Letter of Intent

Acronym and Title: EXPAND — EXcellence in Public Awareness, societal Networking, and Dissemination for hadron physics and related areas.

Name of the Project Leader: Catalina Curceanu, INFN-LNF

1. Research objectives (dissemination and exploitation of results)

The aim of **EXPAND** is to ensure the widest possible visibility, societal resonance, and scientific uptake of the whole project's results. The dissemination and exploitation strategy is based on four pillars:

• Scientific community engagement
Research findings will be disseminated through high-impact peer-reviewed journals (e.g., *Phys. Rev. Lett.*, *Phys. Rev. C*, *EPJA*, *Physics Reports*) and via presentations at leading international conferences (e.g., *Quark Matter*, *PANIC*, *INPC*, *HYP*). To stimulate dialogue across the hadron physics community and beyond, the project will host an international workshop in the final year, **"New Horizons in Hadron Physics and Related Areas"**, gathering collaborators, early-career researchers, and external experts. Submission of video-based results to *JoVE* will be explored to support broader understanding.

• Cross-disciplinary and institutional dissemination
Results of broader interest—ranging from theoretical frameworks to technological innovations (e.g., detector design, data acquisition systems, IA and ML methods)—will be submitted to interdisciplinary journals (*Nature Physics*, *Science Advances*, etc.). A dedicated project website will host open-access publications, visual and explanatory content, and training resources, fully aligned with **FAIR data principles** and integrated into the **European Open Science Cloud (EOSC)** framework. Internal communication will include a twice-yearly newsletter to partners and annual meetings of the Dissemination Board to align activities and share best practices. Dissemination will also leverage communication tools of partner institutions (newsletters, institutional blogs, streaming platforms).

• Public engagement and societal awareness
Recognizing the importance of public trust in science, EXPAND will develop a strong outreach program, drawing on INFN's proven expertise in public engagement. Activities will include public lectures, articles in popular science magazines (*Asimmetrie*), podcasts, educational videos, and social media campaigns. We will also organize science cafés, school visits, and partnerships with museums and local networks. Examples include INFN's *INSPYRE* schools, *Incontri di Fisica*, *Matinées di Scienza*, and participation in the *European Researchers' Night*.

• Industry, policy engagement and strategic alignment
EXPAND will provide clear and timely communication of project outcomes to policymakers and industry stakeholders. This includes periodic **impact briefs**, invitation to public events, and the development of tailored materials showcasing hadron physics' contributions to frontier science, innovation, and the European Research Area (ERA). Technological advancements will be highlighted in briefings for industrial stakeholders (e.g., detector developments, simulation tools), and interactions will be sought with relevant R&D units.

2. Connection to Transnational Access infrastructures (TAs) and/or Virtual Access projects (VAs)

EXPAND is harmoniously integrated with all TA and VA infrastructures and their related activities, with dissemination and communication activities designed to enhance their visibility, accessibility, and long-term value. The following actions will be undertaken within EXPAND:

- **Dissemination of research outputs:**
  - Peer-reviewed publications in leading journals;
  - Presentations at international conferences and user meetings;
  - The final-year workshop will be open to all TA/VA users and will include dedicated dissemination and networking sessions.
- **Promotion of Transnational and Virtual Access resources:**
  - Curation and presentation of hadron physics programs, of datasets, simulation codes, and tools on an accessible platform;
  - Training materials (tutorials, webinars, virtual seminars) to support new and existing users for TA and VA;
  - Targeted outreach to academic institutions and potential user communities.
- **Cross-disciplinary and institutional dissemination:**
  - Results with relevance to multiple fields will be submitted to interdisciplinary journals;
  - Institutional channels (e.g., streaming, blogs, social media) will be used to amplify visibility;
  - Integration with FAIR-compliant EOSC repositories will ensure long-term access and discoverability.
- **Public awareness and engagement:**
  - A rich multimedia program including educational videos, animations, and podcasts, hosted on a dedicated HP YouTube channel;
  - Coverage in national and international popular science press;
  - Direct engagement with schools and science festivals across Europe.
- **Targeted stakeholder communication:**
  - For researchers and students: calls, training opportunities, results published on the website and circulated via newsletters;
  - For industry: targeted technical briefings on exploitable technologies;
  - For policymakers: regular impact updates and invitations to project events.

3. Estimated Budget Request: Total requested budget: 264,000 Euro: 220,000 Euro Direct costs (personnel 160,000; 45,000 Euro travel budget for dissemination activities; 15,000 Euro open access publications), 44,000 Euro Indirect costs

4. Participating and Partner Institutions

Lead Institution: INFN-LNF (Italy)
A **Dissemination Board** will coordinate all activities, and will be composed of:

- One representative from each TA and VA infrastructure;
- Coordinators of major project areas (e.g., detector development, theory, networking);
- Representative for industrial impact;
- Public engagement partners (science museums, schools, local networks)

This structure ensures coherence and impact across the scientific, societal, and strategic dimensions of dissemination in hadron physics.