

SRSM's Indicators

The following subsections will list SRSM's indicators categorised in the four QH helices.

Societal Indicators

The civil society helix looks at civil society stakeholders and the impact of scientific research and technological development on them. This helix focuses on actors such as citizens, the media, NGOs, and social causes. The eight societal indicators are:

1. Start-ups should implement a company-wide data management plan that uses optimal technologies for data and privacy protection. Data collection and selection methods should cover the full gamut of expected beneficiaries and end-users. Data should also be used for positive social impact.
2. Start-ups should reduce negative environmental impact and produce positive environmental impact by using sustainable materials, sustainable water management, using green energy sustainably and reducing their carbon footprint.
3. Start-ups should set up an ethical advisory board that can positively impact the behaviour within the organisation. These boards should ensure reflection on responsibility and how management can implement it throughout the organisation.
4. Start-ups should monitor how their company and products positively impact society, how to reduce risks, and how to respond to such challenges (e.g., through the use of the precautionary principle). This can be implemented through external auditing, risk assessments, feedback and stakeholder engagement.
5. Relevant stakeholders should be involved in an effective, fair, and participatory way. There should be frequent and efficient stakeholder mapping and engagement exercises, and a real possibility that stakeholder input can affect decision-making practices (even if this is critical).
6. There should be an exchange of knowledge between the start-up and stakeholders, through education and training about the company and its products. Stakeholders should be given sufficient knowledge and power to voice their concerns.
7. There should be adequate room for debate, deliberation and disagreement within the start-up and there should be a setting where this can be voiced fairly and respectfully without penalisation to the individual or group.
8. The start-up should optimally contribute to charitable causes.

Research Indicators

The research (or academic) helix looks at research-related stakeholders and the impacts that scientific research and technological development may have on them. This helix focuses on research organisations, universities, and knowledge institutes. The six research indicators are:

1. The start-up should ensure a level of openness regarding data generated, ensure that it is not exclusionary of any groups, and one's data gathering is in line with the relevant policy and ethical standards, while always respecting the legislation in the GDPR. One's data management plan should be in line with these standards and ensure optimal data protection methods.
2. The start-up's R&D may provide useful knowledge that can be employed by others in research and innovation, as well as the broader scientific community. In this regard, efforts should be made to ensure one's R&D is open access, as long as it does not harm the start-up's business. The start-up should ensure a strong degree of transparency of research to the public (and language attuned accordingly).

3. A start-up's socio-ethical impact can be facilitated by including both internal and external views in this process. Internal, such as an advisory board that provides input on the socio-ethical impacts of R&D activities. While externalities can come in the form of validation from experts in normative approaches to science (ethics, technical assessments, etc.).
4. Start-ups should receive input from a wide diversity of people and groups, taking into account a plurality of views, values, and insights on their products and business.
5. Participants in the R&D process should be informed about the results of this process. Training/assistance needs to be provided to citizens to participate in the R&D process.
6. Before the commencement of an R&D process, the start-up should investigate the socio-ethical impacts, and create effective feedback loops, so they can be responsive to societal values and/or risks. The start-up should establish how they can make a positive socio-ethical impact, while avoiding risks, during each stage of this process.

Political Indicators

The political (policy) helix looks at political stakeholders and policymakers and the impacts that scientific research and technological development may have on them. This helix focuses on policymakers, executive bodies, regulatory agencies and officials at different levels. The four political indicators are:

1. Start-ups should ensure decency, integrity, and fairness, in the workplace (GIIN, 2022; Newhorizon, 2021). Employers should ensure that discrimination based on gender, race, disability etc. does not occur. Diversity is something that should be valued and implemented in the workplace.
2. Employees should have the opportunity to grow and develop during their participation in the start-up. They should be allowed to be creative in their roles, and also have a healthy work-life balance.
3. Start-ups should implement a set of common core values that are made explicit and agreed upon by employees (e.g., a Charter, code of conduct, workshops, etc.). Employees should be trained to be aware of socio-ethical issues about the organisation and its product(s).
4. The start-up should be respectful of societal traditions and customs, sensitive to conventions and norms, and respect public participation in democratic processes. They should ensure their actions and products do not harm public safety.

Business Indicators

The business (industry) helix looks at industry impacts that scientific research and technological development may have. This helix focuses on for-profit organisations, businesses, and business people at different levels. The six business indicators are:

1. The start-up should assess and anticipate legal, regulatory and other requirements related to the product/service. They should assess the presence of partnerships/agreements establishing responsibilities about possible risks, obligations, sharing of information/technology and protection measures of the involved organisations.
2. The start-up should assess what are the potential/actual impacts (social, economic and environmental), from design to post-launch, of their activities and products. It should consider its positive and negative impacts on innovation, try to prevent harmful impacts of the innovation practices on society and the environment, and re-evaluate these impacts at all life-cycle stages.
 - The business model should integrate profit with environmental and social benefits by identifying the start-up's customer base, the mode of distribution, resources and key activities needed, innovation capacities, value creation for clients, and risks.

- A start-up should assess the life cycle costs of a product (including short, medium, and long-term impact on externalities) and include its principles in a mission statement or code of conduct.
 - The start-up should analyse and treat its impact comprehensively and not restrict it to one criterion, stage or stakeholder (using impact assessment, paying particular attention to environmental and social pillars).
 - They should adopt sustainable development criteria into product and service specifications (choice of material, quality assessment, recycling, energy management, etc.), their choice of suppliers or service providers, and communication activities.
3. Start-ups should carry out innovation in a responsible manner, using objectives for assessing performance, such as:
 - When uncertain of adverse outcomes, they should decide to invest a minimum amount of their annual share of revenue (this could be 1% or 5% based on the products/services for which this principle applies) in independent research and development activities to eliminate, wherever possible, any threats and anticipate the adoption of preventive measures against actual risks.
 - Compliance with standards should be following the stakeholders' expectations, external benchmarks and obligations, the social and environmental impacts, the supply chain, and the law in force.
 - They should periodically review the system of indicators by obtaining appropriate feedback from major stakeholders and follow best practices on how to assess performance . Internal and external stakeholders should be involved from the early stages of product development.
 4. The start-up should ensure adequate training is provided for its staff by identifying the skills, knowledge, and experience of staff, and their equipment/technology requirements to fulfil their work. Time and economic resources should be given towards reflection, sharing experiences, consulting experts (e.g., on ethics, gender equality, and open access), participation in RRI workshops and training initiatives, and appointing RRI staff experts.
 5. The start-up should ensure that there is a fair distribution of traditionally disadvantaged groups of highly skilled employees. They should examine the demographics of the company to ensure diversity of employees from different backgrounds, genders, and races .
 6. The start-up should be reflexive, open to change when confronted with challenges and shifting norms and encourage employees to reflect on the start-up's research and innovation. It should reflect on the start-up's economic sustainability, their ability to handle the project/product in terms of finances, manpower and materials and knowledge of risks (turnover, investment capacity, induced financial savings, cash flow).