![Scottish Government / Riaghaltas na h-Alba logo]

# The Entrepreneurial Campus

Summary Version

## National Strategy for Economic Transformation

**Programme 1: Entrepreneurial People & Culture**

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**2**

# Contents

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**3**

# Introduction

This summary provides an abridged introduction to the Scottish Government's paper on **'The Entrepreneurial Campus – The Higher Education Sector as a driving force for the Entrepreneurial Ecosystem'** (which we will refer to as 'the paper').

The paper was drafted by **Ross Tuffee**[1] (consultant, investor and technology entrepreneur), and Professor **Joe Little**[2] (Entrepreneur in Residence, University of Stirling).

The paper sets out a framework by which the Scottish Government, its agencies, Scottish Colleges and Universities and other stakeholders (i.e. institutions, organisations, communities and individuals with an interest) can accelerate the development, and amplify the impact of entrepreneurial campuses across Scotland's network of post-16 educational institutions (i.e. colleges and universities).

This summary necessarily focusses on the high-level structure, framework and actions recommended to deliver entrepreneurial campuses in Scotland. For a full articulation of the arguments in favour of this approach and the detailed evidence of international best practice from which these are derived, we recommend reading the full-length paper.

The approach set out in both papers aligns with the Scottish Government's National Strategy for Economic Transformation[3] (or 'NSET'), which says that the Scottish Government should work together with the entrepreneurial/private sector to deliver **"bold new policy programmes of action"**.

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1 See Ross Tuffey: **https://www.linkedin.com/in/rosstuffee/**
2 See Joe Little: **https://www.linkedin.com/in/joelittle1/**
3 See: **Supporting documents – Scotland's National Strategy for Economic Transformation – gov.scot (www.gov.scot)**

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**4**

# Definition

When we use the term 'Entrepreneurial Campus', we mean:

**Institutions that are considered as world-class have had a significant impact on the regions that they inhabit, creating companies, jobs, and tax revenues. In addition, by retaining the expertise in an area, they are able to inspire and educate future generations of entrepreneurs.**

In Scotland, there are around 45 "post-16 institutions" (colleges and universities) which the paper suggests could become Entrepreneurial Campuses.

This means post-16 learning institutions which possess the attributes displayed by successful entrepreneurial campuses around the world and which:

- Inspire the development of an entrepreneurial mindset in their students and staff and academics, promoting and teaching entrepreneurship (including social and impact-led entrepreneurship);

- Provide co-curricular opportunities for students and staff to learn and experience how to succeed as an entrepreneur, linking in with past and current practitioners;

- Provide a launchpad with wrap around support for student start-ups and spin-outs, facilitating access to funding;

- Nurture cross faculty learning, projects, and research, rooted in solving global challenges;

- Work with existing and emerging entrepreneurial communities to amplify regional economic development;

- Develop skills for workers who will staff the start-ups and scale-ups; and

- Provide a pathway to our national **Techscaler network**[4] and beyond.

Supporting more of our institutions to become entrepreneurial campuses would not mean that these institutions would cease to be excellent centres for teaching and learning, only that the extent to which teaching and learning also supported entrepreneurship and hence further positive socio-economic impact in Scotland would increase.

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4 See: **www.techscaler.co.uk**

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**5**

# Call to Action

The paper proposes the adoption of a framework to assess the development and success of Scottish institutions in becoming entrepreneurial campuses.

At a high-level, this framework will measure the extent to which institutions can show they possess specific attributes. The paper explains these attributes in detail and groups them under the following 10 themes:

- **Align with Regional Ecosystem** – Align and interact with your regional ecosystem and external partners to accelerate

- **Inspire through impact** – Inspire young people to engage in entrepreneurial thinking through social and impact led activities

- **Lead from the top** – Establish institutional policies that support the development of an entrepreneurial mindset in students and staff

- **Transform curriculum** – All students undertake credit bearing courses in support of entrepreneurial development as well as set, and optional, cross faculty, practical entrepreneurial learning opportunities during their student journey.

- **Enhance extra-curricular support** – Provide a systematic approach to extra-curricular support for student start-ups

- **Engage external expertise** – Develop (and engage with) an active alumni network and your local entrepreneurial community

- **Enhance spin-out support** – Develop support for academic/staff spin-outs

- **Align funding** – Provide access to funding for student and staff led enterprises

- **Develop a talent pipeline** – Create a vibrant and developing pre-16 domestic talent pipeline as well as attracting entrepreneurial students from around the world

- **Deploy a framework for change** – Establish a framework for change that incentivises our institutions and ensures quality outcomes

The paper develops these themes and suggests a number of actions (58 in total) to establish these attributes across our institutions. All 58 actions are listed in the tables included at the end of this summary.

The Entrepreneurial Campus | National Strategy for Economic Transformation
Programme 1: Entrepreneurial People & Culture

**6**

# Implementation

Change at this scale is complex and difficult to achieve. Each institution begins from a different baseline in terms of capability, ambition and culture. That said, it will be possible to implement and accelerate the change required if we leverage central/national assets (e.g. funding and national policy) in order to ensure commonality in approach across institutions.

For this reason, when considering the list of actions set out at the end of this document, it may be easiest to think about the actions under **Theme 10 (Framework for Change)** as being actions which need to be delivered sooner (or even first) in order to create a structure that will be capable of successfully delivering the actions in the other 9 themes.

For example, Action #54 in the list recommends that institutions should gauge their level of entrepreneurial maturity by assessing the extent to which they possess the attributes of a successful entrepreneurial campuses and indexing their maturity in line with one of three levels – **Bronze**, **Silver** and **Gold**.

If we index institutions' different levels of entrepreneurial maturity, we would have more and better data on their capabilities and the outcomes they are able to achieve.

This would give us a baseline from which to evaluate progress and change over time, clearly establishing **where we are and where we need to get to**. This is not about comparing between institutions but rather tracking progress of individual institutions.

Having established this baseline, Action #55 recommends that the Scottish Government, in partnership with other stakeholders should prepare and publish a framework for the change required to move us from where we are, to where we want to be.

This framework should require key stakeholders to 'self-identify' and make a clear commitment to support/accelerate change.

The key stakeholders in each institution can be categorised as follows:

- **Sponsor** – The individual or group who can authorise the change without seeking approval;

- **Target** – The individuals or groups who must change (note: all sponsors, agents & advocates are also, initially, targets);

- **Advocate** – The individual or group who propose/support the change seeking authorisation from a sponsor; and

- **Agent** – The individual or group responsible for developing & carrying out the implementation plans.

It will be the responsibility of these key stakeholders to ensure that change is:

- **Understood** – i.e. diagnosed correctly

- **Designed** – i.e. the solution developed is fit for purpose

- **Implemented** – i.e. effectively and successfully deployed

- **Evaluated** – i.e. measured in terms of achieving the goal it set out to achieve

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**7**

It will also be the responsibility of these stakeholders to ensure that change is supported by a robust and comprehensive communications plan that addresses the concerns and potential resistance to the change, **and** Key Performance Indicators ('KPIs'), that can be used to monitor the direction of travel of the change itself and also provide an indicator of the impact of delivering a successful entrepreneurial campus.

KPIs should also be linked to the funding of the interventions themselves to ensure that we continue to fund activities that achieve the impact that they are intended to achieve.

It is the case that universities already have a set of KPIs that are currently used to measure their success. So, specifically in relation to universities, our proposal is that a new 'North Star' KPI should be developed which directly supports our ambition to bring the entrepreneurial campus to life.

This 'North Star' measure might be something like:

• The number of start-ups/spin-outs reaching scale up status (i.e. companies that have found product market fit, have grown their turnover by at least 20% per year for 3 years and have over 10+ employees)

Further measures should also be considered and should also be aligned with the metrics being adopted by Scotland's national Techscaler network.

To support the measurement of progress at an overall, national-level, the final Action #58 recommends **the establishment of an umbrella function** to enable collaboration, track available assets, ensure good-practice sharing and comparable standardisation in data collection/ performance benchmarking.

This umbrella organisation would establish the final hierarchy of KPIs that will be required to measure success. This umbrella role may be able to be absorbed by one of the existing **Innovation Centres**,[5] which are currently funded by the Scottish Government.

The above approach will bring sustainable change and delivery however, it does not preclude individual (or groups of) institutions from progressing with implementing the actions listed.

5 See: **www.sfc.ac.uk/innovation/innovation-centres/innovation-centres.aspx**

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**
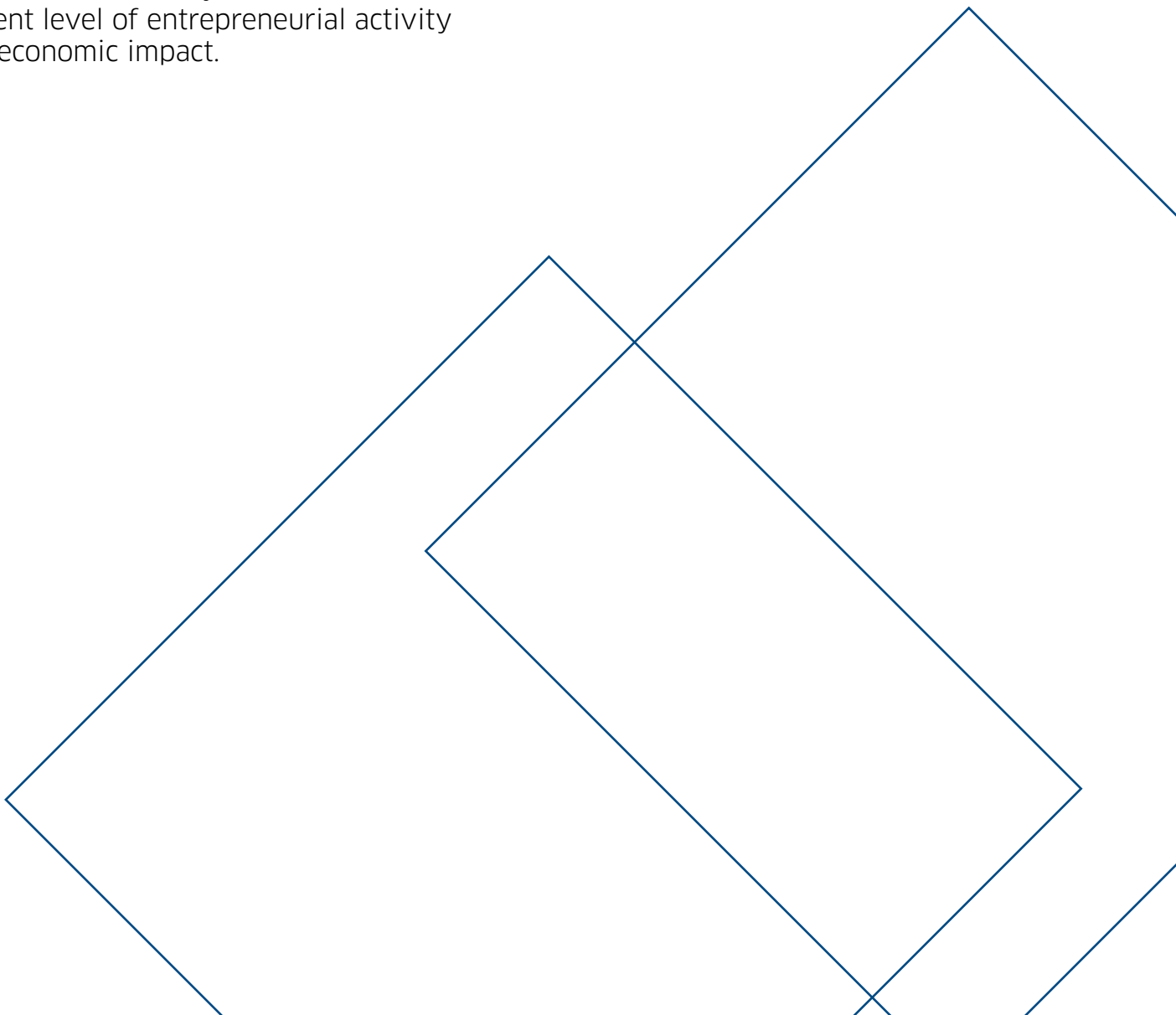
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# Conclusion

Returning to our opening definition as a reminder of what it is that we are seeking to create:

**Institutions that are considered as world-class have had a significant impact on the regions that they inhabit, creating companies, jobs, and tax revenues. In addition, by retaining the expertise in an area, they are able to inspire and educate future generations of entrepreneurs.**

This will not be an easy task – many of the successful institutions around the globe have taken over 50 years to reach their current level of entrepreneurial activity and economic impact.
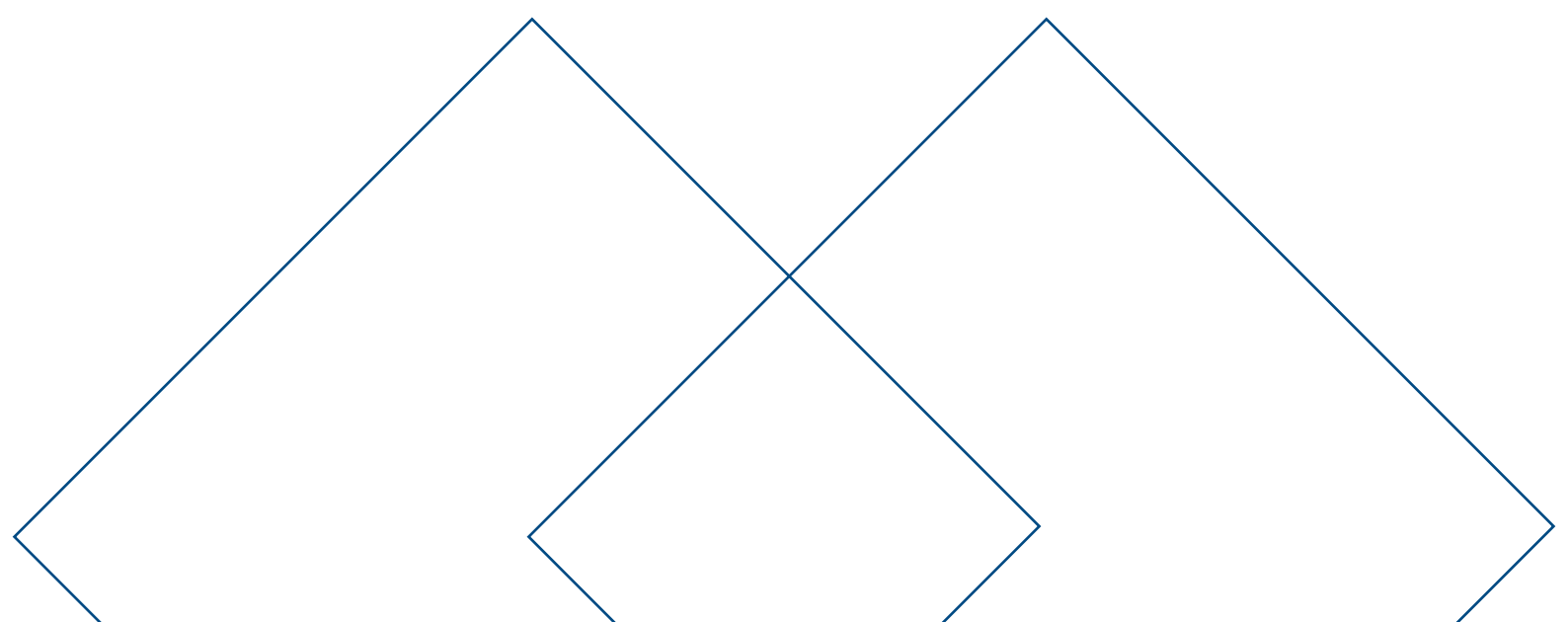
Today, in Scotland, we don't have the luxury of the same timescales, we need to act now and leverage all the learning we can to achieve our potential in a far shorter time period.

That said, the Scottish Government believes that this paper sets out a framework for a collective and collaborative effort which, **if it is undertaken with determination and focus**, will enable Scotland to develop a network of ECs over the next 10+ years.

The Entrepreneurial Campus | National Strategy for Economic Transformation
Programme 1: Entrepreneurial People & Culture

9

# List of Actions by Theme

| Theme 1: Regional Alignment | Action # | Action | Carried out by |
|---|---|---|---|
| | 1 | Develop an aligned "place based" approach that forges close links and strong industrial collaborations across your regional stakeholders | Institutions |
| | 2 | Collaborate and align across institutions within a region sharing programmes and initiatives rather than replicating them on each site | Institutions |
| | 3 | Simplify and enable access to academics for businesses looking to innovate | Institutions |
| | 4 | Map and align the activities of Scotland's national Techscaler network and local/regional institutions | Institutions |
| | 5 | Develop an aligned "place based" approach that forges close links and strong industrial collaborations across your regional stakeholders | Institutions |
| | 6 | Investigate how Venture Studios/3rd party Incubators/accelerators might support the Scottish entrepreneurial ecosystem | Government |

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**10**

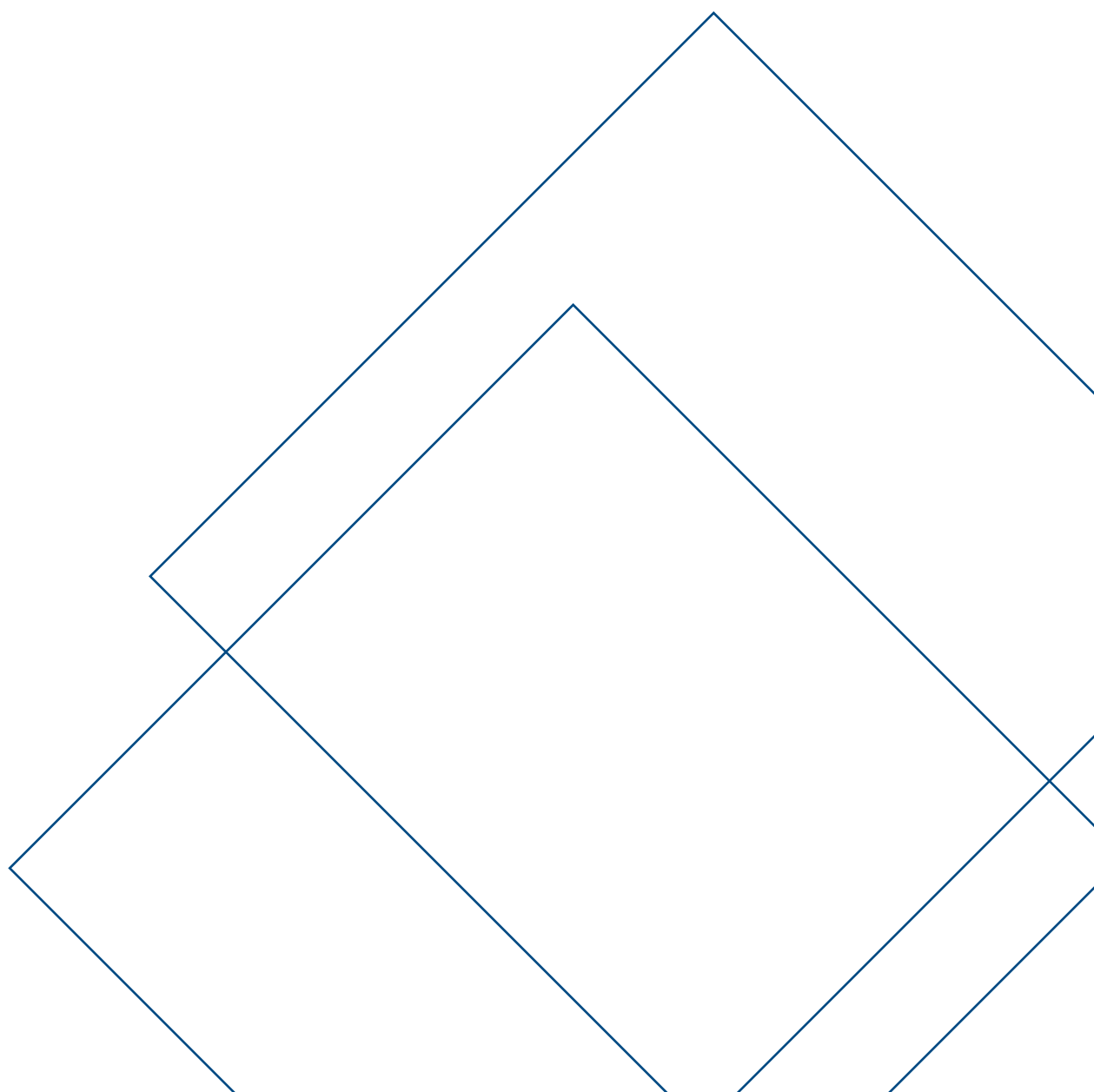| Theme 2: Inspire | Action # | Action | Carried out by |
|---|---|---|---|
| | **7** | Broaden the focus of entrepreneurial activity to include social and impact-led entrepreneurship as part of 'mainstream' entrepreneurship teaching and support | **Institutions** |
| | **8** | Provide a range of funding to our emerging social and impact-led businesses | **Gov't Agencies/ Institutions** |
| | **9** | Work with organisations like (SIS) to leverage the full potential of combined networks | **Institutions** |
| | **10** | Maximise use of regional and national resources/assets to progress positive social and environmental outcomes | **Institutions** |
| | **11** | Create a National Centre for Social and Impact-led Entrepreneurship that provides services to institutions, helping them to develop their social entrepreneurship offerings | **Government** |

| Theme 3: Leadership | Action # | Action | Carried out by |
|---|---|---|---|
| | **12** | Prioritise the development of an entrepreneurial mindset institutions creating a culture that embraces entrepreneurship amongst students, staff, and academics | **Institutions** |
| | **13** | Ensure that staffing levels (including external mentors and advisors) support the potential for entrepreneurial behaviour across institutions | **Institutions** |
| | **14** | Create an organisational structure and accountabilities that strengthen entrepreneurial teaching and support in institutions | **Institutions** |
| | **15** | Partner with, and leverage, government funded/3rd sector organisations that have relevant expertise | **Government** |

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**11**

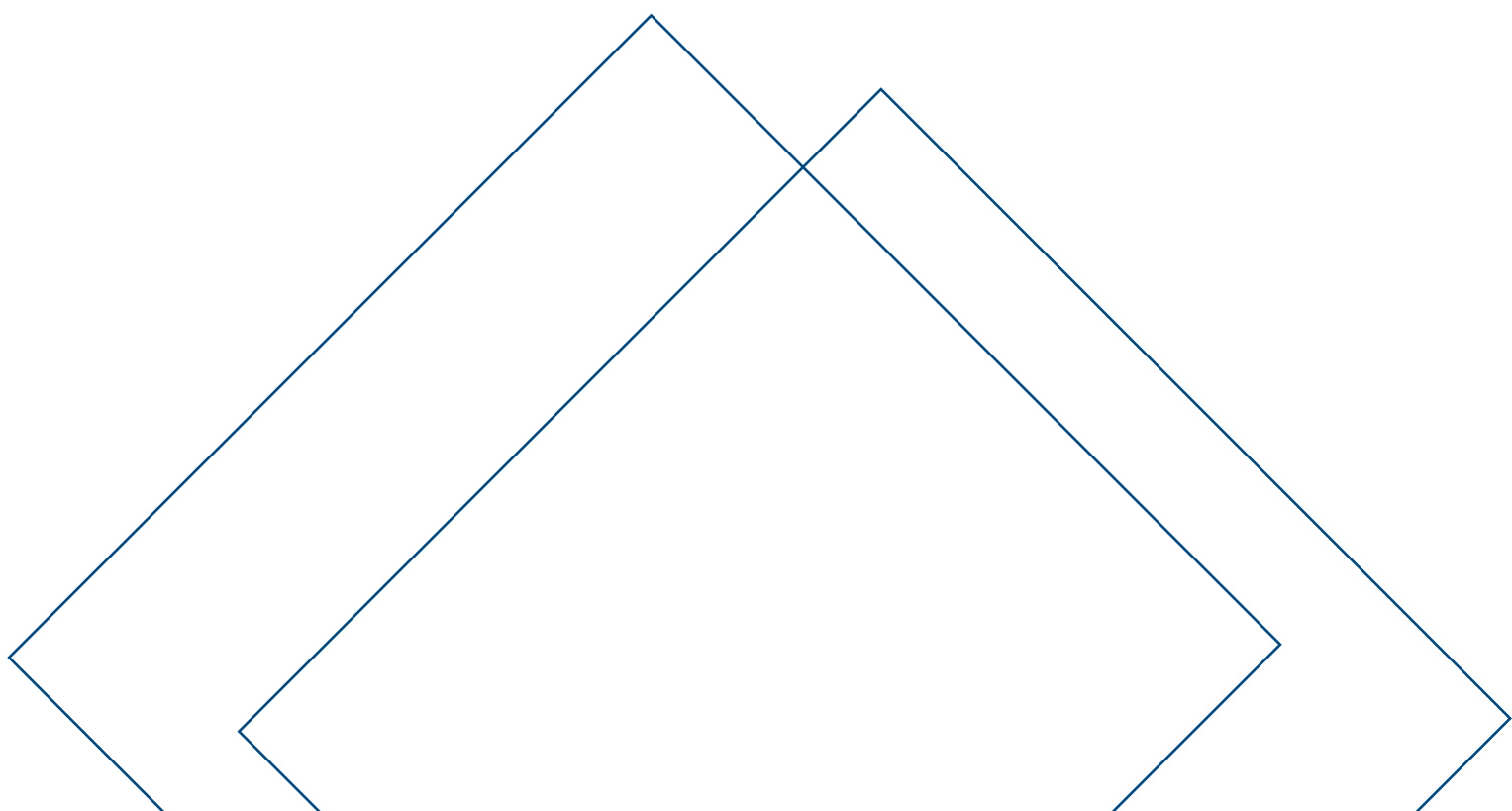| Theme 4: Curriculum | Action # | Action | Carried out by |
|---|---|---|---|
| | **16** | Offer high-quality, credit bearing entrepreneurial courses to all students and postgraduates | **Institutions** |
| | **17** | Attract and develop high quality computer science students by providing flexible pathways into education | **Institutions** |
| | **18** | Technology students should be taught the fundamentals of the internet economy through case studies of tech start-ups and be exposed to internet economy best practice in product development | **Institutions** |
| | **19** | Students have access to a significant number of co-curricular, cross faculty, entrepreneurial based courses | **Institutions** |
| | **20** | Students participate in interdisciplinary/joint undergraduate projects | **Institutions** |
| | **21** | Provide field trips and learning experiences to regions where best practice is demonstrated (e.g. Silicon Valley) | **Institutions** |
| | **22** | Offer courses in social and impact-led entrepreneurship alongside conventional "For Profit" Entrepreneurship | **Institutions** |
| | **23** | Ensure every opportunity is taken to review course content across all faculties, integrating entrepreneurial thinking, teaching, and approaches where applicable | **Institutions** |

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**12**

| Theme 5: Extra – Curricular Support | Action # | Action | Carried out by |
|---|---|---|---|
| | **24** | Provide structured, open, and extensive access for staff, students and graduates to entrepreneurial extra-curricular support not constrained by location, background, or personal circumstances | **Institutions** |
| | **25** | Establish and scale a national, cross institution competition for start-ups and spin-outs. | **Government** |
| | **26** | Create opportunities for CS students to experience developing products/prototypes as well as deliver a prototyping service | **Institutions** |
| | **27** | Launch a National Summer School for tech start-ups | **Government** |
| | **28** | Deliver a range of extracurricular activities focused on grand challenges and creative problem solving | **Institutions** |
| | **29** | Make available more computer science and entrepreneurial internships to students | **Institutions** |
| | **30** | Develop/grow institution-based start-up events similar to SLUSH[6] | **Government/ Institutions** |

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6   See: **www.slush.org**

The Entrepreneurial Campus | **National Strategy for Economic Transformation**
**Programme 1: Entrepreneurial People & Culture**

**13**

| Theme 6: External/ Expert Advice | Action # | Action | Carried out by |
|---|---|---|---|
| | **31** | Connect, and create meaningful relationships, with your entrepreneurial alumni and local entrepreneurial community | **Institutions** |
| | **32** | Build a database of entrepreneurial alumni expertise that can be easily accessed and interrogated | **Institutions** |
| | **33** | Create roles within the institution that facilitate easy access to alumni as advisors and mentors | **Institutions** |
| | **34** | Ensure graduate founders remain connected with their institution in order to coach the next generation of founders | **Institutions** |

The Entrepreneurial Campus | National Strategy for Economic Transformation
Programme 1: Entrepreneurial People & Culture

**14**

| Theme 7: Spin-out Support | Action # | Action | Carried out by |
|---|---|---|---|
| | **35** | Design and implement a user centric technology transfer approach that meets the founders' expectations in terms of timelines to complete an investment | **Institutions** |
| | **36** | Reduce expectations of the level of equity to be retained by the institution | **Institutions** |
| | **37** | Where an institution requires involvement in the ongoing governance of a spin-out, ensure that the skill set, knowledge, and capability of the institution's representative on the spin-out's board is at the appropriate level | **Institutions** |
| | **38** | Set royalties at rates that ensure that revenues are being used for rapid growth rather than paying debt | **Institutions** |
| | **39** | Ensure that the level of support and engagement offered by an institution encourages future pay back and ongoing relationships between the university and founder | **Institutions** |
| | **40** | Improve the support and education provided to spin-out founders | **Institutions** |

The Entrepreneurial Campus | National Strategy for Economic Transformation
Programme 1: Entrepreneurial People & Culture

**15**

| Theme 8: Spin-out Support | Action # | Action | Carried out by |
|---|---|---|---|
| | **41** | Establish an easy to access/understand guide/directory listing grant-makers and inventors | **Government/ Agencies** |
| | **42** | Provide students with access to micro grants (linked to a learning programme) to test ideas | **Government/ Institutions** |
| | **43** | Provide a VC managed Proof of Concept/ Prototyping Grant Fund | **Government** |
| | **44** | Create specific funds aimed at early-stage EC company development (take a regionally aligned approach) | **Government** |
| | **45** | Encourage and enable institutions to invest in start-ups/spin-outs directly or indirectly | **Institutions** |
| | **46** | Provide access to, and active attraction of, Alumni, VCs and PE funding | **All Stakeholders** |
| | **47** | Provide access to reliable and intelligent funding | **Government** |
| | **48** | Investigate alumni funding opportunities | **Institutions** |
| | **49** | Identify corporate funding opportunities | **Institutions** |
| | **50** | Establish funding for an ongoing summer school programme | **Government** |
| | **51** | Establish funding that supports programs that drive diversity and inclusivity | **Institutions** |
| | **52** | Include "entrepreneurial success" as part of the measure of research success | **Government/ Agencies** |

| Theme 9: Talent Pipeline | Action # | Action | Carried out by |
|---|---|---|---|
| | **53** | Create a talent pipeline of young people who are engaged, inspired and embrace an entrepreneurial mindset through their primary and secondary education | **Government** |

The Entrepreneurial Campus | National Strategy for Economic Transformation
Programme 1: Entrepreneurial People & Culture

16

| Theme 10: Framework For Change | Action # | Action | Carried out by |
|---|---|---|---|
| | **54** | Adopt a framework/accreditation system to help individual institutions gauge their level of entrepreneurial maturity as a simple start point for future activity | **Government** |
| | **55** | Establish a guiding framework for the change | **Government** |
| | **56** | Develop and adopt measures and KPIs that will demonstrate success | **Government/ Agencies** |
| | **57** | Establish a strong quality assurance regime that ensures the quality of the inputs to the system | **All Stakeholders** |
| | **58** | Establishing an umbrella function to oversee the change across our tertiary institutions | **Government** |
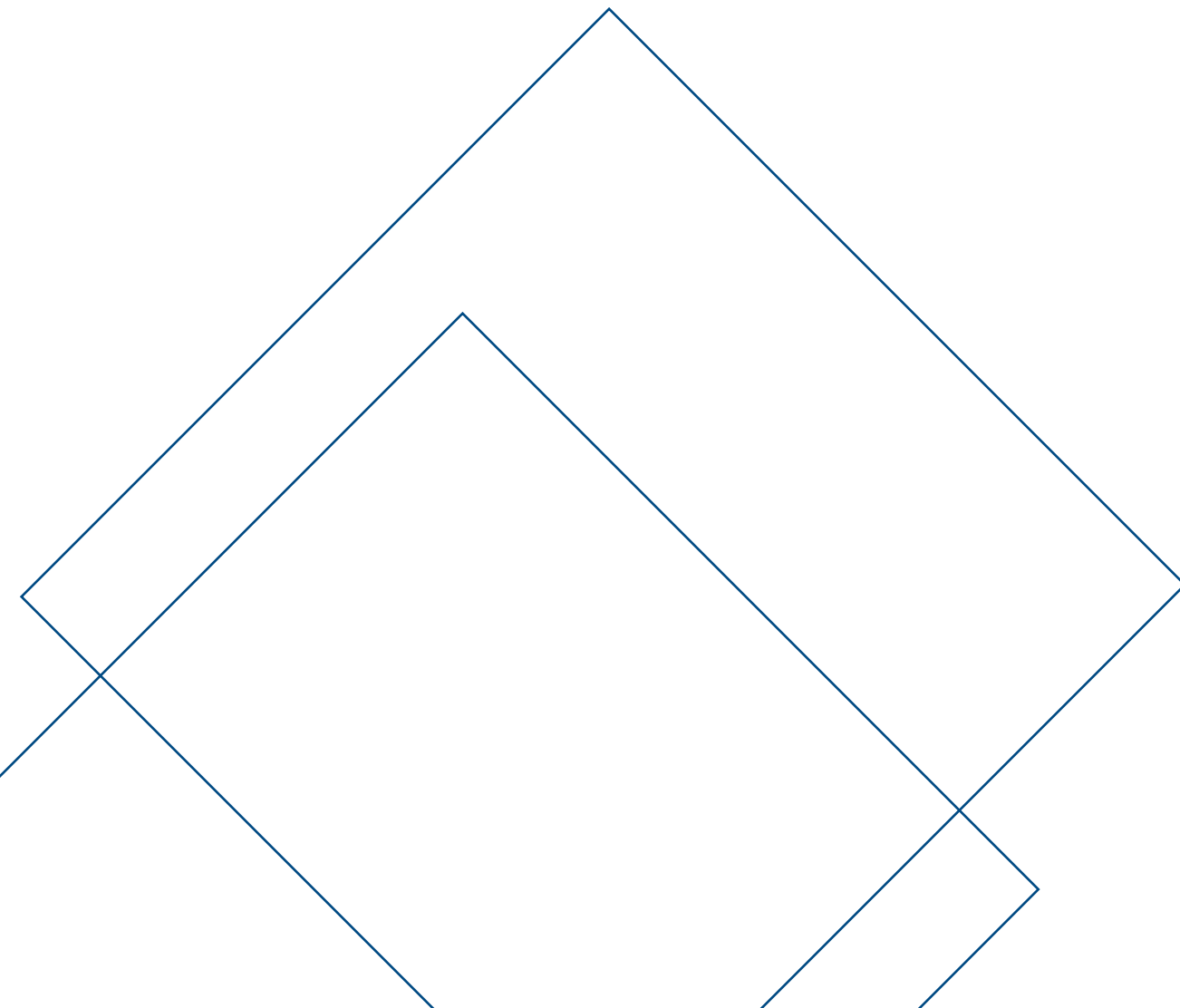
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