

# Horizon 2020 Programme

# Guidance How to complete your ethics self-assessment

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#### **IMPORTANT NOTICE**

These guidelines are designed to help **applicants** in **getting your proposal 'ethics-ready' for Horizon 2020 funding** (i.e. to identify and deal correctly with any ethics issues that may arise from it). They provide help both with the ethics issues table in Part A and the ethics self-assessment in Part B of your proposal (see the proposal templates on the Participant Portal).

This document is however **no more than a 'how to' guide.** It covers most of the ethics issues arising in research projects and gives advice on dealing with classic cases. Cases that are not covered must therefore be dealt with outside this guide.

The **ethics self-assessment** will become part of your **grant agreement** (in Annex 1, as description of the action, ethics requirements, etc.) and may thus give rise to binding obligations that may later on be checked **through ethics checks**, **reviews** or **audits**.

This means the time you invest in this self-assessment is not wasted. It will actually improve your research results and:

your proposed research will be in line with applicable international, EU and national law

your proposal will be processed more easily during the Horizon 2020 proposal selection procedure

the results of your research can be published more easily in internationally refereed journals you will contribute to the responsible conduct of research, thereby increasing its social acceptance.

**Consider that ethics issues arise in many areas of research.** Apart from the obvious example, the medical field, research protocols in social sciences, ethnography, psychology, environmental studies, security research, etc. may involve the voluntary participation of research subjects and the collection of data that might be considered as personal. You must protect your volunteers, yourself and your researcher colleagues.

**Start thinking about ethics while designing your research protocols.** Don't wait until the last minute to seek advice or check requirements under national and EU law. Use the ethics by design methodology (see section 11).

**Ethics also matter for scholarly publication.** Major scientific journals in many areas will increasingly require ethics committee approval before publishing research articles. Thus, you should be prepared for ethics procedures even if your research is funded by sources other than Horizon 2020.

**Your first source should always be at your institution**. We would ask you to seek advice from colleagues with expertise in the ethics of research, such as:

specialised ethics departments

relevant managers in your university/research organisation

hospital research ethics committees

ethics advisers in your company

data protection officers.

They will be able to provide you with information appropriate to your specific needs and legal environment.

**Consider involving/appointing an ethics adviser/advisory board.** From the beginning of your project, an ethics adviser can help you deal with ethical issues and put in place the procedures to handle them appropriately. If your research includes several ethical concerns or involves several significant or complex ethical issues (such as participation of children from developing countries, 'non-human primates (NHPs)', potential misuse or vulnerable populations) we suggest you appoint an ethics adviser or an ethics advisory board comprising several experts from different backgrounds. The Commission/Agency may also make this an ethics requirement during the selection procedure.

#### Other information

For a broader overview of how Horizon 2020 grants work, see the Participant Portal Online Manual. For detailed information, see the Horizon 2020 AGA — Annotated Grant Agreement.

A comprehensive list of all Horizon 2020 reference documents (including legislation, work programme and templates) can be found on Participant Portal Reference Documents.

	HISTORY OF CHANGES										
Version	Publication Date	Change									
5.0	15.03.2016	Document revised by DGT editors									
5.1	01.06.2016	<ul> <li>Reparation of hyperlinks</li> <li>Reference to new Data Protection Regulation</li> <li>Adapt instructions on providing of documents to new MGA provisions.</li> </ul>									
5.2	12.07.2016	<ul> <li>Insert link to new guidance note on research on refugasylum seekers and migrants</li> <li>Correction in ethics issues table in section 7.2</li> </ul>									
5.3	21.02.2018	H2020 is written as Horizon 2020 throughout the document.									
6.0	23.07.2018	<ul> <li>A new reference document is added in section 6 on Non-EU countries.</li> <li>Adaptation of the section 4 on personal data further to the application of the new GDPR.</li> </ul>									
6.1	04.02.2019	<ul> <li>Modification of the Important Notice to refer to the ethics by design methodology</li> <li>Modification of the section 11 to cover ethics by design and add a reference on AI</li> <li>Replace the reference to the FP7 guidance note on social sciences by the new one (with the link to the document in the Portal)</li> </ul>									

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# 1. Human embryos & foetuses

This section covers research on human embryos and foetuses (mainly human embryonic stem cells (hESC)).

⚠ The following fields of research **are not eligible for funding** under Horizon 2020 and cannot therefore be included in proposals):

- research activities directed at human cloning for reproductive purposes
- research activity intended to modify the genetic make-up of human beings that could make such changes heritable (apart from research relating to cancer treatment of the gonads, which may be financed)
- research activities intended to create human embryos solely for the purposes of research or stem cell procurement, including the technique of somatic cell nuclear transfer<sup>1</sup>
- research that leads to the destruction of human embryos.

Research on human stem cells (both adult and embryonic) may be financed — depending on both the content of the scientific proposal and the laws of the Member States involved. No funding will be granted for research activities that are prohibited in all Member States. No activity will be funded in a Member State where such activity is forbidden.<sup>2</sup>

#### 1.1 Ethics issues checklist

Section 1: HUMAN EMBRYOS/ FOETUSES		YES	/NO	Page	Information to be provided	Documents to be provided/kept on file
Does your research involve Human Embryonic Stem Cells (hESCs)?						
If YES:	- Will they be directly derived from embryos within this project?				Research not eligible for funding	Research not eligible for funding
	- Are they previously established cells lines?				<ol> <li>Origin and line of cells.</li> <li>Details of the licensing and control measures by the competent authorities of the Member States involved.</li> </ol>	Approval.  2) Declaration that the human embryonic stem cell lines used in the project are registered in

<sup>&</sup>lt;sup>1</sup> See Article 19(3) of the Horizon 2020 Framework Programme Regulation (EU) No 1291/2013.

See also Article 19(4) of the Horizon 2020 Framework Programme Regulation (EU) No 1291/2013.

				human-induced pluripotent stem cell (hiPSC) lines.  3) Declaration confirming that the 6 specific conditions (see below) for research activities involving human embryonic stem cells are met.
involv	your research we the use of n embryos?		<ol> <li>Origin of embryos.</li> <li>Details of the recruitment, inclusion and exclusion criteria and informed consent procedures.</li> <li>Confirm that informed consent has been obtained.</li> </ol>	<ol> <li>Copies of ethics approval.</li> <li>Informed Consent Forms + Information Sheets.</li> </ol>
If YES:	- Will the research lead to their destruction?		Research not eligible for funding	Research not eligible for funding
involv	your research we the use of in foetal tissues /		<ol> <li>Origin of human foetal tissues/cells.</li> <li>Details of the informed consent procedures.</li> <li>Confirm that informed consent has been obtained.</li> </ol>	<ol> <li>Copies of ethics approval.</li> <li>Informed Consent Forms + Information Sheets.</li> </ol>

# 1.2 How do I deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law (in particular, the Statement of the Commission related to research activities involving human embryonic stem cells<sup>3</sup>).

For research activities involving **human embryonic stem cells (hESC)**, this means you must make sure that:

- cells were NOT derived from embryos specially created for research or by somatic cell nuclear transfer
- the project uses existing cultured cell lines only
- cell lines were derived from supernumerary non-implanted embryos resulting from in vitro fertilisation

See Article 19(1) of the Horizon 2020 Framework Programme Regulation (EU) No 1291/2013.

- informed consent has been obtained for using donated embryos for the derivation of the cell lines
- personal data and privacy of donors of embryos for the derivation of the cells are protected
- NO financial inducements were provided for the donation of embryos used for derivation of the cell lines.

Moreover, under national law, research on human embryonic stem cells (hESC) is normally subject to strict licensing and control.4

🔼 You must provide the Commission/Agency with a declaration confirming compliance with these conditions (as part of your proposal).

For research on human embryos (hE), you must obtain the donors' free and fully informed consent.



Your research may NOT:

- create human embryos solely for the purpose of research or for the purpose of stem cell procurement (including by means of somatic cell nuclear transfer)
- destroy human embryos (e.g. to obtain stem cells).

# 1.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the ethics self-assessment in Part B of your proposal (i.e. section 5 of the Technical Annex).

Your proposal must include the **information** referred to in the ethics issues checklist and any **documents** that are already available.

🗘 Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

# Background documents & further reading

Statement of the Commission related to research activities involving human embryonic stem

FP7: Recommendations on the ethical review of hESC FP7 research projects (Opinion 22), European Group on Ethics in Science and New Technologies.

FP7 guidance: Research on Human embryos/foetus.

See also Article 13(2) of the Rules for Participation Regulation (EU) No 1290/2013.

# 2. Human beings

This section refers to any research involving work with humans beings ('research or study participants'), regardless of its nature or topic.

**Examples:** collection of biological samples, personal data, medical interventions, interviews, observations, tracking or the secondary use of information provided for other purposes, e.g. other research projects, officially collected information, social media sites, etc.

# 2.1 Ethics issues checklist

Section 2: HUMANS		YES/ NO		Page	Information to be provided	Documents to be provided/kept on file
	our research human pants?				1) Confirm that informed consent has been obtained.	1) Informed Consent Forms + Information Sheets.
If YES:	- Are they volunteers for social or human sciences research?				1) Details of the recruitment, inclusion and exclusion criteria and informed consent procedures.	1) Copies of ethics approvals (if required).
	- Are they persons unable to give informed consent (including children/minors)?				1) Details of the procedures for obtaining approval from the guardian/legal representative and the agreement of the children or other minors. 2) What steps will you take to ensure that participants are not subjected to any form of coercion?	1) Copies of ethics approvals.
	- Are they vulnerable individuals or groups?				1) Details of the type of vulnerability. 2) Details of the recruitment, inclusion and exclusion criteria and informed consent procedures. These must demonstrate appropriate efforts to ensure fully informed understanding of the implications of participation.	1) Copies of ethics approvals.
	- Are they children/minors?				<ol> <li>Details of the age range.</li> <li>What are your assent</li> </ol>	1) Copies of ethics approvals.

				procedures and parental consent for children and other minors?  3) What steps will you take to ensure the welfare of the child or other minor?  4) What justification is there for involving minors?			
	- Are they patients?			<ol> <li>What disease/condition /disability do they have?</li> <li>Details of the recruitment, inclusion and exclusion criteria and informed consent procedures.</li> <li>What is your policy on incidental findings?</li> </ol>	1) Copies of ethics approvals.		
	- Are they healthy volunteers for medical studies?				1) Copies of ethics approvals.		
involve interve	our research e physical entions on the participants?						
If YES:	- Does it involve invasive techniques (e.g. collection of human cells or tissues, surgical or medical interventions, invasive studies on the brain, TMS etc.)?			1) Risk assessment for each technique and overall.	1) Copies of ethics approvals.		
	- Does it involve collection of biological samples?			<ol> <li>What type of samples will be collected?</li> <li>What are your procedures for collecting biological samples?</li> </ol>	1) Copies of ethics approvals.		
For research involving processing of genetic information, see also section 4.							

# 2.3 How do I deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law.

This implies that you must ensure respect for people and for human dignity and fair distribution of the benefits and burden of research, and that you must protect the values, rights and interests of the research participants.

Moreover, you must obtain:

- the necessary ethics approvals (if required)
- free and fully informed consent of the research participants.

#### **Informed consent**

Participation must be entirely voluntary and you must obtain and clearly document participants' informed consent in advance.

No consent is required if national law provides for an exception (e.g. in the public interest).

Participants must be given an informed consent form and detailed information sheets that:

- are written in a language and in terms they can fully understand
- describe the aims, methods and implications of the research, the nature of the participation and any benefits, risks or discomfort that might ensue
- explicitly state that participation is voluntary and that anyone has the right to refuse to participate and to withdraw their participation, samples or data at any time — without any consequences
- state how biological samples and data will be collected, protected during the project and either destroyed or reused subsequently
- state what procedures will be implemented in the event of unexpected or incidental findings (in particular, whether the participants have the right to know, or not to know, about any such findings).

You must ensure that potential participants have fully understood the information and do not feel pressured or coerced into giving consent.

Participants must normally give their consent in writing (e.g. by signing the informed consent form and information sheets).

If consent cannot be given in writing, for example because of illiteracy, non-written consent must be formally documented and independently witnessed.

Research involving children (or other persons unable to give consent, e.g. certain elderly populations, persons judged as lacking mental capacity) — You must obtain informed consent from the legally authorised representative and ensure that they have sufficient information to enable them to provide this on behalf and in the best interests of the participants. Whenever possible, the assent of the participants should be obtained in addition to the consent of the parents or legal representatives. Participants must be asked for consent if they reach the age of majority in the course

You must also ensure that your research methodologies do not result in discriminatory practices or unfair treatment.

🔔 General principle — maximise benefits and minimise risks/harm.

In addition, when conducting surveys, interviews or focus groups where personal information is gathered and stored, you must also pay attention to:

privacy

- data protection
- data management (see also section 4)
- the health and safety of participants (see section 7.2).

#### **Specific cases**

**Research involving children (or other persons unable to give consent)** — should be carried out only if:

- studies with consenting adults would not be effective
- participants are subject to only a minimal risk and burden
- the results of the research will benefit the individual or group represented by the participant.

**Social science and humanities research** — often involves working with human participants and particular methodological tools (e.g. surveys, questionnaires, interviews, standardised tests, direct observation, ethnography, recordings, experiments with volunteers, and sometimes physical interventions).

You must therefore clarify the ethical implications of the chosen methodologies.

#### Example:

Describe the sampling methods or recruitment procedures and discuss whether they could result in discriminatory practices. If such practices are inevitable given the methodology, what action should be taken to mitigate them?

For your grant proposal, you should also provide an assessment of risks, stating explicitly what kinds of harm (psychological, social, legal, economic, environmental, etc.) might occur, the likelihood of subjects actually incurring such harm, and the steps that you will take to minimise them.

Research entailing more than minimal risk typically involves:

- potentially vulnerable groups and people unable to give informed consent
- personal or sensitive topics, which might induce psychological stress, anxiety or humiliation
- deception
- risks to researcher safety or
- seeking respondents through the internet/social media (e.g. using identifiable visual images or discussing sensitive issues ).

Particular attention must be paid to vulnerable categories of individuals such as children, patients, people subject to discrimination, minorities, people unable to give consent, people of dissenting opinion, immigrant or minority communities, sex workers, etc.

If your research involves children or other individuals unable to make decisions for themselves, you must maintain an active relationship with their legal guardians and/or carers; you must not only seek their consent, but also allow them to monitor the research.

Ensure that data are kept securely and that publication (including publication on the internet) does not lead (either directly or indirectly) to a breach of agreed confidentiality and anonymity.

In rare cases, there may be a need to override agreements on confidentiality and anonymity (e.g. if maintaining confidentiality facilitates illegal behaviour such as drug dealing, child abuse, etc. that has come to light in the course of the research). In such circumstances, you must carefully consider disclosure to the appropriate authorities. You must inform the participants or their guardians of your intentions and the reasons for disclosure, unless this makes disclosure impracticable. You should also consider the technical aspects of collecting and storing your research data.

Data collection using electronic encoding tools (digital recorders or cameras) should be given special attention (see also section 4). You should also discuss these issues with your organisation's data protection officer.

**Medical research** —is specifically addressed by the Declaration of Helsinki.

Your grant proposal must also comply with:

- the principles laid down in the Oviedo Bioethics Convention and
- EU Regulation No 536/2014 on clinical trials on medicinal products for human use.

#### 2.4 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the Technical Annex).

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

# Background documents & further reading

#### **Informed consent**

FP7 guidance: Informed consent

#### Medical research

WMA Declaration of Helsinki

Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine (Oviedo, 4 April 1997) (Oviedo Bioethics Convention)

EU Directive 2005/28/EC of 8 April 2005 laying down principles and detailed guidelines for good clinical practice as regards investigational medicinal products for human use as well as the requirements for authorization of the manufacturing or importation of such products (OJ L 91, 9.4.2005, p. 13)

EU Regulation No 536/2014 of the European Parliament and of the Council on clinical trials on medicinal products for human use, repealing Directive 2001/20/EC (OJ L 158, 27.5.2014)

Functional Magnetic Resonance Imaging

#### Social science research

Social sciences and humanities

Research Ethics in Ethnography/Anthropology

Guidance note — Research on refugees, asylum seekers & migrants

# Research on children

Ethics in Social Science and Humanities

FP7 guidance: Ethics for Clinical Trials on Medicinal Products Conducted with Paediatric Population

# 3. Human cells or tissues

This section refers to research using, producing or collecting human cells or tissues.

You may obtain cells or tissues:

- from commercial sources
- as part of this research project
- from another research project, laboratory or institution
- from a biobank.

# 3.1 Ethics issues checklist

	ion 3: HUMAN LS / TISSUES	YE:	S/ NO	Page	Information to be provided	Documents to be provided/kept on file
invo or tis than Emb	s your research lve human cells ssues (other from Human ryos/Foetuses, ection 1)?				1) Details of the cells or tissue types.	<ol> <li>Copies of relevant ethics approvals.</li> <li>Copies of accreditation /designation/authorisati on/licensing for using, processing or collecting the human cells or tissues (if required).</li> </ol>
If YES:	- Are they available commercially?				1) Details of the provider (company or other).	1) Copies of import licences (if relevant).
	- Are they obtained within this project?				1) Details of the source of the material, the amount to be collected and the procedure for collection.  2) Details of the duration of storage and what you will do with the material at the end of the research.  3) Confirm that informed consent has been obtained.	1) Informed Consent Forms + Information Sheets.
	- Are they obtained from another project, laboratory or institution?				1) Country where the material is stored. 2) Details of the legislation under which material is stored. 3) How long will the material be stored and what will you do with it at the end of the research project?	1) Copies of import licences (if relevant). 2) Statement of laboratory/institution that informed consent has been obtained.

		<ul> <li>4) Name of the laboratory/institution.</li> <li>5) Country where the laboratory/institution is located.</li> <li>6) Confirm that material is fully anonymised or that consent for secondary use has been obtained.</li> </ul>	
- Are they obtained from a biobank?		<ol> <li>Name of the biobank.</li> <li>Country where the biobank is located.</li> <li>Details of the legislation under which material is stored.</li> <li>Confirm that material is fully anonymised or that consent for secondary use has been obtained.</li> </ol>	1) Copies of import licences (if relevant). 2) Statement of biobank that informed consent has been obtained.

#### 3.2 How do I deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law (in particular, EU Directive 2004/23/EC).

Under this Directive, the handling of cells and tissues is subject to specific rules (in particular, concerning donor selection/protection; accreditation/designation/authorisation/ licensing of tissue establishments and tissue and cell preparation processes; quality management of cells and tissues; procurement, processing, labelling, packaging, distribution, traceability, and imports and exports of cells and tissues from and to third countries).

# The main obligations are to:

- keep track of the origin of the cells and tissues you use, produce or collect
- and to obtain:
  - the necessary accreditation/designation/authorisation/licensing for using, producing or collecting the cells or tissues
  - free and fully informed consent of the donors.

#### **Specific cases**

**Cells or tissues from clinical practice (secondary use)** — For human cells or tissues which you or others have derived from clinical practice (e.g. waste material from surgery or other operations) provide evidence (e.g. copies of examples of informed consent documentation) that the donors have given informed consent for the use of their waste cells or tissues (either specifically for the research or generally, for any secondary use).

If, for the purposes of your research, you intend to collect more **additional material** than would normally be collected during the standard clinical procedure (e.g. a larger than normal tissue sample or a sample that includes some additional adjacent material), you must ensure that informed consent has also been given for collecting additional material. You must also explain the need for such material in your grant proposal and show that you have obtained appropriate ethics approvals.

**Secondary use for future research** — If you intend to store the material for future use in other projects, you must:

- confirm that you have obtained the donor's consent for such secondary use
- state the legislation under which the material will be stored
- state how long it will be stored and what you will do with it at the end of the research.

**Biobanking** — Biobanks raise significant ethical issues concerning informed consent and data privacy.

'Biobanks' are repositories for the storage of biological samples (usually human) and play a significant role in biomedical research. These 'libraries' provide researchers with access to large numbers of tissue samples, genetic material and associated data.

If your project has the aim or effect of setting up a biobank, you must ensure that there is strict compliance with appropriate European and national ethical standards (in particular, regarding data privacy; see section 4).

You must confirm that informed consent has been obtained and show that you have obtained all necessary ethics approvals (or that you are exempted under national law).

⚠ No samples/data may be placed in the biobank before all appropriate consents and ethics approvals have been obtained

You will need to make a report on key aspects of the biobank's activities, including in particular:

- information on which donors will be excluded/included (e.g. competent adults, children and minors, adults unable to provide informed consent, individuals in an emergency setting, etc.)
- details of the material that will be 'banked', including:
  - personal (coded or fully identifiable) biosamples
  - personal information associated with a sample (e.g. name/code, gender, age, etc.)
  - personal data resulting from analysis of a sample (e.g. analysis of genetic material or a genome)
  - anonymised biosamples
  - anonymised data resulting from analysis of a sample (from which individuals could be identified) and
  - epidemiological (population level) data
- information on the standard procedures for:
  - accepting material into the biobank,
  - processes and standards for sample-quality assurance and ensuring accuracy of data and information
  - handling requests for release of samples/data from the biobank (including fair and just financial arrangements and benefit-sharing for third countries).

**Genetic testing** — For using or storing human cells or tissues for genetic testing, you must obtain the donor's informed consent for the genetic testing, and show that you have obtained approval from the relevant ethics and data protection bodies; and any licence required under national legislation.

**Transfer to/from non-EU countries** — If your research project involves the transfer of cells and tissues from/to non-EU countries, you must comply with the specific provisions on import/export under Directive 2004/23/EC (see also section 6).

Moreover, since human cells and tissues constitute personal data, you must also comply with the rules on data transfer to non-EU countries (see section 4).

# 3.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the 'Technical Annex').

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** that are already available.

Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

# Background documents & further reading

EU Directive 2004/23/EC of the European Parliament and of the Council of 31 March 2004 on setting standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells (OJ L 102, 7.4.2004, p.48).

#### 4. Personal data

This section concerns research which involves processing of personal data, regardless of the method used (e.g. interviews, questionnaires, direct online retrieval etc.).

'Personal data' means information relating to an identified or identifiable natural person.

An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person (art. 2(a) EU General Data Protection Regulation (GDPR).

**Examples:** name, address, identification number, pseudonym, occupation, e-mail, CV, location data, Internet Protocol (IP) address, cookie ID, phone number, data provided by smart meters, data held by a hospital or doctor.

⚠ Individuals are not considered 'identifiable' if identifying them requires excessive effort.

Completely anonymised data does not fall under the data privacy rules (as from the moment it has been completely anonymised).

'Processing of personal data' means any operation (or set of operations) performed on personal data, either manually or by automatic means. This includes:

- collection (digital audio recording, digital video caption, etc.)
- recording
- organisation, structuring & storage (cloud, LAN or WAN servers)
- adaptation or alteration (merging sets, appification, etc.)
- retrieval & consultation
- use
- disclosure by transmission, dissemination or otherwise making available (share, exchange, transfer)
- alignment or combination
- restriction, erasure or destruction.

**Examples:** access to/consultation of a database containing personal data; managing of the database; posting/putting a photo of a person on a website; storing IP addresses or MAC addresses; video recording (CCTV); creating a mailing list or a list of participants.

Processing normally covers **any** action that uses data for research purposes (even if interviewees, human volunteers, patients, etc. are *not* actively included in the research).

Personal data may come from any type of research activity (ICT research, genetic sample collection, tissue storage, personal records (financial, criminal, education, etc.), lifestyle and health information, family histories, physical characteristics, gender and ethnic background, location tracking and domicile information, etc.).

# 4.1 Ethics issues checklist

Section 4: PROTECTION OF PERSONAL DATA	YES/	NO	Page	Information to be provided	Documents to be provided/kept on file
Does your research involve processing of personal data?				and organisational measures to safeguard the rights of the research participants.  For instance:  For organisations that must appoint a DPO under the GDPR: Involvement of the data protection officer (DPO) and disclosure of the contact details to the research participants.  For all other organisations: Details of the data protection policy for the project (i.e. project-specific, not general).  2) Details of the informed consent procedures.  3) Details of the security measures to prevent unauthorised access to personal data.  4) How is all of the processed data relevant and limited to the purposes of the project ('data minimisation' principle)? Explain.  5) Details of the anonymisation techniques.  6) Justification of why research data will not be anonymised/ pseudonymised (if relevant).  7) Details of the data transferred and country to which it is transferred – for both EU and non-EU countries).	1) Informed Consent Forms + Information Sheets used (if relevant).
If - Does it involve the processing of special categories of personal data (e.g. genetic, health, sexual lifestyle,				<ol> <li>Justification for the processing of special categories of personal data.</li> <li>Why can the research objectives not be reached by processing anonymised/pseudonymised data (if applicable)?</li> </ol>	

	ethnicity, political opinion, religious or philosophical conviction.)?  - Does it involve processing of genetic, biometric or health data?			1) Declaration confirming compliance with the laws of the country where the data was collected.
	- Does it involve profiling, systematic monitoring of individuals or processing of large scale of special categories of data, intrusive methods of data processing (such as, tracking, surveillance, audio and video recording, geolocation tracking etc.) or any other data processing operation that may result in high risk to the rights and freedoms of the research participants?		1) Details of the methods used for tracking, surveillance or observation of participants. 2) Details of the methods used for profiling. 3) Risk assessment for the data processing activities. 4) How will harm be prevented and the rights of the research participants safeguarded? Explain. 5) Details on the procedures for informing the research participants about profiling, and its possible consequences and the protection measures.	1) Opinion of the data controller on the need for a data protection impact assessment (art.35 GDPR) (if relevant).
proc prev pers (incluexisti	eyour research live further essing of iously collected onal data uding use of pre- ing data sets or ess, merging ing data sets)?		1) Details of the database used or of the source of the data. 2) Details of the data processing operations. 3) How will the rights of the research participants be safeguarded? Explain. 4) How is all of the processed data relevant and limited to the purposes of the project ('data minimisation' principle)? Explain. 5) Justification of why the research data will not be	1) Declaration confirming lawful basis for the data processing. 2) Permission by the owner/manager of the data sets (e.g. social media databases) (if applicable). 3) Informed Consent Forms + Information Sheets + other consent documents (opt in processes, etc.). (if

		anonymised/ pseudonymised (if relevant).	applicable).
Does your research involve publicly available data?		1) Confirm that the data used in the project is publicly available and can be freely used for the project.	1) Permission by the owner/manager of the data sets (e.g. social media databases) (if applicable).
Is it planned to export personal data from the EU to non-EU countries?  Specify the type of personal data and countries involved		Details of the types of personal data to be exported. How will the rights of the research participants be safeguarded? Explain.	1) Declaration of confirming compliance with Chapter V of the GDPR.
Is it planned to import personal data from non-EU countries into the EU?  Specify the type of personal data and countries involved		1) Details of the types of personal data to be imported.	1) Declaration confirming compliance with the laws of the country in which the data was collected.

# 4.2 How do I deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law (in particular, the GDPR, national data protection laws and other relevant legislation, such as on clinical trials).

Under these rules, personal data must be processed in accordance with certain principles and conditions that aim to **limit** the negative **impact** on the persons concerned and ensure **fairness**, **transparency** and **accountability** of the data processing, **data quality** and **confidentiality**.

This implies the following main obligations:

- Data processing should be subject to appropriate safeguards (see table above).
- Data should wherever possible be processed in anonymised or pseudonymised form.

- Data processing is subject to free and fully informed consent of the persons concerned (unless already covered by another legal basis, e.g. legitimate or public interest).
- Data processing must NOT be performed in secret and research participants must be made aware that they take part in a research project and be informed of their rights and the potential risks that the data processing may bring.
- Data may be processed ONLY if it is really adequate, relevant and limited to what is necessary for your research ('data minimisation principle').

🗘 Collecting personal data (e.g. on religion, sexual orientation, race, ethnicity, etc.) that is not essential to your research may expose you to allegations of 'hidden objectives' or 'mission creep' (i.e. collecting information with permission for one purpose and using it/making it available - online or otherwise — for another reason, without additional permission).

- Data processing operations which are more intrusive and likely to raise higher ethics risks must be subject to higher safeguards.
- For complex, sensitive or large-scale data processing or data transfers outside of the EU, you should consult your data protection officer (DPO), if you have one, or a suitably qualified expert.
- The level of data security must be appropriate to the risks for the research participants occurring in case of unauthorized access or disclosure, accidental deletion or destruction of the data.
- You are responsible for any partners, contractors or service providers that process research data at your request or on your behalf.

Generally, one of the best ways how to avoid/limit data protection issues for your project is to use anonymised or pseudonymised data.



Pseudonymisation and anonymisation are not the same thing.

'Anonymised' means that the data has been rendered anonymous in such a way that the data subject can no longer be identified (and therefore is no longer personal data and thus outside the scope of data protection law).

'Pseudonymised' means to divide the data from its direct identifiers so that linkage to a person is only possible with additional information that is held separately. The additional information must be kept separately and securely from processed data to ensure non-attribution.

Moreover, if you have a data protection officer (DPO), it is generally recommended to involve them in all stages of your project, whenever it comes to data privacy issues, since this will help your proposal and grant agreement implementation (EU grants are subject to full compliance with data privacy rules).

🔼 Be aware that even if you solve all privacy-related issues, research data may still raise other ethics issues, such as the potential misuse of the research methodology/ findings or ethics harms to specific groups.

# 4.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the Technical Annex).

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

#### Background documents & further reading

#### **General**

Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (OJ L 119, 4.5.2016, p. 1)

Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA (OJ L 119, 4.5.2016, p. 89)

Guidelines on Consent under Regulation 2016/679 (wp259rev.01), Article 29 Working Party

Guidelines on Transparency under Regulation 2016/679 (wp260rev.01), Article 29 Working Party

Guidelines on Automated individual decision-making and Profiling for the purposes of Regulation 2016/679(wp251rev.01), Article 29 Working Party

Council of Europe Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data, CM/Inf(2018)15-final

Handbook on European data protection law (2018 edition), European Union Agency for Fundamental Rights and Council of Europe, European Court of Human Rights, European Data Protection supervisor

Data transfers outside the EU - International data transfers using model contracts

#### **Electronic communications**

EU Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications)

EU Directive 2006/24/EC of 15 March 2006 on the retention of data generated or processed in connection with the provision of publicly available electronic communications services or of public communications networks

# 5. Animals

This section refers to research involving animals.

# **5.1 Ethics issues checklist**

Section 5: ANIMALS		YES/N(	) Page	Information to be provided	Documents to be provided/kept on file
	s your research lve animals?			1) Details of the species and rationale for their use, numbers of animals to be used, nature of the experiments, procedures and techniques to be used. 2) Justification of animal use (including the kind of animals to be used) and why alternatives cannot be used.	
If <b>YES</b>	- Are they vertebrates?				
:	- Are they non- human primates (NHP) (e.g. monkeys, chimpanzees, gorillas, etc.)?			<ol> <li>Why are NHPs the only research subjects suitable for achieving your scientific objectives? Explain.</li> <li>What is the purpose of the animal testing? Give details.</li> <li>Where do the animals come from? Give details.</li> </ol>	1) Personal history file of NHP.
	- Are they genetically modified?			1) Details of the phenotype and any inherent suffering expected. 2) What scientific justification is there for producing such animals? Give details. 3) What measures will you take to minimise suffering in breeding, maintaining the colony and using the GM animals? Give details.	1) Copies of GMO authorisations.
	- Are they cloned farm animals?			<ol> <li>Details of the phenotype and any inherent suffering expected.</li> <li>What scientific justification is there for</li> </ol>	1) Copies of authorisations for cloning (if required).

	producing such animals? Give details.  3) What measures will you take to minimise suffering in breeding, maintaining the colony and using of the GM animals? Give details.	
- Are they an endangered species?	<ol> <li>Why is there no alternative to using this species? Give details.</li> <li>What is the purpose of the research? Give details.</li> </ol>	1) Copies of authorisations for supply of endangered animal species (including CITES).

# 5.2 How do I deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law (in particular, EU Directive 2010/63/EU).

This Directive is designed to limiting the use of animal testing for scientific purposes. It sets out EU-wide animal welfare standards (including authorisations, restrictions on the use of certain kinds of animals, standards for procedures, minimum requirements for personnel, recording and traceability, care and accommodation).



Some EU Member States have stricter rules.

This means that you must choose alternatives to animal use where possible and implement the principles of replacement, reduction and refinement ('three Rs').

Replacement — replacing animal use by an alternative method or testing strategy (without use of live animals).

# Examples

'Higher' animals can be replaced by 'lower' animals: microorganisms, plants, eggs, reptiles, amphibians, and invertebrates may be used in some studies to replace warmblooded animals.

Live animals may be replaced by non-animal models, such as dummies for an introduction to dissection for teaching the structure of the animal or the human body, mechanical or computer models, audio-visual aids, or in vitro modelling.

**Reduction** — reducing the number of animals used.

**Refinement** — improving the breeding, accommodation and care of animals and the methods used to minimise pain, suffering, distress or lasting harm to animals.

Moreover, you must obtain:

 the necessary authorisations for the supply of animals and the animal experiments (and other specific authorisations, if applicable).

⚠ You must obtain all relevant national authorisations before you can start to use animals.

# **Specific cases**

**Non-human primates (NHPs)** — Since non-human primates are so close to human beings, their use in experiments raises particular ethics concerns. Directive 2010/63/EU sets strict limits to their use: They may be used only for specific research purposes (of primary importance) and only if there is no alternative ( art. 8). Moreover, only offspring of non-human primates which have been bred in captivity or which are sourced from self-sustaining colonies may be used (art. 10).

The use of great apes requires very exceptional justification and must be specifically authorised by the Commission/Agency.

**Endangered species** — Endangered species cannot be used, except for very important research purposes and where there is no alternative non-endangered species that will meet the scientific objective (art. 7 Directive 2010/63/EU).

In this case, you should follow agreed international practices (CITES).

# 5.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the Technical Annex).

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

⚠ Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

# Background documents & further reading

#### General

EU Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 on the protection of animals used for scientific purposes (OJ L 276, 20.10.2010, p. 33).

The ARRIVE Guidelines — Animal Research: Reporting In Vivo Experiments. Festing MFW, Overend P, Gaines Das R, Cortina Borja M, Berdoy M (2002), *The design of animal experiments: reducing the number of animals in research through better experimental design*, Laboratory Animal Handbooks Series, 14. London: Royal Society of Medicine Press.

Hooijmans C. et al. (2010), A gold standard publication checklist to improve the quality of animal studies, to fully integrate the Three Rs, and to make a systematic review more feasible, ATLA 38: 167-182.

For alternatives to animal testing, refer to the following website: http://ecvam.jrc.it/

# Research on animals

Research on animals

#### **Endangered species**

**CITES** 

#### 6. Non-EU countries

This section concerns research involving non-EU countries.

This is the case where:

- research activities are conducted, partially or wholly, in a non-EU country
- participants or resources come from a non-EU country
- material is imported from or exported to a non-EU country.

Being outside the reach of European laws and standards, such research can raise specific ethical issues (particularly in developing countries), such as:

- exploitation of research participants
- exploitation of local resources
- risks to researchers & staff
- research that is prohibited in the EU.

Left Horizon 2020 funding cannot be granted for activities carried out outside the EU if they are prohibited in all Member States.<sup>5</sup>

#### 6.1 Ethics issues checklist

Section 6: THIRD COUNTRIES	YES/ NO Pa		Page	Information to be provided	Documents to be provided/kept on file
In case non-EU countries are involved, do the research related activities undertaken in these countries raise potential ethics issues?  Specify the countries involved:				<ol> <li>Risk-benefit analysis.</li> <li>What activities are carried out in non-EU countries? Give details.</li> </ol>	1) Copies of ethics approvals and other authorisations or notifications (if required). 2) Confirmation that the activity could have been legally carried out in an EU country (for instance, an opinion from an appropriate ethics structure in an EU country).
Is it planned to use local resources (e.g. animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)?				1) What type of local resources will be used and how exactly? Give details.	1) For human resources: copies of ethics approvals. For animals, plants, micro-organisms and associated traditional knowledge: documentation demonstrating compliance with the <i>UN</i>

See Article 19(4) of the Horizon 2020 Framework Programme Regulation (EU) No 1291/2013.

				Convention on Biological Diversity (e.g. access permit and benefit sharing agreement).
impo from	planned to ort any material non-EU atries into the		1) What type of materials will you import? Give details.	1) Copies of import licences.
section For in	mports of human or tissues, see			
If YES:	Specify the materials and countries involved:			
expo from EU co	planned to ort any material the EU to non- ountries?		1) Details of the type of materials to be exported.	1) Copies of export licences.
section section	lata exports, see on 4.			
If YE S:	Specify material and countries involved:			
invol lowe incom are a	se research lves low and/or er-middle me countries, any benefit- ing actions ned?		1) Details of the benefit sharing measures. 2) Details of the responsiveness to local research needs. 3) Details of the procedures to facilitate effective capacity building.	
in th the in takin	d the situation e country put ndividuals ng part in the arch at risk?		1) Details of the safety measures you intend to take, including training for staff and insurance cover.	

#### 6.2 How do I deal with the issues?

#### **Specific cases**

**Research carried out in a non-EU country** — For activities carried out outside the EU, it is not enough for that the activity to be accepted and comply with the legal obligations of a non-EU country; the activities must ALSO be allowed in at least one Member State (see art. 19 H2020 Programme Regulation No 1291/2013).

⚠ Beneficiaries must confirm in the ethics self-assessment section of their proposal that this condition is met.

**Resources from a non-EU country** — Any use of local resources (especially animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, fossils) must show respect for cultural traditions and share benefits (i.e. also benefit local participants and their communities, involve local researchers — as equal partners — and respond to local research needs).

This is particularly important for **low income and lower-middle income countries** (see Convention on Biological Diversity and Declaration of Helsinki and follow the Global code of conduct for research in resource-poor settings).

For access to **genetic resources**, you must also comply with the Nagoya Protocol on Access and Benefit Sharing and EU Regulation (EU) No 511/2014 which implements this Protocol.

**Import/export of material** — If genetic resources are transferred across borders, it may be mandatory under the law of the provider country to obtain an authorisation for the transfer. In addition, you must use an agreement which describes the conditions for the export and the terms of utilisation and, if applicable, relevant benefit-sharing measures.

- For transfers of human cells or tissues, see section 3.
- 1 For data transfers, see section 4.

**Sending researchers to a non-EU country** — Non-EU countries are not necessarily less safe than EU countries. Nevertheless, a risk assessment must be undertaken when sending researchers abroad and appropriate safety measures must be taken. These may include insurance cover or health and safety measures, *such as no lone working, contact points via phone, counselling support, etc.* (see also section 7.2).

# 6.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the Technical Annex).

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

# Background documents & further reading

#### **Human resources**

Declaration of Helsinki

#### Flora & fauna

Convention on Biological Diversity

#### **Genetic resources**

Nagoya Protocol on Access and Benefit Sharing

EU Regulation (EU) No 511/2014 of the European Parliament and of the Council of 16 April 2014 on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the fair and equitable sharing of benefits arising from their utilization in the Union (ABS Regulation) (OJ L 150, 20.5.2014, p. 59)

Commission Implementing Regulation (EU) No 2015/1866 of 13 October 2015 laying down detailed rules for the implementation of Regulation (EU) No 511/2014 of the European Parliament and of the Council as regards the register of collections, monitoring user compliance and best practices (OJ L 275, 20.10.2015, p. 4)

#### **Developing countries and lower income settings**

FP 7 guidance: Developing countries

Global code of conduct for research in resource-poor settings

# 7. Environment, health & safety

This section concerns research that may adversely affect:

- the environment or
- the health & safety of the researchers involved.

This may be due to any of the following:

- the experimental design of the research itself
- undesirable side-effects of the technologies used.

#### 7.1 Environment

#### 7.1.1 Ethics issues checklist

Section 7: ENVIRONMENT & HEALTH AND SAFETY	YES/NO	Page	Information to be provided	Documents to be provided/kept on file
Does your research involve the use of elements that may cause harm to the environment, to animals or plants?  For research involving animal experiments, see section 5.			<ol> <li>Risk-benefit analysis.</li> <li>Show how you apply the precautionary principle (if relevant).</li> <li>What safety measures will you take? Give details.</li> </ol>	<ol> <li>Safety classification of laboratory.</li> <li>Copy of GMO and other authorisations (if required).</li> </ol>
Does your research deal with endangered fauna and/or flora /protected areas?				1) Specific authorisations (if required).

# 7.1.2 How do I deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law (in particular, the precautionary principle and legislation on nature conservation and pollution control).

The precautionary principle requires that where there is plausible scientific evidence for serious risks, you must prove that a new technology will not harm the environment.

The legislation on nature conservation and pollution control includes the EU Habitats Directive 92/43/EEC, the EU Wild Birds Directive 79/409/EEC, EU Regulation (EC) No 338/97 on protection of wild fauna, the EU GMO Directive 2009/41/EC and the Cartagena Protocol on Biosafety.

This means you must assess potential risks to the environment and avoid or minimise such risks.

Moreover, you must obtain:

- the necessary environmental authorisations (if applicable).

1 You must obtain all relevant national authorisations before you can start your research.

# 7.1.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the Technical Annex).

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

# 7.2 Health & safety

The health and safety of all human participants in research - as subjects, investigators or uninvolved third parties, must be a priority in all research studies.

The kinds of risk to researcher safety vary according to the nature of the discipline, the topic and the research site. Only the 'researcher in the field' can fully assess safety concerns and/or their willingness to tolerate risks.

However, research in both familiar and unfamiliar settings can involve added safety concerns. Even in familiar settings, surprising, non-routine things can happen which pose safety risks.

Moreover, in certain types of research, the risk of harm to the researcher is caused by the topic of study or by the actions of the researchers themselves. Lack of caution or failure to obey standard procedures may lead to physical or psychological harm.

Improved safety practices may impose additional cost burdens, which can be included in your estimated budget.

#### 7.2.1 Ethics issues checklist

Section 7: ENVIRONMENT & HEALTH AND SAFETY	YES/NO	Page	Information to be provided	Documents to be provided/kept on file
Does your research involve the use of elements that may cause harm to humans, including research staff?			1) Details of the health and safety procedures.	1) Safety classification of laboratory.
For research involving human participants, see section 2.				

#### 7.2.2 How do I deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law (in particular, the legislation on public-health control (e.g. regulating conduct in animal epidemics, food imports, consumer protection, etc.) and safety at work (e.g. Directive 2006/25/EC)).

This means you must warn and advise researchers. In some cases you must even remove them from dangerous situations.

Moreover, you should establish and follow a set of safety checks and procedures (or a more in-depth risk assessment) for each project they conduct.

You must also obtain:

- the necessary health and safety authorisations (if applicable).

# **Specific cases**

**Toxic chemicals** and/or **explosives** — Staff should have adequate training in storing, handling and disposing of such substances. If new substances and/or formulations (e.g. nanomaterials) are developed, you must provide adequate risk assessments.

 $\begin{tabular}{ll} \textbf{Radioactive material} & - & \textbf{Clear legislation exists in all EU countries on the storage,} \\ & \textbf{handling and disposal of radioactive materials.} \\ \end{tabular}$ 

The release of radioactive material into the environment is allowed only if you can show that use of alternatives (e.g. non-radioactive stable isotopes, simulants etc.) is not possible.

**Research 'in the field'** — Establish and abide by recognised procedures to help keep researchers and subjects safe. These should include:

- keeping careful notes of all research engagements
- ensuring projects are adequately staffed
- using mobile phones to keep in touch with the research base
- conducting full risk assessments of fieldwork sites

- formally notifying authorities of research being conducted in an area
- carrying authorised identification
- researcher preparation & training covering techniques for handling conflict, threats, abuse or compromising situations
- debriefing after field research with an assessment of fieldwork safety and
- reporting any health & safety incidents.

# 7.2.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the Technical Annex).

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

⚠ Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

#### Background documents & further reading

#### General environment

EU Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p.7)

EU Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds (OJ L 103, 25.4.1979, p.1)

EU Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein (OJ L 103, 25.4.1979, p.1)

# Cartagena Protocol on Biosafety

EU Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC (OJ L 106, 17.4.2001, p. 1)

EU Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) (OJ L 164, 25.6.2008, p. 19)

#### **GMOs**

EU Regulation (EC) No 1946/2003 of the European Parliament and of the Council of 15 July 2003 on trans-boundary movements of genetically modified organisms (OJ L 287, 5.11.2003, p. 1)

EU Directive 2009/41/EC of the European Parliament and of the Council of 6 May 2009 on the contained use of genetically modified micro-organisms (OJ L 125, 21.5.2009, p. 75)

#### Public health & consumer protection

#### Consumer safety

#### Health & safety at work

EU Directive 2006/25/EC of the European Parliament and of the Council of 5 April 2006 on the minimum health and safety requirements regarding the exposure of the workers to risks arising from physical agents (OJ L 114, 27.4.2006, p.38)

A Code of Practice for the Safety of Social Researchers

#### 8. Dual use

This section concerns research involving goods, software and technologies covered by the EU Export Control Regulation No 482/2009. These **dual-use items** are normally used for civilian purposes but may have military applications, or may contribute to the proliferation of weapons of mass destruction.

# 8.1 Ethics issues checklist

Section 8: DUAL USE	YES/NO Page		Information to be provided	Documents to be provided/kept on file
Does this research involve dual-use items in the sense of Regulation 428/2009, or other items for which an authorisation is required?			1) What goods and information used and produced in your research will need export licences? 2) How exactly will you ensure compliance? 3) How exactly will you avoid negative implications?	1) Copies of export licences.

# 8.2 How to deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law (in particular, the EU Export Control Regulation No 428/2009).

In certain exceptional cases, publication of research findings (e.g. a scientific article in a journal published both outside or inside the EU) may be classed as an intangible technology transfer (ITT) and may require an authorisation (which is not always granted).

#### **Specific cases**

**Cross-border transfers** — For cross-border transfers of dual-use materials, technologies and information, you must observe the EU Export Control Regulation No 428/2009. If you have any doubts, you should consult the relevant national export control authority to clarify whether transfer licences are needed.

**Research that may affect ethics standards** — If international non-proliferation laws or international humanitarian laws *may have a bearing on your research (e.g. in the case of pathogen-related research, development of autonomous robotics, drones and certain laser technologies),* you must comply with the relevant international law (in particular, the Biological and Toxin Weapons Convention).

⚠ You may also want to appoint an independent ethics adviser/ethics board, with relevant ethics and security expertise, to carry out a risk-benefit analysis of the intended research and to suggest appropriate safeguards to cover security risks (during and beyond the lifetime of the project) and training for researchers.

# 8.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the technical Annex) and fill in the **critical risk table** Part B in section 3, in which you describe what action you would take if the national authorities do not grant the required authorisation(s)/license(s).

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

# Background documents & further reading

Guidance note — Research involving dual use items

EU Regulation No 428/2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items

EU Charter of Fundamental Rights Biological and Toxin Weapons Convention

**UN Security Council Resolution 1540** 

# 9. Exclusive focus on civil applications

This section explains the exact meaning of the 'exclusive focus on civil applications'.

Only research that has an exclusive focus on civil applications is eligible for funding.<sup>6</sup>

However, this does not rule out the participation of military partners or the development of generic technologies, products or knowledge that may meet the needs of both civil and military end-users (known as 'dual-use' goods or technologies), provided that the research itself has a clear focus on civil applications.

#### 9.1 Ethics issues checklist

Section 9: EXCLUSIVE FOCUS ON CIVIL APPLICATIONS	YES	S/NO	Page	Information to be provided	Documents to be provided/kept on file
Could your research raise concerns regarding the exclusive focus on civil applications?				<ol> <li>Explain the exclusive civilian focus of your research.</li> <li>Justify inclusion of military partners or military technologies (i.e. explain how they relate to civilian applications, e.g. in the context of law enforcement activities).</li> </ol>	

#### 9.2 How to deal with the issues?

Your research must comply with:

- ethical principles
- applicable international, EU and national law (in particular Horizon 2020 Regulation No 1291/2013) which limits funding of research to activities having an exclusive focus on civil applications).

Activities aimed at the development or improvement of dual-use technologies or goods can be financed through Horizon 2020, provided that the research is fully motivated by, and limited to civil applications.

#### 9.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the technical Annex).

See Article 19(2) of the Horizon 2020 Framework Programme Regulation (EU) No 1291/2013.

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

# Background documents & further reading

Guidance note — Research focusing exclusively on civil applications

#### 10. Potential misuse of research results

This section concerns research involving or generating materials, methods, technologies or 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.

#### 10.1 Ethics issues checklist

Section 10: MISUSE	YES/NO	Page	Information to be provided	Documents to be provided/kept on file
Does your research have a potential for misuse of research results?			<ol> <li>Risk-assessment.</li> <li>Details of the applicable legal requirements.</li> <li>Details of the measures to prevent misuse.</li> </ol>	<ol> <li>Copies of authorisations (if required).</li> <li>Copies of security clearances (if applicable).</li> <li>Copies of ethics approvals (if applicable).</li> </ol>

#### 10.2 How do I deal with the issues?

Some guestions that could be used to identify potential misuse are:

- Could the materials/methods/technologies and knowledge involved or generated harm humans, animals or the environment if they were modified or enhanced?
- What would happen if the materials/methods/technologies and knowledge involved or generated ended up in the wrong hands?
- Could the materials/methods/technologies and knowledge involved or generated serve purposes other than those intended? If so, would such use be unethical?

You must conduct a risk-assessment and take appropriate steps to avoid misuse.

You must also comply with the numerous international, EU and national laws that address concerns relating to potential misuse of materials, technologies and information (see list below).

#### **Specific cases**

**Biological, chemical, radiological and nuclear security-sensitive materials and explosives (CBRNE)** — To avoid misuse, take appropriate measures to provide adequate security for the facility used, personnel, transfer and information. Further possible safeguards are:

 including security expertise in your research (e.g. by appointing an independent adviser)

- limiting the dissemination of research results
- training all staff appropriately.

In many cases, overlaps between safety and security measures will exist, but gaps need to be identified and addressed. The most frequent issue relates to research involving pathogens and the need to implement adequate biosecurity measures.

**Research with a potential impact on human rights** — Concerns in this field relate primarily to research on surveillance technologies, new data-gathering and data-merging technologies (e.g. in the context of big data). However, social or genetic research that could lead to discrimination or stigmatisation is also affected.

Risk mitigation measures may include:

- a human rights impact assessment
- involving human rights experts in your research
- training personnel and/or technological safeguards
- caution when publishing or otherwise disseminating results (e.g. through privacy by design)
- adapting the research design (e.g. using dummy data).

**Research that has other potential misuses** — Although anything could ultimately be used for malevolent purposes, research in this category is that which provides terrorists or criminals with information or technologies that would have *substantial direct impacts* on the security of individuals, groups or states.

**Examples:** infrastructural vulnerability studies, cyber-security-related research

In many cases, researchers outside the security domain are not familiar with security safeguards. In such situations, researchers should consult experts familiar with security ethics and/or human rights. If security or human rights abuse concerns exist, you should arrange for:

- training on this issue
- the appointment of an ethics adviser/ethics advisory board.

# 10.3 What do you need to provide?

If your proposal raises one of the issues listed in the ethics issue checklist above, you must complete the **ethics self-assessment** in **Part B** of your proposal (i.e. section 5 of the technical Annex).

Your grant proposal must include the **information** referred to in the ethics issues checklist and any of the **documents** already available.

Documents that are not submitted together with the proposal should be kept on file and may have to be provided later on, if requested by the Commission/Agency.

#### Background documents & further reading

Guidance note — Potential misuse of research results

FP7 guidance: A comprehensive strategy on how to minimize research misconduct and the potential misuse of research in EU-funded research

Council Common Position 2003/805/CFSP on the universalisation and reinforcement of multilateral agreements in the field of non-proliferation of weapons of mass destruction and means of delivery

EU Regulation No 428/2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items

EU Regulation No 2913/92 establishing the Community Customs Code

Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction

UN Security Council Resolution 1540

Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

Chemical Weapons Convention

Responsible life sciences research for global health security: A guidance document

Biorisk management: Laboratory biosecurity guidance

#### 11. Other ethics issues

#### Ethics issues checklist

Section 10: OTHER ETHICS ISSUES	YES	/ NO	Page	Information to be provided	Documents to be provided/kept on file
Are there any other ethics issues that should be taken into consideration?  Please specify:				1) Any relevant information.	1) Any relevant document.

# Other ethics issues?

Since Horizon 2020 intends to support ground-breaking and innovative research, it may be that your research raises **new ethical issues and concerns** that are currently not (fully) covered by the Ethics Issue Table (e.g. new developments in the fields of neurobiology, man-machine interaction, developments in nanotechnology, genetic enhancement, the creation of androids and cyborgs, etc.).

If you **know** of any such other ethically relevant issues that apply to your project, describe them in this section and explain how you intend to address them. This allows you to alert the Commission/Agency in time and get appropriate assistance for addressing them. It also avoids the problems you would have if such issues were found out only later (in the context of an audit or investigation).

For highly innovative research, use the ethics by design methodology (in particular in the area of artificial intelligence; see guidance in the background documents section below).

If, ethical issues arise **unexpectedly during your research**, contact us immediately via your Participant Portal account and provide detailed information on the issue and how you intend to handle it. We will ensure that you receive appropriate help and guidance.

# Ethics advisers/advisory boards

A suitably experienced *ethics adviser* can help you to deal with ethical issues and putting into place the procedures to handle these appropriately if your research includes several ethical concerns.

If your research involves several significant or complex ethical issues, you should appoint an *ethics advisory board* with several experts with varied expertise.

If you appoint an ethics adviser/advisory board, it is important that they are:

- external to the project and to the host institution
- totally independent and
- free from any conflict of interest.

Your university or institution (or members of your consortium) may have experience with an ethics adviser or members of an ethics advisory board and may be in a position to suggest potential candidates.

The ethics adviser or ethics advisory board should maintain an overview of the work throughout the whole course of your project and help you to think ahead about possible problems that might arise and how they can be addressed. Their experience will help you check for compliance with ethical standards within the relevant research fields. They will also be responsible for reporting to you and to the Commission/Agency, on a regular basis, on ethics concerns as they arise and the continuing probity of your studies.

If you appoint an ethics adviser or set up an ethics advisory board, you should work with them on a regular basis throughout your project. Their oversight role should be fully integrated into your research activities and they should work closely with you and your colleagues so they are fully aware of all the developments as your research progresses. Your ethics advisers/ethics advisory board should be an essential element in your project management structure.

#### What do you need to provide?

You must provide:

- the name and contact information for persons suggested
- the terms of reference for their involvement and the deliverables expected
- their declarations of no conflict of interest.

# Background documents & further reading

#### General information on ethics

**Ethics for Researchers** 

European Textbook on Ethics in Research (2010)

Roles and Functions of Ethics Advisors/Ethics Advisory Boards in EC-funded Projects

# Food-related research

FP7 guidance: Guidance Note — Ethics and Food-Related Research

#### Research related to artificial intelligence (AI)

High-Level Expert Group on Artificial Intelligence: Draft Ethics guidelines for trustworthy AI