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Regulatory efficiency and competitiveness



Theme G – Excerpt of the CASRI Strategic Research & Innovation Agenda (SRIA)

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Regulatory efficiency and competitiveness – *Theme G*

Abstract

Europe faces the challenge of strengthening competitiveness and reducing regulatory burdens while maintaining environmental ambition and delivering the objectives of the European Green Deal and European Climate Law. Thereby it runs the risk that environmental ambition is treated as a cost to be cut rather than a goal to be delivered more efficiently. Geopolitical pressures, economic uncertainty, fragmented policies, and administrative complexity highlight the need for smarter, more coherent, and adaptive regulation, alongside a broader understanding of competitiveness based on long-term resilience, resource sufficiency, and social justice. Research and innovation can support this transformation through improved impact assessments, digital tools and artificial intelligence, multi-level governance, stakeholder participation, and real-world experimentation. Environmental Protection Agencies can play a convening role and build internal capacity to wield these tools while safeguarding environmental integrity. More effective regulatory frameworks can reduce uncertainty, facilitate sustainable investment, and accelerate innovation while addressing implementation and enforcement gaps. At the same time, redefining competitiveness around sustainability, resilience, and fairness can help align economic objectives with environmental and societal needs. Together, these approaches can strengthen institutional effectiveness, public trust, and policy coherence, positioning Europe to advance its green transition while maintaining economic competitiveness. This theme contributes particularly to SDGs 3, 8, 9, 12, 13, 14, 15, 16, and 17.

Keywords

Adaptive Regulation; Regulatory Simplification; Impact Assessment; Sustainable Competitiveness; Sufficiency; Long-Term Resilience

Expected Impacts

Smart, adaptive and effective regulation (Topic G1)

Enable a faster, fairer and more durable sustainability transition that reconciles competitiveness with environmental integrity through a system of mutually reinforcing environmental, societal and economic feedback loops.

Governance for sustainable competitiveness (Topic G2)

Shift the foundations on which European economies compete — reframing competitiveness around long-term resilience, value retention and wellbeing rather than short-term cost reduction and throughput.

Further Information

For topic-related information on Background & Rationale, Significance and CASRI added values, expected outputs of the research questions and synergies with other relevant R&I initiatives, please refer to the full SRIA (Dictor et al., 2026).

Topic G1 - Smart, adaptive and effective regulation

***Keywords**: adaptive regulation; regulatory simplification; impact assessment; regulatory innovation*

Description: Smart, adaptive, more integrated and effective regulation aims to successfully navigate fragmented, incoherent and rapidly changing policy landscapes with a data-driven, flexible and participatory approach.

Impacts: Research and innovation in smart, adaptive regulation can reduce administrative burdens and compliance costs through improved impact assessments, regulatory simplification, and the removal of outdated or contradictory rules, creating greater certainty for investment in sustainable innovation. Coherent, data-driven, and effectively enforced regulation can close implementation gaps, ensure delivery of European Green Deal and European Climate Law objectives, and identify unintended effects without lowering environmental ambition. Transparent, participatory, and adaptive rule-making can strengthen public trust, institutional learning, and policy legitimacy. New impact-assessment methods, digital and AI-enabled tools, and real-world living labs can support regulators and Environmental Protection Agencies in developing more effective regulatory approaches. Ultimately, smarter regulation can reconcile competitiveness with environmental integrity while generating wider societal benefits, including improved health, well-being, housing, and resilience to climate-related risks.

Contribution to Environmental and Sustainability Challenges: Comprehensively responding to all key E&S challenges. Ensuring effective use of available data and knowledge. Guiding regulative attention and action to the most pressing questions in a just and efficient manner and ensuring that non-intended effects of regulation are effectively avoided.

Transnational Societal and Policy Relevance: Reducing regulatory burden while at the same time improving the capacities of regulatory frameworks to respond to changing environmental conditions, economic realities, public concerns, and technological advancements.

Systemic Knowledge Needs: Addressing the systemic mismatch between formal, top-down regulation and informal social norms and cultural practices. Ensuring that the best practices are adopted across different sectors and policy domains.

Transversal Knowledge Needs: Managing complex, polycentric regulative contexts and equipping policymakers with tools to navigate multi-level and multi-actor systems.

Actionable Knowledge Needs: Addressing weak enforcement and implementation gaps of environmental and sustainability policies and regulations. Improved implementation and utilisation of ex-ante and ex-post assessments, cross-sectoral impact evaluations. Development of digital tools for regulatory simplification and learning labs for testing new governance models in real-world settings. EPAs should build internal capacity to harness these tools effectively, while also ensuring precaution and testing and refining new approaches through controlled experiments.

Research and Innovation (R&I) Questions Include at Least:

- How can ex-ante and ex-post impact assessments be improved, and actually used, to identify outdated, redundant or harmful regulations while raising rather than lowering levels of environmental protection?
- How can digital tools and AI be responsibly deployed for regulatory simplification, monitoring and “living labs”, without eroding environmental safeguards or transparency?
- How can regulatory frameworks be made genuinely adaptive across fragmented, multi-level and polycentric governance, and how can the systemic mismatch between formal regulation and informal social norms be addressed?

Topic G2 - Governance for sustainable competitiveness

Keywords: *sustainable competitiveness; wellbeing; sufficiency; long-term resilience*

Description*:* Ensuring a regulatory environment that fully supports action towards sustainability involves considerations of growth, sufficiency, and justice. Reconfiguring the economy towards sustainable competitiveness requires a redefinition of competitiveness and the establishment of regulatory frameworks for sustainable production and consumption.

Impacts*:* Research and innovation on governance for sustainable competitiveness can shift European economies towards long-term resilience, resource efficiency and well-being, rather than short-term growth and cost reduction. This approach promotes circular and regenerative business models, aligns sustainable finance with environmental objectives, and addresses overconsumption and rebound effects to reduce Europe's ecological footprint. Integrating social justice, intergenerational equity and multi-level governance can ensure fair distribution of benefits and respect for ecological limits, as demonstrated by legislative frameworks in Wales and generational impact assessments in Italy. Research can further develop well-being indicators and sufficiency benchmarks to guide policy and investment, enabling economies to remain competitive within planetary boundaries.

Contribution to Environmental and Sustainability Challenges*:* The traditional paradigm of competitiveness in terms of economic growth is challenged in the context of polycrisis. Overconsumption and rebound effects require a fundamental re-thinking of the economic system's capacity to achieve ecological sustainability in a socially just manner.

Transnational Societal and Policy Relevance*:* Sufficiency and justness as key questions for competitive economies. The relevance extends to finance, marketing, regulations including EU taxonomy Focus areas include sustainable consumption, (dis)incentives for overconsumption, sustainable finance, inequalities and social science approach on just transition.

Systemic Knowledge Needs*:* Focus is on regenerative economic paradigms across all sectors of society. This involves identifying the long-term impacts of economic activity and developing transitional strategies to address potential economic and social disruption associated with a sufficiency-based transition. Clear definitions and benchmarks for sufficiency are needed in different sectors (housing, mobility, goods).

Transversal Knowledge Needs*:* Implications span all societal sectors and levels of governance, from international trade to local economies. Development of corporate governance and public-private collaborations through mission-oriented industrial policies for sustainability.

Actionable Knowledge Needs*:* Developing wellbeing indicators and policy targets that emphasise social and environmental well-being over economic growth. Addressing the psychological drivers of consumerism and attachment to unsustainable lifestyles requires collective action and social innovation to overcome deeply ingrained norms and barriers to sufficiency.

Research and Innovation (R&I) Questions Include at Least*:*

- How can competitiveness be redefined and measured so that wellbeing and ecological limits — not throughput or short-term cost — become the benchmark, and which indicators and policy targets operationalise this?
- How can mission-oriented industrial policy and corporate governance be designed to reconfigure value chains towards regenerative production and consumption?

Background on CASRI SRIA

SRIA Objectives, Positioning And Targeted End-Users. Europe is facing interlinked environmental, economic, technological and geopolitical pressures. Sustainability transformation therefore remains essential to Europe's long-term resilience, competitiveness and security. Sustained access to resources, resilient production systems and supply chains, climate-resilient infrastructure, healthy populations, functioning ecosystems, effective regulation and the societal capacity to manage transformation all depend on robust and actionable knowledge. Against this background, European Environmental Protection Agencies (EPAs) and EPA-like sustainability expert organisations have worked with actors across Europe through the project CASRI – Collaborative Action coordinating and enhancing systemic, actionable and transversal Sustainability Research and Innovation – to co-create this Strategic Research and Innovation Agenda (SRIA), which have been developed in close connection with the EPA Network Interest Group on Sustainability Research and Solutions (IG EPAS)**.** The CASRI SRIA consolidates transnational knowledge needs identified and further developed through the CASRI co-design process, providing a basis for further prioritisation, programming, collaboration and implementation. It is not a fixed research programme or a formally agreed policy position of European EPAs. Its topics and priority levels reflect the evidence, participants and timeframe of the CASRI process and are intended to be further developed with funders, policymakers, researchers and implementation actors. The SRIA addresses European and national funders, programme owners and partnerships seeking opportunities for coordinated programming and investment, as well as research organisations, businesses, public authorities, cities, regions, civil society and EPAs developing collaborative R&I and implementation activities. Through the SRIA, CASRI invites these actors to jointly develop and apply systemic, transversal and actionable knowledge for a sustainable, competitive, democratic, resilient and liveable Europe.

SRIA Content and Topic Prioritisation. The CASRI SRIA comprises 8 interconnected themes and 20 transnational Research and Innovation topics. For each topic, it describes expected impacts, background and rationale, the systemic, transversal and actionable knowledge needs, and the significance and added value of further Research and Innovation, including links and gaps in relation to existing initiatives. The topics were developed to different levels of detail according to the interest and evidence emerging through the co-design process.

CASRI SRIA Co-design Process. The SRIA was developed through a bottom-up co-design process involving EPAs and EPA-like organisations as National Contacts who invited National Key Stakeholders and European experts with backgrounds in knowledge production, funding, implementation, politics and use. Around 600 national knowledge needs were identified, clustered and consolidated into 20 transnational Research and Innovation topics, which were subsequently discussed, prioritised and further elaborated through surveys, online exchanges and workshops. The resulting agenda therefore combines national implementation experience with transnational analysis and European dialogue.

CASRI Added Value and Next Steps. The SRIA provides two mutually reinforcing contributions. First, it offers an evidence-based agenda of shared R&I needs, showing where systemic, transversal and actionable knowledge can support sustainability transformation. Second, it provides a basis for collaboration with EPAs and between those who identify knowledge needs, fund research, generate knowledge and innovation, and implement, regulate or scale solutions. EPAs can make a distinctive contribution to this collaboration because they operate between environmental science, monitoring, policy advice, regulation and implementation. Their data, institutional knowledge, stakeholder relations and experience with implementation barriers can help connect research agendas and innovation with real-world needs and support continuous learning between research, policy and practice. Implementation is understood as an iterative process rather than a final stage following research. CASRI will therefore explore how the SRIA can inform agenda-setting, funding and programming, collaborative Research and Innovation, practical implementation and learning, while developing structures for continued cooperation beyond the project.

Further information

Within the EPA Network, the Interest Group on Sustainability Research and Solutions (EPAS) serves as a collaborative platform to support the implementation of the SRIA and advance this thematic priority through knowledge exchange, cooperation and joint action. In case of interest, please contact **Stephan Bartke – German Environment Agency (stephan.bartke@uba.de)**.

Visit the CASRI website at CASRI.eu for more information.

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