

DAVIDSON, A. and BREMNER, P.A.M. 2020. *Designing and owning the future*. Workshop presented at the 5th International enhancement conference of QAA Scotland: building resilient learning communities: using evidence to support student success, 3-5 November 2020, virtual conference.

Designing and owning the future.

DAVIDSON, A. and BREMNER, P.A.M.

2020

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**Designing and Owning
The Future
5TH November
11.15 -12.15**

Starting Point

The reality of the moment is so palpable and powerful that it holds imagination in a tight orbit from which it never fully escapes.

Dan Gilbert : The Art of Happiness

The Default Position

- We all think about the future, we just don't do it very well.
- We have a neurological bias to prior and present experiences.
- We tend to build future scenarios based on prior experience and knowledge.

Pre Covid 19



Change and Covid-19...

'The next phase of the response to Covid-19 won't be a slowdown but an acceleration of change and innovation, with many of these innovations simmering in the background before the pandemic.'

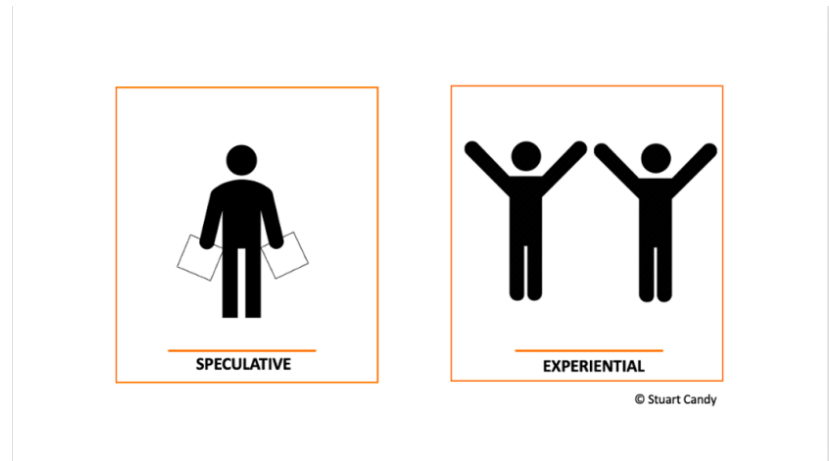
Guardian, Mckinsey, IMF, Financial Times.

Telehealth, Business Models, Software Platforms, Work Spaces, Supply Chains and Food.

The Reboot

How Can Students Pre-Experience their Future

- Stuart Candy is a well know designer and futurist who looks at how we can design, develop and innovate with the future in mind.
- He advocates that if we can think about what the future might look like then we can experience plausible futures rather than speculate as to what they might look like.
- This experience of the future allows us to act in the present to ensure we don't default to the inevitable but we can be agile around our career choices and the skills and competencies we develop.



The Power of Pre -Experiencing the Future

*“Stories of the future have the power to liberate us from
the tyranny of what was and what is.”*

Mashir Hamid

Vision not Victim Project

Escaping the Reality of the Moment



I love planes. Even before I had ever been on a plane, I knew I wanted to be a pilot, I knew deep down this is what I wanted to do. I finished my studies and found a way to get to flight school. Now, not only do I get to live my dream, but I also help people travel, to see the world and discover new places.

Experiencing their future



In this image it is early morning and I am waiting in my classroom for my students to arrive. I teach younger children to read and write Arabic. I am a very compassionate and kind person, and so a perfect teacher. I am strict, but I go out of my way to gently help those students who are having difficulties.

More information on the project

www.meredithhutchisonphotography.com/2546343-vision-not-victim-jordan

Pre- Experiencing the Future



How do we Pre- Experience the Future?

No one can predict the future but you can think about it systematically and turn uncertainty into inspiration, creativity and resilience .

Bob Johansen : Get there Early

The Process for Creating a Future To Pre- Experience

- **Preparation** – identifying what we have to work with in the present day to help us.
- **Imagining the Future** – how do we use this to build a plausible future that is worth exploring and experiencing.
- **Exploring and Experiencing the Future** – how to we engage with the future we have imagined to look for opportunities and insights as to what this future could mean for us.
- **Execution** – Linking our exploration to present day action.

Aims for this Workshop

- To help you work with a couple of tools and techniques SIE uses throughout this process to help students pre-experience their future and ‘own it’, and have a career vision to work towards.
- Insight into how these tools and techniques engage students to develop innovation competencies and make them resilient learners with a sense of purpose.
- Provide some information on the Scottish Innovative Student Awards for 2020/2021.

Step 1 : Preparation

- Asking you to explore and experience the future in general is too broad for even the best imaginations!
- The best results are achieved if we provide our imagination with a framework.
- Issues or industry sectors can make ideal frameworks.

The Future We Want Pre -Experience Today



Stage 1 : Preparation

You need to start to

- Understand the big forces and current day innovations bringing about change and how they are driving, influencing and creating new patterns of innovation and trends that have the potential to disrupt the status quo.
- Work with the ‘weight of history’ – you can’t break the universe!
- Know yourself – what are your biases, experiences and assumptions that could prevent you from imagining the great possibilities for transformative innovations.

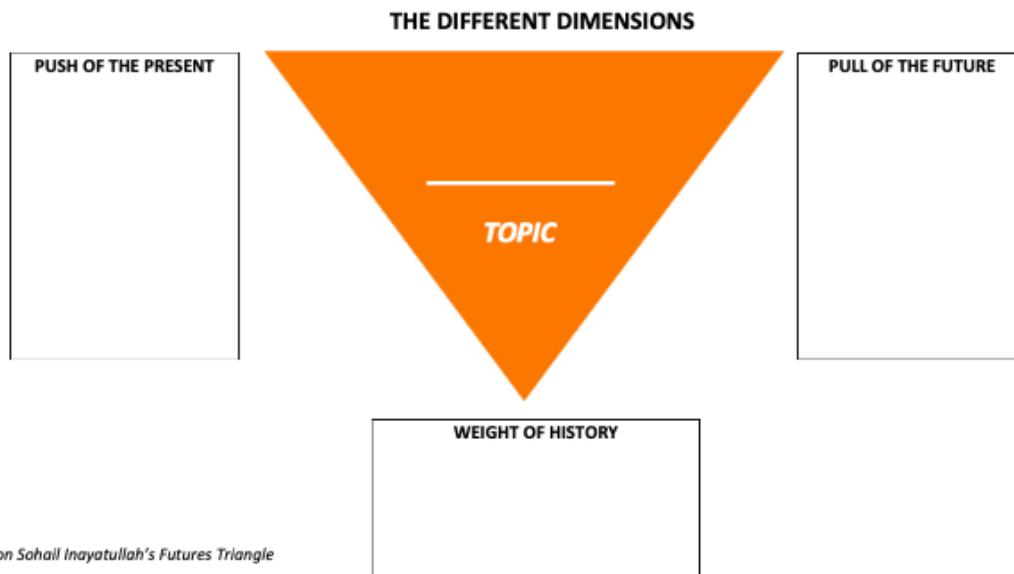
UNDERSTANDING HOW CHANGE HAPPENS

To begin the process of imagining a plausible future it is important to identify the different factors that bring about change. The future occurs over time as strong, subtle and noisy forces interact with each other in the present to influence stability and change. This exercise looks at categorising these forces into 3 dimensions or directions and then exploring how they all interact with each other to shape the speed and trajectory of change.

Use the steps in this worksheet to identify all the forces at play around a chosen topic. Once you have these mapped out you can start to identify the forces with the greatest potential to impact on this topic.

STEP 1

Use this template to map the forces that have the potential to change the future for your chosen topic. Aim to have 3-6 examples in each of the boxes or dimensions.



DEFINITIONS

Push of the Present - Think about the big drivers of change that have the potential to drive change in a certain direction. For example, policies, technologies and changes in society. What impact will they have? Try to use drivers that have strong data to support the impact or trajectory you think they will have.

Also think about finding some signals, small innovations that exist out there in the margins that are starting to indicate how your chosen drivers of change are starting to have an impact. These signals could provide a present day push if they were to gather momentum and scale up. You don't have to like these signals but they make you think about the change they are pushing in the present.

Pull of the Future - Think about values, visions and images that have a persuasive power on people's view of the future. For example, the United Nations Sustainability Goals. They can be positive or negative.

Weight of History - This tends to be anything that can limit the speed of change and what can be achieved. For example, structural barriers like expensive infrastructure, government regulations and the law of physics. But also consider things like people's strong historical connections to something or somewhere, cultural characteristics, behavioural habits and their beliefs.

STEP 2

Review your examples in Step 1 and identify the ones you think will have the strongest influence. Use the Key Tip box to help you assess the strength of your examples.

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STEP 3

Document below the examples from each dimension that you think are going to influence significantly the future you want to imagine.

Push of the Present

Pull of the Future

Weight of History

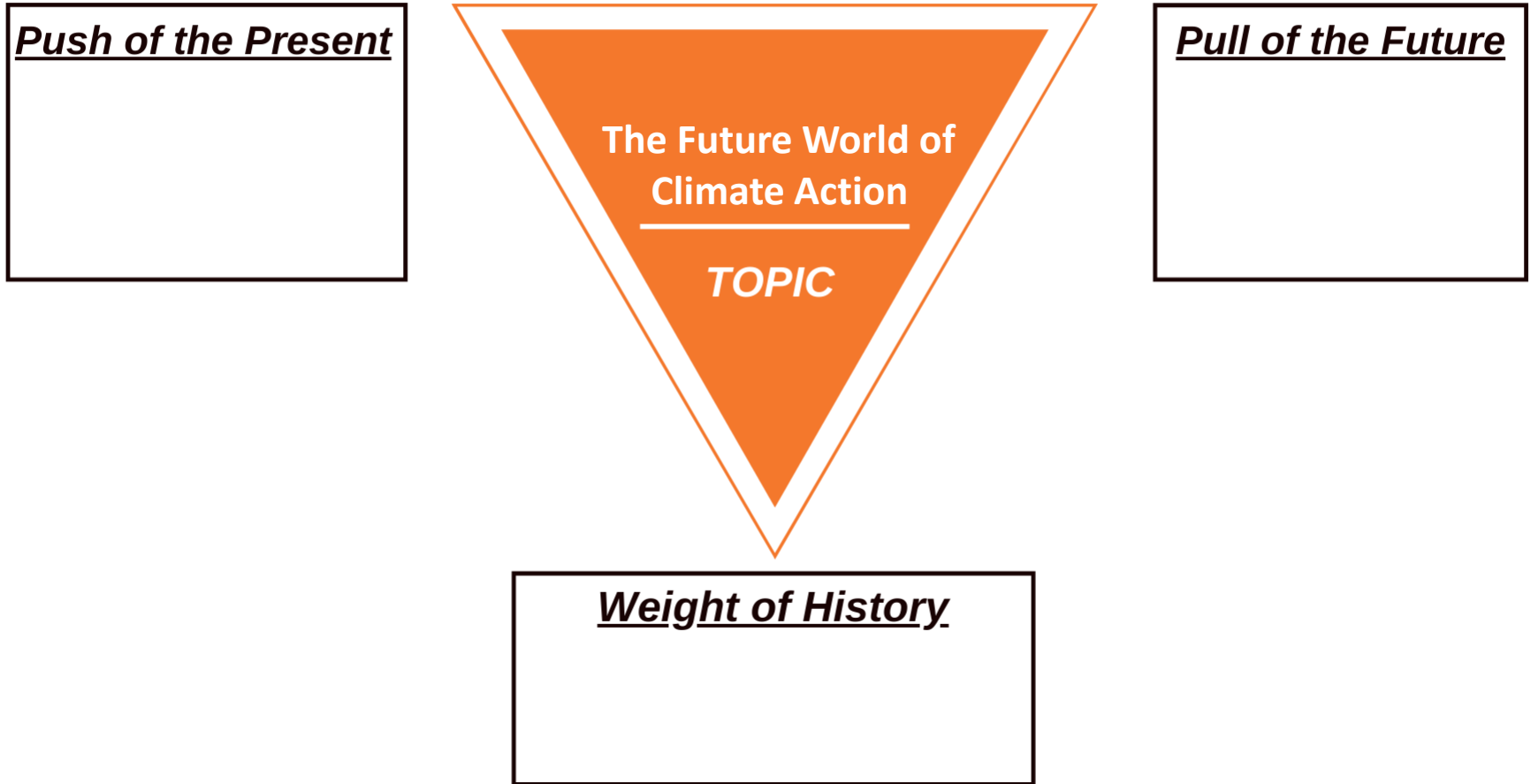
KEY TIP

It can help to think of the triangle as having sides made out of string or elastic that are mutually dependent on each other and can pull each other out of shape so that one dimension becomes a stronger influencer. However, the triangle never breaks. For example, what if one of the United Nations Sustainability Goals is such a strong and charismatic pull from the future that it accelerates the need for development of innovation in the present? Or what if a present day push around the social driver of an ageing population can overcome the weight of historical structures and behaviours around the need to care for the elderly in hospital to generate new innovations around their care?

When you are completing steps 2 and 3 think about pulling the 'string' attached to a dimension and what future outcomes this might bring about.



How Change Happens to Create the Future



Definitions

Pull of the Future: Values, visions, images that attract or pull us towards a possible future. They can be positive or negative, but they have a persuasive pull on people's perceptions of what the future can be and what they want that future to be.

An Example of a Future Pull



Netflix Documentary



(c) SIE 2020

Definitions

Weight of History: Structural barriers, culture, deep historical connections, government regulations, law of physics or anything that limits the speed or reach of change.

Example of the Weight of History

- Expensive infrastructure is a good example of the weight of history that can impact upon climate action.
- These are expensive to heat and light and employees have a carbon footprint as part of their commute to work.



Definitions

Push of the Present: Think about big drivers or forces in the present with the potential to drive change in a certain direction. These forces or drivers will have an impact on our topic of climate action. Every driver has a trajectory or future outcome.

See the following slides for some examples of forces or drivers and their corresponding outcomes.

Identifying Drivers of the Present

P – Political

E – Economic

S – Social

T – Technology

L – Legal

E - Environmental

Examples of Drivers

Push of the Present or Driver	Trajectory or Impact
<p>Covid 19 and government requirements to wear a mask</p> <p>Increasing pressure on companies to be part of a zero waste economy</p>	<p>An increasing demand for PPE products that can't be recycled and go into landfill</p> <p>Companies making more products from recycled 'raw' materials.</p> <p>Companies looking for new materials that can biodegrade once the consumer has finished with them.</p> <p>They will form unusual partnerships to access new materials for manufacture and to help consumers dispose of them</p>
<p>Increasing consumer demand for eco-friendly products</p> <p>Mobile Technology</p>	<p>Consumers will switch their loyalty to companies that can provide them with eco friendly products.</p> <p>Consumers able to be aware of the impact their individual efforts are having on climate action and make smart choices.</p>

Existing Present day Innovations are also a 'Push' for Change from the Present

- These are small innovations or actions out there in the margins of society that have the potential to disrupt the status quo around the future world of climate action. They are already in existence.
- They are evidence of futures in the making as they are responding to 'drivers' or bigger forces. They are signals or clues as to possible change and they make us think about how they might shape the future. At first glance they may seem ridiculous but they get us thinking 'what if'.
- There follows some examples that relate to some of the drivers and impacts in the previous slides.

Signal : Crafting Plastics Berlin



Signal : Museo Della Merda

- This museum works to show that some of the poorest waste materials on earth like cow manure can have a life in the form of new products and services.

www.theshitmuseum.org



Signal : Elvis and Kresse



Identifying your Assumptions

- Each box is important but sometimes we prefer one over the other. We can be drawn towards visions of the future and new technology and forget that expensive infrastructure like buildings and roads exists. It is the latter that can place constraints on the pace of change and, as designers and innovators, we need to work with them not against them. Or perhaps we are attached to the weight of history and need to find a way as designers and innovators to engage with the other 2 dimensions on the worksheet.

Group Exercise : 15 Minutes

1. Please complete step 1 by populating the 3 boxes with your group's thinking. **Just to remind you we are working with the topic of climate action and can you add some signals of your own to the Push of the Present.**
2. Please complete step 2 by discussing and agreeing on what your group thinks will be the dominant forces in each box.
3. Take ownership of these forces by documenting them in step 3 or making sure that you have a note of them for the next stage.

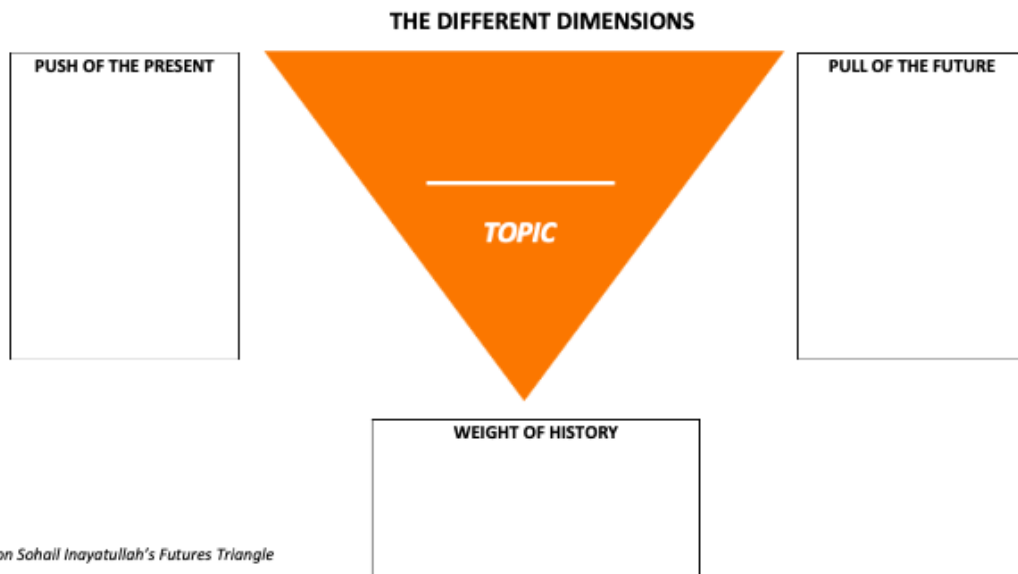
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**Based on Sohail Inayatullah's Futures Triangle*

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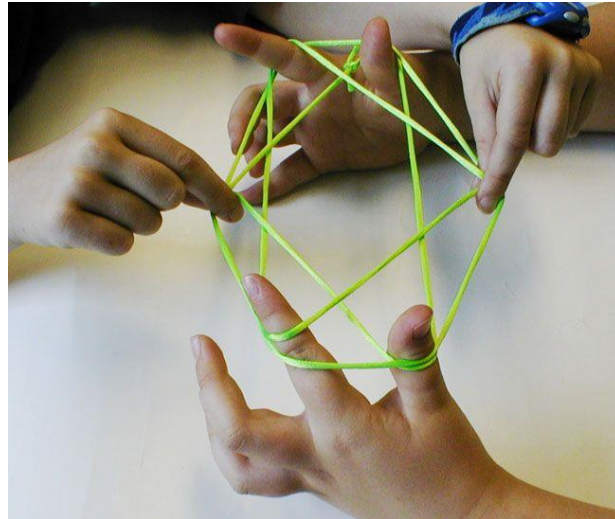
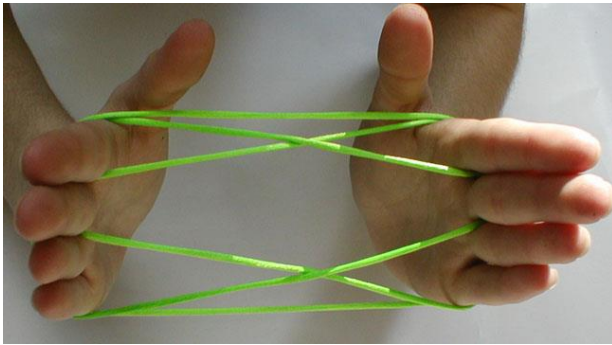
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When you are completing steps 2 and 3 think about pulling the 'string' attached to a dimension and what future outcomes this might bring about.



FEEDBACK

What Future Worlds Can these Change Factors Help us Imagine and Build?



Step 2 Toolkit : Imagining the Future

- Think of the forces you have taken ownership of and documented in step 3 of the worksheet as provocations.
- How do they provoke you to think about the future of climate action?
- Can you turn this thinking into a 'what if' this could mean statement?

A Provocation from SIE's Example of a Push of the Present



Example: Imagining and Building a Future World

Step 1: What if in 2025 all companies will manufacture products that will bio degrade.

Step 2: Pull out the consequences from this bold statement. For example:

- Disposable fashion becomes the ultimate disposable product by becoming disposable in customers' gardens.
- Plastic products have to biodegrade in soil or are banned from sale.
- For customers without gardens - new community 'compost heaps' open up in locations like schools and shopping centres.

A Provocation from SIE's example of a Pull of the Future



Example: Imagining and Building a Future World

Step 1: What if in 2025 all companies will be required to educate the consumers of their products on how to dispose of them within a zero waste cycle.

Step 2: Pull out the consequences from this bold statement.

- Products will have to have QR codes that tell consumers where they can recycle it.
- Companies will operate their own waste collection services and will operate their own recycling hubs. Disposing of the waste material generated from their products to other companies who use it as a raw material in their manufacturing process.
- Companies will get their new raw materials from recycling hubs operated by other companies.

A Provocation from SIE's Weight of History

- Expensive infrastructure is a good example of the weight of history that can impact upon climate action.
- These are expensive to heat and light and employees have a carbon footprint as part of their commute to work



Example : Imagining and Building a Future World

Step 1 : What if in 2025 all office buildings have to generate their own heat and electricity from non fossil fuels or offset consumption by other green practices.

Step 2 : Pull out the consequences.

- Companies will harness the kinetic energy from the footfall of their employees as they move around the office.
- Companies will have rooftop farms and gardens, and containers to collect rain water to flush toilets .

Group Exercise : 15 Minutes

- It is worthwhile considering working with the forces you identified from all 3 boxes.
- Select one as the provocation your group will work with and turn it into a ' what if' statement.
- Now think of that ' what if' statement as a seed you plant in your group's collective imagination.
- Use the following worksheet to pull out the consequences of that statement. What can grow in your imagination around a possible future world?

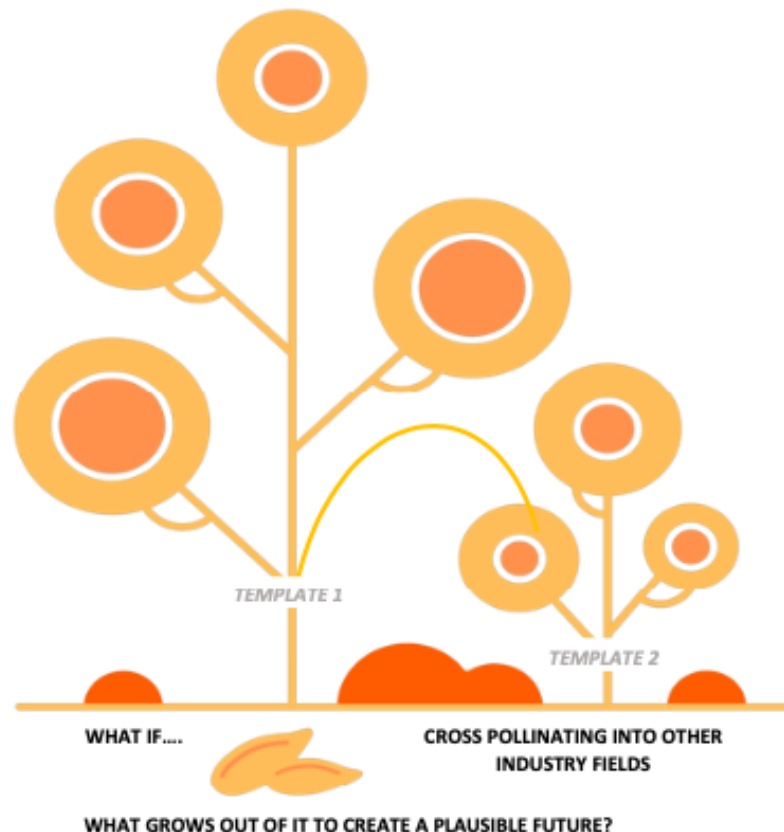
BUILDING A FUTURE WORLD

This worksheet is designed to help you take the forces of change you have identified around your chosen topic and use these to begin the process of building a well thought out future world in which you will explore the issues existing in this new world and the innovations needed.

STEP 1: Select a force for change that you think will impact on your chosen topic and then use this force to generate a short 'What if....' statement that describes a future world that this force could generate.

What if

in 5 years' time?



HOW IT WORKS

Think of your 'what if' statement as a seed you can plant in your imagination. What sort of future can you imagine growing from it? Populate the boxes with details of what you think will exist. You can add in more. These details can be products, services and policies. However, they can also be issues like privacy, data sharing concerns and social problems like loneliness (these are just general examples).

Plants will also pollinate other patches of ground – in this case a another industry sector. If you think your 'what if' statement can do this then repeat the process for TEMPLATE 2.

STEP 2: BUILDING YOUR WORLD

In a couple of lines describe a world that features what has grown out of you planting your 'what if' statement in your imagination. Make it short but specific - describing the products and services being used and detailing any issues this future world might have.

This is a world in which....

STEP 3: EXPLORING THIS WORLD

Are the people you can identify in this world happy and enjoying the products and services in it?

If yes – what opportunities do you see for innovations in the present to bring about this future world?

If no, or the products and services don't meet their needs in full, what opportunities can you see for innovations in the present to change your future world for the better?

What new job roles and organisations will be in this future world?

What skills and competencies will be needed?

FEEDBACK

Step 3 : Exploring and Experiencing the Future

The next stage is to engage with the future you have imagined. In your groups can you complete:

Step 2 – Can you start to describe the world you have imagined. Who occupies it and what are they doing? What products and services are they using? Are there any issues that this world faces?

Step 3 - Pulling out insights into opportunities for further innovation. Or what companies will be doing, the business models they will be operating and the skills and competencies they will be looking for from employees.

Experiencing the Future

TO EXPERIENCE THE FUTURE AND ITS POSSIBILITIES WE NEED TO CONNECT WITH IT EMOTIONALLY AND IN DEPTH. THIS WORKSHEET IS DESIGNED TO HELP YOU DO THAT.

Who inhabits this Future?	What does this Future feel like for them? (e.g. friendly, chaotic, safe, calm, regulated, difficult)	What are People Doing in this Future? (e.g. supporting a family or others, building a business, contributing to a cause, building something)
What are the New Characteristics of this Future Compared with the Present Day?	What Objects are People Interacting with? (this can be brand new objects or familiar objects enhanced in some way)	

Imagining Possible Futures

“Stories of the future have the power to liberate us from the tyranny of what was and what is.”

- Mashir Hamid

What you Have Achieved Today

- By imagining and exploring the future of climate action you have built a bridge for yourself and others.

AGILE AMBITION

- Link your experience to present day action.



Stage 4 : Execution

Reflection on what you need to do in the present:

- Your own actions around climate mitigation.
- Ideation for new venture creation.
- Future proofing existing new venture creation business models.
- Developing ‘green competencies’ for the graduate market place.
- Choice of assignments for future course work/research.



SISA

scottish **sie**
institute for
enterprise

THE SCOTTISH INNOVATIVE STUDENT AWARDS

2020 - 2021



Underpinning SISA



The Three Levels

SISA consists of 3 tiered levels, each of which is a separate micro-credential:



SISA Level 1: Future Thinker



SISA Level 2: Innovation Catalyst



SISA Level 3: Innovation Champion

Each level is a stand alone award and there is no obligation to obtain all three levels. Plus your SISA journey can be staggered over your studies with levels 2 and 3 obtainable up to one year after graduation. However, you must have achieved SISA Level 1 prior to graduation. All 3 levels can be achieved in one academic year.

More information : www.sie.ac.uk/sisa

SISA Outcomes

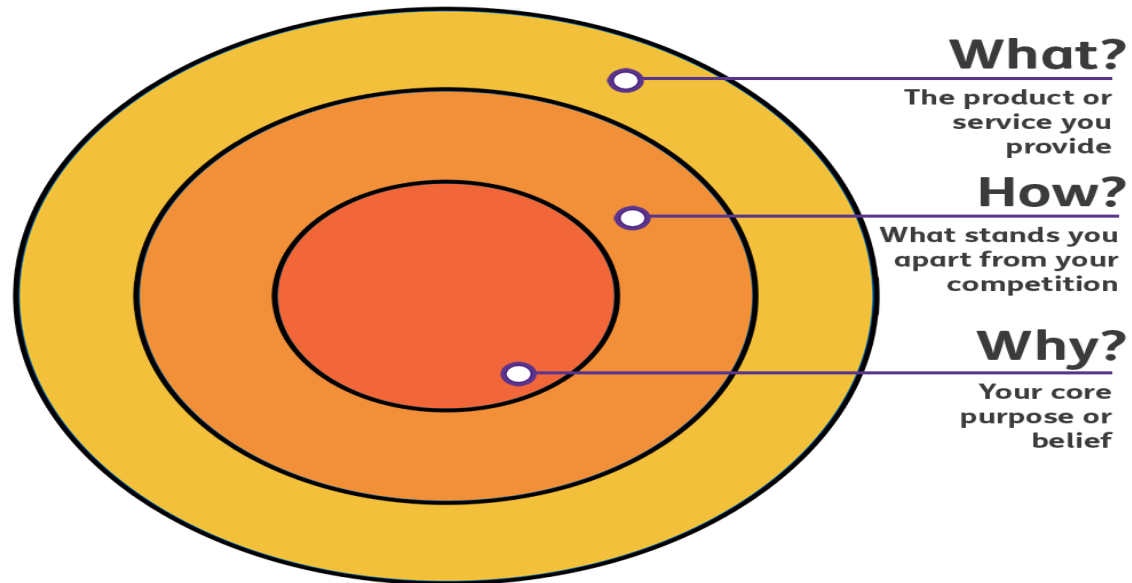


Figure 1
Ref: Simon Sinek's Golden Circle

SISA Level 1: Future Thinker

This level is designed to give you evidence-based certification that you have the following innovation competencies that can help you think about the pace of change and the future it is creating, and the opportunities, issues and risks that you can see in this future:

- *Self-awareness and self-efficacy*
- *Flexible and adaptable, seeing different perspectives*
- *Opportunity recognition*
- *Creative problem solving*
- *Collaboration*
- *Communication*



To Summarise

SISA can help you develop your innovation competencies and boost your CV , enhance your studies and inspire your course work, and spot opportunities for new venture creation.

What do other students say?

SISA Level 3 Innovation Champion Irina-Cristina Bogdan shares about her experience in the programme:

<https://youtu.be/2snDbPjeq3o>



<https://www.abdn.ac.uk/socsci/scottish-innovative-student-award-sisa-882.php>

Thank You

www..ac.uk



- Ann Davidson

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