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Your Target Call

1. HORIZON-CL4-2027-04-HUMAN-01 (5.60 million Euro): Advanced and Innovative hardware components for Virtual Worlds (RIA, Virtual Worlds Partnership) ← primary target
2. HORIZON-CL4-2027-02-DIGITAL-EMERGING-52-two-stage (6.00 million Euro): New approaches for Human/AI collaboration for the workforce of the future (RIA) (under secondary consideration)
3. HORIZON-CL4-2027-04-DATA-03 (17.50 million Euro): New approaches for decentralized, federated and sustainable AI data processing (RIA) (considered as a participant, not coordinator)

Your Expected Contribution to the Project / Consortium

AirStas (the first incorporated association under the Korea AeroSpace Administration, KASA) aims to serve as Coordinator for HORIZON-CL4-2027-04-HUMAN-01, adjustable to Work Package Leader depending on the recruitment of European hardware partners. My contributions include: (1) providing "space tourism" as an extreme-environment scenario that serves as the ultimate validation testbed for European XR and deep-tech hardware, directly addressing the illustrative societal/industrial scenario requirement of HUMAN-01; (2) EEG/BCI-based cognitive and affective validation, empirical testing of non-invasive BCI hardware for cognitive load, presence, and safety using a 32-channel EEG infrastructure, with a cross-cultural design spanning Korea and Türkiye; (3) an AI-as-Actor framework and XR scenario design modelling AI agent-human interaction within virtual worlds; (4) design and leadership of the SSH, ESG, and sustainability work package, covering ethics, user acceptance, social impact assessment, and ESG indicators; (5) user requirements definition, validation, and exploitation/dissemination; and (6) Asia-Europe collaboration channels linking Korea (AirStas/KASA), Malaysia (Sunway University), Thailand (Prince of Songkla University), and Macau (MUST). A consortium is already under formation with Süleyman Demirel University (Türkiye, Associated Country), and we seek European XR hardware developers (HMDs, haptics, displays) and AI institutions as partners.

Biography

Myung Ja Kim (MJ), Ph.D., is Founding Director and Chairperson of AirStas, the AI Research Center for Space Tourism and Sustainability and the first incorporated association under the Korea AeroSpace Administration (KASA). She is Distinguished Professor at Sunway Business School, Sunway University (Malaysia) and Sejong University (Korea), Adjunct Professor at Prince of Songkla University and Taylor's University, and Visiting Professor at Hanyang University

and Macau University of Science and Technology. She previously served as a professor at Kyung Hee University, where she remains a Kyung Hee Fellow Professor.

Her research focuses on space tourism and space business, digitalization (XR, VR, metaverse), AI and data analytics, sustainability, and the climate crisis. She has published over 100 articles in SSCI-indexed journals, many selected as most downloaded, read, and cited by top journals, and has been consistently ranked among Stanford University's Top 2% most-cited scientists (2021–2025). She has secured research grants exceeding USD 8 million in total, including a National Research Foundation of Korea (NRF) grant as Principal Investigator on "Risk and Commercial Human Presence in Space: Focusing on Space Tourism." She serves as Associate Editor of the Journal of Hospitality and Tourism Management (SSCI, IF 10.1, Q1) and on the editorial boards of ten international journals.

Regarding EU collaboration, she is currently advancing the MEDUSA-BioSpace Horizon Europe consortium proposal with DLR (Germany), CNES/CADMOS (France), and Helogen (UK); leading the NEURO-SPAXR project with Süleyman Demirel University (Türkiye) under the TÜBİTAK–NRF 2026 Mobility Call; and has prepared a Korea–EU Cooperation Promotion Program proposal (CosmoAIverse) aligned with the Horizon Europe Virtual Worlds Partnership.

Research Areas / Expertise

Main research areas: space tourism and commercial human spaceflight; AI and data analytics (deep learning, NLP); digitalization of tourism and services (XR, VR, AR, metaverse); sustainability, ESG, SDGs, and climate-crisis response; and consumer behavior in technology-mediated environments. Methodological expertise spans advanced quantitative approaches including PLS-SEM, fsQCA, and machine/deep learning.

Distinctive specialisations: human-centred validation of immersive technologies, including EEG/BCI-based measurement of cognitive load, presence, and safety in extreme (space) environments; AI-as-Actor modelling of AI agent–human interaction in virtual worlds; and ESG/social impact assessment frameworks for emerging space and tourism industries.

Key outcomes: 100+ SSCI publications (predominantly Q1), with multiple papers ranked most cited/downloaded by leading journals; Stanford Top 2% Most-Cited Scientist (2021–2025); PI of the NRF-funded project "Risk and Commercial Human Presence in Space" (KRW 813M, 2024–2027); participant in the Brain Korea 21 Stage 4 Sustainable Smart Tourism Hospitality Education Platform (KRW 7B); and ongoing international projects including MEDUSA-BioSpace (Horizon Europe proposal) and NEURO-SPAXR (TÜBİTAK–NRF Mobility Call).

Motivation, Expectation and Plan

My main motivation is to complete the consortium for HORIZON-CL4-2027-04-HUMAN-01 (Advanced and Innovative Hardware Components for Virtual Worlds, RIA, Virtual Worlds Partnership), for which AirStas aims to act as Coordinator. Our current team — AirStas (Korea, under KASA), Süleyman Demirel University (Türkiye, Associated Country: XR/service design, EEG/BCI with a 32-channel testbed), Sejong University (Korea), and Sunway University (Malaysia) — is strong in human-centred validation, user research, and application scenarios, but we still need EU Member State partners to secure the technical backbone of the proposal.

Specific goals for this event: (1) identify and meet XR hardware developers (HMDs, haptics, displays, sensing, wearables) and AI research institutes or companies based in Member States such as Germany, France, and Italy, ideally through dedicated 1:1 matchmaking sessions; (2) confirm the coordinator/WP structure with prospective partners and verify EU eligibility requirements; and (3) obtain expert consulting on positioning our space-tourism-as-extreme-environment-testbed concept within the Virtual Worlds Partnership priorities.

Concrete follow-up plans: immediately after the forum, we will hold online consortium meetings with the partners identified in Brussels, sign MoUs or letters of intent, finalise the work package structure and budget allocation by late 2026, and jointly submit the full proposal to the HORIZON-CL4-2027-04 call. In parallel, we are advancing the MEDUSA-BioSpace consortium (DLR, CNES/CADMOS, Helogen UK) and will explore cross-linkages between the two initiatives.