FPI Results Framework - Indicator Methodology Note

1.   Indicator Name and Code

Number of scientists with sensitive or dual use knowledge participating in research and technology projects with peaceful application (responsible science)

OPSYS Code: 65862

2.   Technical Details

Unit of measure: Number of individuals.

Type of indicator: Quantitative; Actual (ex-post); Cumulative (not annual).

Level of measurement: This is an **Outcome** indicator. It is typically associated with results such as "Improved prevention of misuse of dual-use knowledge", "Enhanced responsible research involving sensitive science", "Increased international peace and security".

Disaggregation:

Mandatory: **By sex:** Female; Male; Intersex

3.   Description

This indicator tracks the contribution of EU/FPI-funded interventions to responsible science practices by fostering the engagement of scientists who may otherwise be at risk of disengagement or misuse of their expertise. It focuses on the inclusion of individuals with potentially high-risk knowledge in structured, peaceful and internationally aligned research environments. The indicator is particularly relevant for interventions aimed at dual-use risk mitigation, scientific integrity promotion, and strengthening cooperation between the security and research communities.

4.   Calculation of Values and Example

The value of this indicator is calculated by counting the number of individual scientists with sensitive or dual use knowledge who actively participated in research and technology projects with peaceful application supported by the concerned EU /FPI-funded intervention during the reporting period.

Counting Guidance:

- **"Scientist with sensitive or dual use knowledge":** Refers to an individual with recognised expertise in scientific or technical fields that can be applied for both peaceful and potentially harmful purposes, e.g. nuclear physics, synthetic biology, chemical engineering, cybersecurity, artificial intelligence, or drone technology. The knowledge must be relevant to risk-sensitive domains identified in international non-proliferation, disarmament, or security cooperation frameworks.
- **"Participation in peaceful application projects":** Refers to formal, documented involvement in research or technological development projects that are explicitly intended for non-violent, socially beneficial use. The project must be aligned with responsible science principles, e.g. risk mitigation, transparency, international cooperation.
- **Basic counting rules:** Count each individual once per reporting cycle. Only include those who actively contributed to a supported project during the reporting period.
- **Attribution:** Only include individuals participating in projects that received EU/FPI support in the form of funding, technical assistance, training, or policy facilitation. The intervention must have a documented link to the project in which the individual participated.
- **Avoid double counting:** Do not count the same individual more than once per cycle, even if involved in multiple roles or activities. The same individual may be reported again in a new cycle if participation is linked to a distinct project.

Quality Control Checklist:

1. Does the individual have knowledge considered sensitive or dual use in nature?
2. Did the individual actively participate in a project with peaceful application during the reporting period?
3. Is the individual's participation clearly documented and linked to the EU/FPI-funded intervention?
4. Has double counting been avoided?

Example:

In Year Y, an EU/FPI-funded initiative in Country X supported three collaborative projects focused on the peaceful application of high-risk technologies: (i) a research programme on synthetic biology and public health, (ii) a cybersecurity lab initiative, and (iii) a regulatory framework project on nuclear waste monitoring. Across these projects, the implementing partners documented the participation of 24 scientists with relevant dual use expertise: 10 with backgrounds in genome editing and biosecurity, 8 in cybersecurity and AI risk assessment, 6 in nuclear physics and safety regulation. Each scientist's participation was validated through institutional agreements and activity reports. The total value to be reported is 24 individuals, disaggregated as follows: By sex: Female – 9; Male – 14; Intersex – 1.

5. Data Sources

Reported values should derive primarily from the internal monitoring systems of EU-funded interventions. Data must be collected and reported by the implementing partner and verified by the Operational Manager (OM). Examples of data sources: Participant lists, contracts or institutional agreements confirming the involvement of scientists in supported projects; Official project documentation, such as work plans, research deliverables, or technical reports indicating participation of relevant individuals; CVs, technical profiles, or declarations of expertise demonstrating sensitive or dual use knowledge; Attendance records or activity reports from training sessions, research workshops or collaborative initiatives; Monitoring or evaluation reports summarising the participation of individuals and confirming project alignment with responsible science principles.

6. Other Uses / Potential Issues

This indicator can support the monitoring of dual use knowledge governance, research integrity promotion, and science diplomacy. It is especially relevant in CBRN-sensitive environments or countries facing risks of knowledge proliferation or disengagement of scientists from regulated frameworks. It may also be used to inform institutional capacity-building efforts in responsible research and innovation.

Potential issues: Defining and validating "sensitive or dual use knowledge" may vary across contexts and require expert judgement. There is a risk of underreporting if individuals do not disclose relevant expertise, or overreporting if participation is nominal or undocumented. Attribution must be clearly established, especially where EU/FPI support is indirect. Interventions should ensure consistent criteria for identifying relevant expertise and for validating peaceful application.