In an ideal research world, good scientific practice would be applied invariably. Unfortunately, such an ideal research world does not exist. Research integrity is not always exercised as naturally as it should.

The Science with and for Society project PRINTEGER ("Promoting Integrity as an Integral Dimension of Excellence in Research") aims at a research and innovation culture in which integrity is part and parcel of doing excellent research, whereby, as the project’s coordinator, Prof. Dr. Hub Zwart from Radboud University Nijmegen in the Netherlands, emphasizes "integrity should not be seen as an external and restrictive control system". PRINTEGER takes the view that an improved governance of integrity and responsible research has to be informed by practice: the daily realities of the researchers' work and the tensions of a complex research system need to be taken into account.

The word "integrity" rolls off the tongue easily – but what does it actually mean? According to the European Code of Conduct for Research Integrity, good research practices are based on fundamental principles of research integrity. They guide researchers in their work as well as in their engagement with the practical, ethical and intellectual challenges inherent in research. These principles are reliability, honesty, respect and accountability.1

Integrity therefore is about proper research behaviour. It is fundamental for ensuring excellence in research and high-quality research results, and to secure public trust in science. Nevertheless, the issues at stake, e.g. how to ensure the implementation of research integrity or what is considered as misconduct or poor quality research, are quite complex and therefore part of the project’s work. In doing so, PRINTEGER is one of the cornerstone projects funded by the EU to push forward the message of the European Code of Conduct for Research Integrity and to create an EU research integrity community.

How does PRINTEGER promote integrity as an integral dimension of excellence in research? In the short term, it does so by improving integrity policies of national and international research organisations, but also by providing better tools for research leaders and managers. In the long run, PRINTEGER will further ethical awareness and reflection through the education of new generations of scientists with next generation educational tools. Immediate contributions of PRINTEGER include increasing the awareness of realistic and effective integrity measures through dissemination, including a large conference in February 2018, and the trial and use of improved educational resources for teaching research ethics to future and young scientists.

Starting from what is happening in real practice

"A unique feature of PRINTEGER is the focus on a hands-on, bottom-up approach, starting from what is happening in real practice", Zwart points out. For this reason, e.g., focus groups with researchers, research managers and other research actors have taken place to explore questions such as the effectiveness of integrity policies, definitions of research integrity, or barriers and challenges to integrity. The results will be used for the development of four types of tools to be generated by

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PRINTEGER before the end of the project’s runtime in August 2018:

- Advisory tools for policy makers;
- Tools for reflection and action for research leaders and research managers;
- Advice for research support organisations, especially on IT tools to promote integrity;
- Educational tools for researchers, notably including future scientists and early stage researchers.

Additionally, a number of analyses have been conducted to determine what is happening in real practice, such as on the incidence of misconduct in research. The different types of tools to be developed already underline that PRINTEGER addresses a broad target group which includes researchers, early-stage researchers, students, research managers, funding organisations, science teachers, journal editors and science journalists. The various actors in the research system are affected by integrity in different ways, and this needs to be taken into account.

Internal integrity drivers rather than external measures

PRINTEGER is convinced that in order to address integrity challenges successfully, the focus should not be on external measures, such as more surveillance, more regulations, etc., but rather build on the internal integrity drivers of research, on the fact that integrity, responsibility, transparency, reliability, etc. are already part and parcel of conducting research. The PRINTEGER consortium is also aware that even though there is broad consensus in the research community that integrity is an essential part of research excellence, the ongoing changes and increasing complexities of modern science – such as globalisation, trans-disciplinary collaboration, competition, emphasis on valorisation, etc. – need to be considered, too, when promoting integrity. As these developments present new and complex challenges to the researchers’ integrity.

“Our goal”, Zwart points out, “is to empower key stakeholders to effectively address these challenges in order to ensure quality, excellence, relevance, responsibility and credibility in scientific research.”

It is obvious that a comprehensive issue such as integrity can only be tackled and moved forward at the European level. National or monodisciplinary approaches can only be partially relevant. A comprehensive view is needed and the EU podium facilitates that. The Science with and for Society programme part of Horizon 2020 was a perfect fit for funding a project like PRINTEGER. The consortium, which consists of eight partner entities from seven EU countries, is confident that Europe can and should play a key role in addressing integrity on a global level.

Advice for newcomers to EU funded research and innovation

Through participating in various EU-funded projects over the past years – as coordinator and as partner - Zwart has gained much experience in research cooperation on the European level. What advice does he have for newcomers to EU research funding with regard to how to “get the foot in the door”? “The first step should be to explore what is going on and what has already been achieved. For newcomers, the best way to become involved would be to join forces with consortia already active and in place” he says. He argues that “the complexities of trans-national and trans-disciplinary research can only be addressed on the basis of experience, preferably of course in combination with new voices and ideas.” It is also helpful to turn to the National Contact Points for support and advice.

Want to learn more about the work and output of PRINTEGER? Be sure to visit their website https://printeger.eu!