Draft proposal of Memorandum of Understanding between INGV, INFN and ERI

GENERAL STRUCTURE

1) Structure of the collaboration:

The collaboration will have the following structures:

General coordination

Technical coordination

Data Reconstruction and Analysis coordination

Geophysical conventional measurement

Geophysical coordination

2) Detectors:

INFN detector : the 4 telescope of 1sqm sensitive area

ERI detector: the 2 sqm of sensitive area calorimetric telescope

3)Data property

The data belong to the collaboration and the publication will be agreed by the collaboration

Vesuvius measurement campaign

1) Responsibilities of the Institutions

INFN

Construction, commissioning, maintenance and remote control of the INFN detector

On site interventions

Construction of the passive shielding and its support frame of the ERI detector

Data quality of the INFN detector

Slow control of the INFN detector

Reconstruction software of the INFN detector

Contribution of the data analysis

Contribution to the geophysical analysis

INGV

civil engineering

Installation and operation logistic

data transmission

gravimetry measurement campaign

gravimetry analysis

geophysical analysis

Payment of the transportation of the ERI detector from Japan to Naples and to Naples to Japan

ERI

Construction, commissioning, maintenance and remote control of the ERI detector

Transportation of the active part of the ERI detector to Naples and from naples to Japan

Assembling, commissioning and decommissioning of the ERI detector in Naples

Data quality of the ERI detector

Slow control of the ERI detector

Reconstruction software of the ERI detector

Contribution of the data analysis

Contribution to the geophysical analysis

Japan measurement campaign

1) Responsibilities of the Institutions

INFN

Construction, commissioning, maintenance and remote control of the INFN detector

Transportation of the INFN detector to Japan and from Japan to Naples

Assembling, commissioning and decommissioning of the INFN detector in Japan

Data quality of the INFN detector

Slow control of the INFN detector

Reconstruction software of the INFN detector

Contribution of the data analysis

Contribution to the geophysical analysis

INGV

gravimetry measurement campaign

gravimetry analysis

geophysical analysis

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ERI

Construction, commissioning, maintenance and remote control of the ERI detector

Data quality of the ERI detector

Slow control of the ERI detector

Reconstruction software of the ERI detector

Contribution of the data analysis

Contribution to the geophysical analysis

Payment of the transportation of the ERI detector from Japan to Naples and to Naples to Japan

Tentative schedule :

DEFINITIONS

T0: the time at witch the infrastructure at Vesuvius will be ready to host the ERI detector.

PROMPT ACTION: The action of transporting and installing a detector from Vesuvius to an active volcano in Japan.

Time schedule

ERI telescope will be transported and installed at T0, unless at that time it is in use in Japan for monitoring an active volcano. In this case the installation will be postponed until the ERI collaboration believe that the monitoring of the active volcano can be stopped.

INFN will start the Vesuvius install the 4 sqm detector, or the parts that will be available at that time, starting from T0.

The INFN detector will acquire data at the Vesuvius for at least 6 months starting from T0. If, during this period a PROMPT ACTION is required, only the ERI detector will be transported in Japan. After this period both ERI and INFN detector will be transported for a PROMPT ACTION.

The ERI detector will acquire data at the Vesuvius for a period of, at least, one year, unless a PROMPT ACTION is required.

In case of a PROMPT ACTION the INFN detector will acquire data at the Japanese volcano for a minimum of 6 months starting from the installation in Japan.

Alternative Proposal:

The ERI will contribute to the construction of 2 more INFN 1sqm detectors ( complete of all).

In case of a Prompt action the 2 telescopes will be installed in Japan, without any minimum time of data taking at the Vesuvius.