



EUROPEAN COMMISSION

Directorate-General for Migration and Home Affairs
Directorate-General for Research and Innovation

Guidance note — Potential misuse of research

Some research involves materials, methods or technologies or generates knowledge that could be **misused for unethical purposes**. Although such research is usually carried out with benign intentions, it has the potential to harm humans, animals or the environment.

Although the risk of **misuse of research** can never be eliminated, it can be minimised by recognising risks in good time and taking the right precautions.

All H2020-funded projects must avoid such misuse and comply with the numerous international, EU and national laws that address concerns relating to potential misuse of materials, technologies and information. If beneficiaries breach any of their obligations under the Grant Agreement, the grant may be reduced or terminated.

This note helps to identify and address potential misuse of research.

 This note does not cover research misconduct (*e.g. falsification of research results, fabrication of scientific evidence and plagiarism*).

Identifying potential misuse

To identify any possible misuse, start by considering the risks associated with the research you plan and any unethical ways in which the materials, methods, technologies and knowledge involved could be used.

The research most vulnerable to misuse is research that:

- provides knowledge, materials and technologies that could be channelled into crime or terrorism
- could result in chemical, biological, radiological or nuclear weapons and the means for their delivery
- involves developing surveillance technologies that could curtail human rights and civil liberties
- involves minority or vulnerable groups or develops social, behavioural or genetic profiling technologies that could be misused to stigmatise, discriminate against, harass or intimidate people.

When designing a proposal, consider not only the immediate aims and intended applications of the activities you plan, but also whether your research could serve unethical purposes.

You should also examine whether there are any risks that will outlast the project itself.

Questions to identify potential misuse include:

- Could the materials/methods/technologies and knowledge concerned harm people, animals or the environment if modified or enhanced?
- What would happen if they ended up in the wrong hands?
- Could they serve any purposes other than the intended ones? If so, would that be unethical?

Sample situations

Example 1 – Research into biological agents

A research lab successfully reconstitutes an extinct virus. Although this is a scientific breakthrough, releasing the virus – whether accidentally or on purpose – would jeopardise public health and safety and might result in millions of deaths.

Example 2 – Vulnerability studies in the field of airport security

To improve airport security in Europe, a team of researchers conducts a series of vulnerability assessments to identify shortcomings in the security systems of certain airports. Their findings could help make airports less vulnerable to threats. However, if such findings end up in the wrong hands, they could be used to plan an attack on these particular airports.

Addressing potential misuse

There are various ways to mitigate risk. Depending on the activity planned and the potential misuse, applicants may choose to:

- take additional security measures, *e.g. physical security measures, classification of certain deliverables, compulsory security clearance for those involved in the project*
- take additional safety measures, *e.g. compulsory safety training for staff*
- adjust the research design, *e.g. use dummy data*
- limit dissemination, *e.g. by publishing only part of the research results, regulating export, etc.*

You may also consider appointing an independent ethics advisor or an ethics board with experts from different backgrounds who are not involved in managing the project's research activities.

If you are planning research that may give rise to concerns about potential misuse, you will need to do the following when preparing your proposal:

- tick the box in the ethics table in part A
- provide a risk-assessment in part B and explain how you will prevent misuse
- if required, attach copies of authorisations, security clearances and ethics approvals

describe in the risk table in the management section what action you would take if the national authorities do not grant authorisation.

Further information

[Guidance – How to complete your ethics self-assessment](#)