**EU Funding Proposal: Open=Safe - Community-Based Radiation Monitoring Workshops**

The following proposal outlines a project seeking EU funding to establish community-based workshops across Europe for teaching and building open-source real-time radiation monitoring devices. This initiative builds upon Safecast's 13-year legacy of successful radiation monitoring programs while contributing to environmental safety, scientific literacy, and community resilience across the European Union.

**Executive Summary**

Safecast, a globally recognized organization in citizen-based environmental monitoring, proposes the "Open=Safe" project to establish hands-on workshops throughout European communities. These workshops will empower citizens with the knowledge and tools to build open-source radiation monitoring devices (bGeigieZen kits), contributing to a more comprehensive radiation monitoring network across Europe while enhancing public engagement with environmental science. The project aligns with multiple EU priorities including environmental protection, scientific literacy, digital skills development, and citizen empowerment through technology.

**Project Background and Rationale**

Safecast emerged following the 2011 Fukushima nuclear disaster as a citizen science initiative to provide independent, reliable radiation measurements when institutional data was insufficient. Over the past 13 years, Safecast has developed a global radiation monitoring network with over 150 million data points, demonstrating the effectiveness of open-source, community-driven environmental monitoring[[1]](#fn1).

Despite Europe's advanced environmental monitoring systems, significant gaps remain in real-time radiation monitoring coverage, particularly in remote or less-resourced areas. Additionally, public understanding of radiation science remains limited, creating potential for misinformation during environmental incidents[[2]](#fn2).

The "Open=Safe" project addresses these challenges by:

1. Expanding the geographical coverage of radiation monitoring across Europe
2. Building community capacity for environmental monitoring
3. Enhancing public understanding of radiation science
4. Creating a sustainable model for citizen participation in environmental safety
5. Supporting the EU's commitment to environmental protection and public safety as outlined in the Serious Cross Border Health Threats Regulation (2022/2371)[[2]](#fn2)

**Project Objectives and Methodology**

**Primary Objectives**

1. Conduct 50 community-based workshops across 10 EU member states over 24 months
2. Train 500 participants in radiation monitoring principles and device construction
3. Deploy 500 new open-source radiation monitoring devices across Europe
4. Create an expanded, real-time radiation data network accessible to researchers, policymakers, and the public
5. Develop open educational resources for continued learning and device maintenance

**Methodology**

**Workshop Structure and Implementation**

Each workshop will follow Safecast's proven educational model:

1. **Workshop Size**: Limited to 10 participants per session to ensure quality instruction
2. **Instructor Team**: Three qualified instructors per workshop, including:
   * Lead technical instructor (device assembly expertise)
   * Radiation science educator (scientific principles)
   * Data management specialist (network integration and maintenance)
3. **Workshop Components**:
   * Introduction to radiation science and monitoring principles
   * Hands-on assembly of bGeigieZen kits
   * Data integration and visualization training
   * Ongoing maintenance and troubleshooting guidance
   * Community integration planning

**Hardware and Materials**

Each participant will receive:

* Complete bGeigieZen kit (radiation detector, microcontroller, display, connectivity components)
* Comprehensive documentation and support materials
* Lifetime access to Safecast's global data network

**Location Selection Strategy**

Workshop locations will be strategically selected based on:

* Geographical distribution across diverse EU regions
* Population density considerations
* Existing radiation monitoring coverage gaps
* Local interest and institutional partnerships
* Environmental vulnerability assessment

**Alignment with EU Priorities and Programs**

The "Open=Safe" project directly supports multiple EU strategic priorities:

1. **Environmental Monitoring and Protection**: Enhances radiation monitoring infrastructure across Europe, supporting the Environment and Climate Action (LIFE) program objectives[[3]](#fn3).
2. **Digital Skills Development**: Provides practical technology education to diverse communities, aligning with Digital Europe program goals for digital literacy[[3]](#fn3).
3. **Citizen Science Engagement**: Promotes active citizen participation in environmental monitoring, supporting the EU's "Open and Structured Dialogue" with civil society[[4]](#fn4).
4. **Cross-Border Health Threat Preparedness**: Creates additional monitoring infrastructure relevant to the EU Regulation 2022/2371 on serious cross-border health threats[[2]](#fn2).
5. **Open Science and Research Integrity**: Adheres to responsible research principles by making all data openly accessible and maintaining transparency in methodologies, aligning with EU research funding priorities[[5]](#fn5).

**Expected Impact and Outcomes**

**Immediate Outcomes**

1. Deployment of 500 new radiation monitoring devices across Europe
2. Creation of a more comprehensive, real-time radiation data network
3. Enhanced scientific literacy among 500 direct participants
4. Increased community awareness of environmental monitoring

**Long-term Impact**

1. Sustainable citizen-science infrastructure for ongoing environmental monitoring
2. Improved emergency preparedness for potential radiation incidents
3. Enhanced community resilience through technology empowerment
4. Model for future open-source environmental monitoring initiatives
5. Contribution to EU's environmental and public health databases

**Budget and Resource Requirements Summary (details is other document)**

**Personnel Costs**

* Workshop Instructor Fees: €150,000 (3 instructors × 50 workshops)
* Project Coordination: €75,000
* Technical Support: €50,000

**Equipment and Materials**

* 500 bGeigieZen Kits: €175,000
* Workshop educational materials: €25,000

**Travel and Logistics**

* Instructor transportation to workshop locations: €60,000
* Accommodation for workshop teams: €40,000
* Venue costs (when needed): €25,000

**Other Costs**

* Data server infrastructure: €15,000
* Documentation and translation: €20,000
* Evaluation and reporting: €15,000

**Total Requested Funding: €650,000**

**Implementation Timeline**

**Months 1-3:**

* Project team formation
* Workshop curriculum finalization
* Location selection and scheduling
* Procurement of initial equipment

**Months 4-20:**

* Workshop implementation across selected locations
* Ongoing device deployment and network integration
* Real-time data collection and visualization

**Months 21-24:**

* Final workshops and device deployment
* Comprehensive evaluation
* Sustainability planning and final reporting

**Organizational Capacity**

Safecast brings 13 years of expertise in citizen-based radiation monitoring, having successfully:

* Conducted similar workshops globally
* Developed the open-source bGeigieZen technology
* Created and maintained the world's largest open radiation dataset
* Built partnerships with scientific institutions, governments, and communities

This established track record ensures efficient implementation and effective knowledge transfer throughout the project duration.

**Evaluation Framework**

The project will implement a comprehensive evaluation strategy:

1. **Quantitative Metrics**: Number of devices deployed, data points collected, geographical coverage achieved
2. **Qualitative Assessment**: Participant surveys, community impact interviews
3. **Scientific Validation**: Data quality assessment by independent researchers
4. **Sustainability Indicators**: Continued device operation, community ownership measures

**Funding Pathway Recommendation**

Based on alignment with program objectives, we recommend submitting this proposal to:

1. **Primary Option**: Horizon Europe - specifically targeting the "Engaging citizens in science" or "Environmental observation" funding streams[[3]](#fn3)[[6]](#fn6).
2. **Alternative Options**:
   * Digital Europe Program (digital skills component)[[3]](#fn3)
   * Environment and Climate Action (LIFE) Program (environmental monitoring component)[[3]](#fn3)
   * Citizens, Equality, Rights and Values (CERV) Program (community empowerment component)[[3]](#fn3)[[6]](#fn6)

**Conclusion**

The "Open=Safe" project represents a strategic opportunity to leverage citizen science for enhanced environmental monitoring across Europe. By combining Safecast's proven methodology with EU funding support, this initiative will create lasting infrastructure for radiation monitoring while empowering communities through open technology and scientific education.

Through this project, the EU can demonstrate its commitment to innovative approaches to environmental safety, citizen empowerment, and scientific literacy—creating a more open and safer Europe for all citizens.

⁂

1. <https://www.semanticscholar.org/paper/192d075b422ef5d81edee6473fccfba22f33ccc1>
2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10596815/>
3. <https://webgate.ec.europa.eu/funding-tenders-opportunities/pages/viewpage.action?pageId=1867921>
4. <https://www.semanticscholar.org/paper/6c149a64b08ad8a0029d3a9d6affa15d3ae27fad>
5. <https://pubmed.ncbi.nlm.nih.gov/39194959/>
6. <https://euro-access.eu/en/calls>