

TODAY'S CHALLENGE **TOMORROW'S INNOVATION**

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CHALLENGE STATEMENT #09

1. Challenge Owner Index and Pseudonym

#09 – Sustainability Training Corporation

2. Challenge Statement

Training on ESG, sustainability and carbon footprint assessment is critical now across sectors and service providers. It is expected that ESG reporting market will be worth over \$30B by 2023. However, due to complexity of the industry, many existing data collection & certification systems (GRESB, WELL, LEED, GreenMark) as well as a variety of data collection methods, it is very difficult for industry professionals to navigate this field, build their skills and extend their professional credentials. Sustainability Training Corporation develops solutions (sensors and software) to help organization meet their sustainability goals and certify their operation. To meet industry needs in Singapore and abroad, Sustainability Training Corporation needs to train & upskill a diverse group of industry professionals, including building managers, sustainability consultants, maintenance contractors, technology vendors and system integrators. Due to the diverse backgrounds of our trainees, it is very time consuming to meet everyone's needs. Our learning challenge is to create an automated way to quantify the background knowledge of our trainees, fine tune education content to their need and develop ways to reward them for meeting learning objectives and applying them in practice.

3. About the Challenge Owner Organisation

- Sustainability Training Corporation (based in Singapore, Canada and South Korea) offers a business intelligence solution composed of predictive software and multi-sensor IoT device networks as well as services. We offer advanced sensors that measure air quality, ventilation and mechanical systems and people flow in real-time at high accuracy. It helps operators save 30% in operation and maintenance costs, over 20% in energy, improve air quality, reduce downtime, prevent the transmission of infection like COVID-19 and detect early indicators on fire and smoking.
- Sustainability Training Corporation data can also be integrated with ventilation control systems, ESG reporting and certifications like LEED, WELL and GRESB. The company has paid pilots with 3 international hotel chains, construction companies, transportation system operators and partnerships with OEMs, integrators and distributors in building automation and air filtration industries as well as 20 awards for technology innovation in Asia, North America, South America and Europe.
- The company has applications and case studies in real estate management, hospitality, transportation, automotive, maritime logistics & insurance. The company is looking for partners for distribution, technology budding and pilots. Due to high demand for Sustainability Training Corporation products and services the company was able to successfully expand with subsidiaries & projects in Singapore, South Korea and Hong Kong as well as pilots in Japan, Taiwan, Philippines, Spain, Portugal and Chile, only 3 years after founding with large MNC customers in Asia, Europe and North America. The company is led

by domain and technical experts, received investment from Techstars and is recognised by multiple global awards and accolades.

- In order to help companies, meet their sustainability and ESG goals faster, Sustainability Training Corporation created a training program (initially targeting stakeholders in real estate, including building owners, facility managers, consultants, contractors, tech vendors, and system integrators).
- Sustainability Training Corporation training program is designed to help real estate professionals better navigate the different certifications systems and help them achieve their sustainability targets, improve their competency or up-skill for their own professional growth.
- There are 3 main modules in this certification programme: (1) Introduction to running a successful sustainability program, certification options, methods and applications, (2) Digitisation of real estate management processes, (3) Integration of different property tech solutions to ensure successful projects.
- Learners who sign up have 2 main goals: 1) learn how to better quantify and reduce carbon emissions, 3) learn how to use technology to improve organisational processes.

4. Define the Challenge

Current Situation

- Training on ESG, sustainability and carbon footprint assessment is critical now across sectors and service providers. It is expected that ESG reporting market will be worth over \$30B by 2023. However, due to complexity of the industry, many existing data collection & certification systems (GRESB, WELL, LEED, GreenMark) as well as a variety of data collection methods, it is very difficult for industry professionals to navigate this field, build their skills and extend their professional credentials.
- Sustainability Training Corporation develop solutions (sensors and software) to help organisations meet their sustainability goals and certify their operation. We recruit, train and upskill industry professionals on the latest technologies to quantify ESG, emissions (scope 1, 2, 3), optimise certification process and optimise sustainability and wellness protocols. Our Founder and CEO, has PhD in Chemical and Environmental Engineering and spent 8 years teaching and 11 years providing technology and consulting services across real estate, construction, hospitality, logistics, marine and other sectors.
- To meet industry needs in Singapore and abroad, Sustainability Training Corporation launched a training program and certification system for real estate professionals.
- The training program is used to train & upskill a diverse group of industry professionals, including building managers, sustainability consultants, maintenance contractors, technology vendors and system integrators.

Past & Current Solutioning Efforts

- The majority of sustainability training and certification are focussed on how to get a building to meet specific standards, not on training people to understand the possibilities and select the best option for improving sustainability within an organisation.
- It is critical that the organisations look at their business operations and processes more holistically and not just building mechanical and electrical systems.
- Due to the diverse backgrounds of our trainees, it is very time consuming to meet everyone's needs (e.g. some of the trainees we work with are in real-estate, some in technology, some in consulting, etc.) It is challenging to optimise the training efficiently for each of the trainee's unique context and evaluate the improvement in their skills as well as how they apply the new skills in their own environment and in their day-to-day work.

- Our learning challenge is to create an automated way to quantify the background knowledge of our trainees, fine tune education content to their need and develop ways to reward them for meeting learning objectives and applying them in practice.
- We tried many approaches to optimise the training and evaluation process, including Zoom webinars, in-person workshops and training sessions. There are many challenges in these approaches, including:
 1. Challenges in recruiting and screening individuals to maximise their learning outcomes
 2. Difficulty in engaging trainees that come from different educational and professional backgrounds
 3. Challenges in valuating learning progress and incentivising the learners to keep upgrading their skills
 4. Challenges in tracking and quantifying the learner satisfaction
- The reason other solutions don't work well is because lack of:
 1. Lack of flexibility
 2. Lack of ability to optimise the content for the background and needs of specific individuals and their learning profiles
 3. Lack of automation and the time it takes to customise and revise the curriculum for individual needs
 4. Lack of solutions that engage learners in a more hands-on way while making the remote training possible
- We are looking for a solution that addressed the above challenges and creates a way for learners to use and be assessed on as part of the Sustainability Training Corporation certification programme. It would also be valuable if the proposed solutions can be used to assess people who are coming to be re-certified after several years.

Challenge / Gap / Unrealised Potential

- It is critical for organisations to upskill their workers to meet the sustainability and net zero emissions objectives of organisations, as this is one of the core criteria of evaluation by investors.
- If the current sustainability targets are not met, organisations stand to lose millions of dollars in value.
- One of the reasons why it is challenging to meet the targets is the lack of trained professionals has week a bottleneck in helping organisations track their progress and optimise their ability to meet their goals. The inefficiency and lack of personalisation of current training solutions prevent us from reaching this goal. This increases stress for the trainers and frustration for the trainees.
- Assessing the application of skills sets within in the context of the learner's organisation can be challenging and time consuming. Due to COVID-19 restrictions, many professionals are also working from home, making it difficult to conduct assessments.

5. Targeted Learners / Users

Our primary target users are 100 real estate professionals in our customers network. The secondary target use population is over 500,000 professionals in Singapore who are interested in upskilling on environmental reporting, as indicated by our market research.

6. Solution Partner and Deliverables

We are looking for a solution partner with experience with corporate training, especially in sustainability, safety and wellness sectors. The solution partner should be comfortable with

developing educational & microlearning content as well as systems for automating and gamifying skills testing and evaluations. Although not required, preference is given to companies started by Singapore citizens or PRs.

7. Expectations of Solution

As some of the educational content is proprietary, the solution must abide by NDA clauses within the organisation and cannot be used for external purposes. This might be negotiable depending on proposal.

8. Measures of Success

Success from the perspective of Sustainability Training Corporation:

- Trainees have a way of being updated on the latest solutions available on the market and how to apply their knowledge within their company and that of their clients;
- Trainees are equipped to be able to meet the specific ESG goals within their company and that of their clients;
- Trainees are encouraged and motivated to do things differently and not go back to the old ways of doing things;
- Trainees are up-skilled and are able to use the qualification to get better jobs;
- Trainees can be assessed based on their competency and qualifications for our certification programme;
- Trainees can be assessed based on how they apply the learning within their company and that of their clients.

Success from the perspective of Learners/Trainees:

- Trainees are able to understand what is on the market in the fastest way;
- Trainees are able to grow their ESG skills and get involved in bigger projects while advancing their professional goals;
- Trainees are connected with a community of learners/ practitioners who can further their learning and knowledge exchange.

Success from the perspective of Learners/Trainees's organisation:

- The organisation is better able to meet its sustainability goals;
- The organisation is better able to meet its productivity goals;
- The organisation is able to encourage stronger cohesion within its team, helping employees to encourage each other and add on to each other's learning.

Evaluation criteria & methods:

- Evaluation criteria: background of solution partner, rollout timeframe, implementation cost, better learning outcomes & ways to engage our audience.
- Evaluation methods: capital ROI, surveys and qualitative feedback from learners during pilot, assessment of learning outcomes.

Expected tangible outcomes:

- We expect that the right solution will save us 30% of time in delivering our training program and will help us to increase the trainee satisfaction by at least 20%.