

International Sports Groundbreakers Challenge (2nd Edition) – Problem Statements

S/N	Problem Statement	Innovation Scenario
PS 1	<p>Connect sport organization departments efficiently for data lake (Soccer)</p> <p>How can we generate a data lake so that every department in a sport organization is connected and can get access to it in a more efficient way?</p>	High Performance, Fitness and Health
PS 2	<p>Understand player actions respectfully via technology (Soccer)</p> <p>How can technology contribute to a better understanding of the player's actions of work time while keeping a respectful and non-invasive perspective?</p>	High Performance, Fitness and Health
PS 3	<p>Monitor individual hydration using technology (Soccer)</p> <p>How can technology help to monitor hydration status from an individual perspective?</p>	High Performance, Fitness and Health
PS 4	<p>Transition players using tech from different sports (Soccer)</p> <p>How can we use technology to monitor players from other sports to transition for more suitable sports for them?</p>	High Performance, Fitness and Health
PS 5	<p>Foster year-long loyalty with fans (Basketball)</p> <p>How can we build more loyalty with the fans during the whole season? Not just for specific competitions.</p>	Fan Engagement
PS 6	<p>Increase youth cricket participation (Cricket)</p> <p>How might we significantly increase the number of young kids playing cricket?</p>	High Performance, Fitness and Health
PS 7	<p>Balance sport & entertainment in BBL (Cricket)</p> <p>How might we strike a better balance between sport & entertainment in the BBL to retain more fans?</p>	Fan Engagement
PS 8	<p>Make cricket app premier (Cricket)</p> <p>How might we make our fan app the #1 destination for cricket fans?</p>	Fan Engagement

PS 9	<p>Digitize racing venues for better experience (Equestrian)</p> <p>How do we best digitize racing venues and enhance the venue experience?</p>	Fan Engagement
PS 10	<p>Create connected Horse Racing venue (Equestrian)</p> <p>Create a connected venue for Horse Racing that monitors and reports on its usage to ensure it operates at a high level. Ensuring the venue is comfortable, safe, secure and efficient</p>	Smart Venues & Sustainability
PS 11	<p>Tailor experiences for Horse Racing patrons (Equestrian)</p> <p>In the context of Horse Racing, understand our patrons and participants better so we can create a tailored experience that meets their needs.</p>	Business Insights
PS 12	<p>Digitally deliver services in real-time (Equestrian)</p> <p>How to deliver services digitally to connect with customers easily, efficiently and in real time?</p>	Business Insights
PS 13	<p>Enhance audiovisual content for fans (Soccer)</p> <p>How to enrich audiovisual content from content from content creation, new content, data and statistics generation, new forms of content consumption, etc. all impacting on an enriched fan experience and increased engagement with sporting events.</p>	Media & Sponsorship
PS 14	<p>Improve in-venue fan experience (MMA)</p> <p>How to enhance the in-venue fan experience tp provide fans with interactive features on their mobile devices (or separate devices) while attending live events?.</p>	Fan Engagement
PS 15	<p>Use tech for matchmaking athlete monitoring (MMA)</p> <p>How can we use modern solutions to help competition and matchmaking teams keep a hawk eye on athletes before and during fight week to de-risk the process of matchmaking.</p>	High Performance, Fitness and Health
PS 16	<p>Label MMA positions via video processing (MMA)</p> <p>Can video processing be able to accurately label based on MMA positions and movements of the fighters to identify different fight styles of athletes?</p>	High Performance, Fitness and Health

PS 17	<p>Heat map large stadium movement (Soccer)</p> <p>How to accurately monitor the movement of fans and staff within a large stadium with a seating capacity of 80,000 using heat mapping based on video streams and/or MAC addresses of mobile devices?</p>	Smart Venues & Sustainability
PS 18	<p>Enhance player injury prediction sans wearables (Soccer)</p> <p>How can technology enhance the injury prediction of players without using wearables?</p>	High Performance, Fitness and Health
PS 19	<p>Develop reliable HRV monitoring in soccer (Soccer)</p> <p>How can we address the critical need for a reliable, non-intrusive, and robust HRV monitoring device that can be effectively utilized during soccer gameplay to enhance the health, well-being, and overall safety of athletes?</p>	High Performance, Fitness and Health
PS 20	<p>Unified platform for event management (Soccer)</p> <p>How can we address the necessity of an unified platform that simplifies event management, enhances communication, ensures accessibility, supports eco-friendly practices, and provides centralized access to critical event information, ultimately improving the overall event experience for organizers, participants, and attendees?</p>	Smart Venues & Sustainability
PS 21	<p>Diversify events at large venues (Multisports)</p> <p>How can we leverage the Singapore National Stadium or other large venue(s) to diversify our event offerings without compromising on the intimate fan experience through adaptive capacity configuration?</p>	Smart Venues & Sustainability
PS 22	<p>Digitally monitor swimming pool water quality (Swimming)</p> <p>How can we develop a cost-effective, accurate, and digital solution to capture water quality readings at the Front of the Pool (FOP) of swimming pools, integrating an early warning system and/or a fail-safe mechanism that activates when sensors and instruments deviate from calibration, ensuring public health and reducing waste?</p>	Smart Venues & Sustainability

PS 23	<p>Empower individual fitness tracking (Multisports)</p> <p>How can we scale our capabilities and capacities, so as to empower individuals to measure their own status of fitness, health, posture, and/or movement and performance quality independently?</p>	High Performance, Fitness and Health
PS 24	<p>Self-sustaining ActiveSG Circle (Multisports)</p> <p>How can ActiveSG Circle become a truly self-sustaining nexus where consumers can easily find opportunities to play either physically or virtually? How can industry players or content creators monetise their offerings?</p>	High Performance, Fitness and Health
PS 25	<p>Measure reach of streamed football (Soccer)</p> <p>How may we develop a reliable and precise method for measuring the audience reach of streamed football matches on online platforms?</p>	Business Insights
PS 26	<p>Optimize sports event organization using data (Multisports)</p> <p>How can we use data to optimize the organization of sport events to ensure high standards?</p>	Smart Venues & Sustainability
PS 27	<p>Track judges' scores effectively (Gymnastics)</p> <p>How might we create an effective tracking system for judges' scores that not only examines the gap between perception and reality to determine potential biases but also plays a crucial role in cultivating trust and respect, thereby fostering a significant culture change within the judging community?</p>	High Performance, Fitness and Health
PS 28	<p>Sustainable mobility at major events (Multisports)</p> <p>Presenting sustainable solutions to enhance mobility while respecting the biodiversity of the surroundings at major sporting events (World Cup Events and similar sporting events).</p>	Smart Venues & Sustainability
PS 29	<p>Increase lawn bowls awareness & participation (Lawn Bowls)</p> <p>How to cultivate broader awareness and understanding of the sport to encourage increased participation? How to effectively reach out to new audiences and build their interest in lawn bowls?</p>	Fan Engagement

PS 30	<p>Maximize lawn bowls venue usage (Lawn Bowls)</p> <p>How to maximize the usage and occupancy of existing venues and greens, ensuring efficient utilization and accessibility for lawn bowls enthusiasts.</p>	Fan Engagement
PS 31	<p>Expand coach pool using technology (Multisports)</p> <p>How can we tackle this challenge, leverage on technology and solutions (E-learning etc.) to increase the pool of coaches, incentivize, foster and educate coaches at all levels, in partnership with National Federations and the Ministry of Sport?</p>	High Performance, Fitness and Health
PS 32	<p>Enhance women's talent pool in sports (Multisports)</p> <p>How can we tackle this challenge, leverage on technology and solutions (tech based campaigns, marketing and promotion??) to maximize opportunities for, and increase the pool of women's talent, in partnership with National Federations and the Ministry of Sport?</p>	High Performance, Fitness and Health
PS 33	<p>Adapt sports broadcasting for audience retention (Fencing)</p> <p>Retaining Audience Engagement: How can sports broadcasters adapt traditional programming to sustain and heighten audience interest amidst the evolving digital landscape?</p>	Media & Sponsorship
PS 34	<p>Innovate broadcasting for enriched content (Fencing)</p> <p>What innovative strategies can broadcasters employ to redefine their relationship with audiences in the digital era, offering enriched and compelling content beyond conventional formats?</p>	Media & Sponsorship
PS 35	<p>Create captivating sports content (Fencing)</p> <p>Given the scarcity of performance data beyond scoring, how can sports entities leverage available information and innovative approaches to create captivating content that resonates with viewers' changing preferences and demands for enriched experiences?</p>	Media & Sponsorship
PS 36	<p>Innovate programming with scoring data (Fencing)</p> <p>How can sports broadcasters leverage limited available performance data, particularly scoring statistics, to innovate and enrich traditional programming, ensuring sustained audience interest and engagement amidst the changing landscape of digitalization?</p>	High Performance, Fitness and Health
PS 37	<p>Personalize content for fans with limited athlete data (Fencing)</p> <p>How can sports organizations effectively create and deliver personalized content tailored to individual fans' preferences across</p>	Fan Engagement

	various social media platforms, considering the scarcity of comprehensive athlete/player data?	
PS 38	<p>Overcome data scarcity for engaging content (Fencing)</p> <p>How can sports entities overcome the lack of adequate and easily accessible data on athletes/players to develop engaging fan-centric content and initiatives that resonate with diverse fan bases?</p>	High Performance, Fitness and Health
PS 39	<p>Nurture talents for broader fan base (Fencing)</p> <p>What innovative approaches and sustained initiatives can sports organizations implement to nurture emerging talents, elevate individual players into stars, and consequently, attract and engage a broader fan following within the sports ecosystem?</p>	Fan Engagement
PS 40	<p>Tech services for varying digital regions (Soccer)</p> <p>How can we provide tech services to our federations when the 3 different regions we need to serve (North America, Central America, and Caribbean), have a very different level of digital maturity, infrastructure, connectivity, and resources.</p>	Business Insights
PS 41	<p>Integrate spectator data into secure digital systems (Triathlon)</p> <p>How can sports and entertainment rightsholders effectively capture, process, and integrate spectator data from physical attendance or television viewership into a secure and privacy-respecting digital ecosystem?</p>	Media & Sponsorship
PS 42	<p>Modern communication for smaller rightsholders (Triathlon)</p> <p>How can smaller rightsholders in the sports and entertainment sector overcome the obstacle of limited resources to effectively establish tailored and modern communication solutions for meaningful engagement with fans and participants?</p>	Fan Engagement

PS 43	<p>Engage diverse audience for fan loyalty (Swimming)</p> <p>How can organizations effectively captivate and retain a diverse and digitally fragmented audience base to enhance fan engagement, thereby increasing attendance, loyalty, and revenue generation amidst fierce competition for attention and interaction?</p>	Fan Engagement
PS 44	<p>Adapt to changing content consumption (Swimming)</p> <p>How can organizations strategically adapt to the constantly changing dynamics of content creation, distribution, and consumption influenced by shifting consumer behaviors, emerging technologies, and the proliferation of digital platforms, in order to effectively meet the diverse needs of modern audiences?</p>	Fan Engagement
PS 45	<p>Generate commercial strategy for football clubs (Soccer)</p> <p>How do football clubs generate demand and provide commercial strategy for brands that could be measured for return on marketing investment that show sponsorship as one of the vehicles suitable for brands?</p>	Media & Sponsorship
PS 46	<p>Develop paid digital offerings for football clubs (Soccer)</p> <p>How can a football club develop its digital subscription and membership strategy and offering suitable to its core target audience and convince them to pay for the services?</p>	Media & Sponsorship
PS 47	<p>Unified platform for sports franchise management (Multisports)</p> <p>How to develop a unified platform that integrates and streamlines management operations across sales, marketing, finance, and legal departments, while simultaneously incorporating Athlete Management Software features to efficiently manage diverse sports franchises, enhance communication and decision-making, and improve athlete performance and management, consolidating all functions into a single, comprehensive solution.</p>	Business Insights
PS 48	<p>AI content predictor for positive community (Multisports)</p> <p>Create an AI-driven content predictor solution to forecast content engagement while mitigating trolling behavior, fostering a more positive online sports community</p>	Fan Engagement

PS 49	<p>Robust live match analysis system (Contact Sports)</p> <p>Develop a robust live match analysis system that effectively collects automated data and tracks individual player performance, enabling comprehensive statistics generation</p>	High Performance, Fitness and Health
PS 50	<p>User-friendly app for player/coach analysis (Contact Sports)</p> <p>Develop a user-friendly mobile application that provides players and coaches with seamless access to post-match individual and team videos, pre-match opposition analysis, and detailed game-related data and metrics, serving as a central hub for efficient team analysis and preparation.</p>	High Performance, Fitness and Health
PS 51	<p>Talent scouting platform (Contact Sports)</p> <p>Create a comprehensive platform for talent scouting, featuring organized player databases and scouting tools. This platform should facilitate match coverage, data collection, and player tracking across various tournaments, including local and unstructured ones, enabling systematic assessment of player videos and stats for effective talent identification.</p>	High Performance, Fitness and Health
PS 52	<p>Video analysis software enhancement (Soccer)</p> <p>Develop a video analysis software to include live coding and telestration features, allowing for real-time, in-depth game analysis. This enhancement should balance advanced functionality with affordability.</p>	Media & Sponsorship
PS 53	<p>Timely delivery of football match content (Soccer)</p> <p>Resolve issues with delayed content delivery, ensuring timely access to ISL and I-league matches for more effective and prompt scouting and analysis</p>	Media & Sponsorship
PS 54	<p>Improve performance tracking software (Soccer)</p> <p>Refine the performance tracking software by enhancing metrics for comprehensive analysis in a cost-effective manner, aiming to combine superior metrics with better pricing for an elevated overall performance tracking experience.</p>	High Performance, Fitness and Health
PS 55	<p>Engaging immersive virtual world (Multisports)</p> <p>Create a highly engaging and immersive virtual world that replicates real world spaces and experiences, incorporating realistic 3D environments that can be easily navigated by users of varying technical abilities.</p>	Smart Venues & Sustainability

PS 56	<p>Interactive elements in virtual environments (Multisports)</p> <p>Engineer interactive elements within the virtual environment that are both informative and entertaining, ensuring that visitors remain engaged while exploring the virtual showroom. This could include interactive displays, virtual tours, and live Q&A sessions.</p>	Fan Engagement
PS 57	<p>Monitor head trauma in contact sports (Multisports)</p> <p>Addressing the challenge of monitoring and minimizing head trauma in sports like American football, ice hockey, and rugby, particularly in the absence of helmets in rugby, by innovatively integrating sensors to measure collision impact effectively.</p>	High Performance, Fitness and Health
PS 58	<p>WHO-guideline-based fitness app for seniors (Multisports)</p> <p>Developing a user-friendly mobile app aligned with the WHO Guidelines on Physical Activity for age groups 18-64 years and 65+, aiming to track activities as per guidelines, offer health outcomes, and cater to seniors. Ideally, the app should be equipment agnostic and have features similar to Singapore's Healthy 365 app, creating a versatile health management tool.</p>	High Performance, Fitness and Health