



Establishing the Impact of the ATTRACT Socioeconomic Studies Consortium:

Table illustrating the insights gathered from ATTRACT SES members at a World Cafe session at the SES Interim Workshop in October 2023. Perspectives below were derived from responses to three specific questions posed by the ATTRACT SES Facilitator (refer to report text for details) and thereafter categorized as expected outputs, research topics, and preliminary insights generated by the SES. Furthermore, five impact categories were defined (i.e., Education, Diversity, Collaboration, Experimentation, and Valorization) to present a comprehensive perspective. Finally, the table is organized along an operational-level axis, spanning from individual to policy-level considerations. This table represents a **non-exhaustive** summary (i.e., only those discussed at the World Cafe session) of the various sources of impact created by the ATTRACT SES Consortium.

KEY:

- Expected outputs resulting from the SES
- Research topics being explored by the SES
- Preliminary insights relevant to policymakers

Operational Level	Impact Category						
	Education	Diversity	Collaboration	Experimentation	Valorization		
Policy			<p>RESEARCH TOPIC: Examining state aid in R&D collaborations and academia-industry contract relations, and formulating new strategies and recommendations.</p>	<p>OUTPUT: Advocacy for the significance of prototyping and experimentation among program and instrument designers.</p> <p>OUTPUT: Experimentation and piloting tools to aid university-industry collaboration program designers in maximizing available resources.</p> <p>OUTPUT: Training for policymakers on utilizing experimental approaches in science commercialization.</p> <p>RESEARCH TOPIC: Applying the scientific method to design programs and interventions for advancing science commercialization.</p>	<p>OUTPUT: An international comparison of state aid regulation in ERI-IE R&D projects, emphasizing infrastructure use, IPR transfer, and best practices from general state aid procedures.</p> <p>INSIGHT: Research-driven guidelines can be provided by the SES consortium for new calls, outlining essential topics for study.</p> <p>INSIGHT: Acknowledge and integrate the nuanced differences between TRL, MRL, and SRL in policymaking, emphasizing the need for comprehensive evaluations.</p> <p>INSIGHT: Strategically decide EU's approach to companies and entrepreneurship policy. Define the desired focus and identify in supporting companies/entrepreneurship.</p>		
	<p>RESEARCH TOPIC: Exploring an assessment framework for evaluating entrepreneurial skills development in scientific technology entrepreneurship education.</p>	<p>OUTPUT: Guidelines to extend R&D&I team diversity measures beyond gender to include diverse backgrounds in science, entrepreneurship, and industry experience.</p>	<p>INSIGHT: Heightened collaboration among ERI-IE entities (students, STEM researchers, entrepreneurs, and SES agendas) should be encouraged for enhanced collective effectiveness.</p>	<p>OUTPUT: NEXT's Handbook on Experimentation in Science Commercialization and University-Industry Collaboration & University-Industry Impact Accelerator.</p> <p>OUTPUT: Directly enhance impact for programs in NEXT University-Industry Impact Accelerator.</p> <p>INSIGHT: Experimenting with program design requires (1) mindset change from large-scale program development to piloting/iterating before scale-up; (2) systems for learning and measurement.</p> <p>INSIGHT: Funding experiments in research offers insights for policymakers in designing funding schemes. I.e., prior to outlining new schemes, testing in an experimental environment is essential.</p>	<p>OUTPUT: Tools for systemic thinking to identify societal development opportunities embedded in the technologies.</p> <p>OUTPUT: Conceptual tools to help shift perceptions in understanding the dynamics of ATTRACT interventions and their impact.</p> <p>OUTPUT: Draft contracts, procedures, and strategies for utilizing the state aid system.</p> <p>RESEARCH TOPIC: An analytical framework to assess the socioeconomic impact of ATTRACT with several dimensions (serendipity, spin-offs, etc.)</p> <p>INSIGHT: Solid support systems and realistic entrepreneurship timelines are needed. Financial resources alone are insufficient.</p>		
ATTRACT/ ERI-IE			<p>RESEARCH TOPIC: The role of science and technology entrepreneurship education in facilitating knowledge and technology transfer from science to industry.</p> <p>INSIGHT: Support infrastructures, particularly in digital entrepreneurship, are essential for science-based entrepreneurship.</p>		<p>RESEARCH TOPIC: Examining the role of ERIs in network theory and investigating how specific communication patterns enhance innovative output in companies or ecosystems.</p>	<p>INSIGHT: Systematically experimenting with university-industry collaboration programs requires establishing ex-ante metrics to measure effectiveness and investment value.</p>	<p>OUTPUT: A maturity model and scale to assess the impact of data generated by research infrastructures.</p> <p>RESEARCH TOPIC: Enhancing understanding of diverse science commercialization channels and their connections to improve the effectiveness of interventions in bringing technological discoveries to market.</p> <p>INSIGHT: Tailor knowledge valorization avenues to accommodate diverse researcher archetypes (i.e., Gorillas, Cats, and Dogs)</p>
Research Infrastructure or Industry							
Project	<p>INSIGHT: Previous research emphasized in-group biases hindering team creativity. In ATTRACT II, interventions revealed team diversity as a vital catalyst for product development.</p> <p>INSIGHT: Recognize the pivotal role of interdisciplinary teams through the inclusion of individuals with expertise in IP management and accounting in R&D&I teams.</p>	<p>OUTPUT: Early-stage workshops on inclusivity in design</p> <p>OUTPUT: Tools and knowledge on how to be inclusive, diverse, and democratic.</p> <p>INSIGHT: Project-level multidisciplinary and multifunctionality should be strongly encouraged</p>	<p>RESEARCH TOPIC: Exploring how scientist entrepreneurs can utilize design thinking and prototyping in communication, with insights from ATTRACT's knowledge base for R&D&I.</p>	<p>OUTPUT: Behavioral training to overcome cognitive barriers to interdisciplinary collaborations (academia/industry).</p>	<p>RESEARCH TOPIC: Enhancing the business and societal impact of R&D&I projects through the incorporation of end-user perspectives</p> <p>RESEARCH TOPIC: Boisot's social learning cycle (SLC) as an indicator to assess R&D&I project responsiveness to ATTRACT sequels and to identify points for serendipitous interventions within the three-dimensional information space (I-space).</p>		
	<p>OUTPUT: Training booklet supporting scientists' continuous development by enhancing psychological flexibility through behavioral training.</p> <p>OUTPUT: Entrepreneurial mindset handbook and teaching materials for science-to-industry knowledge transfer</p> <p>OUTPUT: Behavioral training for scientists to enhance openness, foster diverse open innovation attitudes, and impact knowledge dissemination.</p> <p>RESEARCH TOPIC: Assessing scientists' entrepreneurial competence in commercialization projects and identifying most suitable frameworks to do so.</p>	<p>RESEARCH TOPIC: Enhancing scientists' psychological flexibility via Open Innovation education and psychological training to address biases and promote knowledge exchange in open innovation processes.</p> <p>RESEARCH TOPIC: Leveraging human diversity to enhance innovation performance.</p>	<p>INSIGHT: Scientists' entrepreneurial mindsets can be cultivated with suitable tools.</p> <p>INSIGHT: Personal psychological factors play a crucial role in collaborations within ERI-IEs.</p>		<p>RESEARCH TOPIC: The impact of scientists practicing hybrid entrepreneurship in both science and business.</p> <p>INSIGHT: The science-to-market process varies substantially for each scientist and market context.</p>		
Individual							

