

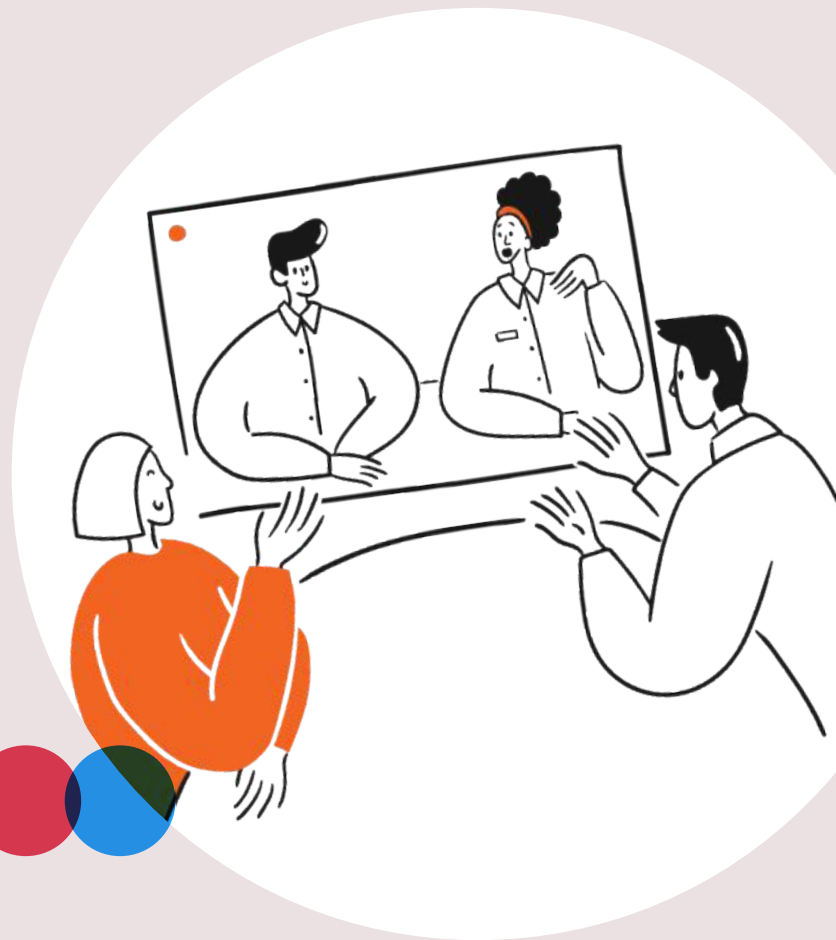
# PebbleRoad EduTech Report

## Deck Overview

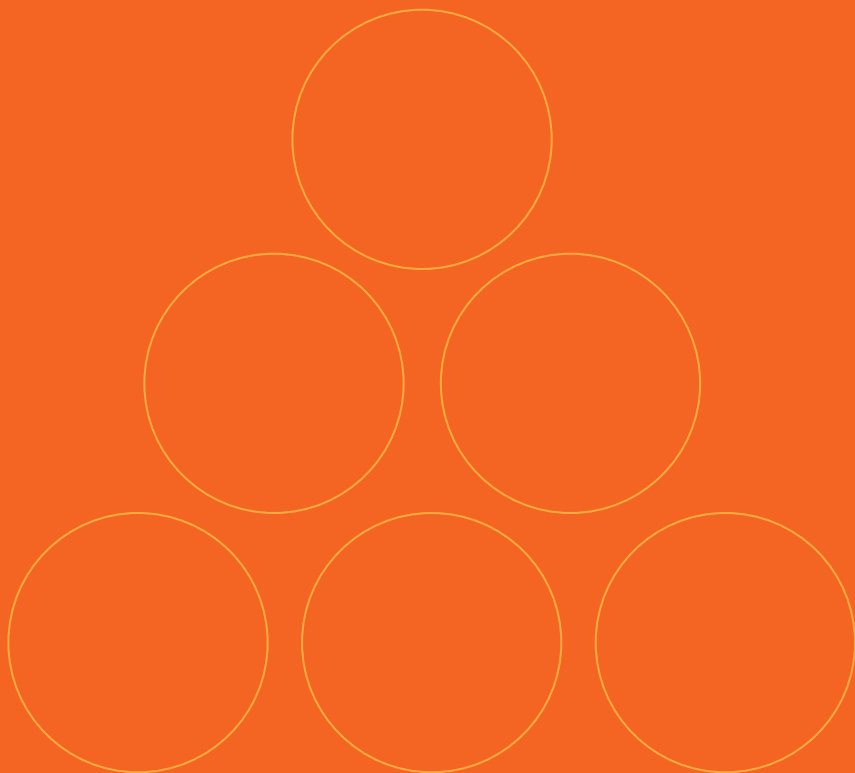
We are here to reach the world's learners through EduTech.

Taking on a broader definition of EduTech, Pebbleroad led a design sprint on how our can be strengthened, and identified new waves of opportunities, identifying a new wave of opportunities as well as their respective enablers. Having interviewed more than 30 stakeholders and engaged around 20 organisations in ideation workshops, PebbleRoad conducted an industry engagement with more than 120 participants, to share their insights gathered, and proposed recommendations to seize opportunities in the EduTech space.

Get inspired with their full report [here](#).

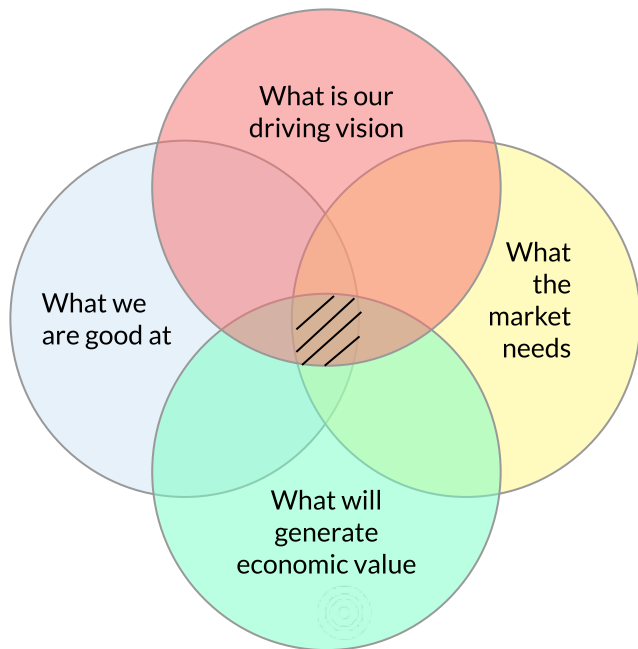


# **Alliance for Action on EduTech — Findings from PebbleRoad's Design Sprint**





## The ask

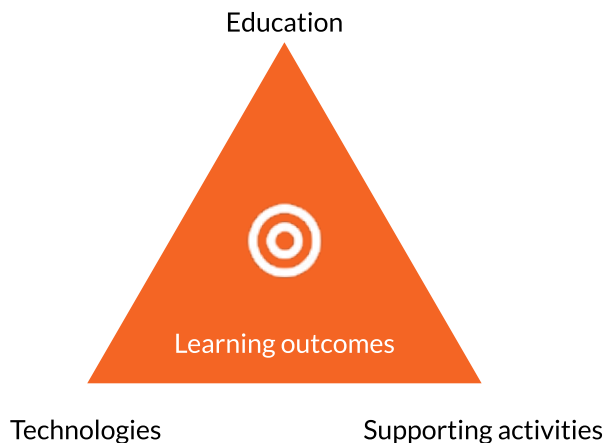


How might we double-down on our efforts and position Singapore as a global centre of excellence for EduTech by strengthening our local education system and growing our brand globally?





# Framing EduTech



We're taking a **broader definition of EduTech**. It's not just about the 'tech' piece only, but also includes the 'edu' part and the support activities that come along with it.

Learner in	Learning outcomes are to	Supporting activities include
Pre-K	Make progress in foundational skills	Childcare,...
K-12	Make progress in formal educational subjects	Tuition, Enrichment,...
Training and Adult Education (TAE)	Gain skills in interest areas and prepare for a job (or start a business)	Certification, Career counselling, Job matching, Interest groups, Internships, etc.





# The research

## Primary research

**35+ interviews** with players in the education ecosystem including Pre-K, K-12, IHL, Startups, Investors, corporates and regulators.

## Secondary research

Analysis of case studies, reports and data from **external sources**.



# Findings





## Opportunities

The opportunities for SG to become a global Centre of Excellence in EduTech.

K-12

TAE

## Enablers

The enablers that can help unlock these opportunities.





# K-12 market

<b>Strengths</b> <ul style="list-style-type: none"><li>• SG brand</li><li>• <b>Bilingual</b> education</li><li>• Pedagogy</li></ul>	<b>Weaknesses</b> <ul style="list-style-type: none"><li>• SG school curriculum is <b>not recognised as international</b></li></ul>
<b>Overseas opportunities</b> <ul style="list-style-type: none"><li>• Globally, the K-12 market is expected to reach \$5T by 2030 <sup>1</sup> (~2T now).</li><li>• A <b>growing middle-class</b> willing to spend on quality English-medium education</li><li>• A growing acceptance of bilingual education (western with local)</li></ul>	<b>Overseas threats</b> <ul style="list-style-type: none"><li>• Need to adapt curriculums to local market needs</li><li>• Large domestic markets (e.g. India, China, Indonesia) have <b>large, well-funded local players</b> who have access to local networks and resources</li></ul>

1. <https://www.holoniq.com/2030/10-trillion-global-education-market/>







# K-12 opportunities

1.

Open English-medium international schools

**Large & growing market:** In 2000, the global market for international schools was \$5 billion. In 2020, the market has risen to \$54.8 billion <sup>1</sup>.

Rise of **bilingual education**

**SG advantage:** reputed brands  
Bilingual

2.

Offer tuition and exam prep services for international schools

**Large & growing market:** surge of large funding in China & India which have huge domestic populations.

**SG advantage:** SG companies with a unique curriculum and pedagogy

3.

Offer enrichment services

**Large & growing market:** The global online language learning market is expected to grow at a CAGR of 18.7% from 2020 to 2027 to reach \$21.2 billion by 2027 <sup>2</sup>.

**SG advantage:** bilingual strengths coupled with high curriculum and pedagogical standards give it a unique advantage in English and Chinese language learning.



1. <https://www.imidaily.com/industry-trends/international-school-market-has-grown-10x-since-2000-what-does-that-herald-for-investment-migration/>
2. <https://www.prnewswire.com/news-releases/online-language-learning-market-worth-21-2-billion-by-2027--exclusive-report-covering-pre-and-post-Covid-19-market-analysis-by-meticulous-research-301096035.html>

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# #1: Open English-medium international schools

SG can offer a bilingual, international curriculum.



SG is viewed as “not pure” international for those looking for western education.

Traditional English-medium powerhouses like the UK, USA, Australia are already growing their presence in Asia.

In 2000, the global market for international schools was \$5 billion. In 2020, the market has risen to \$54.8 billion. In the same period, the number of international schools in China grew from 2,584 to 11,451.



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## #2: Offer tuition and exam prep services for international schools

SG companies have developed a unique curriculum and pedagogies resulting in more effective learning.



SG tuition and exam prep companies have developed their assets around SG curriculum.

The EduTech tuition and exam prep markets are significant and growing. However, large local players already exist, e.g. Yuanfudao and 17zuoye in China and BYJU'S in India.

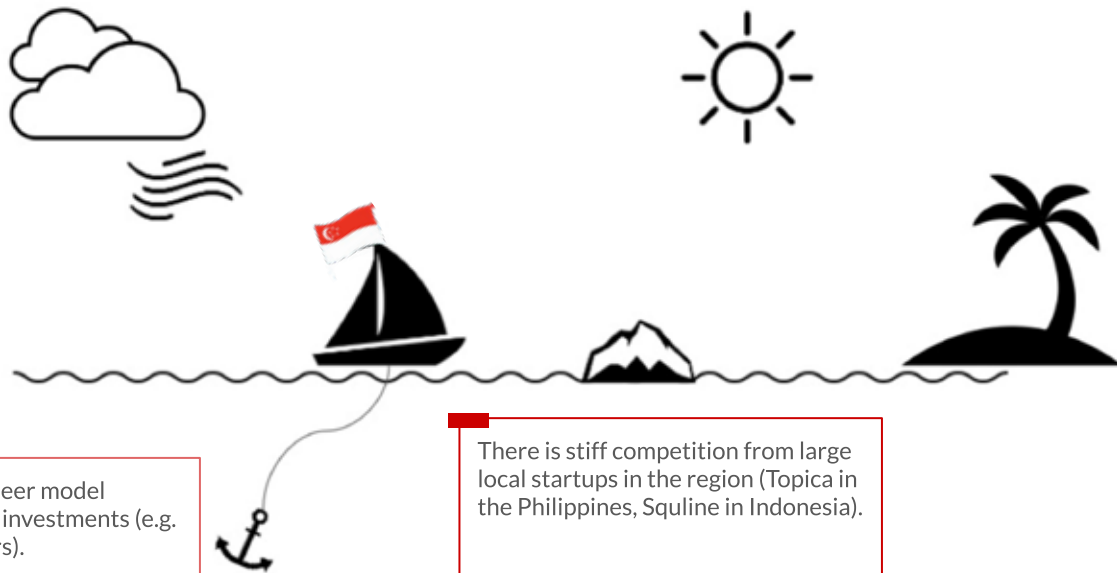
The recent surge of EduTech funding (in India, China) has gone towards tuition and language learning startups. These startups target their huge domestic populations.



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## #3: Offer enrichment services

SG's bilingual strengths, coupled with high curriculum and pedagogical standards, give it a unique advantage in English and Chinese language learning.



The peer-to-peer model requires local investments (e.g. hiring teachers).

There is stiff competition from large local startups in the region (Topica in the Philippines, Squire in Indonesia).

The global online language learning market is expected to grow at a CAGR of 18.7% from 2020 to 2027 to reach \$21.2 billion by 2027.





# TAE market

<b>Strengths</b> <ul style="list-style-type: none"><li>• SG brand</li><li>• <b>SG expertise</b></li><li>• English-medium education</li></ul>	<b>Weaknesses</b> <ul style="list-style-type: none"><li>• <b>Well-funded</b></li><li>• Domestic market focused</li><li>• Limited EduTech capability</li></ul>
<b>Overseas opportunities</b> <ul style="list-style-type: none"><li>• Massive need to <b>reskill due to digital disruption</b></li><li>• Online training and certs gaining legitimacy</li></ul>	<b>Overseas threats</b> <ul style="list-style-type: none"><li>• Funding</li><li>• Need for bespoke curriculum</li><li>• <b>Well-funded startups</b> such as <i>Coursera</i>, <i>Exec Online</i>, <i>Emeritus</i></li></ul>





# TAE opportunities

1

Export Technical and Vocational Education and Training (TVET) systems to emerging markets

**Large & growing market:** The Global Vocational Training market size was 23,714.7 million USD in 2017, and it will be 58,885.2 million USD in 2025, with a CAGR of 12.04% from 2017 to 2025 <sup>1</sup>.

**SG advantage:** Singapore TVET level is high-quality, and at times, equivalent to university-level in developing countries.

2

Open up IHL-CET courses to online possibilities

**Large & growing market:** Massive funding pouring into the CET space.

**SG advantage:** Singapore's IHL-CETs are among the top learning institutions in the region. They offer high-quality, practitioner-led courses across a variety of topics that are going to be relevant in the future of work (e.g. trade finance).

3

Commercialise and leverage knowledge created at Singaporean hubs locally and overseas

**Emerging market:** The transition to Industry 4.0 requires new skills across the board.

**SG advantage:** Singapore has early mover advantage and can use its knowledge and expertise to lead the reskilling revolution.

1. <https://www.skillreporter.com/2018/10/news/skilldevelopment/global-vocational-training-market-expected-to-reach-58885-2-million-usd-report/>





# TAE opportunities

4

Offer corporate academy services to fast growing SMEs

**Emerging market:** Fast-growing SMEs can't afford to have their own L&D teams and struggle to find the right training for their employees.

**SG advantage:** Public and private IHL-CETs are well placed to service this need as they are familiar with the modern skill requirements and have the facilities.



5

Commercialise our domain expertise in ports, airports, rail, etc.

**Emerging market:** Key industries such as ports, airports and rail are also undergoing digitalisation in the region.

**SG advantage:** Singapore has actively pursued the digitalisation of its key industries such as ports, maritime, aerospace, rail, water and environment. Most, if not all, of these industries, have their academies (e.g. The Rail Academy, PSA Institute, etc.).

# ..... #1: Export Technical and Vocational Education and Training (TVET) systems to emerging markets

ITE Education Services (ITEES) has been training and setting up TVET systems for countries in Asia, Africa and the Middle East since 2003.

Blended learning opening up opportunities.

ITEES today is dependent on the time and resources of ITE staff to execute a project.

Premium pricing unaffordable to education institutes and learners in the developing markets.

Inability to execute blended learning because of quotas on foreign student intake.

The Global Vocational Training market size was 23714.7 million USD in 2017 and it will be 58885.2 million USD in 2025, with a CAGR of 12.04% from 2017 to 2025.





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## #2: Open up IHL-CET courses to online possibilities

Singapore's IHL-CETs are among the top learning institutions in the region.

The courses are also aligned to fields that will be most relevant in the future as identified by SSG.

Domestically focused. No initiative or ambition to go overseas.

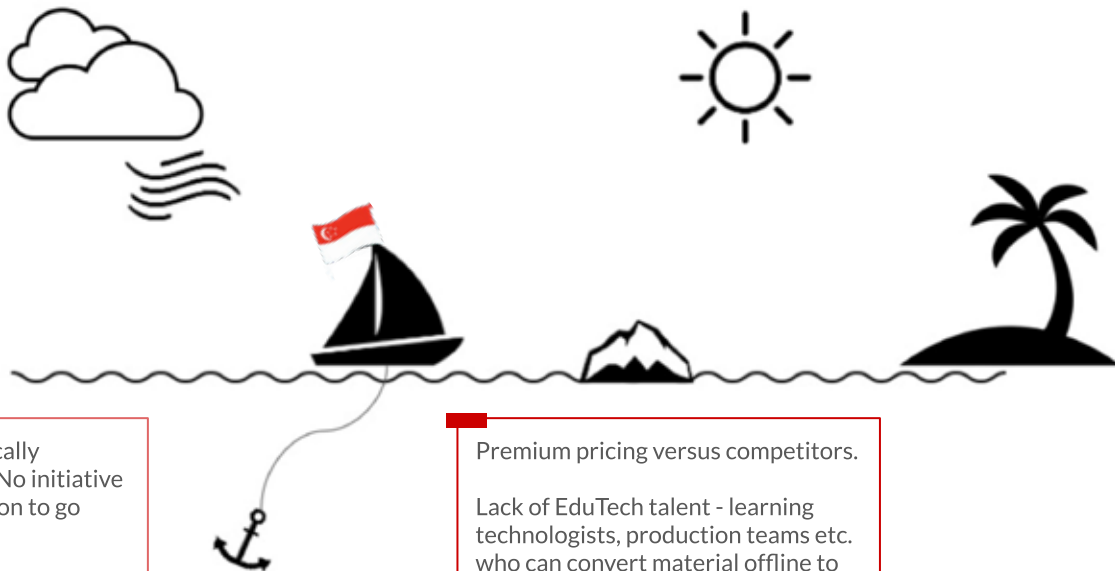
Well funded - eliminates hunger for innovation.

Premium pricing versus competitors.

Lack of EduTech talent - learning technologists, production teams etc. who can convert material offline to online effectively.

Lack of demand assessment and marketing and sales skills

The rapid movement to virtual learning due to COVID-19 has created the opportunity for IHL-CETs to extend their reach to overseas students in situ.



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## #3: Commercialise and leverage knowledge created at Singaporean hubs locally and overseas

These are Singapore's hubs and knowledge is continuously created in these hubs.

Openness to sharing.  
Will this take away the competitive advantage?

Identification of the right broker to unlock this.

Costs - Who will pay for this initiative and how will the courses be priced.

Unlocking new knowledge created in hubs will enable

1. **Knowledge mobility:** learning exchange between hubs or to other regional initiatives
2. **Job mobility:** create talent pools at the hubs that can prompt Singapore SMEs to internationalise.



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## #4: Offer corporate academy services to fast growing SMEs

Public and private IHL-CETs are well placed to service this need as they are well versed with the SkillsFuture frameworks and offer courses aligned to the framework. They also have the facilities that can be leveraged in blended learning.

Resources need to be pooled in order to cater to a wide variety of learning needs.

ROI measurement: SMEs find it difficult to measure business outcomes related to training spends

Training budget: SMEs struggle to find budget for training

Reskilling and upskilling have become critical functions for an organization's survival. While large firms often have in-house academies, SMEs struggle to identify and execute training needs



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## #5: Commercialise our domain expertise in ports, airports, rail, etc.

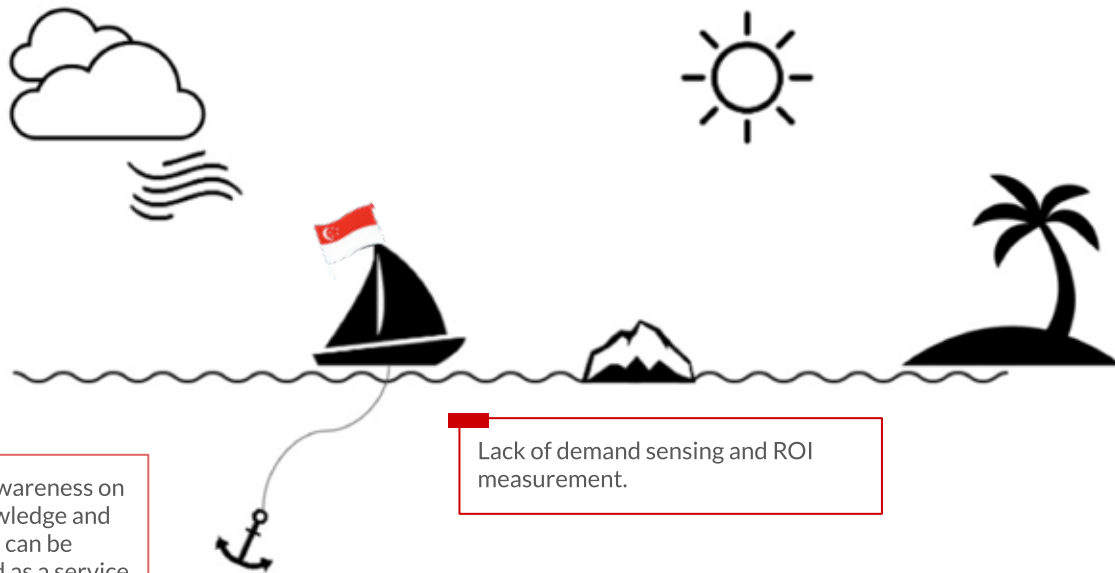
Academies of key industries such as ports, maritime, aerospace, rail, water and environment are digitalising their content.

Many offer ripe material for EduTech startups who want to experiment with AR/VR solutions and simulations.

Lack of awareness on how knowledge and expertise can be leveraged as a service for emerging markets.

Lack of demand sensing and ROI measurement.

Rapid development of key industries in the region is increasing the need for modern and advanced knowledge, something that is readily available in Singapore.





# Ecosystem enablers

1

Strategic advisory

Consultancy services for EduTech players across the board to help increase the chances of success and improve business performance.

2

Skills frameworks

Frameworks for identifying, building, and managing competencies at scale.

3

Business development

Sensing demand, building networks, and finding the right clients in overseas markets.

4

EduTech talent

Online trainers, online curriculum developers, media developers, learning analysts, software programmers, educational technologists, and other talent required to online learning.





# Enablers



5

## Test bedding

Testing of a new EduTech product or solution with a selected sample of users to get feedback for improvement.

6

## Funding and monetisation

Investments for growing and scaling a business  
  
Innovative models for paying for learning (e.g. micro financing of courses).

7

## Networking and events

A regular forum for the EduTech ecosystem players, both domestic and international, to connect so they can form collaborations, partnerships and also inspire and learn from each other.

8

## Reputation and image

The continuous pursuit of positioning SG as a global COE to attract the best-in-class talent and companies.



1.

## Strategic advisory

### What it is

These are consultancy services for EduTech players across the board to help increase the chances of success and improve business performance.

- Coaching & mentoring
- Information & insights
- Networks and connections

### Why it is needed

Players today lack:

- A business orientation (especially if well funded)
- Trend awareness
- The right connections (domestic & international)
- Resilience to operate in developing markets where systems are not as well developed as in Singapore

# What can we in the community do?



2.

## Skills frameworks

### What it is

Skills frameworks and standards quantify competency requirements for a particular skill. These frameworks help to better understand, map and manage the skill development process.

Such common standards drive collaboration, measurement and innovation.

### Why it is needed

To quantify and open up the learning ecosystem to digitalisation just as the Fitbit opened up the self-tracking ecosystem by quantifying walking, running, sleeping, etc.

# What can we in the community do?





3.

## Business development

### What it is

Business development is about sensing demand, building networks, and finding the right clients in overseas markets. In educational contexts, business development efforts change on a city-by-city level.

### Why it is needed

Players today lack:

- An agency that can help with calculating business demand overseas
- Marketing and sales skills

# What can we in the community do?



4.

## EduTech talent

### What it is

The talent required to create, deliver and measure effective online learning. E.g. online trainers, online curriculum developers, media developers, learning analysts, software programmers, educational technologists, etc

### Why it is needed

Online learning requires very different skills across the board, from curriculum development to content creation to online delivery and assessment.

**What can we in  
the community  
do?**



5.

## Test bedding

### What it is

Test bedding is the testing of a new EduTech product or solution with a selected sample of users to get feedback for improvement. It is also used to co-create new products or solutions (e.g. co-creating new assessment tools with the help of teachers).

### Why it is needed

EduTech startups in SG find limited opportunities to test their products or services with actual learners in actual learning environments.

Enterprises are open to testing bedding startup ideas but mention that they don't get approached on this matter.

# What can we in the community do?



6.

## Networking and events

### What it is

A regular forum for the EduTech ecosystem players, both domestic and international, to connect so they can form collaborations, partnerships and also inspire and learn from each other.

### Why it is needed

Innovation, knowledge creation and learning are all best unlocked if there are interactive processes where players possessing different types of knowledge and competencies come together and exchange information with the aim to solve some technical, organisational, commercial or intellectual problems.

There is a need for regular conventions where players meet and can connect with each other, participate in hackathons etc.

# What can we in the community do?



### What it is

In the EduTech sector, funding needs to be looked at from a few different angles:

- Funding for startups
- Workable monetisation models given the premiumness of Singapore's education

### Why it is needed

Funding for Startups - small funds (<US\$1mn) is easy but bigger funds (>US\$5mn) is not

Monetisation models for education providers - Singapore's education comes at an unaffordable premium for less developed markets. Need to find new models - e.g. earn as you learn, micro financing

# What can we in the community do?



8.

## Reputation and Image

### What it is

The continuous pursuit of positioning SG as a global Centre of Excellence (COE) of the world in order to attract the creative class individuals and companies.

### Why it is needed

SG has an amazing country brand image - high quality standards and governance. In education, stands tall with top PISA scores, maths curriculum and educational institutions.

However, there is a need to create a brand around Singapore EduTech COE. The focus will serve to organically create a demand for Singapore's education assets as well as attract talent and startups across the value chain that will help drive innovations in this space.

# What can we in the community do?

