

Focused implementation: the 10 key areas of the UNESCO Recommendation on Science and Scientific Researchers (2017)

The Recommendation on Science and Scientific Researchers, was adopted by a consensus of some 195 states. Member States are invited to focus on 10 key areas:

1. The responsibility of science towards the United Nations' ideals of human dignity, progress, justice, peace, welfare of humankind and respect for the environment.

Science is part of Member States' efforts to develop more humane, just and inclusive societies and serves to further the United Nations ideals of peace and welfare of humankind.

(paragraphs 4, 5e,f, 13d).

2. The need for science to meaningfully interact with society and vice versa.

Member States' governments and the general public alike recognize the value and use of science and technology for tackling global challenges. Society is engaged in science and research through the identification of knowledge needs, the conduct of scientific research, and the use of results.

(paragraphs 4, 5c, 13d, 19, 20, 22).

3. The role of science in national policy and decision making, international cooperation and development.

Member States should use scientific knowledge in an inclusive and accountable manner to inform national policy and decision making, and to advance international cooperation and development.

(paragraphs 5g, 7, 8, 9).

4. Promoting science as a common good.

Member States are urged to treat public funding of research and development as a form of public investment, the returns on which are long term and serve public interest. Open science, including the sharing of data, methods, results and the knowledge derived from it, intensifies the public role of science and should be facilitated and encouraged.

(paragraphs 6, 13e, 16a-v, 18b,c,d, 21, 34e, 35, 36, 38).

5. Inclusive and non-discriminatory work conditions and access to education and employment in science.

All citizens enjoy equal opportunities for the initial education and training needed for, and equal access to employment in scientific research. Scientific researchers enjoy equitable conditions of work. The participation of women and other underrepresented groups should be actively encouraged in order to remediate inequalities.

(paragraphs 13a,b,c, 24b,c, 33, 34d).

6. Any scientific conduct is subject to universal human rights standards.

Research should be conducted in a responsible manner that respects the human rights of scientific researchers and human research subjects alike. Open access to research results and the knowledge derived from it promotes the human right to share in scientific advancement and its benefits.

(paragraphs 18a,e, 20a,b,c, 21, 22, 42).

7. Balancing the freedoms, rights and responsibilities of researchers.

Scientific researchers respect public accountability and carry out their work in a humanely, scientifically, socially and ecologically responsible manner, while at the same time they enjoy the degree of autonomy and intellectual and academic freedom appropriate to their task and indispensable to the advancement of science and technology.

(paragraphs 10, 11, 16a,b, 40).

8. Scientific integrity and ethical codes of conduct for science and research and their technical applications.

Member States should establish suitable means to address the ethics of science and research integrity, through developing education and training regarding the ethical dimensions of science, establishing and supporting science ethics policies and committees, and stimulating the professional ethics of researchers including their intellectual integrity, sensitivity to conflict of interest and vigilance as to the potential consequences of their research and development activities, including their technical applications.

(paragraphs 5d, 14c,d, 16a, 18b,d,e, 20a, 25, 39a,b).

9. The vital importance of human capital for a sound and responsible science system.

Human capital is the principal pillar of a sound science system. Member States should develop policies with respect to the training, employment, career prospects, and work conditions of scientific researchers. These policies should address, inter alia, adequate career development prospects; lifelong learning opportunities; the facilitation of mobility and international travel; the protection of health and social security; and inclusive and transparent performance appraisal systems for scientific researchers.

(paragraphs 27, 28, 29, 30, 31, 32, 34, 41).

10. The role of Member States in creating an enabling environment for science and research.

Member States – government and non-government stakeholders alike - should create a stimulating environment for a sound science system with adequate human and institutional capacities, by facilitating satisfactory work conditions, moral support, and public recognition of successful performance of scientific researchers; by supporting education in science and technology; by promoting publishing and sharing data and results that meet adequate quality standards; and by monitoring the implementation and impact of such efforts.

(paragraphs 5, 11, 14a, 17, 24a, 26, 37, 43, 44, 45, 46, 47).

Excerpt from UNESCO General Conference 39 C/Resolution 85

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The Recommendation

- [Brochure on the Recommendation](#)
also available in [Arabic](#), [French](#) and [Korean](#)
- [Evolution of the Recommendation](#)
- [General Conference 39/C resolutions 84 and 85](#)
- [An Introduction to UNESCO's Updated Recommendation on Science and Scientific Researchers](#) (Canadian Commission for UNESCO, Netherlands National Commission for UNESCO), also available in [French](#), [Korean](#), [Portuguese](#) and [Spanish](#)

Related Links

- [1999 Declaration on Science and the use of Scientific Knowledge](#)
- [Universal Declaration of Bioethics and Human Rights](#)
- [First Declaration of scientific integrity on responsible research and innovation elaborated in Latin countries](#)