

# **A Research Infrastructure for Astrobiology**

Opportunity in H2020 as a 'Starting Community'

# What is a Research Infrastructure ?

- A Pan European collaboration opening access to Facilities (Laboratory, field sites **and Virtual** (on-line tools) to **ALL RESEARCHERS** in Europe (and within limits beyond)
- **TO DO WORLD CLASS RESEARCH**
- To strengthen collaborations and enhance capacity of EU research community.
- To develop/build the European research community in its area

# Why a Research Infrastructure for Astrobiology ?

- AstRoMap (FP7 program) stated the need to develop collaborations and define transdisciplinary research.
- As a 'Starting Community' , we need to demonstrate that we are a (still) fragmented community of different disciplines that by combining expertise and facilities can enhance our RESEARCH CAPACITY and embark upon new research programmes that can be developed using facilities .

# Research Infrastructure structure

- Arranged in three /four parts :
- ***TA (Transnational Access) and VA (Virtual Access)*** : to provide support for researchers to travel to facilities and conduct research projects.
- ***JRA - Joint Research Actions/Research projects*** : to DEVELOP INFRASTRUCTURES e.g. open new field sites, upgrade laboratory facilities to add/develop facility for the new user community.
- ***NA – Networking Activities***: to bring community together and disseminate the science programme. Host meetings/workshops Large Conferences;

# Two part proposal for Starting Communities

*Stage 1* : 30 March 2016 20 pages (24 will be selected)

*Stage 2* : 29 March 2017 100-150 pages (8 will be funded !!!!)

If successful Launch 2018 ..... (as COST Origins ends)

**Budget: 5 M€**

# How to arrange ?

- Co-ordinator: TBD
- Administrator: **ESF agreed-** this gives us (added) credibility !

Expect up to 20 'beneficiaries' centred on

- Field Sites
- Laboratories
- Virtual Access tools
- Plus members of NA groups

# Beneficiaries?

Chose field sites and labs to meet science challenges

## ***E.g. Transnational access***

- Panspermia life/chemistry from space: Impact site; lab simulation (gun) analysis
- Ocean floor: Oceanography, sediment, microbiology
- Lava fields: Geologists, microbiologists, Analytical chemistry
- Oldest rock/biosignatures: Geologists, microbiologists, Analytical chemistry
- Earth Science labs: Access to rock samples
- Microbiology labs : access to extremophile collections

## ***E.g Virtual Access***

- SuperEarth/Early Earth Models – put on line Virtual lab of rock samples

# Networking activities?

NA Activities can be focused on

- 1. Establishing/Developing the Community:** to discuss Science objectives and bring together researchers from different communities(workshop)
- 2. Engage Industry:** To develop a cohort of industrial partners who see themselves as supporting astrobiology research (workshops)
- 3. Training next generation** of researchers with necessary transdisciplinary approach. (Training schools and young Astrobiologist network who will develop their own applications to Facilites)
- 4. Dissemination** . Explaining the Topic of astrobiology to key stakeholders through public events, exhibition and press.



# Budget: 5 M€

## Way ahead/Timetable

- October 28 Information Day in Brussels
- December 8; Portal opens – Agree Coordinator
- End December; Agree beneficiaries
- End January; Writing meetings in ESF
- March 30; Submission Date
- **Please suggest facilities!!**