# CIDTFF SOCIAL RESPONSIBILITY STRATEGY

MARIA HELENA ARAÚJO E SÁ (COORD.) MANUELA GONÇALVES SUSANA AMBRÓSIO ANA VARELA



#### **FACT SHEET:**

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Authors¹: Maria Helena Araújo e Sá (Coordenação), Manuela Gonçalves,

Susana Ambrósio & Ana Varela

Design and page layout: Joana Pereira

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#### CONTEXT

The "CIDTFF Social Responsibility Strategy" document is the result of the 4th CIDTFF Forum, entitled "Research in education and social responsibility: what are its places and possibilities within CIDTFF?" (Investigação em educação e responsabilidade social: que lugares e possibilidades no CIDTFF?, 2020). On the basis of a shared and discussed journey, it aims, among other things, to build quidelines for a Social Responsibility (SR) strategy for CIDTFF.

Based on the knowledge co-constructed around the thematic of SR in the referred Forum, the present document, targeting all CIDTFF members, intends to support Researchers in the development of practices with a sense of SR, which is transversal to the Research Agenda of CIDTFF.

The CIDTFF Social Responsibility (SR) strategy defines how the Research Unit (RU) materializes this fundamental dimension of its scientific activity, through the following main vectors of action: Research, Training, Outreach (Partnerships and Cooperation) and Governance.

With the implementation of this strategy, CIDTFF aims to foster more cohesive, inclusive and sustainable research and innovation processes, inspired by principles of Responsible Research and Innovation (RRI), mobilizing contributions from projects in this area<sup>2</sup>. The SR strategy foresees the involvement of multiple actors, in different ways, within research and innovation processes, as well as the framing of research questions in the context of educational issues and contemporary societal expectations, taking into account ethical aspects. It also enables greater accessibility to scientific results and the promotion of science education in integrated environments, leveraged by Science Communication initiatives.

<sup>&</sup>lt;sup>2</sup> We refer, in particular, to the projects MoRRI - Monitoring the evolution and benefits of responsible research and innovation (2014-2018), RRI Tools (2014-2016), and SUPER MoRRI - Scientific Understanding and Provision of an Enhanced and Robust Monitoring system for RRI' (2019-2023), co-financed by the European Commission, within the scope of its framework programs for R&D.

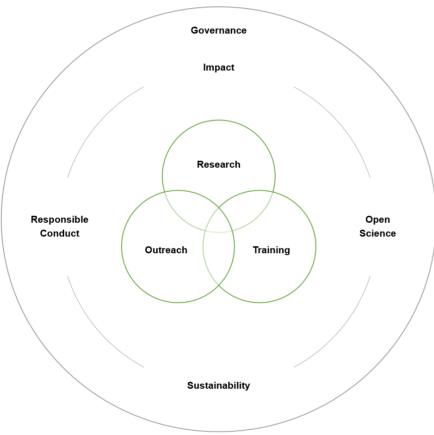
#### **ASSUMPTIONS**

The CIDTFF SR strategy is based on the following assumptions:

- SR understood as a commitment by CIDTFF members to society, expressed through attitudes and actions that contribute to its development.
- SR incorporated into the CIDTFF modes of governance, based on the principles of transparency, democratic participation, accountability and socio-organisational responsibility.
- SR based on the social relevance of Research in Education and its impact in relation to a critical reading of emerging societal challenges.
- SR as a link between the knowledge produced at the Research Unit and its expected impact on society, in terms of the development of Quality Education.
- SR as an enabler of actions that are guided by integrity and ethics, both in the activities developed by and between researchers, and with the different external actors and society as a whole.
- SR as an approach that perceives the University as a privileged space for knowledge production, for the development of scientific literacy and for citizens' training, and therefore emphasizes the value of Science and its transforming power.

#### SPHERES OF ACTIVITY

The CIDTFF SR strategy is organized in three spheres of activity: Research (impact, open science, sustainability and responsible conduct), Training and Extension, based on a perspective of Governance that is transversal to all of them, as shown in figure 1.



In order to strengthen and promote its continuous implementation, this document proposes *quiding topics for activities*, allowing researchers to

continue to anchor their activity in the CIDTFF SR strategy.

**Figure 1**Spheres of activity of the CIDTFF Social Responsibility Strategy

#### RESEARCH

CIDTFF's mission is to develop research in education that can contribute to a better, fairer and more democratic world, defining relevant thematic agendas for the different actors, communities, organisations and education systems involved. This mission implies responsible, innovative and quality research, based on collaborative environments and processes developed between CIDTFF members and academic and non-academic partners.

In this context, CIDTFF SR in the Research sphere refers to different complementary fields of action:

- valuing research with social impact;
- development and implementation of an open science policy
- valuing research sustainability;
- commitment to responsible conduct in scientific research.

#### **VALUING RESEARCH WITH SOCIAL IMPACT**

Research carried out by CIDTFF has an impact on the communities with and for whom it works and therefore seeks the promotion of quality science and education. It also seeks to contribute to research-based public policies.

Boosting partnerships and networks, both national and international, that can enhance community participation in projects ensures the involvement of various actors, both academic and non-academic, in the collaborative research carried out at CIDTFF, seeking to develop the transformative potential of activities for/with its various interlocutors and in various contexts.

"Impact is the effect that the activity carried out and its results have on people, practices, organisations and systems."

(European Commission, 2020, p.319).

#### DEVELOPMENT AND IMPLEMENTATION OF AN OPEN SCIENCE POLICY

CIDTFF is articulated with the national and international policies of Open Science, namely those of the University of Aveiro.

Most of the scientific production of CIDTFF members, as well as the publications edited by the Centre (the journal *Indagatio Didactica*, the collection of *Cadernos Didáticos*, among others) are Open Access. Similarly, CIDTFF supports the scientific publication of its Researchers in Open Access journals and a Publication Guide is available for staff.

As part of its programmatic project, CIDTFF is developing an Open Science platform enabling the provision of different educational resources in Open Access (OESC - Open Educational Smart Campus). At the level of Open Data, the centre will contribute either to the Dataverse of the University of Aveiro (DUnAS), which is under development, or to repositories of disciplinary and general nature that researchers consider appropriate for their research. Several ongoing projects are based on a logic of Citizen Science, and the work developed by several researchers is included in Open Networks of knowledge production. CIDTFF has a Science Communication strategy articulated with different media, enabling the wide dissemination of its activities, in different media and to different audiences.

"Open Science (OS) is the practice based on the principle that scientific research should be shared and reused, thus opening up the scientific process to all, in a collaborative and equitable way, increasing the rigour and transparency of research, as well as scientific social responsibility.

(...)

The pillars of OS are: Open Access, Open Data, Open Research, Open Science Networks and Citizen Science. Open Science is today considered to have numerous advantages, including increasing efficiency in research, promoting academic rigour and research quality, promoting scientific literacy and scientific return for institutions.

(https://www.ua.pt/pt/sbidm/ciencia-aberta)

#### VALUING RESEARCH SUSTAINABILITY

Considering research sustainability fundamental, CIDTFF develops relevant research for different systems and actors, namely systems that define educational policies, educational institutions where research is carried out or its results are used, funding agencies, interest groups from civil society, as well as for the individuals involved, in particular teachers, students, parents, among others. Promoting research sustainability at CIDTFF also involves leveraging new research in previously developed studies, in a logic of continuity in the construction of scientific knowledge. In terms of research results, CIDTFF promotes research sustainability by presenting concrete activities for the evaluation of these results and the processes that led to them, as well as establishing plans for communication, dissemination and exploitation, whenever possible in open access. Since research developed at CIDTFF often involves innovation activities with education professionals, the promotion of their professional development is another way of ensuring CIDTFF research sustainability.

"Sustainability is the capacity of the project to continue and use its results beyond the end of the funding period."

(European Commission, 2020, p.319).

#### COMMITMENT TO RESPONSIBLE CONDUCT IN SCIENTIFIC RESEARCH

Research developed at CIDTFF is based on a commitment by its Researchers to responsible scientific conduct that ensures the highest standard of scientific integrity. It is governed by principles such as honesty, reliability and accuracy, objectivity, impartiality and independence, transparency and open communication, care and respect, fairness and, finally, responsibility towards future generations of science. The projects carried out at CIDTFF follow the ethical principles established at national and international level, namely by the Ethics and Deontology Council of the University of Aveiro, and seek to obtain a prior favourable ethical opinion from the competent institution. The scientific and ethical practices thus conveyed by CIDTFF reinforce the social responsibility of its Researchers.

In order to support Researchers to anchor their research in the CIDTFF SR strategy, the following quiding questions are proposed:

#### Guiding Questions for activity in the research sphere

- How to improve and increase the involvement of educational actors and organisations in research?
- How to promote a collaborative research?
- How to contribute to the formulation of research-based policies?
- How to return the results to the community?
- How to communicate more and better? How to communicate with local, national and international reach? How to increase researcher involvement in science communication?
- How to promote Citizen Science projects?
- How to articulate research and researchers from different areas?
- How to improve the institutional framework for research?
- What data management plans should be developed?
- How to monitor and evaluate the impact of research carried out and knowledge produced?
- How to foster the sustainability of research?
- How to promote good scientific and ethical practices?

Responsible conduct in scientific research promoted by CIDTFF takes into consideration, in particular, the guidelines of the Ethical-Deontological Regulation Instrument/ Ethics Charter written by the Portuguese Society for Educational Sciences (SPCE) and the Code of Conduct written by the Office of Ethics and Scientific Integrity of the Foundation for Science and Technology (FCT).

#### RESEARCHER TRAINING AND DEVELOPMENT

CIDTFF contributes to the training of researchers involved in the social value of science through specific Programmes (such as the *Scientific Initiation Programme, the International Mobility Programme for integrated researchers without doctoral degrees and the Plan for researcher scientific development*) that promote the involvement of its members in projects that integrate issues related to fairness, diversity, ethics and social justice. CIDTFF also fosters the participation of undergraduate, master and doctoral students in the RU's projects and initiatives, as well as in doctoral schools (in the case of doctoral students) and in science communication activities aimed at different audiences, highlighting the social responsibility of these young researchers. CIDTFF seeks to promote an environment that allows researchers to develop quality in their training and professional paths, both at the doctoral level and at the level of scientific initiation of young researchers.

With the aim of supporting Researchers in anchoring their projects in the CIDTFF SR strategy, in particular with regard to Training, the following quiding questions are proposed:

#### Guiding Questions for activity in the training sphere

- How to promote a culture of social responsibility in research?
- How to operationalize the articulation between Research and Training?
- How to promote the integration of young researchers?
- How to promote the participation of 1st and 2nd cycle students in Research projects?
- How to promote international mobility for pre-PhD integrated researchers?
- How to encourage the conception and implementation of science communication initiatives as an integral part of the student training path?
- How to promote a researcher development plan?

"(...) 'researcher development' is defined as the enhancement of the capacity and disposition to engage in research."
(Rospigliosi & Bourner, 2019)

### OUTREACH (PARTNERSHIPS AND COOPERATION)

Research carried out at CIDTFF seeks to involve different actors and beneficiaries, framed in networks and partnerships of different nature and scope, and with distinct objectives. In this context, the Outreach sphere is structured in two dimensions: the development of projects with potential social impact, both internally and externally to the University; the training of different interlocutors, in a logic of Lifelong Learning.

Cooperation in the area of Education – both national and international – is one of the cornerstones of CIDTFF researchers' activities and itself constitutes one of the Centre's research topics.

With the aim of supporting Researchers in anchoring their Outreach projects in the CIDTFF SR strategy, namely at the level of Partnerships and Cooperation, the following guiding questions are proposed:

#### Guiding Questions for activity in the outreach sphere

- How to identify the privileged partners of CIDTFF and of the researchers' projects? What roles and functions should be assigned to them?

#### **PARTNERSHIPS**

- How and why articulate actors with different profiles?
- How and why involve political decision-makers at different levels (e.g. municipalities, ministries)?
- How to strengthen existing partnerships?
- How to increase the network of partners?

#### COOPERATION

- How to strengthen cooperation in international contexts?
- How to approach new areas of cooperation?
- How to establish new cooperation processes?
- How to establish new areas and new processes of cooperation considering the geopolitics of knowledge?

#### **GOVERNANCE**

Framing these three spheres of activity, the Centre's governance is conceived in a perspective of flexible adaptation to new circumstances, seeking to cope with the unpredictable development of research and innovation, without dispensing with the democratic and transparent discussion of decision-making processes and research management. Decisions regarding financial management are taken in accordance with the Centre's Regulations, in particular with Article 16 and Annex III, and are conducted transparently with the members, involving different coordination structures: within CIDTFF, the University and, ultimately, the funding agency of the Centre - FCT. Applications for funding are analysed taking into consideration: a) members contribution to achieving the CIDTFF and Research Group objectives; b) the quality and impact of scientific results achieved; c) the quality and impact of expected scientific results.

Based on the deliberative powers of the Scientific Council, on a distributed leadership (CIDTFF coordinator, research group coordinators, coordinators of working groups and editorial lines, laboratory coordinators, research project coordinators) and on the autonomy of research teams, this shared responsibility requires a greater involvement of different partners/stakeholders. Correspondingly, it also implies the establishment of mechanisms that ensure compromise in the decisions taken collectively, on the one hand, and accountability of the different actors, on the other. It also privileges transparency and responsibility in the relationships maintained by CIDTFF, both with the Department of Education and Psychology and the central structures of the University of Aveiro, as well as with its partners, other research centres and research funding agencies.

Monitoring the activities of the RU is considered fundamental, which is why a group responsible for conducting it is planned. The aim is to develop monitoring devices for the activities integrated in the social responsibility strategy, conceived in its various dimensions, and including mechanisms for monitoring the articulation between research and training, as well as the professional paths of its members and former students, among others.

#### **CONTRIBUTIONS**

rights.

Society learns from science.

Promotion of multiliteracies.

The following scheme systematises the expected contributions (democratic, scientific and societal) arising from the implementation of this Social Responsibility Strategy, in light of the CIDTFF mission.

Better informed decision making.

Better solutions due to inclusiveness.
Increased trust.

DEMOCRATIC

SCIENTIFIC

Q

Better alignment of research with societal needs.

Promotion of social justice, gender equality, solidarity, fundamental

Empowerment of citizens.

Better informed decision making.

SCIENTIFIC

Q

New insights.

Enlarging the pool of researchers.

Change of scientific culture.

trust.

and results.

Figure 2

Democratic, scientific and societal contributions of the CIDTFF Social Responsibility Strategy.

Adapted from Peter and Maier (2018): "Monitoring the evolution and benefits of responsible research and innovation in Europe – Summarising insights from the MoRRI project" (p. 36).

Making science known and increased

Access to previously unavailable data

#### SELECTED BIBLIOGRAPHY

- Bezjak, S., Clyburne-Sherin, A., Conzett, P., Fernandes, P., Görögh, E., Helbig, K., ... Heller, L. (2018). *Open Science Training Handbook* (Version 1.0). Zenodo. http://doi.org/10.5281/zenodo.1212496. (versão Portuguesa disponível em https://book.fosteropenscience.eu/pt/)
- Carrier, M., & Gartzlaff, M. (2020). Responsible research and innovation: hopes and fears in the scientific community in Europe. *Journal of Responsible Innovation*, 7(2), 149-169. https://doi.org/10.1080/23299460.2019.1692571
- European Commission. (2020). ERASMUS+ Programme Guide. Version 3. Brussels: European Commission. https://erasmus-plus.ec.europa.eu/document/erasmus-programme-guide-2020-version-3
- Fisher, E., Mahajan, R., & Mitchum, C. (2006). Midstream Modulation of Technology: Governance From Within. *Bulletin of Science, Technology and Society, 26*(6), 485-496. https://doi.org/10.1177%2F0270467606295402
- Gabinete de Ética e Integridade Científica da Fundação para a Ciência e a Tecnologia (FCT). (2015). *Código de Conduta Responsável em Investigação Científica*. Lisboa: FCT. https://www.ua.pt/file/52253
- Guerra, C., & Costa, N. (2016). Sustentabilidade da investigação educacional: contributos da literatura sobre o conceito, fatores e ações. *Revista Lusófona de Educação, 34*, 13-25. https://revistas.ulusofona.pt/index.php/rleducacao/article/view/5812/3622
- Guerra, C., Franco, A., & Seabra, M. (Eds.). (2020). Sustainable Pedagogical Research in Higher Education: The Political, Institutional and Financial Challenges (1st ed.). London: Routledge. https://doi.org/10.4324/9781003004585
- Moher, D., Bouter, L., Kleinert, S., Glasziou, P., Sham, M.H., Barbour V., et al. (2020). The Hong Kong Principles for assessing researchers: Fostering research integrity. *PLoS Biol*, *18*(7): e3000737. https://doi.org/10.1371/journal.pbio.3000737
- Moore, J.E., Mascarenhas, A., Bain, J. et al. (2017). Developing a comprehensive definition of sustainability. *Implementation Science* 12, 110. https://doi.org/10.1186/s13012-017-0637-1
- Observatório da Responsabilidade Social e Instituições de Ensino Superior (ORSIES). (2018). Livro Verde sobre Responsabilidade Social e Instituições de Ensino Superior. Lisboa: PRESS FORUM, SA Comunicação Social. https://www.orsies.forum.pt/images/PDF/Livro\_Verde.pdf
- Peter, V., & Maier, F. (Eds). (2018). Monitoring the evolution and benefits of responsible research and innovation in Europe Summarising insights from the MoRRI project.

  Brussels: European Commission. https://op.europa.eu/en/publication-detail/-/publication/fdd7dd10-c071-11e8-9893-01aa75ed71a1
- Rospigliosi, A. and Bourner, T. (2019) 'Researcher development in universities: Origins and historical context'. *London Review of Education, 17* (2): 206–222. https://doi.org/10.18546/LRE.17.2.08

#### CIDTFF Social Responsibility Strategy

- Schuijff, M., & Dijkstra, A. M. (2020). Practices of Responsible Research and Innovation:

  A Review. *Science and engineering ethics, 26*, 1-42. https://link.springer.com/article/10.1007/s11948-019-00167-3
- Sociedade Portuguesa de Ciências da Educação (SPCE). (2014). *Instrumento de Regulação Ético-Deontológica Carta Ética*. Porto: SPCE. http://www.spce.org.pt/PDF/CARTAETICA.pdf
- Stirling, A. (2008). "Opening Up" and "Closing Down". Power, Participation, and Pluralism in the Social Appraisal of Technology. *Science, Technology, & Human Values,* 33(2), 262-294. https://doi.org/10.1177%2F0162243907311265

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