

INTERNATIONAL SPACE EXPLORATION COORDINATION GROUP

WORKPLAN

Update following 3rd ISECG Meeting in Yokohama, March 2009

April XXX 2009 – DRAFT -

1 Introduction

The overall scope of the ISECG activities is defined in its term of reference as follows:

‘The scope of the ISECG activities will be broad and strategic. The ISECG will focus on developing non-binding findings, recommendations and other outputs as necessary for use by Participating Agencies’.

Areas for consideration for the ISECG activities include:

- identification of architectures to promote standards and interoperability;
- methods for sharing scientific data and related analysis;
- identification of common services, allowing for the development of shared infrastructures;
- mechanism(s) to allow the provision of payload opportunities;
- ways and means to include broader future participation in the planning and coordination process;
- assessment of the requirements for any relevant international legal agreements; and
- the development of a common international exploration coordination tool to enhance the implementation of the coordination process

At the 1st ISECG meeting held in November 2007 in Berlin, the objectives of activities to be performed within 2008 were discussed and agreed. At the second ISECG meeting held in Montreal in July 2008, it was agreed that the workplan would be updated after each meeting. The updated version will then be the new baseline for ISECG workplan up to the subsequent meeting. The agency chairing the meeting will be responsible to update the workplan as a deliverable to the new chair.

This document details the ISECG work objectives and defines an associated implementation plan. It was updated following the third meeting in Yokohama, March 2009 and included specific deliverables to be achieved for the 4th ISECG meeting scheduled for Autumn 2009 in Europe.

The ISECG workplan responds to 3 overarching strategic objectives:

- Demonstrate the effectiveness and value of ISECG by achieving outcomes within 2009 which further the goals of ISECG and are of mutual benefit to the participating Agencies
- Increase the visibility of ISECG by communicating its existence and purpose to relevant international groups and organisations.

- Establish all elements of the ISECG structure required to make it fully operational.

In line with these objectives, the work has been organised into three groups: (1) specific actions targeted for completion within a year (2) preparation of proposals for future ISECG activities and (3) general administrative activities.

2 Specific Actions for the coming year

The following specific actions have been identified:

- Development of architecture recommendations regarding space exploration infrastructure standards facilitating interoperability through an international architecture working group.
- Continue development of the INTERnational Space Exploration Coordination Tool (INTERSECT)
- Enhancement of public engagement
- Establishment and maintain of working relationships with relevant existing international working groups/ organisations.
- Preparation and Organization of a WS on International Collaboration

- Development of annual report 2009

The tables below define the objective, activities and implementation approach for the specific tasks of the coming year.

INTERNATIONAL ARCHITECTURE WORKING GROUP (IAWG)	
Lead Agency: NASA	
Objective	<p>Serve as the ISECG working group assigned to lead multilateral architecture definition work, including the identification of interfaces that could benefit from standardization to enhance interoperability.</p> <p>The IAWG will also lead an evaluation process that will validate that the architecture enables, and is traceable to, a set of common ISECG objectives.</p>
Activities	<p>Near Term Objective (Through June 2010): Conduct Multilateral Lunar Architecture Study</p> <ol style="list-style-type: none"> 1. Expand on representative lunar exploration scenarios and characteristics <ul style="list-style-type: none"> • Explore innovative element concepts for providing desired functions • Define desired architecture elements and their key driving requirements • Understand how surface and communication elements influence transportation element requirements • Continue to pursue standardization of interfaces

	<p>that will bring benefits to a global lunar exploration scenario</p> <ol style="list-style-type: none"> 2. Continue dialog/recommendations on interfaces which benefit from standardization <ul style="list-style-type: none"> • Maintenance of the Interface Standards Matrix as a tool for guiding the work of appropriate interface standardization 3. Provide a forum for discussion of strategic questions that impact architectures 4. Inform policy/programmatic/partnership decisions from a technical perspective 5. Establish a team to conduct a Multilateral Evaluation of a set of common ISECG exploration objectives. To the extent possible, articulate shared and potentially emerging priorities for lunar exploration and determine which objectives are achieved in the scenarios outlined by the IAWG and how the scenarios enable their achievement
Implementation	<p>Conduct a June 2-4, 2009, face to face meeting in Europe (location TBD), and other face to face meetings and telecons as appropriate</p> <p>Conduct an Objectives Evaluation Workshop or series of workshops that include ISECG members, their experts and personnel, and if necessary additional experts as identified by ISECG members.</p>
Potential Deliverables at next ISECG Meeting	Reference global lunar exploration architecture (by June 2010) to aid decision making by any individual agency

Mapping the Barriers for Robotic and HUMAN EXPLORATION	
Lead Agency: ESA and NASA	
Objectives	<p>Prepare an overview of Agencies' missions and future planning</p> <p>Identify the significant, known technological and operational challenges associated with extending human presence to various Solar System destinations</p> <p>Identify gaps</p>

Activities	Meetings, teleconferences, etc.
Implementation	<p>Working from the themes described in Framework Document Chapter 3, identify and articulate the key exploration challenges associated with human exploration, by destination, including the ISS, the Moon and Mars.</p> <p>Utilize the InterSECT as a means of mapping agency missions and capabilities investments to address these challenges</p>
Potential Deliverables at next ISECG Meeting	Working group prepares a document identifying missions and future plans reflecting the identified key challenges and conclusions. The essence of those will be released at next ISECG meeting

INTERSECT	
Lead Agency: CSA and ESA	
Objectives	Further develop INTERSECT capabilities and utilise tool in support of International Architecture Working Group and ISECG action to further develop the “Mapping of the Exploration Journey”.
Activities	<ul style="list-style-type: none"> ○ Launch “manual” INTERSECT operations ○ Maintain and further develop INTERSECT user requirements supported by consultation of relevant ISECG Working Groups (IAWG, Mapping the Exploration Journey) as well as the ILN Working Group and international terrestrial analog working group and relevant groups ○ Initiate development of web-based INTERSECT applications
Implementation	<p><u>INTERSECT Working Group</u>: A virtual work team will be set-up and co-led by CSA and ESA. Interested ISECG participating Agencies will nominate participants to this work team.</p> <p><u>INTERSECT Operations</u>: Intersect operations will be supported by the ISECG secretariat. Each Agency which intends to make use of INTERSECT will nominate a focal point of contact.</p>
Potential Deliverables at next ISECG Meeting	<p>Consolidated Intersect User Requirements Document</p> <p>Status report on planned missions and capability development</p>

ENHANCEMENT OF PUBLIC ENGAGEMENT	
Lead Agency: DLR	
Objectives	Develop a common strategy for the enhancement of public engagement to promote exploration.
Activities	Preparation of a workshop between experts for PR and Public Outreach of each ISECG Agency. Development of common and distributed actions using existing and new instruments.
Implementation	The workshop will be held in September/October 2009 in Germany
Potential Deliverables at next ISECG Meeting	<ul style="list-style-type: none"> • Presentation of the output of the Workshop • Written strategy

Establish and Maintain WORKING RELATIONSHIPS WITH EXISTING INTERNATIONAL WORKING GROUPS	
Lead Agency: CSIRO	
Objectives	Establish and maintain working relationships with relevant existing international working groups of mutual benefit through <ul style="list-style-type: none"> • Informing existing groups of the ISECG existence, its mandate and activities • Acquiring a better knowledge of the activities of existing groups and initiate collaborative activities, as appropriate.
Activities	<ol style="list-style-type: none"> 1. Map existing groups potentially dealing with space exploration or related matters, assess synergies between ToR of these groups and ISECG ToR and compile information on Membership of these groups. 2. Update a standard information package on ISECG mandate and activities to be distributed to existing groups

	<p>3. Identify in liaison with these groups specific areas in which ISECG could benefit from ongoing activities and define the scope and approach for the establishment of a collaborative relationship.</p> <p>4. When appropriate, invite participants from other groups to ISECG meetings to inform ISECG of their activities.</p>
Implementation	<p>Set-up small working group for the development of the ISECG information package and mapping and analysis of existing working groups supported by ISECG secretariat. Share between all participating agencies the tasks of informing existing working groups according to an agreed process.</p> <p>The following milestones are planned:</p> <ul style="list-style-type: none"> • Maintain established contact with IOAG • Continue contacts with existing groups related to ISECG • Put Link on ISECG Web-site • Development of ISECG information package by next ISECG • Review of relations with existing working groups at next ISECG
Potential Deliverables at next ISECG Meeting	<p>-Documents the identities of the international Working Group and potential relationship including ISECG leads</p> <p>-Agreed table of organization contacts and actions</p>

International Collaboration WS	
Lead Agency: JAXA	
Objectives	Building and gathering information regarding the large scale international collaborations, preparing for the future collaborations in space explorations.
Activities	<p>-Map and survey of how the existing and past large scale international collaborations are/were built including lessons learned</p> <p>-Holding WS(period TBD)</p> <p>-Invite experts such as in the field of policy</p>
Implementation	<p>Hosting discussion meetings venue periodically.</p> <p>Asking inclusively participations from the agencies who are</p>

	interested in. Preparation for WS through telecons
Potential Deliverables at next ISECG Meeting	Developing schedule, organizing team to arrange WS,

3. Agency Initiatives in Support of Future ISECG Activities

ISECG should track how private sector engages in this area, possibly leading to international workshop after lunar reference architecture agreed (June 2010).

4. Reporting Activities

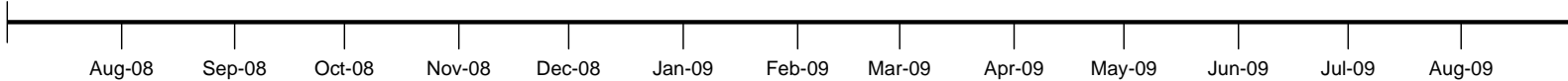
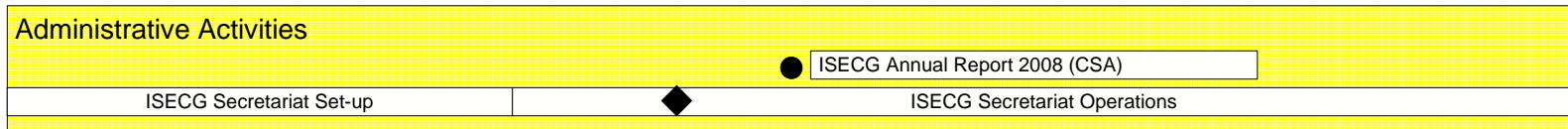
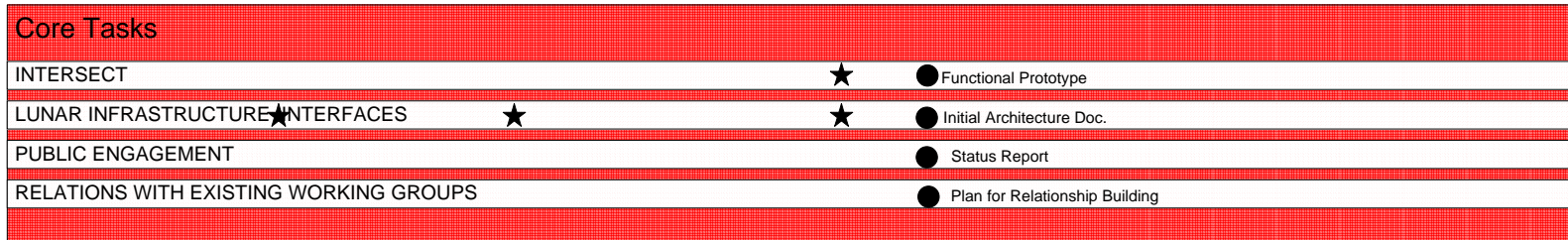
(Annual Report)

ISECG will continue to produce an annual report to inform the wider community about the activities and outcomes of ISECG. Annual report will be distribution by the Secretariat. The third annual report for 2009 activities will be led by NASA.

5.Implementation Schedule(will be replaced)

◆ Montreal
2nd ISECG

◆ Yokohama
3rd ISECG



Jul-08

Sep-09

- ◆ Milestones
- ★ Working Group Meetings
- Deliverables

6.Resources

X: Lead Function	ASI	BNSC	CNES	CNSA	CSA	CSIRO	DLR	ESA	JAXA	KARI	NASA	NSAU	ROSCOSMOS
x: Expressed Interest of Participation													
SPECIFIC ACTIONS 2009													
INTERSECT	x		x		X			X	x		x		
International ARCHITECTURE	x	x			x			x	x	x	X		
IAWG/Objective team	x	x			x		x	x	X	x	x		
Mapping BARRIERS TO Robotic and HUMAN EXPLORATION	x				x		x	X			X		
PUBLIC ENGAGEMENT		x				x	X	x	x		x		
RELATION WITH EXISTING WG'S	x	x	x		x	X		x	x		x		
International Collaboration WS		x			x			x	X		x		
AGENCY INITIATIVES IN SUPPORT OF FUTURE ISECG ACTIVITIES													
Private Sector		X											
ADMINISTRATIVE SUPPORT AND REPORTING													
ISECG SECRETARIAT								X					
ANNUAL REPORT	x	x	x	x	x	x	x	x	x	x	X	x	x