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[2] **R**: Report, **DEC:** Websites, patent filling, videos; **DEM:** Demonstrator, pilot, prototype; **OTHER:** Software Tools
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Document summary

This paper presents a comprehensive methodology for implementing and updating the Strategic Research, Innovation, and Deployment Agenda (SRIDA), a defining framework for the AI, data and robotics association. As part of WP1, this document offers actionable recommendations and support for the SRIDA process based on the work in Adra-e WP1 Task 1.3. The SRIDA outlines the vision, overarching goals, main technical and non-technical priorities, investment areas, and a roadmap for research, innovation and deployment. By meticulously detailing a step-by-step process, including instructions on the writing process, stakeholder involvement strategies, and a step-by-step timeline with proposed timings, this paper offers valuable insights into the effective progression and potential benefits of a structured approach. It facilitates reflections on efficiency and provides recommendations for future improvement. Thus, this study lays a strong foundation for future work, guiding the formulation of subsequent Strategic Research, Innovation, and Deployment Agenda iterations.

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1. Introduction

The objective of Work Package 1 was to support the community and the implementation of the Strategic Research and Innovation Agenda (SRIDA) by aiding in the update and implementation of SRIDA and the development of the ADR partnership. This support was provided through the coordination of the portfolio of projects and by offering actionable recommendations for Adra and the ADR partnership. This activity was connected to the overall project objectives, aiming to facilitate convergence between communities and disciplines, particularly for topics and areas that benefit from cross-fertilization. This involved consultations with relevant initiatives (WP2), outreach and awareness (WP3), and the increase in adoption of ADR technology (WP4).

Within Work Package 1, task 1.3, "Actionable recommendations and support for updating the SRIDA," had the objective of providing a comprehensive account of the process of creating SRIDA, analysing the activities performed, and proposing actionable recommendations for further updates. It consisted of two parts, which resulted in two distinct deliverables. The first deliverable 1.5, due in December 2023, presented a use case for writing SRIDA, outlining the actual work on the first version of this paper, focusing on its content creation process and its outcomes, addressing both positive and negative aspects of that particular work[4]. This current deliverable 1.8, due in May 2025, provides a comprehensive methodology for implementing SRIDA, including detailed instructions on the writing process, stakeholder involvement strategies, and a step-by-step timeline with proposed timings.

1.1 SRIDA: Strategic Goals and Impact

The Strategic Research, Innovation, and Deployment Agenda (SRIDA) is a comprehensive roadmap for the advancement of Artificial Intelligence, Data, and Robotics (ADR) in Europe. It functions as a consensus-based strategy that aligns mid- and long-term priorities to foster innovation, guide research and development, and strengthen the European ADR ecosystem. Its dual ambition is to mobilize stakeholders across sectors and to inspire the European Commission's Horizon Europe work programme.

At its foundation, the SRIDA seeks to align technological progress with societal needs and economic resilience. It provides a structured and inclusive approach that brings together academia, industry, policymakers, and civil society to address shared challenges and shape a cohesive vision for ADR in Europe. The SRIDA is not a static document but a living strategy, flexible and responsive to scientific breakthroughs, technological shifts, and evolving policy landscapes. It serves simultaneously as a forecasting mechanism, a collection of unified requirements and values, and a strategic tool to coordinate and accelerate ADR development across Europe.

Equally important is SRIDA's emphasis on balanced representation and participation. Scientists from the AI, data, and robotics domains must be equally involved alongside industry representatives: from large corporations to SMEs and startups. Ensuring this balance reinforces the legitimacy of the process and supports the creation of a research and innovation agenda that reflects the diverse needs and expertise of Europe's ADR landscape. Furthermore, SRIDA must navigate the dual imperative of balancing long-term ambitions, such as the transformation of Europe into a society powered by safe, trustworthy, and beneficial ADR technologies, with short-term objectives, including the need to foster cross-sector collaboration and accelerate the deployment of impactful solutions. These themes are further developed in this report through recommended instructions for the SRIDA development process.

[4] The previous deliverable D1.5 is available here: https://adr-association.eu/node/186

Before turning to the methodology in detail, it is important to define SRIDA's broader role. It serves as a strategic reference for the entire ADR ecosystem, coordinating input, aligning priorities, and supporting evidence-based policy and investment decisions. Its primary goals include:

- **Strengthening the European ADR ecosystem** by fostering synergies between researchers, industries, and policymakers to drive sustainable innovation and knowledge-sharing.
- **Enhancing Global Competitiveness** by supporting European leadership in AI, data-driven technologies, and robotics through excellence in research and industrial application.
- **Promoting Ethical and Trustworthy ADR** by aligning technological development with human-centered values, data protection principles, and strong governance frameworks.
- **Accelerating Societal and Economic Benefits** by applying ADR solutions to major global challenges, including climate change, healthcare transformation, and industrial renewal.

With each new edition, SRIDA editors and contributors focus closely on defining the Research, Innovation, and Deployment Roadmap for the Next Strategic Plan. As a result, SRIDA articulates a coherent strategy to realize its stated goals. The current strategic plan addresses several critical technological issues:

- **Large-scale general-purpose ADR technology**, including open, GDPR-compliant European language models that accommodate linguistic and cultural diversity across Europe. This encompasses speech-to-text, text-to-text, and text-to-speech technologies.
- **Large-scale, complex ADR testbeds** developed with end-users in domains such as healthcare, food production, transportation, energy, and smart cities.
- **Multi-stakeholder development, verification, validation, and integration** of automated decision-making in socio-technical systems across public and private sectors.
- **Collaborative autonomous systems** that interact with both people and the environment, such as autonomous drones in controlled airspace, last-mile delivery systems, and self-driving vehicles.
- **Metrics for measuring progress in ADR**, with a particular focus on developing criteria for trustworthiness.

To address these priorities, the current SRIDA outlines six "Big Tickets" for 2025–2027 in AI, Data, and Robotics:

1) **Ground-breaking technological foundations in ADR** (autonomy, high performance, and predictability).
2) **Effective and Trustworthy General-Purpose ADR** (generative AI, generality, continuous learning, trust, scale, and complexity).
3) **An interoperable and integrated framework for data and model ecosystems** (operations, governance, privacy, and security).
4) **Next-generation smart embodied robotic systems** (soft robotics, autonomy, manipulation, configurability, human-robot interaction, and collaboration).
5) **Developing ADR technology for the sciences** (from data to knowledge and understanding).
6) **Research, innovation, and tools for compliance** (trust, privacy, security beyond compliance).

By grounding its strategic direction in transparent and collaborative engagement, SRIDA provides a resilient platform for building consensus on the future of ADR in Europe.

Moreover, SRIDA contributes directly to advancing the twin digital and green transitions, both central to securing a competitive, sustainable, and resilient European economy. It operates within the broader context of EU strategic programs, particularly Horizon Europe, ensuring alignment with Europe's long-term policy and investment goals.

To meet these ambitions, SRIDA is developed and maintained through a transparent, iterative methodology rooted in stakeholder engagement and expert consultation. The operational framework supporting this methodology prioritizes collaboration, neutrality, and adaptability, making SRIDA a model for inclusive, forward-looking strategic planning in ADR.

This document is structured to provide a comprehensive guide for the SRIDA update process. Following this introduction, Section 2 presents the conceptual methodology, which ensures transparency and collaboration, detailing the roles and engagement of internal and external stakeholders. Section 3 outlines the operational methodology, offering instructions on the writing process, including collaborative tools, editorial governance, and a step-by-step implementation timeline with proposed timings. Section 4 examines stakeholder involvement strategies and addresses key challenges encountered during the SRIDA development, along with lessons learned. Section 5 concludes the main body of the deliverable with reflections on SRIDA's impact and future directions. Section 6 provides appendices that document the public events and consultations that contributed to the SRIDA's development. Finally, Section 7 offers a glossary of terms used throughout the document to support clarity and consistency.

2. Conceptual Methodology for a Transparent and Collaborative SRIDA

This section presents the conceptual methodology that underpins the SRIDA, detailing the principles, stakeholder structures, and participatory mechanisms that ensure transparency, collaboration, and inclusivity in its development. It explains the roles of both internal and external stakeholders in sustaining a balanced and responsive agenda.

One of SRIDA's defining features is its commitment to openness, adaptability, and ongoing refinement. In a fast-evolving technological landscape, a static document would quickly lose relevance. Instead, SRIDA functions as a living strategy: updated iteratively through stakeholder engagement, expert input, and structured feedback loops, to ensure it remains responsive to emerging challenges and opportunities.

The SRIDA's credibility as a strategic roadmap depends on its legitimacy as a transparent and collaborative process. This legitimacy is built through structured engagement with a wide network of stakeholders who shape its priorities and content. These stakeholders represent the breadth of the AI, data, and robotics ecosystem, from research institutions and industries to policymakers and broader societal actors. Their engagement ensures that the SRIDA remains dynamic, inclusive, and aligned with both national and European goals. Regular reviews and consultations allow the SRIDA to incorporate technological advances and shifting policy landscapes, maintaining a balance between short-term relevance and long-term vision.

The methodology guiding this evolution is built on three core mechanisms:

- **Inclusive Development**: broad stakeholder involvement ensures balanced input;
- **Continuous Feedback**: frequent review cycles align the strategy with new developments;
- **Strategic Updates**: revisions integrate technological and regulatory change.

This adaptive framework enables SRIDA to move beyond a static roadmap. It sets a clear methodology for updating research priorities, refining 'Big Tickets', and coordinating stakeholder contributions on a defined timeline. In doing so, SRIDA serves not just as a consensus document, but as a tool for realizing Europe's ADR vision.

By embedding transparency and inclusivity into its conceptual methodology, the SRIDA strengthens Europe's capacity to lead in trustworthy, competitive, and socially beneficial ADR innovation.

The SRIDA is not created behind closed doors but emerges through a carefully designed participatory model that integrates inclusivity, distributed responsibility, and traceable contribution mechanisms. This section outlines the two key groups—internal stakeholders and external stakeholders—whose roles, structures, and engagement formats are designed to ensure openness, neutrality, and broad ownership of the final outcome.

2.1 Internal Stakeholders: Descriptions and Functions

Internal contributors form the operational and strategic backbone of the SRIDA. Their roles are embedded in an ongoing and deliberately transparent process, where drafting, revising, and decision-making are carried out through routine, documented collaboration. These actors operate within Adra and its affiliated projects, meeting regularly and engaging in continuous dialogue to co-create a coherent and responsive agenda.

Their contributions span brainstorming, writing, editing, and iterative feedback, ensuring that the SRIDA remain aligned with Adra's overarching vision and objectives. The internal contributors include:

Adra Members

Comprising leading organizations in AI, data, and robotics, Adra members provide critical strategic input, shaping research priorities and influencing funding directions. This diverse group includes academics, industry experts, and business representatives who collaborate with Adra to guide the SRIDA's development. Their involvement ensures that the agenda remains reflective of real-world needs, scientific findings and industry trends. The diversity within Adra membership promotes a pluralistic approach to agenda-setting.

Adra Board of Directors

The Board of Directors plays a crucial oversight role, reviewing and approving the progress of the SRIDA at key stages. By ensuring that the document remains aligned with Adra's mission and strategic objectives, the board provides governance and direction, helping to align the document with Adra's long-term vision while safeguarding procedural neutrality and coherence.

Adra-e

The European coordination and support action that facilitates Adra's operations, Adra-e plays an essential role in facilitating Adra's operations. Its involvement ensured that the SRIDA was well-integrated into the broader European policy and funding landscape, aligning with initiatives such as Horizon Europe and other European frameworks.

The Editing Committee and Coordination Team

The editorial and coordination teams are instrumental in structuring and refining the SRIDA, ensuring clarity, accuracy, and strategic alignment. The Editing Committee consists of three dedicated editors, each representing one of the key constituencies (AI, Data, and Robotics) ensuring balanced expertise across the ADR domains. This team plays a pivotal role in shaping the SRIDA by formulating key themes, structuring the document, and engaging in ongoing scientific discussions to maintain a forward-looking and relevant agenda. The committee is led by a designated lead editor, appointed by the Board of Directors (BoD), who holds the responsibility of reporting to the BoD, ensuring that the SRIDA remains aligned with overarching priorities. Their weekly online meetings foster continuous collaboration and iterative refinement.

The current Editing Committee includes Fredrik Heintz (lead editor, AI), Nabil Belbachir (Robotics), and Edward Curry (Data).

The Coordination Team plays an equally crucial role in harmonizing stakeholder contributions, actively participating in Editing Committee meetings, and maintaining close collaboration with the Adra-e support team. Their efforts streamline processes and contribute to a coherent final document, ensuring that diverse inputs are effectively integrated into the SRIDA while upholding its strategic and scientific integrity.

It consists of Ana Garcia (BDVA Secretary General), Philip Piatkiewicz (Adra Secretary General), Jozef Geurts (interim Adra Secretary General, European Affairs Manager at Inria), and Katerina Linden.

Topic Groups and Reference Groups

A diverse network of experts consults with the Editing Committee throughout the SRIDA's development, offering insights, feedback, and domain-specific expertise. These contributors help to refine research objectives, align the document with evolving technological trends, and ensure that the SRIDA addresses practical challenges faced by the European ADR ecosystem.

Through their collective expertise, these internal contributors create the backbone of the SRIDA, ensuring that it is both ambitious and feasible within the broader European landscape. While internal contributors' engagement and consultation are present on every level of work, external bodies provide their independent feedback during specific events and sessions. The external contributors' engagement guarantees that the SRIDA maintains balance and remains objective and unbiased.

2.2 External Stakeholders: Descriptions and Functions

External stakeholders play a crucial role in aligning the SRIDA with European policy frameworks, national strategies, and international research efforts, fostering a truly integrated and forward-looking approach. Their engagement, organized through structured events, consultations, and targeted outreach, is central to the SRIDA's commitment to democratic participation and public transparency.

European Commission

As the primary policymaker and funder, the EC plays a central role in ensuring that the SRIDA aligns with the European Union's overarching digital and research policies, such as Horizon Europe and the AI Act. EC representatives actively contribute to the SRIDA's development by providing regulatory insight, shaping strategic direction, and embedding the agenda within broader policy objectives. Their involvement ensures that the SRIDA remains not only ambitious but also implementable within the EU's legal and financial frameworks.

Member States

National governments influence how SRIDA recommendations translate into concrete policies at the national level, facilitating alignment between EU-wide ADR strategies and country-specific research and industrial priorities. While the European Commission oversees strategic coordination, individual member states are responsible for local implementation, ensuring that the aspirations outlined in the SRIDA lead to actionable national initiatives. Though each EU country appoints a European Commissioner, commissioners do not represent their respective nations but work collectively in the interest of all member states, reinforcing the pan-European nature of the SRIDA.

Founding organizations

Leading research organizations such as the Big Data Value Association (BDVA), Confederation of Laboratories for AI Research in Europe (CLAIRE), European Laboratory for Learning and Intelligent Systems (ELLIS), the European Association for Artificial Intelligence (EurAI), and European Robotics (euRobotics) played a central role in establishing Adra in May 2021. Since its inception, these organizations have contributed their expertise and cutting-edge research perspectives, helping to shape the SRIDA's direction and ensuring its alignment with Europe's technological and scientific priorities.

EU Projects

Initiatives such as Networks of Excellence (NoEs) and the AI-on-Demand Platform (AIoD) provide strategic guidance on emerging technological and scientific trends, strengthening Europe's position in AI and related fields. NoEs unite over 1,000 researchers and 100 industry organizations, fostering a cohesive research community. The European Commission has invited NoEs to identify gaps and challenges within the European AI research landscape, ensuring that the SRIDA incorporates the latest developments and remains adaptive to new breakthroughs.

AIoD serves as a key infrastructure for NoEs, enhancing its capabilities in tools, competencies, and services. Representatives of these expert groups, involved in AI, Data and Robotics research and on-demand AI services, contributed their expertise to the SRIDA development process during various events, workshops, and conferences. These consultations have been instrumental in integrating research, education, and innovation into the roadmap, strengthening the link between Adra's Strategic Research, Innovation, and Deployment Agenda (SRIDA) and broader European AI strategies.

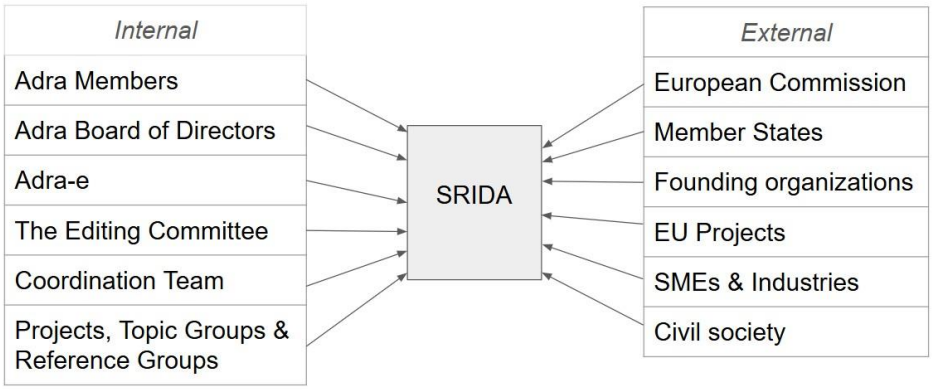

Fig. 1: Stakeholders' contribution to the SRIDA

2.3 Addressing Underrepresented Voices: SMEs and Emerging Stakeholders

A foundational principle of the SRIDA's conceptual methodology is its commitment to inclusivity, not only in outcomes, but also in the process of agenda-setting. One of the most complex methodological challenges in this context is balancing the diverse and sometimes conflicting priorities of stakeholder groups. National governments prioritize sovereignty, regulatory frameworks, and public policy objectives, while industry stakeholders focus on economic viability, market competitiveness, and technological leadership. Research institutions, on the other hand, emphasize scientific advancements, pushing the boundaries of innovation, whereas policymakers must carefully navigate the ethical, legal, and societal implications of ADR technologies. These divergent priorities, if not properly reconciled, risk creating an agenda that is fragmented or misaligned with Europe's broader strategic goals. To bridge these perspectives, the SRIDA employs a democratic and inclusive approach, fostering open dialogue through a variety of engagement mechanisms, including workshops, public consultations, and collaborative writing sessions. These platforms ensure that the strategic roadmap is not dictated by any single group but instead reflects a shared vision that accounts for the diversity of regional, economic, and sectoral priorities across Europe.

While large corporations and established research institutions have traditionally dominated the ADR landscape, the SRIDA recognizes the indispensable role played by smaller actors, such as startups, small and medium-sized enterprises (SMEs), and civil society organizations. These stakeholders contribute to the ecosystem in several critical ways:

• **Agility and Innovation**: startups and SMEs are often at the forefront of disruptive innovation, pioneering novel applications of ADR technologies that challenge existing paradigms and push the industry forward.

• **Grassroots Perspectives**: civil society organizations and smaller industry players provide valuable insights into the ethical, local, and community-driven dimensions of AI, data, and robotics, ensuring that technological progress aligns with societal needs.

• **Diversity of Needs**: by incorporating voices from diverse sectors such as healthcare, education, environmental sustainability, and social services, the SRIDA prevents ADR development from being confined to traditional industry silos, instead fostering solutions that serve a broader range of users and applications.

SRIDA's methodology includes dedicated participation pathways for these actors. These include targeted outreach campaigns, simplified consultation formats, and inclusion in topic groups and workshops that inform key strategic areas. Importantly, these engagements are not symbolic: they are designed to shape content, influence priorities, and co-author elements of the strategic agenda. This approach reflects SRIDA's understanding of stakeholder engagement not as a communication

task, but as a core procedural norm within its collaborative framework. The ongoing involvement of underrepresented voices is essential for maintaining the agenda's relevance, legitimacy, and long-term sustainability.

In sum, the methodological design of the SRIDA ensures that the roadmap reflects the full diversity of Europe's ADR ecosystem, from established institutions to emerging innovators. By embedding inclusivity into every phase of the process, the SRIDA reinforces Europe's position as a global leader not only in technological excellence but also in democratic, socially responsible innovation.

3. Operational Methodology for a Sustainable and Agile SRIDA

This section outlines the practical framework that guides the development of the SRIDA. It describes the tools and processes used, the phased development timeline, and the mechanisms that ensure transparency and adaptability.

The operational methodology is rooted in the practical experiences of creating the SRIDA, which involved meticulous planning, collaborative engagement, and iterative refinement. The development principles were based on a cyclical process of drafting, gathering feedback, revising, and soliciting further input. This approach fosters inclusivity, draws upon a wide range of viewpoints to guarantee comprehensive coverage and accuracy, promotes a sense of community, aligns with academic standards, and establishes a sustainable framework for ongoing refinement. Essentially, the whole process of writing SRIDA can be divided into the following three broad stages:

1. Defining the Vision, Mission, and Goals

The initial phase centers on establishing the overarching vision and specific strategic research objectives for ADR development in Europe. Extensive consultations with stakeholders result in a well-defined list of missions and goals aimed at achieving a shared vision for ADR success in Europe.

2. Identifying Global Challenges and Emerging Trends

The second stage involves mapping global challenges and identifying major technological and societal trends that will shape research, innovation, and deployment efforts. The goal is to strike a careful balance between cutting-edge technological progress and the need to address pressing societal concerns. Through expert consultations and collaborative analysis, key ADR trends are highlighted, and gaps in research and policy are identified, setting the stage for targeted innovation strategies.

3. "Big Tickets"

In the final stage, editors and contributors work on formulating the roadmap for research, innovation, and deployment. This phase translates strategic objectives into actionable steps, detailing the initiatives required to achieve the defined goals. The document is developed iteratively, incorporating continuous feedback from stakeholders to ensure its effectiveness and feasibility. A central aspect of this phase is the identification of six 'Big Tickets', high-priority focus areas in AI, Data, and Robotics for the new edition of the SRIDA. These strategic priorities are determined through extensive collaboration with stakeholders, ensuring that they address both technological advancements and societal needs.

As the contributing stakeholders were identified and described in the previous section, this section focuses on the process of collaboration: specifically, how the feedback is collected, evaluated, and prioritized, followed by the detailed timeline for these activities.

3.1 Tools and Processes for Collaboration

The SRIDA development process is built upon a robust framework of collaborative tools and methodologies that foster community engagement, facilitate input collection, and ensure

transparency. These mechanisms play a crucial role in structuring discussions, refining strategic objectives, and achieving consensus among diverse stakeholders.

Community Engagement: Workshops, Topic Groups, Consultations

Active engagement with the ADR community, both online and offline, is fundamental to the SRIDA's development. Every interaction, whether formal or informal, presents an opportunity for knowledge exchange, discussion, and consensus-building. A list of such events organized by Adra and Adra-e is provided in the Appendices.

Topic Groups

These collaborative groups serve as specialized working bodies within ADR development, operating under the Adra umbrella. They engage in continuous dialogue, exploring technological advancements and identifying their potential advantages for Europe. These groups investigate relevant use cases, develop sustainable solutions, and explore emerging technologies. Through regular online meetings and workshops, they strive to build long-term societal, market, and political impact.

Consultations

Both structured and informal, various consultations provide targeted avenues for stakeholders to contribute insights and feedback. These sessions are designed to gather diverse perspectives, ensuring that input from industry leaders, policymakers, researchers, and the broader community is effectively integrated into the roadmap.

Workshops

Workshops serve as interactive platforms where stakeholders deliberate on emerging trends, challenges, and opportunities. By fostering collaborative ideation and facilitating in-depth discussions, workshops enhance engagement with member states, industry representatives, and research institutions. They also provide the foundation for formulating the "Big Tickets": key focus areas deemed essential for shaping Europe's ADR landscape.

Events

Various global and local events, such as conferences, symposiums, and panel discussions, further enrich the dialogue. These gatherings foster networking opportunities, enable the exchange of best practices, and enhance visibility for key strategic initiatives. The culmination of these engagement activities leads to the iterative development of SRIDA, ensuring that it remains relevant, forward-looking, and aligned with community priorities.

3.1.1 Input and Feedback Mechanisms

To uphold a democratic and transparent process, the SRIDA incorporates robust input and feedback mechanisms. Its iterative development approach enables continuous refinement, integrating insights from a wide range of stakeholders at multiple stages. Contributors are encouraged to engage throughout the process, ensuring that the roadmap evolves in response to emerging developments and shifting priorities. Feedback is collected through a variety of channels: verbal exchanges during events, email correspondence, comments on publicly available SRIDA draft documents, responses to distributed surveys, and participation in online Topic Group meetings. This multi-modal approach broadens accessibility and encourages diverse contributions from across the ADR community.

Effectively managing this volume of input is a dedicated task for the Coordination Team. They use online communication tools and collaborative editing platforms with version control to systematically capture, organize, and integrate feedback. By embracing multiple feedback loops and iterative revisions, the SRIDA remains responsive, coherent, and aligned with the evolving technological and societal landscape.

3.1.2 Role of Editors: Ensuring Transparency and Neutrality

The Editing Committee plays a pivotal role in shaping the SRIDA, ensuring that diverse inputs are effectively synthesized into a coherent and balanced document. Editors do not merely compile contributions; they facilitate discussions, encourage broad participation, and navigate differing viewpoints to produce a unified consensual framework.

A key responsibility of the editors is maintaining neutrality. No single stakeholder's perspective should dominate the agenda; instead, the roadmap must reflect a balanced, inclusive vision. Transparency is paramount, and editors ensure that decision-making processes are open, all voices are considered, and the final document remains an objective representation of collective priorities.

In addition to compiling content, editors oversee the development of the "Big Tickets," ensuring that these initiatives are substantiated with clear goals, socio-economic impact analyses, and practical applications. Throughout the process, they facilitate consultations, integrate feedback, and refine the document to uphold coherence, clarity, and strategic alignment.

Ultimately, the SRIDA's strength lies in its collaborative foundation. By integrating structured engagement mechanisms, iterative feedback loops, and a transparent editorial process, it stands as a dynamic and evolving roadmap, designed to support Europe's leadership in AI, Data, and Robotics.

3.2 Development Phases and Timeline

The development of the SRIDA follows a structured, iterative approach informed by three years of practical experience in preparing previous editions. This process aligns with established roadmapping methodologies, which emphasize clear phases, milestones, and scheduled updates to ensure that strategic goals remain relevant in an evolving technological and societal landscape.

The SRIDA development process consists of three primary phases—Drafting, Refining, and Finalizing—each with specific objectives. These phases unfold within a predefined cycle, ensuring a systematic approach to continuous improvement. Based on experience, a one-year framework for developing the SRIDA from scratch has been established, as described below. However, future iterations of the SRIDA will be published as needed, with the release timeline determined by the pace of ADR innovation and the needs or requests of the European Commission. This means new editions may be released sooner or later than one year, with the cycle adjusted accordingly.

Despite variations in cycle length, the three principal phases of development will remain unchanged. Below, we outline the gold standard, the optimal annual timeline structure that has proven effective for an annual SRIDA release, followed by a reference timeline for a biennial (two-year) release.

Drafting (M1 – M6)

The development of the SRIDA begins at the start of the year. The editorial committee is formed, with responsibilities distributed among its members. The most recent version of SRIDA serves as the foundational draft for the upcoming iteration. Weekly meetings take place throughout winter and early spring, during which editors analyze political, economic, and technological developments, identifying overarching strategic goals for the new edition. To ensure inclusivity and objectivity, specific questions are formulated for industry experts and researchers, helping shape discussions on the key themes for the year. During this initial phase, a preliminary document is distributed among stakeholders to solicit early feedback.

In 2023, for example, a 10-page draft was distributed as an internal document to Adra members to solicit their initial feedback before it was made public to the larger ADR community. This consultation provided a platform for an exchange of ideas on objectives and priorities, enabling further effective feedback gathering from various stakeholders across the ADR ecosystem.

Such iterative approach ensures that the foundational ideas are continuously refined in response to expert insights and emerging trends.

Refining (M3 – M9)

In parallel with the drafting process, the refinement phase runs throughout winter and spring. Contributions are actively collected from a broad spectrum of stakeholders through discussions at conferences, seminars, workshops, and dedicated Adra events. These interactions provide valuable insights into recent technological advancements and shifting industry priorities while incorporating considerations of global and local economic and social challenges. By April and May, editors analyze the accumulated feedback to determine which revisions to the overarching Vision, Mission, and Goals of the SRIDA are necessary.

Special attention is given to refining the "Big Tickets": the key thematic priorities guiding ADR development. Once these priorities are established, in May they are assigned to specialized Adra Topic Groups, which work collaboratively throughout the summer to develop detailed short-, medium-, and long-term roadmaps for their respective areas of expertise.

By early September, the contributions from these expert groups are integrated into the evolving SRIDA draft. The updated document is then distributed to all stakeholder levels for further consultation and feedback. This process ensures transparency and broad democratic involvement, aligning the roadmap with the diverse perspectives within the ADR community.

Finalizing (M10 – M12)

Throughout October and November, the editorial team carefully reviews and incorporates the final round of stakeholder feedback. This phase focuses on ensuring balance, coherence, and clarity, refining the SRIDA to meet both strategic objectives and practical implementation needs. Once the final revisions are made, the completed edition of SRIDA is officially presented to the public in December. This marks the culmination of a year-long process of collaboration, iteration, and refinement.

The structured approach to development and regular updates ensures that SRIDA remains a dynamic and adaptive roadmap, providing strategic guidance that reflects both technological progress and societal needs.

Fig. 2: SRIDA annual update timeline; SRIDA biennial update timeline

By adhering to this predefined schedule of regular updates, the SRIDA remains an evolving document rather than a static one. This commitment to ongoing refinement strengthens its role as a foundational strategy document for Europe's AI, Data, and Robotics ecosystem, ensuring that its guidance remains relevant, forward-thinking, and aligned with broader societal and industrial transformations.

4. Challenges and Lessons Learned

This section identifies key challenges encountered during the implementation of SRIDA and outlines practical lessons learned that inform the methodology presented in this deliverable. It examines how the SRIDA process navigates conflicting stakeholder priorities, ensures equitable participation, strengthens industry collaboration, balances long-term strategic vision with short-term objectives, and maintains transparency throughout.

The development of the SRIDA is an ambitious and complex undertaking that requires extensive coordination among a broad spectrum of stakeholders. While the process fosters innovation and strategic alignment, it also presents significant challenges that must be carefully managed to ensure that the SRIDA remains an effective and representative roadmap for Europe's ADR ecosystem. Addressing these challenges is key to maintaining a balanced, forward-looking, and widely supported agenda.

4.1 Navigating Potential Conflicts of Interest

With stakeholders ranging from government agencies and industry leaders to academic institutions and civil society organizations, differences in priorities are inevitable. Industry representatives often focus on commercial viability and the rapid deployment of technology, while policymakers emphasize ethical considerations and regulatory frameworks. Academic institutions, in turn, prioritize long-term scientific advancement and fundamental research. Striking a balance between these perspectives requires careful negotiation and structured dialogue to ensure consensus and alignment.

To mitigate potential conflicts, the SRIDA incorporates structured discussion strategies, transparent decision-making processes, and iterative stakeholder engagement. By fostering inclusive consultations and providing multiple avenues for feedback, the agenda accommodates diverse perspectives while maintaining strategic coherence. Through continuous dialogue and compromise-driven decision-making, the SRIDA remains aligned with broader European objectives while addressing stakeholder-specific concerns.

4.2 Ensuring Equitable Representation Across Stakeholders

A major challenge in strategic roadmapping is ensuring that all relevant actors, regardless of their size, sector, or geographical location, have meaningful opportunities to contribute. Large corporations and well-established research institutions often dominate discussions, overshadowing the voices of smaller enterprises, startups, and regional stakeholders. Achieving a more balanced representation is a critical consideration for future SRIDA iterations.

Attracting contributors from outside academia has proven challenging, particularly given the time constraints and competing priorities of industry representatives. To counteract this imbalance, the SRIDA employs inclusive consultation mechanisms, targeted outreach efforts, and dedicated engagement channels for underrepresented stakeholders. Raising awareness about the agenda's impact on smaller entities is essential to encourage their participation. By ensuring an equitable distribution of influence, the SRIDA fosters a more representative and democratically structured research and innovation agenda.

4.3 Fostering Closer Industry Collaboration

Strengthening ties with industry stakeholders is essential for ensuring that the SRIDA remains relevant and responsive to market needs. Industry engagement provides valuable insights into emerging trends, technological challenges, and evolving expectations, helping shape a roadmap that is both ambitious and practical. Encouraging active participation from member states throughout the development process further enhances the agenda's comprehensiveness and applicability. The involvement of such contributors as Networks of Excellence and national representatives is particularly valuable in ensuring that expertise is effectively integrated into the roadmap.

To facilitate industry involvement, the SRIDA prioritizes direct engagement with key stakeholders through structured feedback mechanisms and working groups. By integrating real-world insights and practical considerations into the agenda, SRIDA ensures that its objectives remain aligned with industry developments and market demands. Additionally, maintaining a strong connection with policymakers helps bridge the gap between technological innovation and regulatory requirements.

Another crucial aspect of SRIDA's development is its commitment to interdisciplinary collaboration. Social and ethical considerations are fundamental to the responsible deployment of ADR technologies. Future iterations of the SRIDA should actively incorporate expertise from the humanities and social sciences, fostering deeper connections between technical advancements and societal needs. By embedding these perspectives into the development process, the SRIDA can ensure that ethical, legal, and societal implications are fully addressed.

4.4 Balancing Long-Term Vision with Immediate Objectives

The SRIDA is designed to address both immediate research needs and the broader trajectory of ADR development in Europe. However, maintaining this balance is a challenge, as short-term funding cycles, shifting political priorities, and evolving technological landscapes can impact long-term strategic planning.

To address these uncertainties, the SRIDA employs an iterative approach that allows for periodic reassessment and recalibration. This dynamic process ensures that the roadmap remains adaptable to emerging trends while staying committed to its overarching vision. Although time-intensive, this iterative refinement aligns with best practices in technology foresight. Regular updates ensure that the SRIDA remains relevant, forward-looking, and responsive to new developments.

4.5 Strengthening Transparency in Decision-Making

Transparency is a cornerstone of the SRIDA's methodology. Given the diverse and sometimes competing interests involved, maintaining open communication and clear decision-making processes is essential to building trust among stakeholders.

To enhance transparency, the SRIDA incorporates structured documentation, public consultations, and comprehensive reporting on stakeholder engagements. A well-documented and publicly accessible roadmap fosters accountability and ensures that all contributors have visibility into the decision-making process. Throughout its development, the Editing Committee has engaged in regular self-assessments and open discussions with the broader community to evaluate and refine the approach being taken.

Regular online meetings, workshops, and roundtable discussions serve as essential forums for collecting external feedback, validating concepts, and refining proposed strategies. These interactions not only strengthen the credibility of the SRIDA but also ensure that it remains an inclusive, adaptable, and community-driven framework.

By addressing these challenges and incorporating lessons learned, the SRIDA can continue to evolve as a robust, representative, and strategically focused roadmap for Europe's ADR ecosystem. Its success ultimately depends on sustained collaboration, adaptability, and commitment to inclusivity, ensuring that all voices are heard and that the agenda reflects the collective vision of the European ADR community.

5. Conclusion

The development of the Strategic Research, Innovation, and Deployment Agenda (SRIDA) marks a significant milestone in shaping Europe's ADR strategy. By fostering a collaborative and transparent framework, it is successfully integrating diverse perspectives, ensuring a balanced, inclusive, and forward-looking research and innovation agenda. By addressing conflicts of interest, ensuring equitable representation, balancing long-term and short-term objectives, and strengthening transparency, the SRIDA remains a robust and effective roadmap. At the same time, the SRIDA represents a dynamic and evolving process that aligns technological advancements with societal needs, ethical considerations, and long-term sustainability. As the ADR landscape continues to evolve, the SRIDA must likewise adapt, responding to emerging challenges while upholding its foundational principles of democratic engagement and responsible innovation.

This deliverable has outlined a comprehensive methodology for implementing and updating the SRIDA, establishing it not only as a strategic roadmap, but also as a transparent and inclusive process. The SRIDA is more than a technological blueprint, it is a living strategy that evolves alongside the European ADR ecosystem. The methodology presented here draws on years of experience, incorporating feedback loops, iterative drafting, cross-sectoral collaboration, and rigorous editorial governance. Through structured mechanisms, such as Topic Groups, open consultations, workshops, and editorial oversight, the SRIDA methodology ensures that stakeholder voices are not only heard but are actively embedded in shaping strategic priorities. This process also safeguards neutrality and balance across disciplines and sectors, reinforcing the roadmap's legitimacy and strategic relevance.

5.1 Embedding SRIDA in Europe's ADR Strategy

The SRIDA functions as a coordinating and agenda-setting mechanism that links research institutions, industry, policymakers, and civil society through a shared strategic framework. It provides a unified platform for translating high-level policy objectives into actionable research and innovation goals, while promoting ethical foresight, technological excellence, and societal benefit.

Through its methodology, SRIDA establishes clear pathways for:

- Aligning long-term vision with short-term impact;
- Balancing foundational research with deployment readiness;
- Supporting interdisciplinary and cross-sector collaboration;
- Responding dynamically to emerging scientific and regulatory developments.

Its structured and collaborative process ensures that the SRIDA not only anticipates technological trends but also integrates societal concerns and into Europe's ADR roadmap.

5.2 Future Directions: Sustaining Relevance and Impact

To maintain its relevance and impact, the SRIDA must remain agile and inclusive in both content and process. Future updates should continue to reflect Europe's evolving technological priorities while reinforcing the principles that underpin SRIDA's success: transparency, collaboration, neutrality, and adaptability.

Key priorities for the future SRIDA development include:

- **Equitable Stakeholder Involvement:** Scientists from AI, data, and robotics must be engaged on equal footing with industry representatives, from large corporations to startups and SMEs. Greater efforts are needed to include underrepresented stakeholders, particularly smaller actors and civil society organizations that bring unique ethical and community-based perspectives.

- **Balancing Strategic and Tactical Objectives:** While the SRIDA must sustain its long-term vision of fostering a European society powered by trustworthy ADR technologies, it must also continue to support near-term objectives such as strengthening stakeholder collaboration and enabling rapid deployment of impactful technologies.

- **Refining Engagement and Feedback Mechanisms:** As demonstrated in this deliverable, structured processes, such as early-stage draft reviews, consultations, and editing cycles, are essential for maintaining coherence, responsiveness, and democratic legitimacy. These mechanisms should be maintained and further developed to ensure broader accessibility, especially for smaller organizations with limited resources.

- **Strengthening Alignment with Policy and Global Standards:** The SRIDA must continue to adapt to EU regulatory developments and align with international frameworks on AI and

data governance. Fostering interdisciplinary cooperation and maintaining strong ties to the European Commission's strategic programs will be essential to this effort.

As this deliverable demonstrates, the SRIDA's strength lies not only in its strategic content but in the methodology through which it is built and maintained. By institutionalizing an open, cyclical, and participatory process—anchored in operational best practices—SRIDA is positioned to remain Europe's leading agenda for responsible, inclusive, and impactful ADR development.

D1.8 provides the foundation for future SRIDA updates, equipping stakeholders with the tools, processes, and principles necessary to continuously refine and co-create a strategy that reflects Europe's ambition and values in the digital age.

6. Appendices

This section provides an overview of public events and engagement activities that contributed to the development of the SRIDA. These events played a central role in gathering input from a wide range of stakeholders at various stages of the process, supporting collaboration and strengthening connections across the AI, Data, and Robotics community. The list below illustrates the inclusive and transparent nature of the SRIDA methodology, as well as the active role played by Adra and the Adra-e project in mobilizing and engaging the European ADR ecosystem. Many of these events are described in detail in other WP1 deliverables (see D1.1, D1.3, and D1.7). Relevant announcements, event summaries, and future updates can be accessed via the official Adra website[5].

June 16, 2022 – Kick-off Task-Force Meeting

Adra's Board of Directors officially launched the SRIDA development by forming a task-force comprising three editors and a reference group. The meeting initiated coordination with the European Commission and established internal alignment. This event laid the foundation for a structured and collaborative SRIDA development process.

October 27, 2022 – Launch of "10-Pager" Process

Adra-e launched the "10-pager" process as an initial strategic framework to collect stakeholder input and define future SRIDA priorities. It helped align perspectives and served as a stepping stone for the full SRIDA document.

November 23, 2022 – SRIDA Task-Force Workshop

Organized by Adra-e, this workshop helped task-force members, particularly new contributors, understand the SRIDA's objectives and methodology. It ensured common understanding among authors and strengthened internal coherence.

December 16, 2022 – Consultation with Adra Members

A targeted questionnaire gathered input from Adra members on updating strategic and operational objectives. Eight detailed responses informed the early shaping of the SRIDA, strengthening alignment with stakeholder expectations.

March 14, 2023 – SRIDA Workshop at ERF 2023

At the European Robotics Forum (ERF) 2023, approximately 50 stakeholders participated in a workshop to identify and prioritize grand challenges across AI, Data, and Robotics. Public discussion

[5] https://adr-association.eu/calendar-events

of the 10-pager draft helped validate key directions and contributed to refining the SRIDA's thematic focus.

June 12, 2023 – Consultation with National Representatives on Horizon Europe Cluster 4

This consultation gathered written feedback from national governments and partner countries to align the SRIDA with national strategies and European priorities. It strengthened policy coherence and cross-border alignment.

June 26, 2023 – Public Presentation of the 10-Pager (Webinar)

A public webinar attracted over 400 participants to introduce the 10-pager and explain its role in shaping the 2025–2027 roadmap. The session promoted stakeholder engagement and collected public input, feeding into the next draft.

July 5, 2023 – "SRIDA Deep-Dive" Workshop

Held in Brussels and organized by Adra, this invitation-only workshop finalized the SRIDA's table of contents, assigned authorship of Big Tickets, and set a collaborative summer writing process. It formalized the internal coordination structure for SRIDA drafting.

September 19, 2023 – SRIDA Industry Roundtable Discussion

Industry leaders from companies such as ABB, BMW, Bosch, and others discussed SRIDA's relevance to market needs. This roundtable helped ensure that industrial priorities were reflected in the roadmap and fostered private-sector commitment.

October 25, 2023 – SRIDA Interactive Q&A at EBDVF 2023

During a community workshop at European Big Data Value Forum (EBDVF) 2023, the Editing Committee received public input on Big Tickets for 2025–2027. This interactive session encouraged broad stakeholder participation and increased transparency.

November 9, 2023 – Public Release of the Adra SRIDA 2025–2027

At the AI, Data, and Robotics Forum (ADRF) 2023, the Editing Committee presented the final SRIDA. Public access and panel discussions helped raise awareness and provided last-round feedback for future iterations.

June 19, 2024 – European Convergence Summit

Organized by Adra-e, this online event focused on Europe's ADR position globally and the role of ADR in environmental sustainability. These discussions provided timely insights for integrating environmental dimensions into the SRIDA update.

October 2–4, 2024 – European Big Data Value Forum (EBDVF)

Adra Board of Directors and partners participated in discussions with industry and policy experts. Outcomes from this event support refining SRIDA's policy relevance and innovation ecosystem connections.

October 28, 2024 – "On the Road to ADRF" Webinar

During this online event organized by Adra, experts shared perspectives on mapping the EU ADR ecosystem. Industry insights gathered in this session contributed to SRIDA's stakeholder mapping and strategy alignment.

November 4–5, 2024 – SRIDA workshop at ADRF 2024

On the second day of the AI, Data and Robotics Forum (ADRF) in Eindhoven, a dedicated SRIDA workshop included a presentation and roundtable discussions on urgent challenges. These dialogues provided key content considerations for future SRIDA updates.

February 4, 2025 – Workshop on "SME Access to Public Procurement"

This workshop, called "SME Access to Public Procurement", organized by Adra-e in Amsterdam, addressed procurement barriers for startups and SMEs in ADR. The insights collected support SRIDA's focus on innovation adoption and inclusivity in public-sector collaboration.

February 18–19, 2025 – "Future-Ready: On-Demand Solutions with AI, Data, and Robotics"

A collaborative event for R&I projects, Adra Topic Groups, and users of the AI-on-Demand Platform was organized by Adra-e in Brussels. Participants proposed inputs for the next SRIDA update, reinforcing the link between platform use and strategic planning.

April 9, 2025 – European Convergence Summit

Forty experts shared perspectives on using ADR to address socio-economic challenges in civil security, defense, health, and production during the European Convergence Summit organized by Adra in Brussels. Their contributions fed directly into shaping the foresight component of the future SRIDA.

7. Glossary

- Editing Committee: a group responsible for refining and polishing the content of the SRIDA document, ensuring clarity, coherence, and adherence to established standards.

- Reference Group: a select assembly of experts or stakeholders consulted during the development of the SRIDA, offering insights, feedback, and guidance to ensure the document aligns with diverse perspectives.

- NoE Representatives: representatives from Networks of Excellence (NoEs) involved in AI research, contributing their expertise and perspectives to the SRIDA development process.

- Representatives AI-on-Demand Platform: Individuals designated to represent the AI-on-Demand platform, playing a crucial role in integrating on-demand AI services into the SRIDA framework.

- EC Representatives: officials from the European Commission who actively participate in the SRIDA development, providing regulatory insight, strategic direction, and aligning the agenda with broader policy objectives.

- Coordination Team: a specialized group tasked with orchestrating and harmonizing the efforts of various stakeholders involved in SRIDA development, ensuring effective collaboration and progress towards defined goals.

- Community Workshop: an interactive session organized to gather input and perspectives from a broader community of stakeholders, fostering inclusivity and democratic participation in shaping the SRIDA agenda.

Abbreviations:

- ADR: AI, Data, and Robotics
- Adra: AI, Data, and Robotics Association
- AI: Artificial Intelligence
- EC: European Commission
- EU: European Union

- HPC: High Performance Computing
- ML: Machine Learning
- NoEs: Networks of Excellence
- SRIDA: Strategic Research, Innovation, and Deployment Agenda
- WP: Work Package