ETHNA

D4.2 Final Concept of the ETHNA System

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ABSTRACT

This deliverable includes the finalized version of the ETHNA System Concept to be used by the 6 organisations involved in the living lab experiment. This version was updated based on the findings gained at the multi-stakeholder consultation conducted through a set of participatory measures (online survey, semi-structured interviews, workshops) with various actors along the quadruple helix in terms of barriers, incentives, best practices and potential progress measures of each RRI key. This deliverable serves as a guide to the ethical governance of RRI in research and innovation performing organisations (RPOs) and research funding organisations (RFOs). The guide includes relevant information concerning the nature of the ETHNA System, the method of embracing and implementing its potential set of guidance tools (ethics committee, code of ethics and best practices, ethics hotline and indicators, coupled with a supporting structure built upon an RRI office(r)), as well as a toolbox with 'ready-to-use' examples that may be of help to organisations to develop, implement and maintain the ETHNA System in some stages of the process.

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5.1	24/01/2022	BIOCOM	Adapted layout after review by ZSI and UJI
5.2	31/01/2022	BIOCOM	Final version – Content and layout checked

Abbreviation	
CEGP	Code of Ethics and Good Practices in R&I
ETHNA	**Eth**ical Gover**na**nce of RRI in Innovation and Research in Research Performing Organisations and Research Funding Organisations
KPIs	Key Performance Indicators
RFO	Research Funding Organisation
RRI	Responsible Research and Innovation
RPO	Research Performing Organisation
R&I	Research and Innovation
SMART	Specific, Measurable, Achievable, Realistic, and Time-bound

ACKNOWLEDGMENT & DISCLAIMER

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EXECUTIVE SUMMARY

The report provides the finalized version of the ETHNA System concept to be used by the 6 organisations involved in the living lab experiment of the meta-governance system during the project duration. This report is a guide to the ethical governance of RRI in research and innovation performing organisations (RPOs) and research funding organisations (RFOs). The guide is divided into six sections and includes seven annexes that form a toolbox to implement the ETHNA System.

Section A explains the importance of having a system of ethical governance promoting responsible research and innovation in organisations, thereby encouraging them to consider the consequences of their activities and incorporate society's expectations into their work so they can develop it in a sustainable and effective way.

Section B focuses on the intended target audience, which includes any organisation performing research or innovation, or funds such activities and aspires to make commitment towards a more ethical and responsible institutional governance system. The benefits of such a system stemming from a public commitment to manage the ethics and research integrity basis for trust are included in **Section C**. Among other advantages, the ETHNA System will help RPOs and RFOs to achieve strong impacts such as credibility and reliability and involve stakeholders to increase economic profitability.

Section D explains the structure of the ETHNA System consisting of a set of guidance tools ('column blocks') that are flexible and adaptable to the capacities, needs, idiosyncrasies, resources and requirements of each organisation to make progress in terms of one or more RRI keys. The ETHNA System is based on three guidance tools, i.e. ethics committee, code of ethics and best practices, ethics hotline that allow RPOs and RFOs to ensure that their R&I activities will be performed in accordance with the internationally standards of RRI.

Section E describes how to implement the ETHNA System through three phases and seven steps. It introduces a system of four quadrants that are based on the existence of leadership (top-down support) and a base (bottom-up initiatives) in terms of RRI keys in each potential implementing organisation. Based on these two key factors, three potential implementation cases are detailed (strong leadership, weak base; weak leadership, strong base; strong leadership, strong base). Under each phase, several steps are described and the reader will find the descriptions of the stages and recommendations under the relevant steps.

Last, **Section F** dives into the relevance of internal and external communication in the ETHNA System to create a flourishing RRI culture.

The document is complemented by a **Toolbox** composed of seven Guidance tools **(Annex 1 to 7)** with the aim of enabling a more smooth pilot implementation process. In this Toolbox, RPOs and RFOs may find guidance to implement some parts of the ETHNA System within their organisation.

The ETHNA System

A Guide to the **Eth**ical Gover**na**nce of RRI in Innovation and Research in Research Performing Organisations and Research Funding Organisations[1].

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1   It has been developed by 13 organisations from 8 European countries as part of the European Union's H2020 programme.

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LIST OF ACRONYMS

BAs	Biological Agents Regulations
CEGP	Code of Ethics and Good Practices in R&I
ETHNA	**Ethi**cal Gover**na**nce of RRI in Innovation and Research in Research Performing Organisations and Research Funding Organisations.
GAP	Analysis with the ETHNA System
GMOs	Genetically Modified Organisms
KPIs	Key Performance Indicator
RFO	Research Funding Organisation
RRI	Responsible Research and Innovation
RPO	Research Performing Organisation
R&I	Research and Innovation
SMART	Specific, Measurable, Achievable, Realistic, and Time-bound

A. WHY IS IT IMPORTANT TO HAVE AN ETHICAL SYSTEM OF GOVERNANCE FOR RESEARCH AND INNOVATION IN ORGANISATIONS?

A

Organisations involved in Research and Innovation (R&I) are encouraged to consider the consequences of their activities and incorporate society's expectations into their work so that they can develop in a sustainable and effective way.

An ethical governance system for research and innovation helps organisations to achieve these aims.

The **implementation of the system and its structures** (or tools) allows for the generation of spaces and mechanisms for participation where funders, researchers and developers along with stakeholders and representatives of the public can discuss:

› the goals to be pursued,
› the resources to be used,
› the regulatory framework to be followed, and
› the results to be expected in terms of research and innovation.

ETHNA is a **flexible ethical governance system** designed for implementation in:

› Research Performing Organisations (hereinafter RPOs) and Research Funding Organisations (hereinafter RFOs).

› In five Responsible Research and Innovation (RRI hereinafter) contexts:

  › higher education,
  › organisations funding research and innovation,
  › research performing organisations,
  › research and development centres, and
  › public-private partnership for innovation.

The ETHNA System offers **ethical governance structures** based on **a system of flexible blocks** that can be adapted to the needs and particular features of each organisation and their available resources.

The ETHNA System has been designed in a way that allows RPOs and RFO´s organisations to:

› **build their own ethical governance** structure for knowledge-generation and innovation processes based on the structure of the ETHNA System, and
› make progress by **continuously improving over time**.

B.   WHO IS THE ETHNA SYSTEM AIMED AT?

B

The ETHNA System may be of interest

> **for any organisation that performs research and innovation or funds it.**

> for any organisation that aspires to have a more effective ethical commitment.

> for any organisation that desires to **perform their activity in accordance with internationally recognised ethical criteria and carry out science with and for society** so that research excellence goes together with attention for social responsibility and public trust.

> **for any organisation that intends to apply ethical governance in the field of RRI can use the ETHNA System methodology** to align their activity with the ethical standards appropriate for their organisation.

> **for RPOs** to have specialist structures to generate RRI that supports and guides researchers to achieve responsible R&I as well as generate policies and strategies for continuous improvement.

> **for RFOs** to have **specialist structures to promote RRI** in their sphere of influence, so that the medium- and long-term results and impacts of the research and innovation they finance or promote will be **better aligned with society's** economic, social, and environmental needs, values, and expectations.

C.   WHY ADOPT THE ETHNA SYSTEM?   C

Today, research and innovation organisations are constantly in the public eye because of their influence and contribution to progress and social transformation. **Trust in research and innovation organisations, and those responsible for their funding, depends on the appropriate societal-ethical justification** they can offer for their activities, which results in the maintenance of their credibility and reputation. In today's global context, **adopting a public commitment to RRI** and managing it through communication and participation is a known and effective way to achieve the goals of the **2030 Agenda for Sustainable Development**.

A fundamental benefit provided by the ETHNA System is to ensure that **R&I activities are financed and carried out in a responsible way**. The ETHNA System does this by providing a system of supporting tools, which then helps to build trust among people, administrations, and organisations. The positive impacts of the system derive from public commitment to manage the ethical basis for trust. It is a system based on the inclusion of all stakeholders[1][2], so it develops some of the preconditions that promote the institutionalisation of sustainable engagement with citizens and society. The ETHNA System also includes the assessment of activities to transparently communicate achievements and disseminate measures for improvement.

The ETHNA System will help organisations to achieve strong impacts such as:

1. **Generate credibility and reliability (trustworthiness)** in the activity and the achieved results by the organisation in R&I.

2. **Align the policies and strategies of the organisation with European guidelines** and thus increase the possibilities for cooperation and funding.

3. **Facilitate stable relationships with stakeholders** by including them in participatory spaces for exchange, debate and understanding so their legitimate interests are considered and, as a result, the quality of results improved.

4. **Promote a culture that fosters cohesion and a common decision-making position**, as well as a healthy working environment that inspires confidence.

5. Encourage a **proactive position towards some current challenges of R&I**: research integrity, gender perspective, public engagement, and open access.

6. Involve stakeholders to increase economic profitability with the rational and sustainable use of scarce resources.

7. **Reduce internal and external coordination costs** deriving from possible conflicts and misconducts that have an economic and reputational impact.

8. Position the organisation in terms of RRI by **building trust and a reputation for excellence in R&I**.

9. Build the character of the organisation by promoting or complying with various existing political and legal frameworks.

10. **Promote a close relationship with the community and its values and needs by responding to the expectations of society** (e.g. sustainability, social justice, data protection, new technologies and AI, health, food/farming, water, among others and integrity research, etc.).

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1 Häberlein, Lisa; Mönig, Julia Maria and Hövel, Philipp (2021). Mapping stakeholders and scoping involvement. A guide for HEFRCs. ETHNA System Project – Deliverable 3.1
2 Häberlein, Lisa; Mönig, Julia Maria and Hövel, Philipp (2021). Stakeholder involvement in ethical governance of R&I. A guide for HEFRCs. ETHNA System Project – Deliverable 3.3

D.   WHAT IS THE ETHNA SYSTEM?

ETHNA is a **flexible ethical governance system** for the **management of R&I activities** in higher education, research funding organisations, research performing organisations, and organisations that bring scientific and technological innovation to the market.

The ETHNA System consists of a **set of building blocks that are flexible and adaptable to the needs**, idiosyncrasies, and resources of each organisation to progress in RRI over time.

The ETHNA System is based on three **Guidance tools (Column Blocks)** that allow any organisation to guarantee that their R&I activities will be performed in accordance with the internationally recognised ethical standards of RRI (see box on the right).

These three Guidance tools are developed in the Foundation Block and the Column Blocks.

The ETHNA System is **based on:**

› the **four dimensions of responsible innovation**: anticipation, inclusion, reflexivity, and responsiveness; and
› applies to the following **key areas of RRI**: research integrity, governance, gender perspective, public engagement, and open access.

Guidance tools

The Code of Ethics and Good Practices in R&I: This is a self-regulatory document that explicitly outlines the principles, values, and good practices that should guide the activity of the people involved in R&I processes, as well as the policies and programmes of the organisation.

The Ethics Committee on R&I: This is an internal consultation and arbitration body that acts as a forum for participation, reflection, and dialogue between the organisation's different stakeholders in R&I matters.

The Ethics Line: This is a communication channel that allows all stakeholders to easily and safely send the organisation suggestions, warnings, complaints, and reports.

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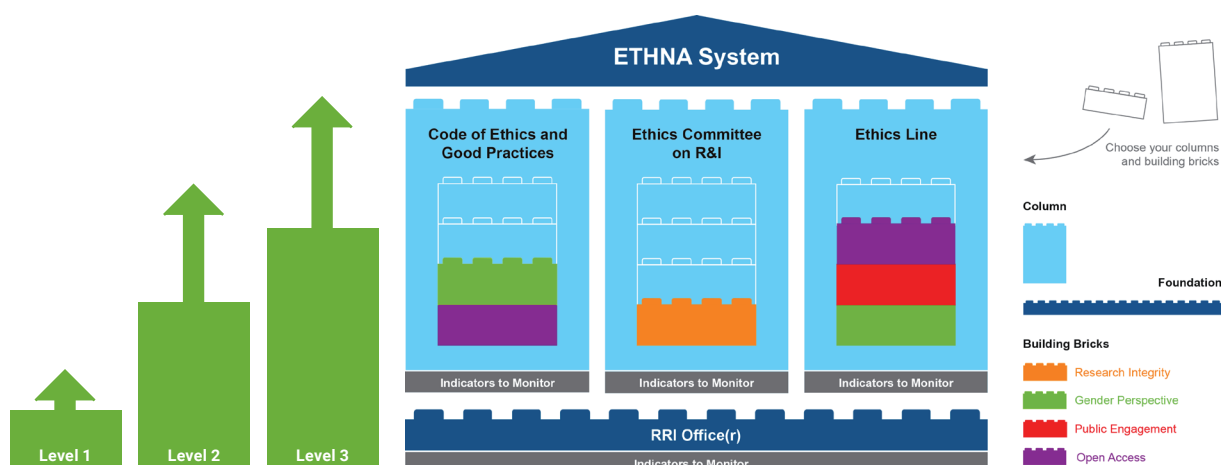
The RRI Institutionalisation Quadrants

To further increase its adaptability, the ETHNA System regards two dimensions as **essential for the institutionalisation of RRI**: the *leadership*, including the support it provides, on the one hand and the *base* on the other hand, i. e. the organisation's research staff with their values, awareness, skills, knowledge, and practices already in place. The latter may vary, depending on the organisational unit and research or innovation field. Both dimensions need to become strong in the long run. Applying *leadership* to the y-axis and the *base* to the x-axis results in a two-dimensional system with four quadrants which can be characterised as follows:

Leadership +

strong leadership / weak base

strong leadership / strong base

Base −

Base +

weak leadership / weak base

weak leadership / strong base
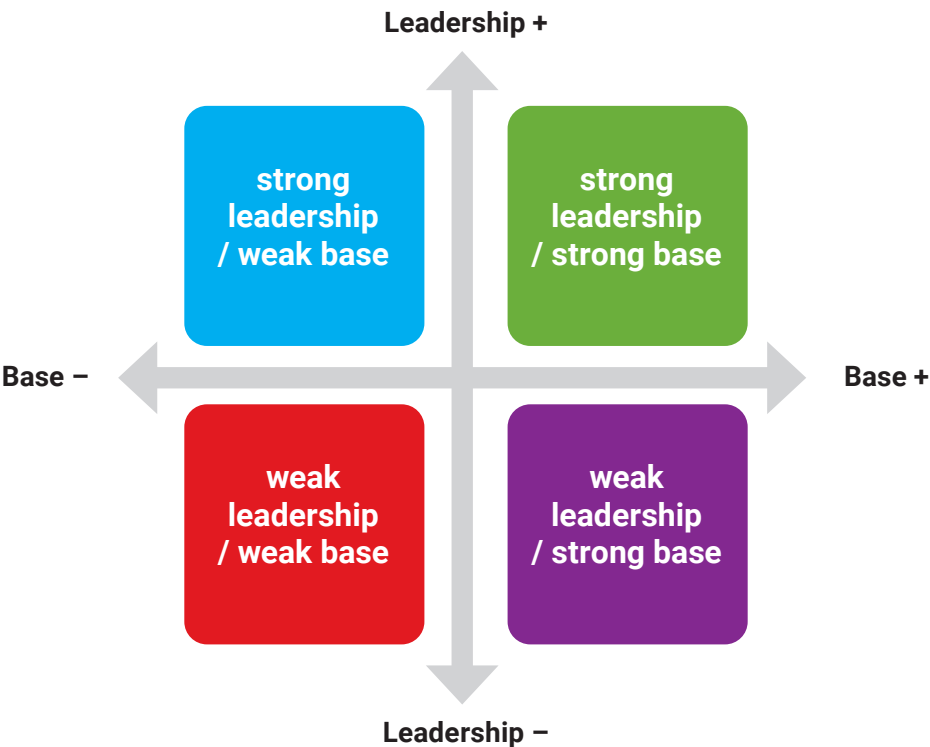
Leadership −

Figure 1: ETHNA RRI Institutionalisation Quadrants – leadership and the base

The ETHNA System is designed to work for all quadrants except the lower left one, i. e. weak leadership in combination with a weak base; the prerequisite for the ETHNA System to work is that at least one dimension needs to be somewhat strong, otherwise there is nothing to build on. Hence, the lower left quadrant is omitted from subsequent considerations.

How this concept applies to the ETHNA System can be found in the next section.

E. BUILD YOUR OWN ETHNA SYSTEM MODEL (THREE POSSIBLE TYPOLOGIES OF CONSTRUCTION)

E

The ETHNA System and the RRI Institutionalisation Quadrants

The previous section introduced the concept of the four RRI Institutionalisation Quadrants which are structured along the two dimensions *leadership* and *base*. Through these two dimensions, each quadrant represents a different scenario in which the ETHNA System needs to function. To successfully adapt to the different scenarios, the ETHNA System foresees three different *model houses* each of which corresponds to one of the quadrants[3] and can be used to guide the institutionalisation of RRI. Implementers can choose which model house best suits their own circumstances. For the explicit differences of the specific model houses, please see the relevant sections (E1 – E3).
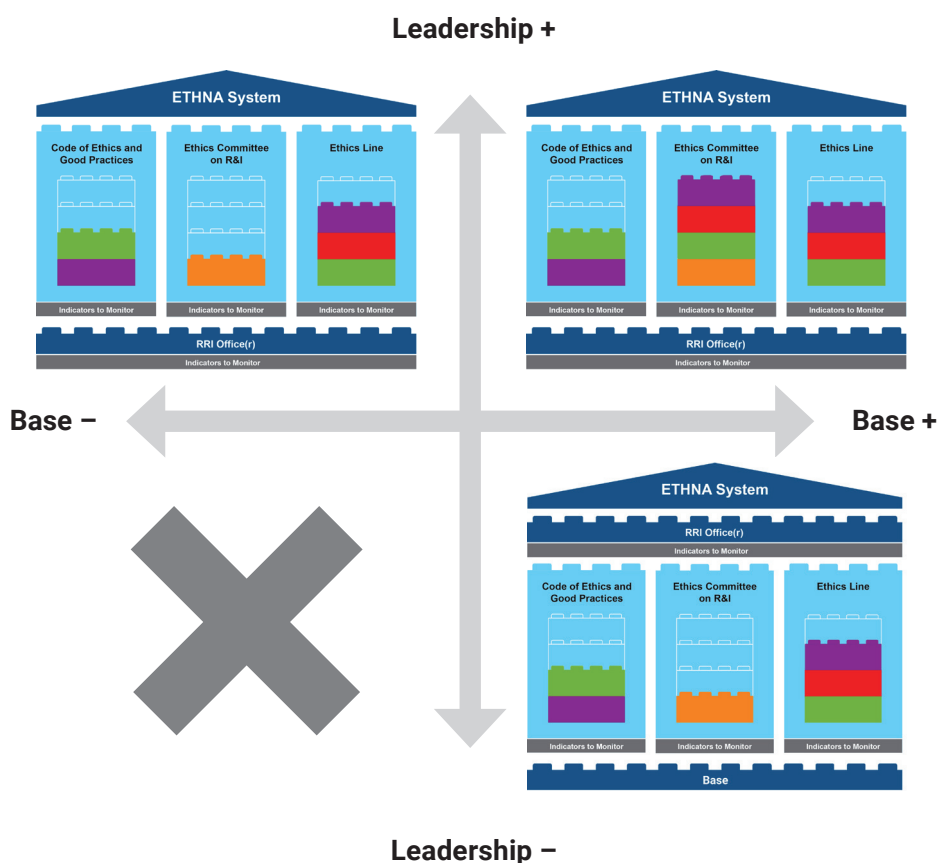

Figure 2: The ETHNA System and the RRI Institutionalisation Quadrant

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3   with the exception of the lower left quadrant (low leadership and low base) which represents the scenario that lies outside the scope of the ETHNA System

Characteristics of the ETHNA System in each Institutionalisation Quadrant

E

Strong leadership but weak base (top left quadrant):

In this scenario, leadership is strong in terms of RRI institutionalisation. This strength could be reflected in an increased awareness, sense of urgency, willingness, clarify of vision, leadership skills, resources, or a combination of these factors. Initiatives to drive the institutionalisation of RRI may already be under way but, generally, those have not borne fruit yet, i. e. RRI norms and practices have not broadly been adopted by the base yet – this is the main challenge in this scenario. The guidance will initially focus on designing and implementing relevant activities, i. e. follow a top-down approach.

Strong base but weak leadership (bottom right quadrant):

In this scenario, leadership is weak in terms of RRI institutionalisation. This weakness stems in practice from, e. g. a lack of awareness, vision, willingness, sense of urgency, leadership skills, resources, or a combination of these factors. However, RRI initiatives can already been found in the organisation. In this scenario, those will have been initiated by the base. While many of such initiatives may be found throughout the organisation, they are small and not widely known, and sometimes too specific to be transferred, scaled up, or adopted by other organisational units. Leadership may not have heard about such initiatives, may not care, or may think that elevating them to the organisational level is not feasible. The guidance in this scenario will focus on spreading RRI norms and practices locally first, on building showcases, and on connecting to similar efforts – both internal and external ones – to build a critical mass and reach and involve the leadership.

Strong leadership and strong base (top right quadrant):

This is the ideal scenario: both leadership and base are aligned in terms of RRI institutionalisation needs and efforts. Organisations showing advanced levels of institutionalisation might be considered early adopters in RRI key areas such as open access or public engagement. Typically, they have a long tradition of reflecting and adjusting their research practices, of reacting to external normative efforts (e. g. the adoption of standards), and of building institutional support structures and mechanisms. The guidance in this scenario will focus on giving impulses to further refine their institutionalisation efforts and adopt an anticipatory perspective in terms of future developments of, e. g. societal, technological, environmental, or medical nature.

Each of these three scenarios is considered in a separate chapter following this one, beginning with the *strong leadership but weak base* scenario.

E.1. STRONG LEADERSHIP, WEAK BASE: HOW IS THE ETHNA SYSTEM IMPLEMENTED?

E.1

In this scenario, the ETHNA System considers **three levels of institutional commitment**, depending on the capabilities and willingness of the organisational leadership.

Progress and performance **indicators are used at all three levels** to monitor the progress of the ETHNA System.

The **indicators**:

› have a **scorecard to assess the implementation level** of the ETHNA System (build up by the link among Foundation and Column Blocks); and

› clarify the **level of commitment** to the system.

The Levels of Institutional Commitment (hereinafter The Levels of Commitment):	
Level 1: **The organisation appoints an RRI Office(r) and supports its activity.** (Foundation Block)	**The RRI Office(r) will be in charge of:** › disseminating the ETHNA System concepts, › promoting awareness of principles and values, › establishing activities and performance indicators for the three-year Action Plan for continuous improvement, and › monitoring the progress of the ETHNA System in the organisation through progress indicators.
Level 2: **The organisation implements some of the Column Blocks.** (Column Block)	**The organisation should incorporate in the action plan and target results on at least one of the four major RRI keys: research integrity, gender perspective, open access, and public engagement.**
Level 3: **The organisation fully develops the ETHNA System.**	**The organisation has designated the RRI Office(r) and implemented the three Columns.** **The organisation applied a proactive attitude in all the RRI key areas: research integrity, gender perspective, public engagement, and open access.**

TO DO: Develop the blocks in line with the Three Levels of Commitment.

This guide is complemented by the publication of the **Toolbox to implement the ETHNA System** composed of seven Guidance tools (**Annex 1 to 7**) that intends to make the implementation of the system easier. In this toolbox, RPOs and RFO´s organisations will find guidance to implement each system structure:

> **NOTE**:
>
> The ETHNA system will **provide guidance to RPOs and RFO´s organisations to achieve RRI standards** through a systematic and flexible model.
>
> The **Three Levels of Commitment** to the ETHNA System consist of the designation of an RRI Office(r) (Foundation Block), the implementation of some of the columns (Column Blocks), and the full development the ETHNA System.

E.1

Toolbox to implement the ETHNA System: page

Level 1.

E.1

Foundation Block: **The organisation will begin the implementation of the ETHNA System with the designation of an RRI Office(r) (see** *Toolbox* **Annex 1**).

› This may **be an individual or a unit** that will be approved by the competent governing bodies within the organisation.

› **The RRI Office(r)** will be in charge of oversee:

  › The preparation of a **three-year ETHNA System Action Plan**
  › **The monitoring of its implementation** as well as facilitate the continuous improvement of the ETHNA System in accordance with the agreed level of commitment, which is based on the monitoring indicators.
  › The implementation of the necessary **promotion and dissemination of activities inside and outside the organisation**.
  › The **promotion of the principles and values of ethical management** in the organisation.
  › The implementation **of one or all the column blocks** (to be chosen by each organisation).
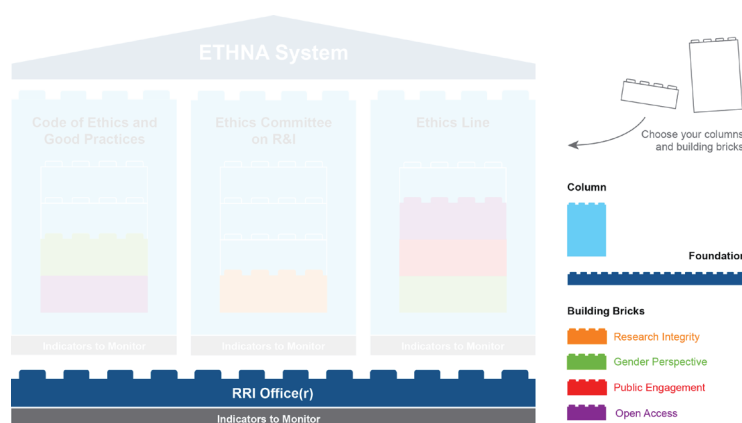
Level 2.

E.1

Column Block: The organisation will choose whether to implement one or three of the column blocks.

> It should be decided and implemented depending on the resources, capabilities, and objectives of the organisation:

> > **Option A:** **Code of Ethics and Good Practices in R&I (CEGP)** covering at least one key area.
> > **Option B:** **Ethics Committee on R&I** covering at least one key area.
> > **Option C:** **Ethics Line column** covering at least one key area.

Option A: Code of Ethics and Good Practices in R&I (**see** *Toolbox* **Annex 3**). The organisation will have a Code that aligns with the ETHNA System guidelines.

> The organisation is encouraged to have the explicit commitment of senior management and have the approval of the competent governing bodies within the organisation.
> The RRI Office(r) is encouraged to ensure internal and external awareness of the Code of Ethics through training and communication activities.
> The Code is encouraged to be monitored using progress and compliance indicators.

E.1
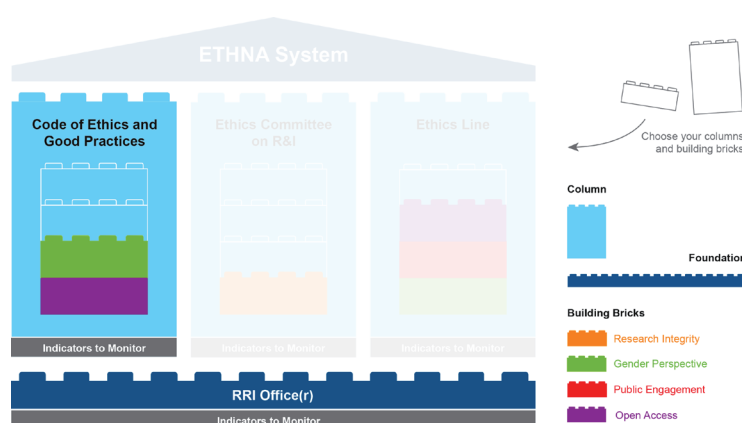
Option B: **Ethics Committee on R&I** (**see** *Toolbox* **Annex 4**). The organisation should define and create their own space for consideration and deliberation that align with the ETHNA System guidelines.

> The training plan for members of the Committee, if it is permanent, will be defined in this block. It will be disseminated among the members, and all members of the organisation will be encouraged to be informed.
>> The training will provide knowledge of the deliberative methods of an ethics committee as well as the code of ethics and good practice or the principles and standards that govern the committee.
>> New members must have access to the ethics committee's basic training.

> The progress and performance indicators to assess implementation will also be established.
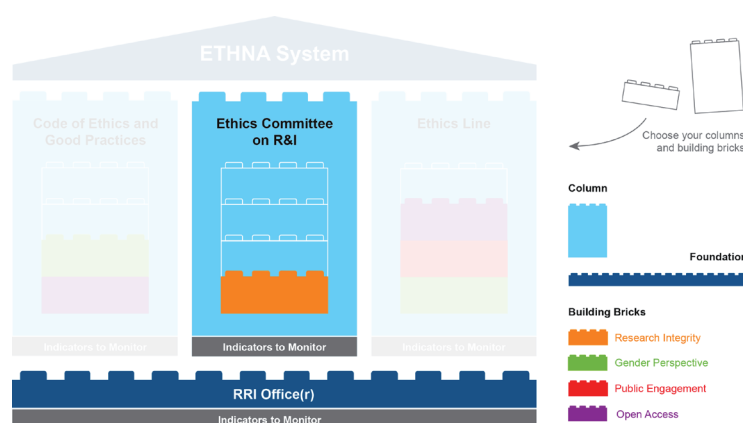
Option C: **Ethics Line column** (**see** *Toolbox* **Annex 5**). The organisation will implement their own communication channel that aligns with the ETHNA System guidelines. They will also define the process to create a database of frequently asked questions, a repertory of reported cases of misconduct or misbehaviour and will conduct a promotional campaign for the communication and participation channel. The progress and performance indicators to assess implementation will also be established.
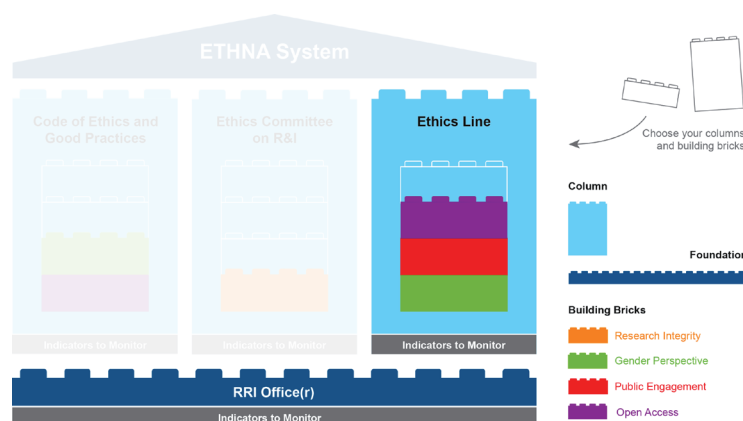
Level 3.
The organisation will fully develop the ETHNA System.

The ETHNA System has been designed so that each block can be monitored through progress and performance indicators. In this way, the organisation will be able to select the performance indicators that better suit their circumstances and culture. This will allow each organisation to monitor their compliance with each structure and block.

> It is **recommended that** the results measured by the indicators and the adequacy of the indicators themselves have an annual or biannual review that is integrated into the RRI Action Plan. The RRI Office(r) will be responsible to review these indicators and make progress visible, both internally and externally.

(See Toolbox **Annex 1***: Guidance to use and to create the Action Plan &* **Annex 2***. Guidance to create the Monitoring Indicators).*

ETHNA System – a continuous evolution system towards RRI

Initial Assessment	Implementation Phase	Evaluation and new Action Plan
Stage 1. Mapping Priorities	**Stage 3. Implementing the RRI Office(r)**	**Stage 7. Monitoring Indicators ETHNA System**
✔ Resources mapping	**Stage 4. Implementing the Code of Ethics and Good Practices in R&I**	What have we achieved?
✔ Capacity mapping		✔ Evaluation of degree of accomplishment based on Indicators to Monitor: progress and performance
✔ Goal mapping	**Stage 5. Implementing the Ethics Committee on R&I**	
✔ Priority mapping	**Stage 6. Implementing the Ethics Line**	How do we move forward?
Stage 2. Setting the level of commitment		> Are our levels of commitment OK?
✔ Define the level of commitment		> Can we "upgrade" our level of commitment or be more in depth in certain new blocks?
✔ Develop your action plan		New Action Plan publicly available
Publicly available in a devoted section of the institutional website		

| 4 months | 24 months | 36 months | 36 months |

E.1.1. PHASE I: INITIAL ASSESSMENT (STAGES 1&2)

A working group designated by the organisation will be **in charge of** performing the implementation stages of the ETHNA System (hereinafter the working group).

The **size and composition** of the working group depends on the size and complexity of each organisation.

› It is **recommended that** the working group include **at least 2 members, but no more than 5 members**. And at least **one representative in senior management** should be appointed.

STAGE 1.   Mapping priorities

To best benefit from an ethical governance system, such as the ETHNA System, your organisation might first want to determine their priorities.

STAGE 1 Structure:

STEP 1.1.	Resource mapping
STEP 1.2.	Capacity mapping
STEP 1.3.	Goal mapping
STEP 1.4.	Priority setting

NOTE:

› **Not all blocks are equally relevant** to all organisations.
› It is therefore necessary to identify and evaluate the priorities of your organisation, considering their capabilities and available resources.
› This will help focus the effort of your organisation to implement the system in a viable, effective, and sustainable way and to increase the possibilities and benefits of the system.

STEP 1.1. Resource mapping

TO DO: Identify the material, technological, economic, and human resources available to establish the RRI Office(r).

› Some of the needed resources are a physical and/or a virtual space, funds for operation, technical equipment including ICT, and people qualified in RRI to manage it (e.g. gender research expertise, open access expertise).

STEP 1.2. Capacity mapping

TO DO: Identify the capabilities of your organisation to implement the RRI Office(r).

Your organisation should identify the following:

› Staff with expertise in the different dimensions (anticipation, inclusion, deliberation, reflec-tion, and responsiveness) and the key areas (research integrity, gender perspective, public en-gagement, and open access) of RRI,
› Activities, action plans, policies, and strategies that already exist in the organisation with re-spect to the dimensions and areas of RRI,
› Commissions or committees related to R&I,
› A general Ethics Line for communication with the organisation.

STEP 1.3. Goal mapping

TO DO: Conduct consultations, collaborations and/or involvements with internal and external stakeholders of your organisation on the aspects of RRI considered to already be cov-ered and discuss which aspects need to be reviewed.

Establish goals based on capabilities and resources.

Then **consult and identify** the elements of the ETHNA System that will enable your organisation to achieve these goals.

Possible goals:

› Raise awareness and communicate the definition of responsible R&I.
› Improve society's trust in your organisation.
› Increase the participation of stakeholders in processes like decision-making or the generation of knowledge and innovation to improve results.
› Minimise cases of bad practice.
› Promote dialogue between the organisation and society to improve the generation of knowledge and innovation.
› Promote RRI in specific R&I competitive processes.

STEP 1.4. Priority setting

TO DO: Consider the available resources, the capabilities, and identified objectives of your organi-sation.

› **Decide the priorities of your organisation** with respect to the different building blocks of the ETHNA System.

STAGE 2.   Set the level of commitment with the ETHNA System

TO DO: Define the ETHNA System design that best matches the possibilities, objectives, and priorities of your organisation in each part of the system (consider the results of the mapping priorities)

STAGE 2 Structure:

STEP 2.1.   Define the Level of Commitment through the selection of Progress Indicators

  STEP 2.1.1.   Define the RRI Office(r) [Foundation Block]

  STEP 2.1.2.   Set priorities concerning the Column Blocks

                    OPTION A: Set the priorities with the Code of Ethics and Good Practices in R&I

                    OPTION B: Set the priorities with the Ethics Committee

                    OPTION C: Set the priorities with the Ethics Line

STEP 2.2.   Design an Action Plan

NOTE:

> The existence of the Three Levels of Commitment with the ETHNA System (see chart on page 11).
> The Level of Commitment is expected to be set in an Action Plan (Annex 1).
> The Action Plan will be used by the RRI Office(r) as the compass for the three-year period.
> **After the three-year period an evaluation of progress and performance** should be performed and a new Action Plan with a higher or deeper Level of Commitment should be established. The "required" actions ensure a good implementation of the ethical governance system. However, some of these actions may not be applicable due to the characteristics of the organisation. In this case it should simply be recorded that they do not apply. In the case of the "optional" actions, they allow to deepen and improve the ethical governance system.

STEP 2.1.

TO DO: Define the Level of Commitment through the selection of Progress Indicators

> Based on the priority setting, your organisation can select the level of their engagement with the system.
> The implementation of each block needs some planned actions to show progress and that should be included in the Action Plan.

STEP 2.1.1.

TO DO: Define the RRI Office(r) [Foundation Block]

Any RPO or RFO's organisation that wishes to implement the ETHNA System is recommended to implement at least the Foundation Block (the designation of RRI Office(r)), the indicators to monitor progress with the ETHNA System, and establish a public Action Plan that seeks continuous development towards RRI. The resources mapped at Step 1.1. should be consider at this point.

STEP 2.1.2. Set priorities concerning the Column Blocks

TO DO: Choose if your organisation will need to implement any of the three columns **(see below OPTIONS A, B & C) of the ETHNA system.**

› These should be implemented depending on the resources, capabilities, and objectives of your organisation.

OPTION A:

TO DO: Set the priorities with the Code of Ethics and Good Practices in R&I (CEGP).

› **If your organisation has decided to implement the CEGP, define:** its scope (some or all the keys: research integrity, gender perspective, public engagement, and open access), objectives, and content based on the proposal offered by the ETHNA System.

LEVEL 2

Required: Implement the Foundation block [RRI Office(r)] and at least one of three Column blocks [Code of Ethics and Good Practices, Ethics Committee on R&I (permanent or ad hoc) and/or Ethics Line]. At least one of the four RRI keys [research integrity, gender perspective, open access, and public engagement] must be covered.

Code of Ethics and Good practices (CEGP)

Action 1	Required	Appoint a working group to adapt the ETHNA System's proposed CEGP
Action 2	Required	Establish the goals, tasks, and responsibilities of members of the working group
Action 3	Required	Establish the relevant aspects to be included in the adapted CEGP considering the research, innovation, and/or funding activity of your organisation
Action 4	Required	Decide which RRI aspects the CEGP should cover [cover at least one of the four RRI keys: research integrity, gender, open access, and public engagement]
Action 5	Required	Define a CEGP in a participatory process. An example can be found at the Annex 3 of the Toolbox to implement the ETHNA System
Action 6	Required	Develop a first draft of CEGP for your organisation
Action 7	Required	Launch a participatory process with stakeholders from your organisation to discuss the first draft of the CEGP
Action 8	Required	Develop a second draft of the CEGP reflecting the relevant aspects drawn from the participatory process with stakeholders
Action 9	Required	Obtain the approval of the senior management
Action 10	Required	Take actions to raise internal awareness concerning the Code of Ethics and Good Practices
Action 11	Optional	Take actions to raise external awareness concerning the Code of Ethics and Good Practices
Action 12	Optional	Establish an updating process
Action 13	Optional	Establish a professional/institutional compliance monitoring process
Action 14	Optional	Report to the stakeholders of your organisation about the progress and performance of the CEGP

OPTION B:

TO DO: Set the priorities with the Ethics Committee

> **If your organisation has decided to implement the Ethics Committee, define:** its scope (some or all the keys: research integrity, gender perspective, public engagement, and open access), composition, competencies, communication channels, and action protocol based on the Ethics Committee proposal offered by ETHNA System.

LEVEL 2

Required: Implement the Foundation block [RRI Office(r)] and at least one of three Column blocks [Code of Ethics and Good Practices, Ethics Committee on R&I (permanent or ad hoc) and/or Ethics Line]. At least one of the four RRI keys [research integrity, gender perspective, open access, and public engagement] must be covered.

Ethics Committee on R&I
[decide between a permanent or an ad hoc Ethics Committee on R&I]

Permanent Ethics Committee on R&I		
Action 1	Required	Take an explicit decision that the Ethics Committee on R&I will be permanent
Action 2	Required	Establish the composition of the Permanent Ethics Committee on R&I
Action 3	Required	Clearly set out the basic functions of the Permanent Ethics Committee on R&I
Action 4	Required	Elaborate an Action Protocol as a guide for the operation of the Permanent Ethics Committee on R&I
Action 5	Optional	Elaborate an Action Plan to implement the Permanent Ethics Committee on R&I
Action 6	Optional	Organise the first meeting to constitute the Permanent Ethics Committee on R&I
Action 7	Optional	Designate and implement actions to promote the Code of Ethics and Good Practices in R&I or, if your organisation does not have one, use the international guidelines on RRI
Action 8	Optional	Decide which RRI aspects the permanent Ethics Committee should cover [cover at least one of the four RRI keys: research integrity, gender perspective, open access, and public engagement]
Action 9	Required	Designate and implement actions to monitor and control the safeguards required for ethical and responsible R&I
Action 10	Optional	Establish and implement actions to consider, issue reports and make recommendations on principles related to R&I involving ethics.
Action 11	Optional	Establish the link between the Ethics Committee and the governing body of your organisation (e.g. Office of the Vice-Rector for Research, Management Board, Ministry of Science, Science Quality Agency, etc.)
Action 12	Optional	Conduct trainings for the members of the Permanent Ethics Committee on R&I to discuss and resolve conflicts related to RRI
Ad Hoc Ethics Committee on R&I		
Action 1	Required	Take an explicit decision that the Ethics Committee on R&I will be ad hoc
Action 2	Required	Clearly set out the basic functions of the Ad Hoc Ethics Committee on R&I and the person responsible for it
Action 3	Required	Elaborate an Action Protocol as a guide for the operation of the Ad Hoc Ethics Committee on R&I
Action 4	Required	Develop a database of experts to provide members for the Ad Hoc Ethics Committee on R&I or to advise it every time it meets
Action 5	Optional	Decide which RRI aspects the Ad Hoc Ethics Committee should cover [cover at least one of the four RRI keys: research integrity, gender perspectives, open access, or public engagement]

OPTION C:

TO DO: Set the priorities with the Ethics Line

› **If your organisation has decided to implement the Ethics Line, define:** its scope (some or all the keys: research integrity, gender perspective, public engagement, and open access), communication channels, types of preferred notifications to manage, and the action protocol in line with the model offered by the ETHNA System.

LEVEL 2

Required: Implement the Foundation block [RRI Office(r)] and at least one of three Column blocks [Code of Ethics and Good Practices, Ethics Committee on R&I (permanent or ad hoc) and/or Ethics Line]. At least one of the four RRI keys [research integrity, gender perspective, open access and public engagement] must be covered.

Ethics Line

Action 1	Required	Designate a person responsible for the Ethics Line
Action 2	Required	Designate and make explicit the group of experts or body/bodies responsible for managing and resolving notifications received via the Ethics Line (e.g. Permanent or Ad Hoc Ethics Committee, RRI Office(r), etc.)
Action 3	Required	Define and make explicit the communication channels of the Ethics Line (e-mail, telephone, online form, app, etc.)
Action 4	Required	Define and make explicit the type of notifications that can be made via the Ethics Line (e.g. suggestions, proposals, queries, complaints, alerts and/or reports)
Action 5	Required	Define and make explicit the way in which the information is collected and managed through the Ethics Line (e.g. confidentially, anonymously, or publicly)
Action 6	Required	Define and make explicit the way in which the information collected and managed through the Ethics Line is archived
Action 7	Required	Define and make explicit the basic functions of the Ethics Line
Action 8	Required	Draw up an action protocol as an operating guide to receive and manage notifications via the Ethics Line (phases, timing, prevention, correction, promotion and dissemination actions, investigation processes for warning, or complaint notifications, etc.)
Action 9	Optional	Decide which RRI aspects the Ethics Line will cover [cover at least one of the four RRI keys: research integrity, gender perspective, open access, and public engagement]
Action 10	Required	Design and implement a process to monitor the proper operation of the Ethics Line
Action 11	Required	Communicate and promote the knowledge and use of the Ethics Line by the internal and/or external stakeholders of your organisation
Action 12	Required	Report to the stakeholders of your organisation about the performance of the Ethics Line (e.g. monitoring report, impact report, web dashboard, newsletter, etc.)

NOTE:

Once your organisation has defined their priorities the Level of Commitment for the next three years will be established and can be reviewed at the end of this period.

For this review your organisation will have the progress and performance indicators (see detailed information Annex 2) and can decide to continue at the same level or to move to a higher Level of Commitment and therefore improve with the elaboration of a new three-year Action Plan.

STEP 2.2.

TO DO: Design an Action Plan

NOTE:

› The ETHNA System is **intended to help generate a culture of continuous improvement**. To do this, it is necessary to design an Action plan, which sets goals and helps your organisation to monitor their progress in achieving them.

› The ETHNA System **provides a set of indicators for your organisation to track the continual development of ethical governance to promote RRI.**

  › Your organisation should adapt the indicators in accordance with the chosen Level of Commitment **Annex 1**).

› The **priorities of your organisation in the implementation of the ETHNA** System will determine the final design and complexity of the Action Plan. Further guidance is provided in the Toolbox (**Annex 1**).

› The Action Plan **should be publicly available** on the organisation's website and should include the progress and performance indicators (in accordance with the chosen Level of Commitment).

› The Action Plan **should include all the activities that will be carried out over a three-year period**, such as:

  › This **includes internal awareness activities and actions** to promote the ethical governance for R&I aligned with the ETHNA System concerning the four RRI keys: research integrity, gender perspective, public engagement, and open access.

  › planning and setting possible activities related to the priorities concerning the Column Blocks.

E.1.2. PHASE II: IMPLEMENTATION PHASE (STAGE 3 to 6)

E.1.2

STAGE 3.   Implement the RRI Office(r)

Stage 3.
Step 3.1.
Step 3.2.
Step 3.3.

If your organisation wishes to implement the ETHNA System, it is recommended that they at least establish the Foundation Block (RRI Office(r)) and activate the progress and performance indicators related to this block.

STAGE 3 Structure:

STEP 3.1.	Select RRI Office(r)
STEP 3.2.	Decide the specialist support staff, if necessary
STEP 3.3.	Choose the location of the RRI Office(r), if applicable
STEP 3.4.	Develop the Action Plan
STEP 3.5.	Develop a communication, motivation, and awareness plan for the RRI Office(r)
STEP 3.6.	Develop monitoring indicators for the RRI Office(r)

> **NOTE**:
>
> The RRI Office (r) has two main functions: (1) assessing the current state-of-the-art of RRI readiness and progress of the institution, based on which taking responsibility for planning the activities to adopt the ETHNA System and (2) coordinating the actions to develop the envisaged tools by deciding upon the level of commitment and the related activities.

STEP 3.1. Select RRI Office(r)

TO DO: Decide whether a person, unit, or department will be responsible for the proper development of the ETHNA System and then formally establish their competences and responsibilities.
> ❯ It is recommended to have a person in the RRI Office (r), but, if it is not possible, these responsibilities can be assigned to a unit or service in the R&I administrative structure or unit.
> ❯ It is not necessary to create a new job position or a new physical and administrative structure, just that the functions of ETHNA Representative are well assigned inside the organisation.

STEP 3.2. Decide the specialist support staff, if necessary

TO DO: Decide whether the RRI Office(r) will have specialist support to implement the ETHNA System.
> ❯ If yes, define their number, roles, and functions within the system.

STEP 3.3. Choose the location of the RRI Office(r), if applicable

TO DO: Decide whether the RRI Office(r) will have a physical and/or virtual space within your organisation.
> ❯ If no such space is available, the RRI Office(r) can also be an external service linked to the R&I decision-making bodies of your organisation.

STEP 3.4. **Develop the Action Plan**

TO DO: Develop the performance indicators in the Action Plan to generate internal awareness and a self-assessment of the pre-conditions to implement the ETHNA System.
  › It is recommended to organise activities to spread the idea of ethical governance of R&I in line with the ETHNA System.
  › Remember the four aspects of RRI (research integrity, gender perspective, public engagement, and open access) should be addressed in this Action Plan.

STEP 3.5. **Develop a communication, motivation, and awareness plan for the RRI Office(r)**

TO DO: Define the communication, motivation, and awareness-raising actions so that stakeholders are aware of the RRI Office(r) and can participate. This process needs to be supported by the top management.

STEP 3.6. **Develop monitoring indicators for the RRI Office(r)**

TO DO: your organisation will need to produce two lists of indicators that should be included into the Action Plan:
  › The RRI Office(r) should use progress and performance indicators as a compass to monitor implementation and also evaluate the degree of accomplishment and the areas of improvement after the three-year period. (See Toolbox – Annex 2)

LEVEL 3

Required: Implement the Foundation block [RRI Office(r)] and three Column blocks [Code of Ethics and Good Practice, Ethics Committee on R&I (permanent or Ad hoc) and Ethics Line]. All four RRI keys [research integrity, gender perspectives, open access, and public engagement] must be covered.

RRI Office(r)

Action 1	Required	Self-assessment of the preconditions necessary for the implementation of the ETHNA System
Action 2	Required	Ensure that all necessary preconditions for the implementation the ETHNA System are met
Action 3	Required	Designate an RRI Office(r)
Action 4	Required	Formulate the core duties of RRI Office(r)
Action 5	Required	Design an Action Plan for the implementation of the RRI Office(r)
Action 6	Required	Take actions to raise internal awareness concerning the ETHNA System
Action 7	Required	Disseminate the idea of ethical governance of R&I in line with the ETHNA System
Action 8	Required	Generate actions to promote RRI key research integrity
Action 9	Required	Generate actions to promote RRI key gender perspectives
Action 10	Required	Generate actions to promote RRI key open access
Action 11	Required	Generate actions to promote RRI key public engagement
Action 12	Required	Establish the link between the RRI Office(r) and governing body of your organisation
Action 13	Required	Offer accountability to RPO or RFO stakeholders for the progress and impacts of the ETHNA System

1) **Progress indicators** to check that the organisation is consolidating all phases of the process.
2) **Performance indicators** to show the implementation actions that have been performed and their effect.

Stage 4. Implement the Code of Ethics and Good Practices in R&I

(See Toolbox **Annex 2**: Guidance for Creating or Adopting a Code of Ethics and Good Practices in R&I).

The ETHNA System's Code of Ethics and Good Practices in R&I (CEGP) is **a formal and public document that identifies, outlines, and offers reasons for values, principles, and good practices. In addition, it is the organization commitment expression to develop and or to fund an ethical and responsible research and innovation.**

STAGE 4 Structure:[4]

STEP 4.1.	Establish the working group
STEP 4.2.	Develop a map of risks and good practices in R&I
STEP 4.3.	Identify the aspects to be covered by the CEGP of your organisation
STEP 4.4.	Make a first draft of an adapted CEGP
STEP 4.5.	Promote a participatory process to improve the adapted draft of the CEGP
STEP 4.6.	Develop the final proposal for the adapted CEGP
STEP 4.7.	Approve the adapted CEGP
STEP 4.8.	Implement the CEGP
STEP 4.9.	Propose a process to communicate improvements and/or warnings concerning the CEGP
STEP 4.10.	Develop the CEGP monitoring indicators

STEPS TO BE FOLLOWED (*always adapt it to the particular features of your organisation*):

STEP 4.1. Establish the working group

TO DO: Select the people in the working group to adapt the ETHNA System CEGP proposal. Then, hold a meeting to organise the working group, specify goals and actions, as well as the responsibilities of the members.

STEP 4.2. Develop a map of risks and good practices in R&I

TO DO: Formulate a map of R&I risks (possible misconduct) linked to the activity of your organisation or to the type of research and innovation they fund. Also identify the best practices the organisation wants to promote.

STEP 4.3. Identify the aspects to be covered by the CEGP of your organisation

TO DO: Identify the relevant aspects that should be included in the CEGP considering the research, innovation, and/or funding activity of the organisation.

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4   This stage requires process of stakeholder mapping and stakeholder engagement. The follow guides could be useful: Häberlein, Lisa; Mönig, Julia Maria and Hövel, Philip (2021). Mapping stakeholders and scoping involvement. A guide for HEFRCs. ETHNA System Project – Deliverable 3.1; Häberlein, Lisa; Mönig, Julia Maria and Hövel, Philip (2021). Stakeholder involvement in ethical governance of R&I. A guide for HEFRCs. ETHNA System Project – Deliverable 3.3

STEP 4.4. Make a first draft of an adapted CEGP

TO DO: Make a first draft of an adapted CEGP. The final version of the document could include relevant sections such as:

Open letter from top management	Draft it under the approval process (see Step 4.7. Approve the adapted CEGP)
Own principles and/ or values in R&I	Select and include the values and principles that best match and guide the R&I activity and R&I risks for your organisation
Professional and organisational good practices	Express the selected values and principles in the form of good practices (behaviours and specific procedures) expected of everyone involved in the research and innovation processes at your organisation. Your organisation should adopt good practice guidelines with consideration of their own activity.
Monitoring and compliance system	Explain the procedure followed to develop the Code and how suggestions for improvement or warnings regarding conduct can be communicated. Also monitor and comply the system with the Code, as well as the actions that will be implemented to raise awareness.

STEP 4.5. Promote a participatory process to improve the adapted draft of the CEGP

TO DO: Engage in a dialogue with relevant stakeholders of your organisation to gather opinions, suggestions, and proposals for the improvement of the CEGP draft.
   › This process may include distributing questionnaires, organising group dynamics, and conducting in-depth interviews with leading figures.

STEP 4.6. Develop the final proposal for the adapted CEGP

TO DO: Collect data from the participatory process and develop a final proposal for a CEGP adapted to the needs of your organisation.

STEP 4.7. Approve the adapted CEGP

E.1.2

TO DO: Promote the approval of the adapted CEGP through the competent body. It is recommended that this function be performed by the highest authority in the organisation or, if delegated, by the highest authority for research and innovation in your organisation.

This approval will be summarised in a letter from the head of the organisation to:
> Declare the commitment of senior management and the entire organisation to the principles, values, and practices of the Code.
> Underline the connection between the Code and the vision, mission, and strategic plans of your organisation.
> Highlight the participatory procedure that has been followed to create the Code.
> Extend an invitation to the entire organisation to learn about the Code and make a commitment to follow, improve, and uphold it.
> Acknowledge the CEGP of the organisation is based on the model proposed by the ETHNA System.

STEP 4.8. Implement the CEGP

TO DO: Establish a process to disseminate the CEGP and raise its awareness.

> This includes trainings so that stakeholders are aware and can internalise it.
> The CEGP updating procedure should also involve stakeholders to improve its content.
> The process may include internal and external communication actions to disseminate the CEGP.
> It may include trainings to raise awareness and provide knowledge about its content, as well as participatory processes and / or deliberative stakeholder events to review and update the content of the CEGP.

STEP 4.9.

TO DO: Propose a process to communicate improvements and/or warnings concerning the CEGP. Propose a communication process so that the stakeholders of the organisation can receive notifications.

> It could be defined by an e-mail address, a web form, a computer app, or a telephone number, among others) of improvements or alerts (reports, complaints) concerning the content of the CEGP.

STEP 4.10. Develop CEGP monitoring indicators

E.1.2

TO DO: Define indicators that show the level of progress and performance in achieving the goals of the CEGP in R&I and measure the scope and results of related activities.

Stage 4.
Step 4.10.

> ❯ your organisation will need to confirm two lists of indicators and include them in the Action Plan.

LEVEL 3

Required: Implement the Foundation block [RRI Office(r)] and three Column blocks [Code of Ethics and Good Practice, Ethics Committee on R&I (permanent or Ad hoc) and Ethics Line]. All four RRI keys [research integrity, gender perspectives, open access, and public engagement] must be covered.

Code of Ethics and Good Practices (CEGP)

Action 1	Required	Appoint a working group to adapt the proposed CEGP of the ETHNA System
Action 2	Required	Establish the goals, tasks, and responsibilities of members of the working group to adapt the proposed CEGP of the ETHNA System
Action 3	Required	Establish the relevant aspects to be included in the adapted CEGP considering the RPO's / RFO's research, innovation, and/or funding activity
Action 4	Required	Decide if all the RRI aspects of the CEGP could be considering the RPO's / RFO's research, innovation, and/or funding activity
Action 5	Required	Define a participatory process in order to achieve the CEGP based on the ETHNA System
Action 6	Required	Develop a first draft of the CEGP for your organisation
Action 7	Required	Launch a participatory process with RPO/RFO stakeholders to discuss the first draft of the CEGP
Action 8	Required	Compile and draw up a second draft of the CEGP reflecting the relevant aspects drawn from the participatory process with stakeholders
Action 9	Required	Obtain the approval of the senior management
Action 10	Required	Take actions to raise internal awareness concerning the CEGP
Action 11	Optional	Take actions to raise external awareness concerning the CEGP
Action 12	Required	Establish an updating process
Action 13	Optional	Establish a professional/institutional compliance monitoring process
Action 14	Optional	Offer accountability to RPO or RFO stakeholders for the progress and performance of the CEGP

1) **Progress indicators** to check that the organisation is consolidating all phases of the process.

2) **Performance indicators** to show the implementation actions that have been performed and their effect.

STAGE 5.   Implement the Ethics Committee on R&I

*(See Toolbox **Annex 4**. Guidance for Setting up an Ethics Committee on R&I).*

The Ethics Committee on R&I is a **participatory space for dialogue on the values, conduct, procedures, and commitments** concerning the ETHNA System's Code of Ethics and Good Practices in R&I or the four RRI keys (research integrity, gender perspective, public engagement, and open access). It is also a place to discuss notifications of proposals, suggestions, consultations, warnings, complaints, and reports received by the RRI Office(r) via the Ethics Line or any other means.

STAGE 5 Structure:

STEP 5.1.	Decide the objectives of the Ethics Committee on R&I
STEP 5.2.	Decide the scope and principles of action of the Ethics Committee on R&I
STEP 5.3.	Decide the Ethics Committee on R&I model
STEP 5.4.	Decide the composition of the Ethics Committee on R&I
STEP 5.5.	Decide the functions of the Committee on R&I
STEP 5.6.	Establish the work methodology of the Ethics Committee on R&I
STEP 5.7.	Approve the Ethics Committee on R&I
STEP 5.8.	Develop monitoring indicators for the Ethics Committee on R&I

STEP 5.1. Decide the objectives of the Ethics Committee on R&I

TO DO: Decide the general and specific objectives of the Ethics Committee on R&I.

> For example, to serve as a space for participation and deliberation on one or more of the following issues:
> > managing notifications from the Ethics Line,
> > resolving ethical conflicts related to research and innovation,
> > updating and improving the Code of Ethics and Good Practices in R&I,
> > and debating a specific case etc.

STEP 5.2. Decide the scope and principles of action for the Ethics Committee on R&I

TO DO: Decide whether the Ethics Committee on R&I will be a space for internal and/or external participation.

> Determine if members only from within your organisation will be able to participate or if people or groups from outside your organisation can be involved.

STEP 5.3. Decide the Ethics Committee on R&I model

TO DO: Decide whether to follow a *permanent or ad hoc* Ethics Committee on R&I model.

> **The *permanent model*** involves establishing a group of experts and/or stakeholders for a fixed and renewable period.
>> **The *ad hoc model*** involves establishing a group of experts and/or stakeholders to discuss any aspect, proposal, specific, or emerging conflict related to the operation of the ETHNA System and to implement the values, behaviours, and procedures in its Code of Ethics and Good practices. The ad hoc committee is dissolved once the case has been resolved or the report has been prepared.

STEP 5.4. Decide the composition of the Ethics Committee on R&I

TO DO: Begin the composition of the Ethics Committee on R&I with consideration of the general and specific objectives of the committee and the type of model desired for implementation (*permanent or ad hoc*). Whether your organisation has decided to implement a permanent or ad hoc committee model, they should indicate the number of experts and/or stakeholders participating and the reasons why they have been chosen. Do not forget to describe the roles of the committee members. The committee should at least have a chairperson, a secretary, and an ordinary member.

STEP 5.5. Decide the functions of the Committee on R&I

TO DO:: Detail the duties of the committee based on their capabilities, resources, and objectives.

STEP 5.6. Establish the work methodology of the Ethics Committee on R&I

TO DO: Establish the methodology for action in the Ethics Committee on R&I.

> Take into consideration: the meetings, decision making, reports, and monitoring.

STEP 5.7. Approve the Ethics Committee on R&I

TO DO: Decide the body that will approve the establishment of the Ethics Committee on R&I, as well as its composition, roles, and functions.

STEP 5.8. Develop monitoring indicators for the Ethics Committee on R&I.

TO DO: Establish two lists of indicators and include them in the Action Plan, which will serve to show the degree of progress and performance concerning the objectives of the Ethics Committee on R&I and measure the scope and results of its activity.

Progress indicators to check that your organisation is consolidating all phases of the process.

Performance indicators to show the implementation actions that have been performed and their effect.

LEVEL 3

E.1.2

Required: Implement the Foundation block [RRI Office(r)] and three Column blocks [Code of Ethics and Good Practice, Ethics Committee on R&I (permanent or Ad Hoc) and Ethics Line]. All four RRI keys [research integrity, gender perspectives, open access, and public engagement] must be covered.

Stage 5.

Ethics Committee on R&I
[decide between a permanent or an ad hoc Ethics Committee on R&I]

Permanent Ethics Committee on R&I		
Action 1	Required	Decide and made explicit that the Ethics Committee on R&I will be permanent
Action 2	Required	Establish the composition of the Permanent Ethics Committee on R&I
Action 3	Required	Establish and clearly set out the basic functions of the Permanent Ethics Committee on R&I
Action 4	Required	Elaborate an Action Protocol as a guide for the operation of the Permanent Ethics Committee on R&I
Action 5	Optional	Elaborate an Action Plan for implementing the Permanent Ethics Committee on R&I
Action 6	Optional	Held a first meeting to constitute the Permanent Ethics Committee on R&I
Action 7	Optional	Designate and implement actions to promote the Code of Ethics and Good Practices in R&I or, if you do not have one, the international guidelines on RRI
Action 8	Required	Designate and implement actions to monitor and control the safeguards required for ethical and responsible R&I
Action 9	Optional	Establish and implement actions to consider, issue reports and make recommendations on principles related to R&I involving ethics and professional ethics
Action 10	Optional	Link the Ethics Committee on R&I with any RPO/RFO governing body (e.g. Office of the Vice-Rector for Research, Management Board, Ministry of Science, Science Quality Agency, etc.)
Action 11	Optional	Carried out actions aimed at training the members of the Permanent Ethics Committee on R&I in discussing and resolving conflicts related to RRI
Ad Hoc Ethics Committee on R&I		
Action 1	Required	Decide and made explicit that the Ethics Committee on R&I will be ad hoc
Action 2	Required	Establish and made explicit the basic functions of the Ad Hoc Ethics Committee on R&I and the person responsible for it
Action 3	Required	Elaborate an Action Protocol as a guide for the operation of the Ad Hoc Ethics Committee on R&I
Action 4	Required	Develop a database of experts to provide members for the Ad Hoc Ethics Committee on R&I or to advise it every time it meets
Action 5	Optional	Design and implement actions to promote the Code of Ethics and Good Practices in R&I or, if you do not have one, the international guidelines on RRI, among the experts making up the database for the Ad Hoc Ethics Committee on R&I
Action 6	Optional	Create a guide to inform the experts appearing in the database for the Ad Hoc Ethics Committee on R&I in discussing and resolving conflicts related to RRI
Action 7	Optional	Link the Ad Hoc Ethics Committee on R&I with any RPO/RFO governing body (e.g. Office of the Vice-Rector for Research, Management Board, Ministry of Science, Science Quality Agency, etc.)
Action 8	Optional	Carried out communication actions to offer accountability to RPO/RFO stakeholders for the progress and performance of the Ad Hoc Ethics Committee on R&I (e.g. monitoring report, impact report, web dashboard, newsletter, etc.)

1) **Progress indicators** to check that the organisation is consolidating all phases of the process.
2) **Performance indicators** to show the implementation actions that have been performed and their effect.

Ethics Committees may have functions related to:

1. **Promote the Code of Ethics and Good Practices by:**
   › promoting internal (junior and senior researchers and other staff linked to R&I) and external training on the Code; and
   › encouraging reflections on aspects that might be controversial or other emerging issues.

2. **Advise** research staff, and others interested, in the committee's assessment on Research Ethics issues.

3. **Reflect, issue reports, and make recommendations on ethical principles relating to R&I** activity by:
   › providing advice on the interpretation of the Code, international guidelines, and controversial issues;
   › issuing information in the event of legal reports or allegations of bad practice;
   › promoting and publicising laws, regulations, and reports relevant for the ethics in R&I; and/or
   › encouraging the revision of the Code when there is new evidence or advances in thought on controversial topics.

4. Monitor and control the guarantees required to conduct scientific R&I by:
   › resolving notifications regarding suggestions, warnings, and complaints made via the ethics hotline or other channels established by your organisation;
   › implementing a procedure for action in the event of scientific or R&I bad practice; and
   › acting as an arbitration body in conflicts linked to R&I practices.

STAGE 6.   Implement the Ethics Line

E.1.2

*(See Toolbox **Annex 4.** Guidance for Setting up an Ethics Committee on R&I).*

The Ethics Line will allow your organisation to have an open channel of communication with their internal and/or external stakeholders in the field of R&I. It will improve research and innovation activities and advance towards society's expectations.

STAGE 6 Structure:

STEP 6.1.	Decide the scope of the Ethics Line
STEP 6.2.	Decide the type of Ethics Line channel
STEP 6.3.	Decide who is responsible for the Ethics Line
STEP 6.4.	Decide the Ethics Line communication mechanism
STEP 6.5.	Decide the type of notifications that can be sent via the Ethics Line
STEP 6.6.	Decide who will be responsible for the management of the Ethics Line data
STEP 6.7	Formulate the Ethics Line action protocol
STEP 6.8.	Decide the communication, motivation, and awareness-raising plan for the Ethics Line
STEP 6.9.	Draft monitoring indicators for the Ethics Line

STEP 6.1. Decide the scope of the Ethics Line.

TO DO: Establish whether the Ethics Line will be an internal or external communication channel and select the participating stakeholders.

STEP 6.2. Decide the type of Ethics Line channel.

TO DO: Establish whether the Ethics Line will use anonymous, confidential, or public communication channels.

STEP 6.3. Decide who is responsible for the Ethics Line.

TO DO: Establish the person responsible for the proper operation of the Ethics Line, as well as their duties and competences.

> It is recommended this function to be performed by the RRI Office(r).

STEP 6.4. Decide the Ethics Line communication mechanisms.

TO DO: Establish the communication tools to be used by the Ethics Line to complete and resolve notifications.

> such as traditional mail, e-mail, web questionnaires, telephone, face-to-face, etc.

STEP 6.5. **Decide the type of notifications that can be sent via the Ethics Line**

TO DO: Establish the type of information your organisation wishes to collect and manage via the Ethics Line:

> **Suggestions** to improve the ETHNA System and its different elements: Code of Ethics and Good Practices, Ethics Line, etc.
> **Proposals** for best practices in research and innovation
> **Queries** on the ETHNA System and its implementation
> **Complaints** that involve grievances, unease, and inappropriate behaviour, etc.
> **Warnings** of possible bad practice and misconduct
> **Complaints** of breaches in the values and behaviours of the Code of Ethics or non-compliance with it

STEP 6.6. **Decide who will be responsible for the management of the Ethics Line data.**

TO DO: Designate the person responsible for the management, custody, and/or confidentiality of the data and information collected via the Ethics Line.

> It is recommended that this function be performed by the RRI Office(r).

STEP 6.7. **Formulate the Ethics Line action protocol**

TO DO: Establish an action protocol to receive, manage, and resolve Ethics Line notifications.

> It should contain information on notification acknowledgement, resolution times, data management, and the notification resolution process.

STEP 6.8. **Decide the communication, motivation, and awareness-raising plan for the Ethics Line.**

TO DO: Establish communication, motivation, and awareness actions to increase stakeholder knowledge and participation in the Ethics Line.

STEP 6.9. **Draft monitoring indicators for the Ethics Line.**

TO DO: Establish indicators two lists of indicators and introduce them in the Action Plan to show the degree of progress and performance concerning the objectives of the Ethics Line and measure the scope and results of its activity.

> **Progress indicators** to check that the organisation is consolidating all phases of the process.
> **Performance indicators** to show the implementation actions that have been performed and their effect.

LEVEL 3	E.1.2

Required: Implement the Foundation block [RRI Office(r)] and three Column blocks [Code of Ethics and Good Practice, Ethics Committee on R&I (permanent or Ad Hoc) and Ethics Line]. All four RRI keys [research integrity, gender perspectives, open access, and public engagement] must be covered.

Stage 6.

Ethics line

Action 1	Required	Designate a person responsible for the Ethics Line
Action 1	Required	Designate and make explicit the group of experts or body/bodies responsible for managing and resolving notifications received via the Ethics Line (e.g. Permanent or Ad Hoc Ethics Committee, RRI Office(r), etc.)
Action 3	Required	Define and make explicit the Ethics Line's communication channels (e-mail, telephone, online form, app, etc.)
Action 4	Required	Define and made explicit the type of notifications that can be made via the Ethics Line (e.g. suggestions, proposals, queries, complaints, alerts and/or reports)
Action 5	Required	Define and made explicit the way in which the information collected through the Ethics Line is collected and managed (e.g. confidentially, anonymously or publicly)
Action 6	Required	Define and made explicit the way in which the information collected and managed through the Ethics Line is archived
Action 7	Required	Define and made explicit the basic functions of the Ethics Line
Action 8	Required	Draw up an action protocol as an operating guide for receiving and managing notifications via the Ethics Line (phases, timing, prevention, correction, promotion and dissemination actions, investigation processes for warning or complaint notifications, etc.)
Action 9	Required	Design and implemented some kind of process to monitor the proper operation of the Ethics Line
Action 10	Required	carried out communication actions aimed at improving knowledge and use of the Ethics Line by the RPO's/RFO's internal and/or external stakeholders
Action 11	Required	To carry out communication actions to offer accountability to RPO/RFO stakeholders for the progress and performance of the Ad Hoc Ethics Committee on R&I (e.g. monitoring report, impact report, web dashboard, newsletter, etc.)

1) **Progress indicators** to check that the organisation is consolidating all phases of the process.

2) **Performance indicators** to show the implementation actions that have been performed and their effect.

E.1.3. PHASE III: EVALUATION PHASE (STAGE 7)

*(See Toolbox **Annex 2**. Guidance Monitoring Indicators: progress and performance)*

E.1.2

Stage 7.

STAGE 7.   Monitoring Indicators of the ETHNA System

The adoption of the different tools that constitute the blocks of the ETHNA System requires the establishment of **Guidance Monitoring Indicators to show the degree of achievement of the goals and measure the scope and results of their activity.**

The **Guidance Monitoring Indicators** includes:

› *Progress* **indicators** are common for all types of organisations.

   Each organisation will choose the progress indicators in relation with their specific commitment to the ETHNA System.

› *Performance* **indicators** will be used to show the implementation actions that have been performed and their effect.

The **monitoring of progress indicators** will inform the ETHNA System of the level of accomplishment. The monitoring of performance indicators will report on compliance and the effectiveness of the Action Plan. Both could be shown in a graphical dashboard that is easy to use by the RRI Office(r).

After the implementation phase, the Action Plan will be evaluated based on its level of accomplishment in implementation and performance indicators. Then a new Action Plan will be established for a continuous evaluation system towards RRI.

E.2. STRONG BASE, WEAK LEADERSHIP: HOW TO IMPLEMENT THE ETHNA SYSTEM

E.2

The premise in this scenario is a weak leadership in terms of RRI institutionalisation, combined with a strong base. This strength may result from already existing bottom-up RRI initiatives that are often of small scale and may not be widely known. The ETHNA System focus on strengthening the base to the point where a critical mass is reached. The first stages comprise spreading RRI norms and practices locally, building showcases, and connecting to similar internal and, where opportune and feasible, external efforts. The expectation is that a critical mass of bottom-up activities and established practices applies pressure to the leadership to change its passive – or, in the worst case, counterproductive – stance and to assume an active role in promoting the institutionalisation of RRI.

The approach to planning and implementing institutionalisation activities is vastly different from the top-down approach described in the previous Section. Many activities will seem frugal as the resources available to carry them out are often scarce. The vast majority of activities are bottom-up in nature, i. e. they will need to rely on self-organisation among the research staff[5]. Progress may often seem slow, stagnant, or even imperceptible; the base will need to be in for the long run to achieve its goals. Typically, goals are often modest and may evolve when a milestone (planned or unforeseen) is reached.

As depicted in the figure below, the foundation of the model house is comprised by the *base*. Consequently, the planning and implementation of activities will need to rely on bottom-up efforts.
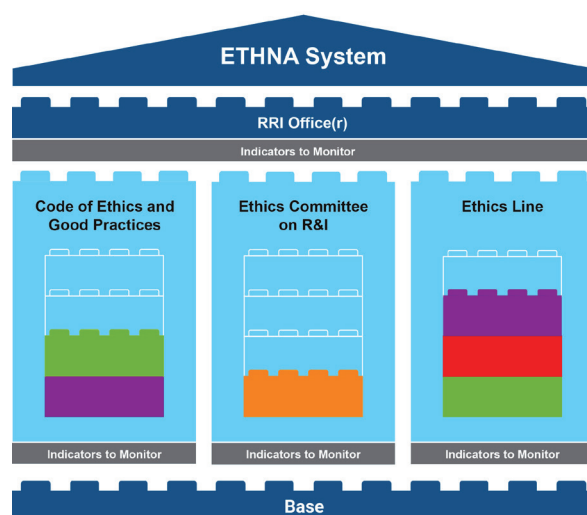

Figure 3: ETHNA System model for the strong base but weak leadership *scenario*

In contrast to the model described in the previous Section, the absence of a RRI Office(r) means that there is no central entity – backed by the leadership – that coordinates and facilitates the institutionalisation efforts. The role that it plays will need to be assumed by a different, more organic structure that suits an individual organisational setup: self-organised groups of individuals with

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5   the term research staff is used loosely here, it includes individuals interested in initiating or supporting RRI institutionalisation efforts, irrespective of their status or role, such as administrative or support staff, students, leaders of smaller organisational sub-units, or external "allies

E.2

a shared vision of the ultimate goals that need to be achieved. Roles and responsibilities may be allocated to several individuals to avoid overburdening, remain within personal limits, and ensure progress despite the barriers – institutional and otherwise – that the base faces in this scenario.

Commitment: In contrast to the previous scenario, the commitment here does not correspond to the levels of commitment of the leadership; instead, it comes from the commitment from the base, stemming from their shared understanding of and dedication to the cause of institutionalising RRI.

Indicators: As the planning of activities is decentralised in this scenario, establishing indicators to monitor progress over time is often not a priority because it would mean an additional burden that further stretches out already scarce resources. Goals can be an implicit part of the collective efforts but there is an advantage in making them explicit, namely when spreading RRI norms and practices to broaden the base – here, communication and show-casing are key.

Guidance: In scenarios with a strong leadership, the guidance can be somewhat *prescriptive*; this will not work here since there is no leadership support in this scenario and because institutional settings are vastly different – they are, in fact, too numerous to consider them all. Instead of showing *how to do things*, the guidance in this scenario will focus on showing what *could be done*, the how will need to be left up to those who make the *what* a reality.

Phases (or the lack of): There are no phases in their strict sense in this scenario, as there are no defined beginnings or endings. Instead, activities very much rely on what already exists at an organisation (or organisational sub-unit). It will be vital to build on already existing initiatives rather than starting from scratch. Existing initiatives often have a 'history', i. e. why they came to be, who is involved (and who is not), what has worked well in the past and what has not, etc.; in addition to understanding the history, understanding where the efforts currently stand is crucial, as is to know strengths and weaknesses. In this sense, three useful phases can be identified: **I) Reflection of the current situation, II) Action to work towards agreed-upon goals**, and **III) Reorientation to gauge the progress and determine which course of action to follow next**. Alternatively, a cyclical process between *reflection* and *actions* seems to be quite organic for bottom-up efforts, with potentially modest intermediate goals and relatively short cycle times.

Broadening the base: A key success factor in this scenario is to continue developing a strong base to the point where it reaches a critical mass, a point in time where RRI values and practices become the cultural norm in the organisation. Building showcases, aligning efforts across sub-organisational borders or across research fields, ensuring that these are seen and heard throughout the organisation are critically important to elevate ongoing efforts to the next level.

STRONG BASE, WEAK LEADERSHIP – Code of Ethics & Good Practices   E.2

<div style="background:green">Code of Ethics and Good practices (CEGP)</div>

Establishing a *Code of Ethics* and spreading good practices may be the most challenging block to build, especially since there is a lack of leadership in this scenario. The vacuum due to the absence of a central force to lead efforts on the ethics front is typically filled with by a strong interest found in the base in conducting research that is aligned with the principles of research ethics. In many cases it is safe to assume that bottom-up initiatives exist; if they do not in a given research field, it may be worth looking at neighbouring or even unrelated research fields or to top-down best practices, if they exist. Building on existing experiences is considerably less difficult than starting from scratch. That said, care should be taken, especially when trying to transfer good practices (GP) from one research domain or field to another – some GP may not be transferable, at least not without serious reflection and adaptation; adopting those GP without reflection could cause more harm than good.
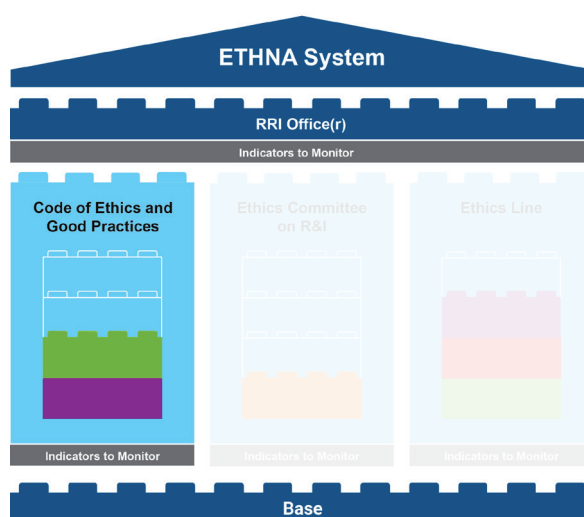
STRONG BASE, WEAK LEADERSHIP – Code of Ethics & Good Practices – PHASE I: Reflection

Latching on to and reinforcing existing CEGP initiatives means jump-starting institutionalisation efforts. Those initiatives can be expected to have already established a certain Code of Ethics and possibly even defined a set of GP. It might be worth mentioning that in some cases a Code of Ethics and Best Practices are more of an implicit nature and it first must be made more explicit so as the inspiring principles and practices can be used in a broader institutional setting. If there is an established Code of Ethics and set of GP available, the main task is to ensure that the CEGP is increasingly adopted by the base. The *Reflection Phase* will need to consider relevant actions such as

> raising the awareness of the research base by
>> showcasing the difference that the adherence to the Code of Ethics makes in everyday research activities, making transparent the involved efforts as well as the gains
>> offering training for the base on all levels (early career researchers to senior researchers, incl. support or administrative staff where it makes sense), which might require the strengthened cooperation of 'lower-level' units or persons in the absence of explicit top-down support
>> organising events to promote the reflection on research practices and the Code of Ethics

›   spreading GP by inviting researchers from different organisational units or fields to share lessons learnt on key issues and challenges, and how to overcome them
›   showing how CEGP can help work transparently and responsibly, to engage with the research community and the public

STRONG BASE, WEAK LEADERSHIP – Code of Ethics & Good Practices – PHASE II: Action

There will be a constant need for activities described in Phase I because issues change over time, as does the base – people leave, new people join, expertise may be lost and needs to be rebuilt. Expertise also needs to be renewed, which further increases the demand for trainings, events, or reflective spaces that could be set up to support community building.

These activities happen under an assumed self-organised group of individuals but it is worth exploring how such groups form and operate. Similar to the two building blocks described below, the need for some form of facilitation will grow the more such activities are planned or the higher the demand for such activities becomes. The bottom-up nature of this scenario has strict limitations in terms of resources that each involved individual can muster. One way to alleviate those restrictions is to spread the responsibilities and workload among a bigger number of individuals interested in contributing to the cause and facilitating the institutionalisation. Each group will need to find their own way of recruiting new facilitators and possibly rotating assignments.

STRONG BASE, WEAK LEADERSHIP – Code of Ethics & Good Practices – PHASE III: Reorientation

It will be necessary to devise a few mechanisms by which to gauge the progress made, to see where the biggest wins are and determine where further actions or improvements are needed. Less of importance is how simple or complex such mechanisms are, it is more important to ensure that they are measuring what really captures progress. For instance, the number of workshops provided to early career researchers may be interesting to know but it is more insightful to learn if participants have learnt something that helps them in their professional life while supporting the adoption of a CEGP.

STRONG BASE, WEAK LEADERSHIP – Ethics Committee
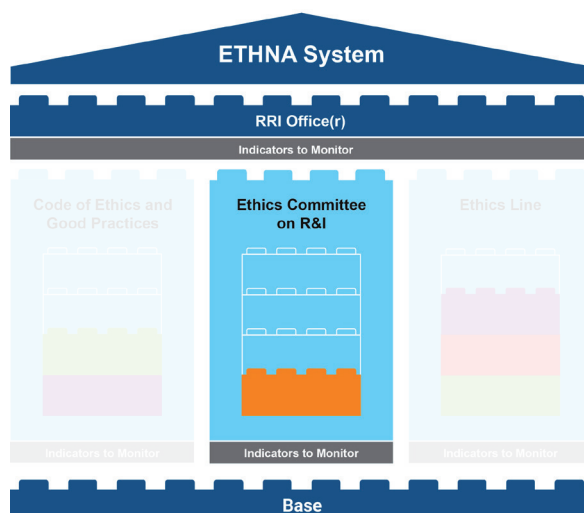
Ethics Committee

A bottom-up way to establish and operate an Ethics Committee (EC) is ad-hoc. Ad hoc EC typically deal with individual cases, but a formation over a certain period of time may be possible and alleviate some of the burdens that ad-hoc formations entail. Regardless, a certain degree of facilitation is required to guarantee that ad-hoc EC are being formed when need. The individual(s) interesting in setting up such EC may serve as initial facilitator(s) but it will help in the medium to long run to ensure that a group of people will be able to ensure a continuous facilitation. This may require some form of recruitment of individuals who volunteer as facilitators.

STRONG BASE, WEAK LEADERSHIP – Ethics Committee – PHASE I: Reflection

In the first phase, the focus is on important considerations of forming EC ad hoc. It will be necessary to clearly define the scope of its role and mandate, as well as its responsibilities, principles, and protocols to follow.

Principles and protocols guide the actions of the EC. A wide variety of examples already exist at many RPO and are openly accessible. The facilitators could pick from those sources to define a starting set of principles and protocols for their ad-hoc EC. They can later be refined as needed.

STRONG BASE, WEAK LEADERSHIP – Ethics Committee – PHASE II: Action

During the Action Phase it is important to pay attention to the prerequisites for an effective and widely recognised (by the base) ethics committee. A crucial point is the expertise required by members of an ad-hoc EC. Since the formation time should be kept short, it should be well known who the potential members are. This is easier done when the pool of recruitable candidates is small but a challenge when the number of cases surges and the need to form ECs increase significantly. Tools such as spreadsheets or databases may help if used properly (allowing filtering by, e. g. availability, expertise, level of experience, research field, gender, or career level).

For an EC to be accepted and supported by the base, it will need to be fully functional and offer short processing times, without overregulating research. It needs to become widely known and keep building a track record (the Ad hoc EC in general, not (just) individual instances) to be universally recognised.

STRONG BASE, WEAK LEADERSHIP –Ethics Committee – PHASE III: Reorientation

During the Reorientation Phase, the goal is to assess whether the ad-hoc EC suit their purpose and adhere to the requisites defined in the previous two phases. This can be done informally in a sub-organisational unit or formally, depending on the resources available. The important aspect here is to take feedback seriously and implement improvements as far as feasible; communicate transparently the improvements that are (currently) infeasible to implement to ensure long-term acceptance in the base.

STRONG BASE, WEAK LEADERSHIP – Ethics Line

Ethics Line

TODO: refer to the concept of the Ethics Line
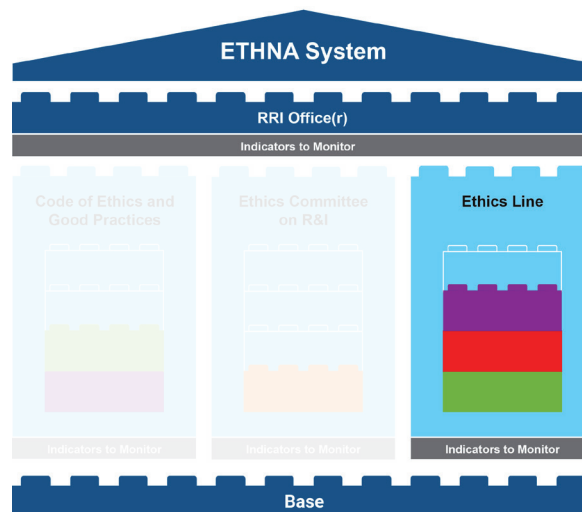
STRONG BASE, WEAK LEADERSHIP – Ethics Line – PHASE I: Reflection

If the base is convinced that an Ethics Line needs to become an integral part of the RRI institutionalisation efforts, the first phase needs to focus on self-organising the setup of the Ethics Line. It will need to take into consideration the following factors:

> scope of the Ethics Line
> required expertise
> protocols to be put in place
> communication channels to provide and use
> staffing

STRONG BASE, WEAK LEADERSHIP – Ethics Line – PHASE II: Action

The border between Phases I and II are somewhat fluid because planning and implementation may go hand in hand. As is the case for other building blocks, it is essential to gather the resources required to operate the Ethics Line. Permanent staffing may not be possible, alternative forms may include rotating staffing or ad-hoc assignments matching available expertise and expertise required by the individual case. It may not be possible to muster the required expertise for all cases, which is why it will be necessary to come up with a mechanism that can be applied in these situations.

Some form of facilitation is needed to ensure the longevity of the Ethics Line, that improvements are applied if necessary, and that it is being expanded if needed and feasible. Efforts should include showcasing the purpose and usefulness of the Ethics Line and recruiting potential volunteers. Presentations back-to-back with RRI-related events would be particularly suitable.

E.2

In addition to the above factors, it may be worth looking beyond organisational borders and align with ongoing inter-organisational or national efforts. Potentially, some of the responsibilities can be delegated or additional expertise be consulted.

STRONG BASE, WEAK LEADERSHIP –Ethics Line – PHASE III: Reorientation

To ensure that the Ethics Line is – and keeps – working as intended, ways to gather feedback from those involved in the process (incl. cases) need to be considered. Feedback will need to be scrutinised by a neutral entity, typically consisting of a small group of individuals that can be formed ad-hoc, that can make recommendations on improving the provided service. It is then within the responsibility of the facilitators to ensure that those recommendations are being addressed appropriately.

E.3. STRONG LEADERSHIP, STRONG BASE: HOW TO IMPLEMENT THE ETHNA SYSTEM

The last implementation scenario to be presented is the **ideal case when the top leadership has already embraced and supports the institutionalisation of RRI and certain supporting structures have already been implemented within the organisation.** This scenario is visually represented in the top right corner of the RRI institutionalisation quadrant (cf. p. 8).

The most commonly encountered barriers to the institutionalisation of RRI, as identified through an extensive consultation[6] process with the involvement of more than 900 stakeholders from RPOs and RFOs, are as follows:

1. the lack of resources (human/financial/time/etc.) to deal with RRI issues in addition to the 'usual' daily work of RPOs;
2. the lack of awareness and/or understanding about specific RRI key areas;
3. the lack of support from the leadership to launch or implement RRI keys;
4. the lack of institutional support structures and practices for certain RRI keys; or
5. the lack of practical actions to implement high-level policies or strategies (i.e. goals are not being translated into practices).

In this ideal scenario, barriers (3) and (4) are no longer relevant since top-down leadership support is a given and since there are support structures present in the organisation. This implies that sufficient resources have already been allocated to efforts addressing key RRI issues (1), which in turn resulted in practical actions (5). It is further to be expected that the organisation is implementing such practical actions, including an advanced degree of each of the three guidance tools envisaged in the ETHNA System (column blocks[7]), as well as the development of progress measures or more advanced indicators concerning each of these tools. The existence of such practical actions should also increase the awareness and understanding of the RRI key areas (2) since all employees are likely to encounter at least one of them in their daily work.

This means that, if such a 'mature' state of RRI institutionalisation exists in a given organisation, the **ETHNA System may be of use mainly in terms of showcasing one of the many possible implementation pathways towards Commitment Level 3** (the full implementation of the ETHNA System), as well as **offering some general recommendations towards finetuning the content, structure and operation of the RRI tools developed** *(see also* **Annex 1-7 'Toolbox to implement the ETHNA System'** *for best practices to each guidance tool).*

Within this context we highlight the following action points that could be the focus of an RRI Office(r)'s work with the aim of further fine-tuning an already well-functioning RRI governance system (broken down per each phase according to the model house detailed in Section E.1):

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6   using a mix of primary research methods comprising semi-structured interviews, participatory workshops, and an online survey
7   i. e. a code of ethics and good practices (CEGP), an ethics committee, and an ethics line

Phase I. Initial Assessment

Targeted awareness-raising or training actions – the **overall knowledge** on the RRI governance system **might be appropriate at an organizational level but there might be lower-level units** (departments or even persons, dependent on the size of the institution) **in need of further awareness-raising** or capacity development in terms of certain RRI keys needed to reach Commitment Level 3 (e.g. some units might be lacking in knowledge or skills on open access or public engagement). This might be addressed through tailor-made actions following for instance an **institution-level survey** on available knowledge and skills of RRI key areas, which could be the core task of a newly conducted resource and capacity mapping (Step 1.1 and Step 1.2). Where a certain knowledge gap is identified for an RRI key, knowledge pooling, training and other awareness-raising actions can be planned and implemented by the RRI office(r) to specifically support the research unit in need. Knowledge pooling can for example include the identification, understanding and sharing of good practices for the RRI key in need of capacity-building, with a potential focus on better aligning with the requirements of national or international funding bodies. The elaboration of practical online or offline guides or databases can significantly contribute to raised awareness of topical RRI issues and to better time and resource management (**see next point**).

These activities might also require the potential revision and update of an Internal and External Communication Plan is of utmost importance (**see Section F**).

Tackling potential resource misallocation – top-down management might be fully committed to providing the requisite (human / financial) resources for an RRI governance system but there is always room for controlling the actual use of such resources. This means that the resources and capabilities could be well known and mapped (Step 1.1 and Step 1.2) but the **goals and priorities** (Step 1.3 and Step 1.4) **might be re-evaluated at regular intervals** based on the progress achieved in RRI key areas. The ultimate goal is to reach Commitment Level 3 by re-allocating resources to those guidance tools where progress is still needed in terms of certain RRI keys (stage 2). This commitment should be reflected in the potentially new or revised priorities concerning the column blocks (Step 2.1.2) and the ensuing new or revised Action Plan (Step 2.2).

When re-mapping or re-evaluating goals and priorities for such purposes, it is highly beneficial to discuss and consider **new perspectives stemming from internal** (representatives from various units within the organisation) **or external stakeholders**.[8] Various formats of **participatory actions** could be of use here, dependent on the profile and resources of organisations. For instance, the establishment and regular operation of 'reflection' spaces providing an informal venue for internal stakeholders on how ethics and other RRI aspects can become a more integral part of research and innovation activities might prove impactful. In addition, in case societal engagement has already taken up in the framework of the organisation, a more formalised involvement of a diverse group of external stakeholders might be envisaged by setting-up a permanent stakeholder board,[9] discussing providing recommendations concerning critical research and innovation aspects.

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8   Interested persons may learn more about how to identify internal and external stakeholders from the following document: Häberlein, Lisa; Mönig, Julia Maria and Hövel, Philipp (2021). Mapping stakeholders and scoping involvement. A guide for HEFRCs. ETHNA System Project – Deliverable 3.1

9   Interested persons may use the cover letter template provided by D3.1 (see citation in the previous footnote)

Phase II. Implementation Phase

Focus on specific RRI keys for each of the guidance tools – for the RRI governance system to become truly functional, **all RRI keys should be appropriately addressed in relevant internal tools and practices**. This could be ideally done at a regular re-evaluation of the objectives and scope of each of the operating guidance tools (see Step 4.3 for CEGP; Steps 5.1 and 5.2 for the Ethics Committee; and Step 6.1 for the Ethics Line). Among others, the fulfilment of the following aspects of different RRI keys can be considered in order to reach Commitment Level 3 (non-exhaustive list):

Code of Ethics and Good Practices[10]

› Good practices might include the broader topics around open access, thus focusing on open science and innovation (depending on the character of the organisation) – cf. Step 4.2 and Step 4.3
› The requirements of RFOs should be taken up for each RRI key, meaning that, e.g. gender equality plans or open access strategies should form a core part of the code – cf. Step 4.2 and Step 4.3
› External stakeholders, incl. non-academic actors or vulnerable people (potentially affected by research activities) should be involved in re-evaluating the CEGP, thus bringing in new perspectives through an enhanced public engagement – cf. Step 4.5

Ethics Committee

› The Ethics Committee should check where – in which RRI key areas – they might be a need for employing dedicated support staff; for instance, scientific data or open access support — cf. Step 5.3 and Step 5.4
› To foster a culture of open access and science, the Ethics Committee should deal with incentives of sharing data as well as mitigating common worries in the topic (e.g. misuse of data, IPR) – cf. Step 5.5
› The Ethics Committee might consider introducing awards for promoting ethical or gender-aware research activities – cf. Step 5.5

Ethics Hotline

› The scope of the hotline can include gender-related issues (gender perspective) but might exceed to notices on other types of discrimination, such as based on race, age, religion or disability – cf. Step 6.5
› Addressing scientific misconduct could include more general advices on best practices, e. g. on open access – cf. Step 6.5
› The hotline should be ready to explain – in a simple language – complex issues in the relevant RRI keys, such as ethics, research integrity or gender perspective – cf. Step 6.7

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10   Please check Häberlein, Lisa; Mönig, Julia Maria and Hövel, Philipp (2021). Gauging the potential societal contributions of research and innovation – a guide for HEFRCs. ETHNA System Project – Deliverable 3.2. Page 8 shows how needs of HEFRCs can be addressed through a Code of Ethics and Good Practices

Phase III. Evaluation Phase   E.3

Development of a set of indicators for each RRI key area – the re-evaluation of goals, priorities and re-checking of available resources and capacities, as well as the enhanced inclusion of each RRI key to all ETHNA System guidance tools could only be successful if a **consistent set of indicators is developed and monitored for each RRI key area**. Within an advanced state of RRI governance, the already developed monitoring indicators for each guidance tool (cf. Step 4.10, Step 5.8 and Step 6.9) should be continuously re-evaluated in accordance with the revised goals and priorities towards reaching a full implementation of the ETHNA System (Commitment Level 3). This might entail the development or improvement of monitoring indicators – assessing the compliance with the level of commitment in terms of each RRI key – based on progress indicators checking the level of accomplishment for each guidance tool.

Such indicators might involve **novel topics** deemed relevant for the full implementation of the ETHNA System. These indicators make such evaluations possible that contribute to overcoming a specific barrier in front of RRI institutionalisation. RPOs need to incentivise their employees to consider RRI aspects during their daily work in each RRI key; for instance, there might be a need for an updated evaluation system for employee performance which goes beyond the traditional measures[11] by taking into account and rewarding ethics or research integrity compliance, open-access publications and open science activities, societal engagement efforts (e.g. collaboration frequency or patterns with relevant external stakeholders), or endeavours fostering gender awareness or tackling gender inequalities.

Here, the existing international benchmarks can be consulted, such as the Monitoring the Evolution and Benefits of Responsible Research and Innovation (MoRRI) indicators[12] that may serve as a first guide on how to measure progress and impact of each RRI keys implemented through the guidance tools.

Going beyond the ETHNA System – the ETHNA SYSTEM model houses encompassing the guidance tools detailed in this guide should not be understood as a fully-fledged RRI governance system, even in case of reaching Commitment Level 3. There is more than enough room to **further advance the institutionalisation of RRI, with new and innovative methods applied on the basis of the individual capacities and needs of each organisation.** As new (international) standards and guidelines might be available, these might include ideas on what to focus in terms of goals, practices and indicators. Stage 7 should focus its evaluation efforts on exploring such new ways of RRI institutionalisation.

More importantly, an anticipatory stance towards future developments of societal, technological, environmental, or medical nature is highly recommended. For instance, **ethics and AI** has become a crucial topic but, adding more mature levels of quantum computing to the mix raises numerous concerns which require answers before such new technologies become widely available.

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11   Please check Häberlein, Lisa; Mönig, Julia Maria and Hövel, Philipp (2021). Gauging the potential societal contributions of research and innovation – a guide for HEFRCs. ETHNA System Project – Deliverable 3.2. This document may help out when it comes to the need for a consolidated and structured research policy – for example in orientation to "The European Charter for Researchers" and "The Code of Conduct for Recruitment" initiated as part of the Human Resources Strategy for Researchers (HRS4R).
12   https://op.europa.eu/en/publication-detail/-/publication/2c5a0fb6-c070-11e8-9893-01aa75ed71a1/language-en/format-PDF/source-170166807

F. COMMUNICATING AND CREATING CULTURE   F

*(See: Toolbox **Annexes 6 & 7:** Guidance to create the Internal Communication Plan & Guidance to create the External Communication Plan).*

> The **success of the ETHNA System depends**, to a large extent, on the ability of your organisation to adopt an ethical culture and establish communication, dissemination, exploitation, and participation mechanisms.

Communication is a powerful tool used to stimulate internal **change and encourage decision-making** aligned with the blocks and tools of the ETHNA System.

> It **means that** the stakeholders of your organisation are aware of the ETHNA System and use its different blocks.
>
> It is **essential to** carry out a constant communication process to support the development of the ETHNA System at the different levels of implementation.

> It is **essential** maintain a balanced dialogue with your stakeholders to know and incorporate its reasonable expectations.

> It is **recommended that** your organisation should have an internal and external communication plan to promote the greatest possible awareness of the ETHNA System, in accordance with the guidelines provided in this report.

REMEMBER THAT YOU CAN FIND HELP IN:
TOOLBOX TO IMPLEMENT THE ETHNA SYSTEM

ANNEX 1. GUIDANCE TO CREATE THE ETHNA SYSTEM ACTION PLAN

ANNEX 2. GUIDANCE TO USE AND TO CREATE THE MONITORING INDICATORS: PROGRESS AND PERFORMANCE

ANNEX 3. GUIDANCE TO CREATE THE CODE OF ETHICS AND GOOD PRACTICES IN R&I

ANNEX 4. GUIDANCE TO CREATE THE ETHICS COMMITTEE ON R&I

ANNEX 5. GUIDANCE TO CREATE THE ETHICS LINE

ANNEX 6. GUIDANCE TO CREATE THE EXTERNAL COMMUNICATION PLAN

ANNEX 7. GUIDANCE TO CREATE THE INTERNAL COMMUNICATION PLAN