

# Europa Initiative workshop #3

## CAB, Madrid, Feb. 29-March 1, 2016

Monday, Feb. 29

**Bus departure from Madrid at 9:30**

### Welcome to the Workshop

#### **Session 1. Overall mission context (10:00-11:15)**

- Presentation of the Europa initiative and its boundary conditions (M. Blanc)
- ESA Cosmic Vision and the M5 call (L. Colangeli)
- Science of the NASA Europa mission (R.T. Pappalardo)
- Science of ESA JUICE mission (O. Grasset)
- Outstanding science questions and critical measurements complementary to the Europa Mission (H. Waite)

Coffee break 11:15-11:30

#### **Session 2. Science Themes objectives**

##### **2.1 Overview from WG (part I) (11:30-13:00)**

- Science objectives of Magnetospheric interactions WG (M. Blanc)
- Science objectives of Exospheres WG (P. Hartogh)
- Science objectives of Geochemistry WG (F. Tosi)

**Bus departure to INTA's canteen at 12:55**

Lunch (13:00-14:15)

##### **2.2 Overview from WG (part II) (14:15-15:45)**

- Science objectives of Geology WG (R. Wagner)
- Science objectives of Geophysics WG (T. van Hoolst)
- Science objectives of Astrobiology WG (O. Prieto-Ballesteros)

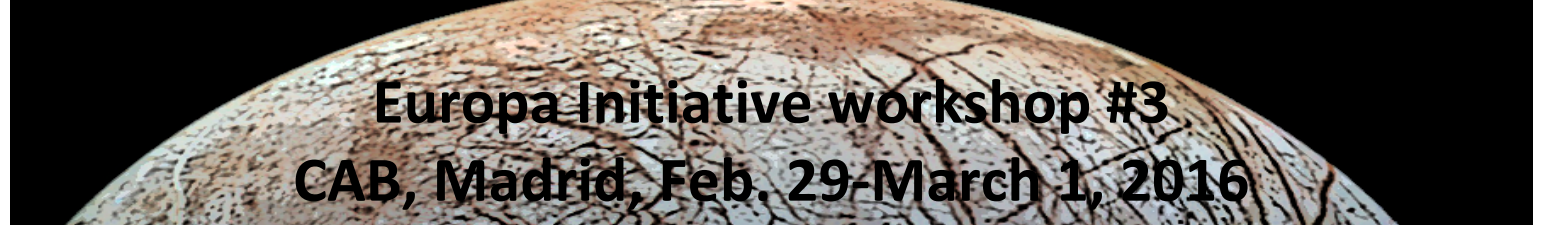
Coffee break 15:45-16:15

#### **Session 2 (cont.) Science Themes objectives (16:15-18:30)**

##### **2.3 Science perspectives**

(10 min./each, including questions)

- The origin of life and possibility of life on Europa (Frances Westall)
- Life in cold environments: Earth analogues (Felipe Gómez)
- Biosignatures (Victor Parro)
- Planetary Protection policies for Europa and other icy bodies (Carlos Briones)
- Evaluating landing sites on Europa – role of small scale surface features (Akos Kereszturi)
- Landing accuracy studies for Akon (Konstantinos Konstantinidis)
- Measuring Tidal Deformations and the Interior Structure of Europa (Gregor Steinbrügge)
- Icy Moons Penetrator Science Package-IMPS (Jane MacCarthur)
- Rapid response tools for Europa science (Michael Johnson)
- Essential Design Features for Penetrator & Mini Lander (Tze Chuen Ng)
- Robotic Mission to Europa (Alain Fournier-Sicre)



# Europa Initiative workshop #3

## CAB, Madrid, Feb. 29-March 1, 2016

### 2.4 Building a strong Science case

- General discussion on the Science objectives, prioritization and formulation of a strong science case
- Organization of splinter groups for cross discussion

**Bus departure to Madrid at 18:30**

.....

**Tuesday, March 1**

**Bus departure from Madrid at 9:30**

### **Session 3. Spacecraft options (10:00-11:15)**

Review of the mission profiles/feasibility/payload of different option spacecraft:

- Review of the options for the augmented payload of EMF (V. Sterken)
- Review of a Europa small orbiter (TBC)
- Review of a free flyer (D. Mimoun)
- Review of a Penetrator (G. Jones)
- Review of a Soft lander (J. Lasue)

**Coffee break 11:15-11:30**

### **Session 4. Splinter groups discussions (11:30-12:55)**

Cross discussion in splinter Science Themes working groups

People from Spacecraft WGs should contribute to these splinter groups

Preparation of a brief report to prioritize the missions from the Science objectives

**Bus departure to INTA's canteen at 12:55**

**Lunch (13:00-14:15)**

### **Session 4 (cont.) Splinter groups discussions (14:15-15:45)**

Presentation of A-F WG reports

Cross discussions

### **Session 5. Summary and conclusions**

**5.1 General discussion, prioritization, recommendations (15:45-16:45)**

**5.2 Conclusions and preparation of the proposal (16:45-17:30)**

**Bus departure to Madrid at 17:30**