

OPTIMISING COURSEWARE DEVELOPMENT THROUGH TARGETED NEEDS ANALYSIS AND SAFETY COMPLIANCE

CHALLENGE OWNER

This challenge is part of the **innovPlus Challenge 2024 Run 2**, organised by the Institute for Adult Learning's inlab. As part of the iN.LEARN 2.0 initiative, innovPlus facilitates the rapid development and pilot deployment of prototypes that can address learning challenges and exploit opportunities for better Learning and Development (L&D) and Continuing Education and Training (CET) outcomes, including design, delivery and assessment.

innovPlus is organised as a competition for training providers, organisations with L&D departments, learning experts, solutionists and technology partners to collaborate and present a holistic solution to real learning challenges faced by the training provider, organisation and/or groups of learners. Please refer to [Annex A](#) for more background on innovPlus.

The Challenge Owner specialises in Access, Safety, and Rescue Training, Consultancy, and Services. They provide tailored safety solutions to a wide range of industries, ensuring compliance with workplace safety standards and fostering a strong safety culture. Their services span both the private and public sectors, locally and internationally.

Expertise: Led by experienced professionals in Workplace Safety and Health (WSH), the Challenge Owner has a proven track record in developing WSQ and non-WSQ courses for both online and classroom settings. They have successfully supported trade associations, government agencies, and large corporations in establishing experiential WSH training schools.

Leadership: Their Managing Director and Advisor are key figures in the development of safety standards, including SS ISO 12100:2024. Their leadership drives the company's commitment to innovation in safety training and consultancy, helping to set new industry benchmarks.

CONTEXT

CURRENT SITUATION

The limitations of traditional workplace safety training impact multiple stakeholders. The Challenge Owner faces challenges with outdated course content, inefficient and sub-optimisation of courseware development processes, particularly in adapting to evolving safety standards like SS ISO 12100:2024. The inability to leverage advanced technologies, such as adaptive learning or Gen AI, further reduces the effectiveness of training.

Course Developers struggle to keep materials updated, with current processes delaying necessary revisions to reflect new regulations. Additionally, integrating advanced technologies remains difficult due to the static nature of existing course structures, limiting the ability to quickly improve learning experience based on feedback provided.

Clients in safety-critical industries rely on up-to-date training to ensure compliance and reduce accidents. Outdated materials expose them to risks of legal liabilities and unsafe work environments. The inability to address diverse learning needs means critical and new safety concepts may not be effectively communicated to all workers.

The Industry overall is slow to adopt modern safety practices due to outdated training that fails to reflect current regulations. This reactive action increases the risk of industrial accidents, leading to

financial losses and reputational damage. Additionally, the failure to integrate new technologies further hampers the industry's ability to advance safety standards.

Addressing these challenges requires a modernisation and optimisation of the training approach, integrating technology and adaptive learning, which could be achieved through initiatives like the innovPlus Challenge.

PAST AND CURRENT SOLUTIONING EFFORTS

The Singapore Contractors Association Ltd (SCAL) Academy offers a Design for Safety (DfS) course for SMEs in the construction industry, which has been mandatory for HDB contractors' Project Managers for the past decade.

SSG's current courseware development methodology for WSQ courses is functional but has not fully utilised and optimised advanced technologies to scan and integrate relevant competency standards like SS ISO 12100.

The Workplace Safety and Health Act (WSHA) provides a solid framework for worker safety, but recent incidents reveal gaps in areas such as Training Needs Analyses (TNA), Competency Standards (CSs), and Assessment Plans (AP) in compliance to the TSC (Technical Skills and Competencies) Framework.

These gaps pose a challenge for regulators in revising skills frameworks to address current and future safety training needs, requiring the integration and optimisation of advanced technologies, personalised learning paths, and updated competency assessments.

The introduction of SS ISO 12100:2024, alongside technologies that scan and update competency standards, is crucial for improving workplace safety and addressing emerging risks.

CHALLENGE / GAP / UNREALISED POTENTIAL

If the challenge in courseware development — particularly in Training Needs Analyses (TNA), Competency Standards (CS), and Assessment Plans (AP) — is not addressed, learners will continue to face disengaging, one-size-fits-all training. This lack of adaptive learning solutions will result in poor retention of critical safety knowledge, increased workplace errors, and non-compliance with SS ISO 12100:2024, ultimately heightening safety risks. To address the urgent need for critical training, the Challenge Owner will optimise and prioritise the development and rollout of relevant training by identifying gaps in work safety standards, skills, and competencies.

CHALLENGE STATEMENT

How might we transform and optimise learning outcomes by driving courseware development with a well-informed training needs analysis, enhancing training effectiveness while ensuring alignment with safety standards such as Singapore Standard SS ISO 12100:2024?

WHAT ARE WE LOOKING FOR?

The solution should meet the following criteria:

- Advanced TNA and Learning Analytics. Leverage tech-driven insights to identify learning gaps, industry trends, and assessment results for course refinement.
- Learner feedback. Uses tech-driven platforms to continuously collect and analyse learners' assessment results and feedback. Ensures course design, content delivery, and user experience are regularly updated and optimised based on learning outcome. This approach makes training more dynamic, targeted, and aligned with learner needs and industry requirements.

- Optimisation. Optimisation of routine tasks like content generation, compliance checks, cross reference matrix, lesson plan, and updates to free up time of developer.
- Performance Analytics. Ability to track learning outcomes, engagement, comprehension, and regulatory compliance for continuous content improvement.
- Ongoing Support. Use of advanced technologies to provide regular updates and support to align with evolving standards and technology.

OVERALL PERFORMANCE REQUIREMENTS

- Seamless Integration. The solution must integrate and optimise smoothly with existing courseware development tools to minimise disruptions and maintain continuity in learning.
- Creation of AI Driven Competency Standards for Content Alignment with Standards. The solution must ensure all learning materials comply with SS ISO 12100:2024 and related safety regulations, automatically mapping content to meet safety standards and compliance guidelines.
- Customisable and Scalable. It must be flexible to accommodate various courses and scalable to handle different content volumes, ensuring consistency across multiple programs.
- User-Friendly Interface. The solution should have an intuitive interface that allows easy interaction with advanced technologies, without requiring extensive technical expertise.

TARGETED LEARNERS / USERS

Primary and Secondary targeted learners / users of the envisaged solution (including estimated numerical figures)

- The primary target users of the proposed solution are:
 - Courseware developers who need to create content that is not only educational but also compliant with safety standards.
 - Trainers who are responsible for delivering the courseware to learners.
 - Potential trainees and employers as we intend to carry out detailed TNA, CSs, and AP.

Based on the roles within ASR, the primary target users will primarily be their internal courseware developers and trainers. As they intend to carry out TNA, potential trainees and their employers will be included in the pilot. ASR has around 50 employees including their associates and customers across these roles.

Estimated Primary User Population: 50 users.

Pilot Testing: 15 users

- The secondary target learners / users:
 - Trade associations that oversee the adherence to industry standards and may require access to the developed courseware for verification or training purposes.
 - Members of the trade association including:
 - Machine Manufacturers
 - Design Engineers
 - Machine Importers and Distributors
 - Employers and Operators
 - Safety Inspectors and Regulators
 - Certification Bodies
 - Maintenance and Service Providers
 - End Users / machine operators

Their goal is to meet the diverse needs of training providers who are new to advanced technologies as well as industry stakeholders who need to be familiar with SS ISO 12001:2024 standard. They aim to enhance productivity in courseware development while ensuring strict

compliance with SS ISO 12100:2024. This compliance is essential for reducing risks associated with machinery, protecting workers, and fulfilling legal and regulatory requirements in the industry. Additionally, in the long run, this will aid in enhancing export of locally designed and manufactured machines as SS ISO 12100:2024 is aligned to the International Standard ISO 12100.

Estimated Secondary User Population: 1,000-1,500 users (across the manufacturing sector). This estimate reflects a broader outreach of their learning solution, enabling professionals from other organisations including trade associations, machine manufacturers and users to benefit from advanced technologies integration in courseware development and training delivery. These numbers provide a realistic framework for initial implementation and scaling, with the flexibility to adapt based on market response.

Prospective Solution Partners who choose to apply for this challenge must be registered and operating in Singapore. The prototype needs to be demonstrated in Singapore. The Solution Partner should allow the solution to be tested for at least 9 months with at least 15 users before further refinement and deployment.

MEASURES OF SUCCESS

Measurable Quantitative Impacts:

- Reduction in Development Time. Achieve a 50% reduction in the time required to develop courseware by automating routine tasks with advanced technologies.
- Increase in Compliance Rate. Ensure that 100% of the courseware aligns with SS ISO 12001:2024 requirements, resulting in zero non-compliance incidents during courseware audits.
- Decrease in Training-Related Errors. Reduce errors in training materials by 50%, leading to more accurate and effective instruction.
- Improvement in Learner Retention. Increase learner retention of critical safety information by 20% through more engaging and relevant course content.
- Boost in Course Completion Rates. Achieve a 15% increase in the number of learners who successfully complete the training programs.
- Cost Savings. Reduce courseware development costs by 25% due to increased efficiency and automation.
- Accident reduction. Reduction in number of accidents due to poor design of machine by 50%.

Measurable Learning Outcomes:

- Increased Knowledge Retention. Measure a 20% increase in post-training assessment scores, indicating better retention of key principles in machinery safety, risk assessments, and application of design safety concepts.
- Improved Safety Performance. Achieve a 40% reduction in safety incidents or near-misses among trained workers, reflecting the effectiveness of the training.
- Higher Engagement Scores. Attain a 10% increase in learner engagement, as measured by participation rates, feedback surveys, and interaction with training materials.
- Enhanced Skills Application. Report a 20% improvement in the practical application of skills and knowledge in the workplace, as observed through supervisor evaluations and on-the-job performance metrics through the development of Safe Operating Procedures (SOPs), implementation of maintenance and inspection protocols, and evaluation of the safety of existing machinery.

- **Compliance Certification.** Ensure that 95% of learners achieve understanding in legal and regulatory compliance certification in compliance with SS ISO 12001:2024 upon completing the course, demonstrating mastery of the necessary safety standards.

POSSIBLE USE CASES

1. **SS ISO 12100:2024 for Courseware Developer.** As a courseware developer specialising in workplace safety training, Sam faced a major challenge with the launch of the SS ISO 12100:2024 standard. This update introduced stricter guidelines on risk assessment and safety-by-design practices, necessitating a complete overhaul of the company's training programs. Sam needed to ensure the new training complied with these regulations while delivering a more targeted, data-driven learning experience. Sam began by using tech-enabled Training Needs Analysis (TNA) tools to identify gaps in the current training. The solution will allow Sam to select the tool(s) most suitable for him to gather the TNA, for example, through surveys, quizzes, assessment questions, etc. The solution will leverage on data-driven insights from industry trends, learner feedback, and incident reports to address learning gaps and improve course content. The analysis reveals that many learners struggled with key safety concepts, especially in high-risk areas like machinery safety. This indicated a need for more precise, role-specific training. With these insights, Sam restructured the content with the help of the solution to meet the updated standards of SS ISO 12100:2024, ensuring that each module addressed critical competencies. He also revamped Competency Standards (CS) and Assessment Plans (AP) by incorporating AI-driven CSs and assessments that provided real-time feedback. By leveraging data analytics, Sam continuously refined the training, ensuring it remained relevant and compliant with evolving industry needs. This approach resulted in an adaptive learning program that significantly improved workplace safety training outcomes.
2. **SS ISO 12100:2024 for Robot Manufacturers.** ABC Pte Ltd, a Singapore-based robot manufacturer, sells its products both locally and internationally. The introduction of SS ISO 12100:2024 poses both challenges and opportunities. On one hand, the company must ensure that all robots comply with the new standard, potentially requiring adjustments to their design and manufacturing processes. On the other hand, achieving compliance opens up new opportunities in international markets that require certification to ISO 12100 standards. The solution will provide an innovative tech-enabled courseware development platform to develop a suitable training course utilising the refined Competency Standards (CS) to train its design team design requirements based on SS ISO 12100:2024 standards. This will enable the team to meet local safety regulations while positioning the company for greater international market share, thanks to its adherence to global safety standards.
3. **SS ISO 12100:2024 for End Users of Machines.** XYZ Manufacturing Pte Ltd, a local producer of pharmaceutical equipment, relies on various imported machines, including molding, trimming, compounding, and coating machines. While some of these machines comply with ISO 12100, others do not. The introduction of SS ISO 12100:2024 has created an urgent need for XYZ's engineers to become familiar with the new safety requirements. Although XYZ does not design the machines, its engineers must fully understand the Singapore Standard to prevent accidents during both operation and maintenance. This includes knowledge of safe operating procedures, permit-to-work systems, additional safeguards, PPE usage, and training protocols. By utilising a tech-enabled courseware development platform, XYZ can efficiently design a suitable training course utilising the refined Competency Standards (CS) to train its engineers how the non-compliant machines deviate from the SS ISO 12100:2024 standards and the safety procedures to implement in the event of accidents. This will ensure the company meets the standard's requirements effectively, maintains a safe working environment, and reduces the risk of potential incidents.

WHAT IS IN IT FOR YOU?

- Up to S\$200,000 of prototyping grant (innovPlus Grant) for each winning Challenge Team of the innovPlus Challenge 2024 Run 2 (see Award Model) to develop and trial an innovative, feasible and scalable prototype that advances CET practice and learning outcomes.
- Access to IMDA’S PIXEL corporate innovation hub and complimentary innovation consultancies (e.g. Design Thinking, Digital Storytelling) for prototype development, where applicable.
- Co-innovate with the Challenge Owner with access to their expertise, facilities, and human resources in developing the solution, and potential to scale the successful solution for commercialisation.

INNOVPLUS COMPETITION PHASE PROCESS FLOW

Diagram 1 illustrates the innovPlus process flow in the competition phase and the requirements for active involvement of each party. Stage 3 indicates the current stage of the competition, where Prospective Solution Partners are to express interest to contribute and co-develop solutions with the Challenge Owner through IMDA’s Open Innovation Platform.

Diagram 1 - innovPlus Competition Phase Process Flow



The Challenge Owner will evaluate all proposals by Prospective Solution Partners received on the OIP based on the evaluation criteria below, and invite shortlisted partners to a second stage evaluation in the form of a pitch (Stage 4 of Diagram 1).

Solution Fit (30%)	<u>Relevance</u> : To what extent does the proposed solution address the problem statement effectively?
Solution Readiness (20%)	<u>Maturity</u> : How ready is the proposed solution to go to the market? <u>Scalability</u> : Is there any evidence to suggest capacity to scale? Does the proposed solution offer potential to also help other enterprises facing similar challenges (i.e. broader application, adaptation and transferability)?

Solution Advantage (30%)	<p><u>Pedagogical Design</u>: What sound pedagogical design approaches underpin the proposed solution to enhance effectiveness of learning or desired learning outcomes?</p> <p><u>Cost Effectiveness and Innovativeness</u>: Is the solution cost effective and truly innovative?</p> <p>Does it make use of new technologies in the market, and can it potentially generate new IP?</p> <p>How sustainable and affordable is the estimated cost for pilot trial, deployment, software support and post-pilot rollout?</p>
Company Profile (20%)	<p><u>Business Traction</u>: Does the product have user and revenue traction?</p> <p>Is the company able to demonstrate financial capability and resources to complete the prototype?</p> <p><u>Team Experience</u>: Do the team members possess strong pedagogy and scientific/technical background?</p>

Thereafter, the Challenge Owner will decide on the Solution Partner to form a Challenge Team to co-develop the idea into a potential solution (Stage 5 in [Diagram 1](#)). The Challenge Team will pitch their solution in the final round of the competition, known as the innovPlus Presentation Day. On that day, the Challenge Teams will present how the envisaged solution could deliver the stated learning outcomes with a presentation and demonstration to the innovPlus Panel (Stage 6 in [Diagram 1](#)). The innovPlus Panel shall have the final decision on whom the eventual Grant awardees shall be (Stage 7 in [Diagram 1](#)). Please refer to the Terms and Conditions in [Annex B](#) for further details.

AWARD MODEL

Up to S\$200,000 of prototyping grant (innovPlus Grant) will be awarded to each winning Challenge Team of the innovPlus Challenge 2024 Run 2 for the development and pilot deployment of a prototype solution. The grant will NOT be inclusive of any applicable taxes and duties that any of the parties may incur. Guidelines on the grant disbursement quantum, milestones, timeline and supported cost items are stated in the Terms and Conditions under [Annex B](#).

*Note that a finalist (prospective Solution Partner) who is selected to undertake the prototype will be required to enter into an agreement with Challenge Owner(s) that will include more detailed conditions pertaining to the POC/prototype.

SUBMISSION GUIDELINES AND DEADLINE

The proposal **must** include the following:

- Completed and countersigned innovPlus Expression of Interest (“EOI”) Form
- 1 deck of slides in PDF format explaining the proposed solution, how it addresses the challenge statement and meets the desired performance requirements. To include information such as the proposed data inputs, system that the proposed solution will run on, potential benefits, the envisaged learning innovation, and the team’s implementation plan
- Video or pictures (300dpi) of any prototype or simulation, if applicable
- ACRA Business Profile (2024 or most recent) with certificate confirming registration of business
- Corporate Compliance and Financial Profile from BizFile (2024 or most recent)
- Track record of the company (including financial capability to complete the project) / CV of the team

All submissions must be made by **15 November 2024, 1600 hours (SGT/GMT +8)**. inlab and IMDA may extend the deadline of the submission at their discretion. Late submissions on the OIP, or submissions via GeBIZ, will not be considered.

Annex A – About innovPlus

1. iN.LEARN 2.0 is an initiative launched by SkillsFuture Singapore to drive innovation in the Training and Adult Education (“TAE”) sector from ideation to commercialisation through its three key programmes – the innovPlus, innovSpur and Sandbox. It will focus on four key areas:
 - i. increasing the uptake of online and blended learning by individuals;
 - ii. amplifying enterprises’ adoption of innovative learning technology;
 - iii. developing effective remote assessment and proctoring solutions for individual and enterprise-led training; and
 - iv. developing effective placement solutions that tighten the industry-training nexus.
2. As part of iN.LEARN 2.0, innovPlus contributes to the initiative by facilitating the rapid development and pilot deployment of prototypes that can address learning challenges and exploit opportunities for better Learning and Development (“L&D”) and Continuing Education and Training (“CET”) outcomes, including design, delivery and assessment. It is organised as a competition for training providers, organisations with Learning and Development (“L&D”) departments, learning experts, solutionists and technology partners to collaborate and present a holistic solution to real learning challenges faced by the training provider, organisation and/or groups of learners. innovPlus could cover any/all of the following areas of innovation:
 - Pedagogy / Learning Design and Delivery
 - Learning technology
 - Training management
 - Application of skills and workplace performance
 - Assessment and credentialing
 - Remote assessment and proctoring
 - Hybrid Mode
 - Adaptive Learning
 - Blended Learning
 - Workplace Learning
3. innovPlus comprises three rounds of evaluation:
 - i. inlab of Institute for Adult Learning (IAL) will assess if the stated Challenge Statement meets the eligibility criteria and competition guidelines stated in the Terms and Conditions under [Annex B](#).
 - ii. Participating organisations as Challenge Owners (“CO”), who are seeking solutions to their learning challenges, will hear pitches from prospective Solution Partners (“SP”) on how their challenges can be overcome and select the partners whose ideas they assess to best meet their needs. The Challenge Owners and their selected Solution Partner(s) will then form a Challenge Team (“CT”) to co-develop the ideas into a potential solution.
 - iii. The Challenge Teams pitch their solutions in the final round of the competition, known as the innovPlus Presentation Day. On that day, the teams will present how the envisaged solution could deliver the stated learning outcomes with a presentation and demonstration to the innovPlus Panel (“IPP”).

4. innovPlus is conducted once every six months. Prototyping grants, each up to **S\$200,000**, could be awarded to the winning concepts to develop a prototype¹ for pilot testing with actual learners/users² within a maximum duration of 9 months³.

¹ A *prototype* is defined as an original and novel model, form or solution, with its primary utility being to advance more effective learning. The key operators in this definition, ‘original’, ‘novel’, and ‘more effective learning’, must be clearly conveyable and verifiable.

² *Actual learners/users* is defined as the persons who will benefit from resolving the learning challenge, who you can commit to (primary target), e.g. within your organisation. Pilot testing shall encompass minimally 30% of the targeted primary learner/user population, which cannot be less than 15 users per pilot run.

³ 6 months to complete a workable Proof of Concept with User Acceptance Test, and an additional 3 months to show scaling up of prototype (where applicable) and usability to minimally 30% of **primary** targeted learner/user population, which cannot be less than 15 users per pilot run.

Annex B – innovPlus Challenge and Award Official Terms and Conditions

As part of participating in innovPlus and submitting the innovPlus application form, all participating organisations and individuals agree to accept the following terms and conditions governing the innovPlus Challenge (and all its associated processes) and the innovPlus Grant offer (if applicable):

DESCRIPTION OF THE GRANT

1. The innovPlus Challenge (“innovPlus”) is a competitive learning innovation grant challenge that awards a prototyping grant of up to S\$200,000 to winning organisations to develop and trial an innovative, feasible and scalable prototype that advances CET practice and learning outcomes. The innovPlus Challenge is organised by inlab of the Institute for Adult Learning (“IAL”). Winning submissions will be as determined by the innovPlus Panel (“IPP”) (defined below) in accordance with the prevailing Evaluation Criteria and Terms and Conditions as administered by the innovPlus Secretariat. The innovPlus Grant is funded by SkillsFuture Singapore (“SSG”) and is administered by SUSS-IAL, by appointment of SSG. IAL is an autonomous institute of Singapore University of Social Sciences (“SUSS”).

ELIGIBILITY

2. The innovPlus Challenge is open to organisations that are a registered business entity in Singapore (a valid ACRA or UEN identifier will be required for application), to participate as prospective Challenge Owners. Government Agencies and Statutory Boards are not eligible to participate⁴. Prospective Challenge Owners will be subjected to financial assessments. Only Singapore-registered business entities may apply to participate as a prospective Solution Partner.
3. Challenge Owner organisation and its choice of Solution Partner(s) shall form a Challenge Team.
4. Challenge Owner organisation⁵ can be granted the innovPlus Grant for up to a maximum of two grants at any time within three years from date of the first award. The clock will reset after sitting out of two innovPlus Challenge runs.
5. Solution Partner organisation can be granted the innovPlus Grant for up to a maximum of three grants at any time within three years from date of first award. The clock will reset after sitting out of two innovPlus Challenge runs. Additionally, each Solution Partner is allowed to enrol in a maximum of two Challenge Teams in each eligible run.

HOW TO PARTICIPATE

6. To participate in the innovPlus Challenge/, applicants may apply as either a Challenge Owner or as a Solution Partner. Application must be made using only the following official innovPlus application forms:
 - a. innovPlus Challenge Statement Application Form (for prospective Challenge Owner);
 - b. innovPlus Expression of Interest (“EOI”) Form (for prospective Solution Partner, with respect to the specific Challenge Statement published);
 - c. Part 1 of innovPlus Challenge Team Formation Submission Form (for enrolment of team formation);
 - d. All parts of innovPlus Challenge Team Formation Submission Form; and
 - e. Projected budget and project schedule using prescribed innovPlus templates.

Only application forms downloaded from the official innovPlus webpage on SUSS-IAL’s website will be accepted into the innovPlus Challenge. Completed forms must be submitted by email to the innovPlus Secretariat and inlab at the email addresses specified in the header section of all application forms. Only fully completed application forms received by the stipulated respective deadlines for each stage of the innovPlus Challenge will be considered for acceptance and enrolment into the innovPlus Challenge.

⁴ [Govt Agencies list: gov.sg](http://govt.agencies.list.gov.sg) | [Ministries \(sgdi.gov.sg\)](http://ministries.sgdi.gov.sg)

[Statutory Board list: gov.sg](http://statutory.board.list.gov.sg) | [Statutory Boards \(sgdi.gov.sg\)](http://statutory.boards.sgdi.gov.sg)

⁵ Second Grant Award must be to another Department/Division/Business Unit of the awarded organisation.

A submission may, in Secretariat’s sole and absolute discretion, be rejected if it fails to follow the technical, creative, and legal requirements specified on the innovPlus webpage, the official innovPlus Infokit and in these Official Terms and Conditions. Applications that do not follow all of the instructions, provide the required information in their application form, or abide by these Official Terms and Conditions or other instructions of Secretariat may be disqualified at Secretariat’s sole and absolute discretion. All entries that are late, illegible, incomplete, damaged, destroyed, forged or otherwise not in compliance with the Official Terms and Conditions may be disqualified from the innovPlus at Secretariat’s sole and absolute discretion. Applications generated by script, macro or other automated means and entries by any means which subvert the entry process are void. All entries become the physical property of SUSS-IAL and Secretariat and will not be acknowledged or returned. Assurance of delivery of entries is the sole responsibility of the Applicant.

Additionally, applicants shall attend the activities organised by the innovPlus Secretariat to improve the capability of the Challenge Teams in identifying the root cause to their challenge and developing the appropriate solutioning. These include the innovPlus Prospectus Briefing, workshops and coaching sessions, and any other sessions deemed relevant to innovPlus participation. Failure to do so could lead to disqualification from the competition.

SUBMISSION GUIDELINES

7. Submission for evaluation by IPP pursuant to the award of the innovPlus Grant, will be in the following three parts:
 - a. Paper submission via the official innovPlus Challenge Team Formation Submission Form and the projected budget and project schedule, by the stipulated deadline, of no less than 21 calendar days before Presentation Day. The paper submission is to be in English. The paper submission must answer the prompting guides as set out in the innovPlus Challenge Team Formation Submission Form;
 - b. Presentation and demonstration of any concept mockup/wireframe (where applicable), in English, by (up to) five members of the Challenge Team to the IPP on Presentation Day (as informed by Secretariat) of no more than 15 minutes. This will be followed by engagement with IPP for up to 15 minutes. The session will be conducted in closed-door to only the IPP in the Pitching Room.

The Challenge Team must have all rights, clearances, permissions, approvals and/or consents necessary for their Submission, including, but not limited to, music rights, releases from all persons listed in the submission, location releases for all recognisable locations, and releases from all and any person who participated in the production of the Submission. In the event that the Challenge Team does not have the appropriate rights, the Submission may be disqualified at the Secretariat’s sole discretion. SUSS-IAL reserves the right to disqualify any entries if it views their materials to contain contents (e.g. text, sound or images) that in SUSS-IAL’s opinion to be offensive, inappropriate, or that will cast innovPlus, Innovation Centre, SUSS-IAL or SUSS in a negative light.

The above specified three parts shall collectively form the Submission of each enrolled Challenge Team, and shall be the basis by which each Challenge Team is evaluated for the Grant. Challenge Teams awarded the Grant, shall be held accountable to the Submission, and be funded to deliver, complete or report on all parts of this Submission, to qualify for a claim on the Grant. Should the Challenge Team be unable to deliver on the Submission, the Team agrees for SUSS, acting through SUSS-IAL, to recover any grant already disbursed, and any liquidated damages resulting from the disbursement, so decided at the absolute discretion of SUSS-IAL.

EVALUATION OF SUBMISSIONS

8. On Presentation Day, all Submissions will be evaluated by the innovPlus Panel (“IPP”), which consists of a panel of institutional/industry/pedagogy experts based on the following evaluation criteria:
 - a. Concept
 - Provide grounds to justify why the challenge should be addressed or taken on and how the proposed solution addresses the challenge / opens up opportunity for better quality CET outcomes and delivery; and

- Extent objectives, goals and desired outcomes can be achieved.
 - b. Innovation
 - Extent proposed innovation goes beyond known / existing solutions with (a) clear innovative value and (b) absolute valued added;
 - Potential for spin-offs to be generated from the proposed innovation e.g. in user / learning experiences for other CET professionals, learners and/or organisations; and
 - Evidence of sound pedagogical design underpinning the proposed solution to enhance effectiveness of learning or desired learning outcomes.
 - c. Impact and Scalability
 - Demonstrates feasibility of implementation organisation-wide, sector-wide or sizeable segments of the workforce. Solutions includes an evaluation process, success indicators and impact measurement; and
 - Offers potential to also help other enterprises facing similar challenges (i.e. broader application, adaptation and transferability)
 - d. Project and Implementation Team
 - Team consists of members from different disciplines
 - Has a credible and realistic plan, budget and schedule to complete project in specified duration (maximum of 9 months)
 - Has a clear identification of all stakeholders involved in the project, with the relevant and necessary competencies and track records to ensure successful project delivery
 - Demonstrates commitment to develop the prototype as envisioned. Presence of a dedicated project manager to oversee implementation and manage the project, including progress reporting, budget management, resource management, etc
 - e. Implementation Sustainability
 - Extent of thinking and/or planning for roll-out of solution to rest of organisation, including possible costs and resources required
 - Indication of project team’s continued involvement in the roll-out plan
9. IPP shall have the final decision on whom the eventual Grant awardees shall be. The IPP may declare void any entry should they consider that there are no entries reaching the required standard, whereupon they can award prizes or not as they deem fit. No correspondence will be entered into or comment issued on any matters concerning the evaluation of entries, and no reasons be given for any decision made by the IPP.
10. Awards conferred are not transferable under any circumstances. In the event a winning team is unable and/or unwilling to accept the award or withdraw for whatever reason, SUSS-IAL reserves the right to award it to the next highest scoring team that meets the qualifying criteria.

QUANTUM AND ADMINISTRATION OF THE GRANT

11. Winners of the innovPlus Challenge shall qualify to draw down on a pre-approved innovPlus Grant (“Grant”) of up to S\$200,000, with a mandatory co-contribution of at least 10% of total prototype development cost, which can be in monetary form or in-kind⁶.
12. The maximum grant amount of each award shall be exercised through a Letter of Award (“LOA”) between Singapore University of Social Sciences (“SUSS”) and the Challenge Owner organisation. Secretariat will consult the winning Challenge Team in working out and finalising the maximum grant amount and detailed budget for approval by SUSS-IAL, to constitute the LOA.
13. The Grant shall be disbursed in 4 tranches, strictly adhering to the stipulated milestone and timeline in the table below:

Tranche & Grant Quantum	Milestone	Milestone Timeline	Typical Grant amount
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⁶ To be supported with evidence for actual hourly rate charged (either with the payslip or a salary statement from HR)

1 st : 30% of maximum grant amount	Effect of LOA by signature of SUSS-IAL and Challenge Owner organisation	Start of prototype development	up to S\$60,000
2 nd : 20% of maximum grant amount	Mid-Term Progress Report, Presentation and required claim documents	3 months after start of prototype development	up to S\$40,000
3 rd : 20% of maximum grant amount	1 st part of Final Summative Report, Prototype completion, Presentation and required claim documents	Not more than 6 months after start of prototype development	up to S\$40,000
4 th : 30% of maximum grant amount	2 nd part of Final Summative Report, Pilot completion and Evaluation, Final Presentation and required claim documents	6 to 9 months after start of prototype development	up to S\$60,000

Besides the first advance disbursement of 30%, subsequent funds will only be reimbursed on the submission and approval of the required reports and expenses incurred according to the approved budget. Proof of payment needs to be furnished before the claim can be approved.

CONDITIONS AND REQUIREMENTS OF AWARDED CHALLENGE TEAM AND PROTOTYPE

14. The innovPlus Grant is awarded on the basis of the presented prototype solution (and its proposed functionalities, features, capabilities, outputs and deliverables) and the envisioned scalability and roll out of the prototype to its intended users. As the implementation team as submitted in the application is evaluated as a criterion, any change to the composition of the Challenge Team after award of Grant must be submitted in writing, through Secretariat, for SUSS-IAL’s prior approval. Failure to do so could lead to automatic disqualification.
15. The awardees of the innovPlus Grant accepts the grant by signing a Letter of Award (“LOA”) within 8 weeks from Presentation Day, comprising the terms and conditions governing the grant, including piloting the prototype with learners, submitting a pre- and post-evaluation report of the prototype’s strengths and weaknesses and conferring non-exclusive, irrevocable, free right and license to the use of the prototype and all intellectual property and information generated resulting from the performance of the Project to SUSS-IAL for non-commercial, academic, research and development purposes, including, but not limited to, the purposes of proliferating the knowledge gained therefrom to the training and adult education (TAE) community. For the avoidance of doubt, the terms of the National IP Protocol⁴ shall apply. For the avoidance of any doubt, the terms and conditions in the LOA are strictly non-negotiable.
16. In general, the prototype development grant offered in the innovPlus Grant will support the following cost items:
 - Fees of expert services from entities (organisation or individual) outside the composition of the Challenge Team, that are required in the areas of technical and development work, or for purposes such as research or advice, shall be limited to a cap of 10% of the approved grant amount;
 - Professional services as charged to the Challenge Owner organisation by the Solution Partner(s) of the Challenge Team;
 - Supplies that are necessary for the overall operation, development and pilot of the awarded solution;

- Equipment that have direct contribution to the overall operation, development and pilot of the awarded solution;
 - Software and / or other licensing that are essential for the project and for the duration of the project; and
 - Others – items not in the above list but necessary for the conduct and successful delivery of the project could be included in the funding request, subject to the approval of SUSS-IAL.
17. The grant will not support cost items that do not contribute directly to prototype development such as marketing, networking and publicity. It will also not support capital equipment not essential to the project, maintenance cost for software licensing, GST, and travel (local and overseas).
 18. The Challenge Team is required to prove cost transparency and reasonableness on request by SUSS-IAL on all cost items it is claiming for funding.
 19. No claims can be made on any items that are not in the budget submitted together with the proposal made in the Challenge Team Formation form.
 20. SUSS-IAL shall not be under any obligation to make any payment to the Challenge Team on claims of:
 - unsupported cost items listed in the approved budget;
 - qualified expenses but which no adequate proof of expenditure and proof of payments has been furnished;
 - qualified manpower costs but which no adequate proof of cost reasonableness provided upon request;
 - any amount that exceeds the cost items listed in the approved budget; or
 - any amount that is based on expenditure / payment not in compliance with prevailing procurement practices in terms of not being value for money.
 21. The Challenge Team shall be solely responsible for its own partnership management and team work, including Intellectual Property (“IP”) arrangements and development / implementation plan.
 22. The Challenge Team shall undertake that it will not infringe the intellectual property rights or any other rights of any person, and will comply with all applicable laws at all times.
 23. The winning Challenge Team shall grant consent to SUSS-IAL disclosing, in such manner as SUSS-IAL deems appropriate, in its (SUSS-IAL’s) publicity materials of the team’s participation, and setting out and publishing in its publicity materials, in such manner as SUSS-IAL deems appropriate, information regarding the participation, including:
 - a. the materials submitted for the innovPlus Challenge and any other information pertaining to its proposal;
 - b. the contents of the findings or results, report(s) or any part thereof the awarded project; and
 - c. information arising from or pertaining to the reports or any presentation, seminar, conference, or symposium conducted by the team.
 24. The Challenge Team agrees to indemnify and hold harmless SUSS-IAL against any and all actions, claims, demands, and proceedings in any way arising out of or connected with SUSS-IAL’s use, reproduction, publication or dissemination in the manner mentioned above, and all costs, expenses, losses and liabilities, howsoever arising.
 25. The Challenge Team shall ensure that all information about the team or proposal provided to SUSS-IAL pursuant to its participation and for the subsequent purposes of or connected with making claims, are true, accurate and complete to the best of the team’s knowledge. In the event that it comes to the knowledge of the team that any information already provided is or has become inaccurate, untrue, incomplete or misleading, the team shall immediately notify SUSS-IAL of such inaccuracy, incompleteness, misleading nature, or untruthfulness, and provide such information in connection therewith as SUSS-IAL may request.
 26. The innovPlus Grant will be withdrawn if:
 - a. the Challenge Team is unable to perform the obligations set out in the LOA; or
 - b. the Challenge Team commits a breach of any of the provisions of the LOA.

SHOWCASING OF INNOVATION DEVELOPMENT

27. The Challenge Team shall undertake to collaborate with SUSS-IAL in the development of case studies and/or research papers detailing the experience and insights gleaned from the prototype development and any trialing/pilot that ensued. No confidential or private information will be revealed through this effort.
28. The Challenge Team shall undertake to allow SUSS-IAL to disseminate the case studies and/or research papers in various formats including printed materials, online articles, video, audio, and other digital recordings to any individuals or organisations that it deems will benefit from the learning and sharing; and
29. The Challenge Team shall undertake to agree for SUSS-IAL to profile the companies and individuals involved, as well as the solution and/or prototype on the following platforms:
 - a. SUSS-IAL professional development seminars and workshops;
 - b. SUSS-IAL partner showcase for a period of 12 months;
 - c. SUSS-IAL conferences and events, e.g. the Adult Learning Symposium and Learning Roadshows; and
 - d. Conferences and events SUSS-IAL is participating in and where the themes / areas covered are aligned and of interest to the participants.
30. The full and prevailing terms and conditions of the innovPlus Challenge and innovPlus Grant can be found in the Challenge Statement application form, Expression of Interest and Challenge Team Formation submission form, and all applications submitted to the Challenge will be deemed to have accepted these terms and conditions.
31. SECRETARIAT of the innovPlus Challenge and innovPlus Grant is the inlab, acting on behalf of the Institute for Adult Learning (“IAL”), of 11 Eunos Road 8, #05-03, Singapore 408601, wherein IAL is an autonomous institute of the Singapore University of Social Sciences.

GENERAL

32. Depending on the prevailing implementation challenges and needs, innovPlus Secretariat reserves the right to amend and change the terms and conditions with approval from the Director of Innovation Centre, that complies with the intent and spirit of innovPlus.
33. SUSS-IAL reserves the right to disqualify any participant at any point in time during the innovPlus Challenge.

SUSS-IAL reserves the right to change these terms and conditions at any time without prior notice. In the event that any changes are made, the revised terms and conditions shall be posted on the innovPlus website immediately. Please check the latest information posted herein to inform yourself of any changes.