

## Group Discussion

### Group 1: Planning a Public Space\* within a Research Organisation

**\*Museum, Science Centre and Visitor Centre**

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#### Planning

Challenges & solutions  
Major milestones  
Fundraising  
Preservation issues for collections  
International collaborations (e.g.: Tokyo2020 Olympics)

#### Challenges & (Potential) Solutions

Low EPO budget (some studies say that overall EPO budget need to be around 2-3%)

Relation with top-level management and funding organisations one of the main issues

- Find your champions inside the organization to support your case
- Identify their needs (like big projects) and how you can incorporate that in your activities

#### Planning Aspects

1. Project Objectives
2. Visitor Experience Design
3. Coordination with stakeholders (IMPORTANT: management)

#### Planning Milestones (a iterative process/design process)

- Agreement inside the organization/identify budget constrains/Define roles and responsibilities.
- Identify your potential public and their expectations (survey)
- Identify your/organisation key messages and key stories
- Develop the visitor flow and experience
- Content development (look for opportunities in similar organisations)
- Adjust to the budget and organization expectations
- Identify budget for long-term operation
- FINAL go ahead from management
- Building planning
- Construction
- Exhibition fabrication and installation
- Community development with activities (start as soon as construction)

- Opening date

## **Visitor Experience Design for Informal Environments**

- Strand 1: Experience excitement, interest, and motivation to learn about phenomena in the natural and physical world.
- Strand 2: Come to generate, understand, remember, and use concepts, explanations, arguments, models, and facts related to science.
- Strand 3: Manipulate, test, explore, predict, question, observe, and make sense of the natural and physical world.
- Strand 4: Reflect on science as a way of knowing; on processes, concepts, and institutions of science; and on their own process of learning about phenomena.
- Strand 5: Participate in scientific activities and learning practices with others, using scientific language and tools.
- Strand 6: Think about themselves as science learners and develop an identity as someone who knows about, uses, and sometimes contributes to science

## **Preservation of Collections**

- Curation (no funding for curation!)
- Storage space shortage
- Items to circulate around other museums and public spaces
- Crowdsource the selection of the collection ?
- (Campaigns like: What's important for you? Get your own item)

## Group Discussion

### Group 2: Operational Vision

Yonetani-, Usuda-Sato-, Nemoto-, Yaji-, Hanaoka-, Hakim-, Hashimoto-,  
Kamegai-, Asami-, Fukushima-, Awakuni-, Tanigawa- & Lars-sans

We suggest that, in 2020, at the time of the Olympics, the NAOJ Astronomy Museum will:

#### NAOJ Museum: Operational Vision I

- Have, in 2015-2019 period, invested in well-established and documented processes for how to do the work (workflows, training schemes)
- Have approvals that are swift, unbureaucratic and fast to not drag down the work (esp. at the decentralised facilities)
- Have an integration of the work based on the skills needed (like writing/communicating, graphics, multimedia) and not based on the projects (like Subaru or Nobeyama)
- Have a careful and pragmatic balance between the work done centralised (in Mitaka) and de- centralised (eg. In Hawaii or Nobeyama) to make best use of the resources and expert skills
- With the savings in manpower from the steps above, set up a Museum-like component to clearing-house connecting past and cutting-edge astronomy
- Have an in-house expert who curates historical Japanese astronomy artifacts
- As a result reach a doubling of the physical visitors to Mitaka Campus
- Integrate the astronomers, Post-docs and engineers — with efficient workflows to minimise the use of their time — in the interaction with the visitors ?

#### NAOJ Museum: Operational Vision II

In 2020, at the time of the Olympics, the NAOJ Astronomy Museum will:

- Integrate the help from skilled volunteers (amateur astronomers, students, seniors etc.) and train the volunteers in science communication
- Have 4D2U operate more frequently, possibly almost daily
- Make the NAOJ Astronomy Museum a star attraction of the Olympics
- Integrate the translations in swift, timely workflows, esp. English, to share better with foreigners.
- Will have a simple shop for visitors.
- Arrange to have the NAOJ outreach locations as Accessible as possible.

# Group Discussion

## Group 3: Content

NAOJ Museum Content Group

### **“OPEN JAXA” image use policy:**

A ‘MITAKA DECLARATION’ ... ?

Group voice or other?

HST and ESO models?

HST science embargo of six months, then open

Suggestion to discuss at CAP (2016 May) preparing: International policy via IAU

### **International sharing of visualization presentation:**

Interactive, free software:?

Mitaka, OpenSpace?

Share with each other, investigate co-development Emphasis on networking feature for simultaneous presentation

### **International sharing of production products:**

IPS: Availability of focused visualizations for planetarium community, in general.

NAOJ: telescopes, HPC, satellites

Satellites: Tricky image use policy, e.g. Hinode was international mission, Kaguya, not.