by researchers 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.

³ <https://creativecommons.org/>

⁴ 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

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.

8.3 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. Social enterprises 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-sustainably. 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	✓	✓	✓	✓	✓	✓	✓
FINANCING								
External finance	*Donations	✓	✓	✓	✓	✓	✓	✓
	Loans (secured & unsecured)	✓	✓	✓	✓	✓	✓	✓
	Equity		✓					
	**Revenue-participation	✓	✓	✓	✓	✓	✓	✓
***GOVERNANCE								
	Broad-based				✓		✓	
	Individual	✓	✓	✓				✓
	Small group	✓	✓	✓		✓		✓
<p>* All legal forms can received donations, but these are more likely to occur whe the receiving part is registered as a non-profit with Donor Deductible Status (DDS).</p> <p>** 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 rlevant legislation.</p> <p>*** These should be read as generic guidance, as governance can be amended on 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.</p>								

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. 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”.

9 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.



The graphic following 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.

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),⁶ based on earlier versions from various organisations. For illustrative purposes only.

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.

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 (Mol). 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 publication⁵ 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.

⁵ https://www.gsb.uct.ac.za/files/Bertha_GuideToLegalForms.pdf

10 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)
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

11

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



How the Lumani Device Works:

https://youtu.be/cR0vM3qGxT8?si=LLcXbd0k6W_e2450



Insurance and Fire Alarm offer:

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.

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

Laduma Ngxokolo completed his BTech degree in 2010 with majors in Textile Design and Technology at Nelson Mandela Metropolitan University (NMMU). For his final year project he developed a high quality, Xhosa-inspired knitwear range for amakrwala (Xhosa initiates). His work interpreted traditional Xhosa beadwork into knitwear designs using authentic Xhosa colours. Laduma's knitwear won the 2010 Society of Dyers and Colourists Design Award, an annual international design competition that takes place in London. In February 2011, Laduma was one of six handpicked international post-graduates invited to present at the 2011 Design Indaba Conference.



Even with these awards and accolades, Laduma struggled to get his business started as he lacked space and funding, as well as access to business expertise. He approached NMMU's Innovation Office for support. NMMU and Laduma agreed to work together to develop his business and protect the IP that he had developed during his studies. The support provided included filing of design registrations on Laduma's initial five designs, funding for materials, funding for knitting machines, access to a network of suppliers, mentorship, and space for manufacturing. After two years, Laduma needed to expand and, with NMMU's help, found a manufacturer in Cape Town. He set up an online store and also has shelf space in high-end shops in Cape Town and Johannesburg under the brand name "Maxhosa by Laduma". NMMU continued to provide support to Laduma's business, assisting with IP maintenance as well as financial administration. In 2015, NMMU assigned the designs to Laduma's business and exited its interests, as the business was mature enough to continue without their support. Most recently, one of Laduma's designs won an award for "The most beautiful object in South Africa" at the 2016 Design Indaba.

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.

