www.nffa.eu
secretariat@nffa.eu

MEMORANDUM OF UNDERSTANDING

European Collaboration Concerning the "NANOSCIENCE FOUNDRIES AND FINE ANALYSIS" Interoperable Distributed Research Infrastructure for Nanoscience (IDRIN)

A Memorandum of Understanding on participation to a long-term programme of advanced research services in nanoscience for the ERA

Preamble

NFFA-Europe is a well-established research infrastructure delivering advanced services as foundry and analytical facility for nanoscience, based on own resources (laboratories, competences) of the partners and on support by the EC through the framework programmes.

NFFA-Europe is a multi-disciplinary and distributed facility, offering open access to the richest catalogue of methods and instruments available to perform public nanoscience projects by peer-review-selected users.

In the evolving landscape of analytical research infrastructures, NFFA-Europe fulfils a unique mission serving material science, energy, and life science communities, and underpins the vision of a truly interoperable RI as a unique service for European competitiveness.

The first ESFRI Roadmap-2006 included NANOSCIENCE as an emerging proposal. In 2007, a FP7-Design Study (DS) NFFA was awarded and in 2011 accomplished. It followed a Demonstrator Phase MoU for a 3-year effort to pursue operational integration of existing capacity in nanoscience/nanotechnology laboratories co-located with synchrotrons, free-electron-lasers and neutron sources, develop common research methodology goals and design innovative users' access practices based on the Technical Liaison Network (TLNet). In the meanwhile, the results of the DS opened the way to inserting topics in the Integration Actions calls for Advanced Communities to which NFFA-Europe applied and in 2014 succeeded, creating a consortium of 19 European partners that successfully

operated under the H2020 grant n. 654360 in 2015-2021, opening 15 calls, totalling 496 proposals, and delivering 3783 8-hour laboratory sessions.

In 2020, the PILOT model for new collaborative distributed research infrastructures was offered by the EC for competition and nanoscience was one of the three admitted topics. NFFA-Europe PILOT (NEP) was awarded a RI-Pilot grant for operating in 2021-2026, with a consortium of 22 beneficiaries and ten more third parties, for a total of about 30 access providers.

The robustness of NFFA-Europe warrants now the formulation of a formal MoU among the consortium members aiming at establishing a roadmap for additional activities and long-term operation.

The present Memorandum of Understanding implies no legal commitment for the setup and operation of a long-term NFFA-Europe IDRIN, but the Parties declare their readiness to explore the possibilities and opportunities to consolidate the RI.

Article 1

Parties

The MoU is openly addressed to all who contribute to NFFA-Europe/NEP, independently from their aim or time perspective to pursue formal integration. The signatories are hereinafter named 'Parties'.

The Parties are expected to raise the awareness of their adhesion to the MoU at the level of their national and regional government authorities.

Article 2

Objective

The objective of this Memorandum of Understanding is to provide the basis for long-term international cooperation for the enforcement and operation of the Interoperable Distributed Research Infrastructure for Nanoscience (IDRIN).

By signing this Memorandum of Understanding the Parties signal their participation to the IDRIN, aiming at establishing it beyond the current duties of NEP, and addressing strategic issues in terms of RI development that may require to acquire a formal identity.

The MoU engages the Parties to share, in a transparent manner, their visions and plans to upgrade or expand their own research capabilities and capacity, and seek, without any loss of autonomy of the individual Party, to strengthen the overall NFFA-Europe RI.

The IDRIN will proceed by implementing the NFFA-Europe PILOT programme, and it will further expand on the objective of a coherent upgrade of competences and installations for research, pushing ahead the state of the art of the integrated infrastructure services of NFFA.

The Parties will establish:

- a Steering Committee to oversee the progress towards the objective of the MoU;
- a Panel for the development of a coherent strategy-led roadmap towards the upgrade of NFFA partner facilities and their services to users.

The MoU may lead to further integration of the Parties, perhaps in a variable geometry. AISBL, ERIC or other formal identity will be explored aiming to identify the most suitable legal framework to establish a long-term sustainable research infrastructure.

Article 3

The Steering Committee of NFFA IDRIN

The Steering Committee will oversee all strategic matters related to the implementation and sustainability of the IDRIN, and to its scientific and technical unique positioning in the European Landscape of Research Infrastructures. The Steering Committee consists of one representative, and an alternate, from each of the Parties of this Memorandum of Understanding.

Article 4

The Panel for a coherent strategy-led roadmap for upgrades

The Panel will build on evidence from the NFFA-Europe TLNet, from international roadmaps on nanoscience, and from the institutional science plans of the Parties, to develop a coherent strategy for infrastructure upgrade, aiming at maintaining European and international leadership as scientific service provider. The Panel consists of experts of the Parties.

Article 5

Enforcement and Funding

The MoU extends the scope and time perspective of NFFA-Europe/PILOT (NEP) but will not interfere with its operation, strategic activities, and initiatives.

The IDRIN development is funded by H2020-NEP until 2026 for the managerial and organizational aspects, but it will need dedicated resources for the continuous upgrade of the installations and for the implementation of FAIR-by-design technologies and data services. The in-kind contributions of the Parties will be given full evidence in the cost analysis of the MoU.

To this end, a common strategy, when appropriate, will be developed for participation to new calls and instruments of the EC-Framework Programme, across the three Pillars, as well as to contribute, through national calls, to the same goals.

The MoU engages the Parties to perform a careful economic and financial analysis of the cost and benefits connected to the continuous upgrade of the RI, also to assess the sustainability and return of investment.

The development of a coherent strategy for acquiring additional resources to enforce the IDRIN is a central goal of the MoU.

Article 6

Duration

This Memorandum of Understanding will expire on the 1st of January 2031. It can be extended by mutual consent by the Parties.

Article 7

New Parties

This Memorandum of Understanding is open to potential new Parties as, e.g. new participants to NEP identified in the planned calls.

Article 8

Interpretation

The Parties will make best endeavours to reach amicable solutions

Any differences arising from the application or interpretation of this Memorandum of Understanding shall be settled by the Parties through bilateral or multilateral negotiations.

Article 9

Changes, Language

Any proposed changes to this Memorandum of Understanding will be agreed upon in writing by all Parties. This Memorandum of Understanding is written in the English language only, in as many copies as there are Parties.

Drafted in Trieste on 22 February, 2022

ROSSI GIORGIO UNIVERSITA` DEGLI STUDI DI MILANO 22.02.2022 11:14:57 UTC

List of NFFA-Europe/PILOT (NEP) Beneficiaries

Commissariat à l'énergie atomique et aux énergies alternatives (CEA) – FRANCE
Consiglio Nazionale delle Ricerche (CNR) - ITALY
Centre National De La Recherche Scientifique (CNRS) - FRANCE
Consejo Superior de Investigaciones Científicas (CSIC) – SPAIN
Deutsches Elektronen-Synchrotron (DESY) – GERMANY
Idryma Technologias kai Erevnas (FORTH) – GREECE
Lunds Universitet (ULUND) – SWEDEN
Universitat Autònoma de Barcelona (UAB) – SPAIN
Università degli Studi di Milano (UMIL)– ITALY
Paul Scherrer Institute (PSI)- SWITZERLAND