

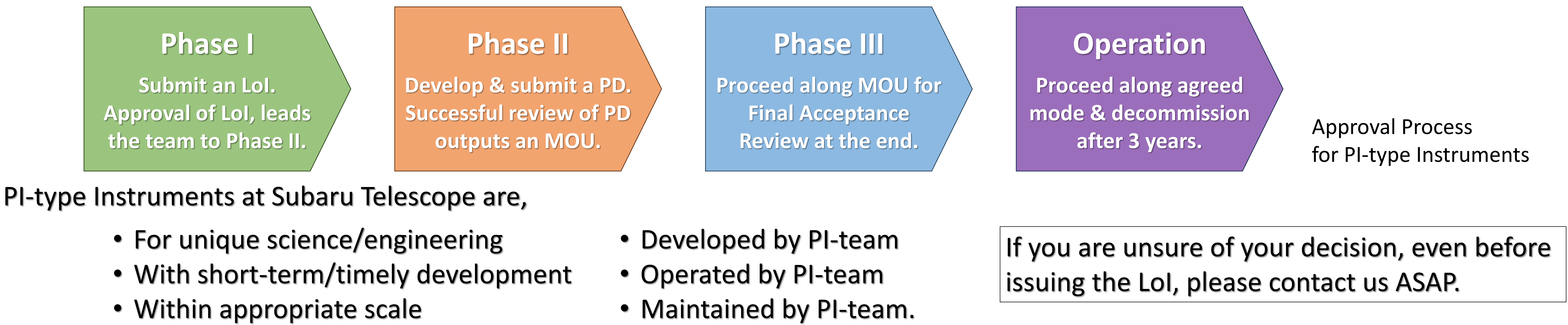
# PI-type instrument activities at Subaru Telescope

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Subaru Telescope have a PI-type instrumentation program, which aims to bring astronomical productivities in its operation phase and/or test a purely engineering purposes such as a demonstrator of novel technology and application, to cover a beyond area of activities that the facility instruments cover. We are now considering how and what PI type instrumentation program should be going to encourage PI-type instrument activities, maximize outputs, and minimize a surge of the observatory's resources. Please feel free to contact observatory staff if you have a concept of new instrument at Subaru Telescope.

## 1. PI-type Instrument Program at Subaru Telescope



## 2. Human Resource Shortage

- a) Management Level:
  - Main task is to communicate with PI, arrange review meetings, and adjust works schedule
  - Letter of intent, Proposal Document, and Review are all on-demand basis, thus we can't control a surge of human resource at Subaru Telescope side
- b) Engineering Level:
  - Main task is to make a plan and do renovation work to accommodate PI instrument to the existing Telescope and Facility
  - We are always facing this resource shortage
  - Other large-scale renovation work and Subaru 2.0 Instruments are on going and take this resource
- c) Technical Level:
  - General supports for mechanical, electrical, network, and software
  - Takes much time (if PI asks a tiny 5-minute work, but we need 4 hours include summit access in fact)
  - A few days delay (After receiving a request from PI, we arrange a summit work)

## 3. Issues to be Discussed

- d) Lack of Interface Control Document (ICD) :
  - Subaru Telescope has been designed and constructed with the Japanese Style Management “Suriawase (摺り合わせ)”
  - No complete ICD which likes other large projects
  - Only some portion of ICD is available, but it is not up-to-date and requires document search and detailed study on site
  - Instrument which PI proposed would have a potential NOT be fit in Subaru Telescope due to a lack of ICD, regarding max dimensions, weight limit, stability, operation conditions, etc
- e) Effort Management:
  - PI-type Instrument activities shall be covered by the PI’s resource basically (philosophy)
  - However, NOT negligible amount of efforts and resources are also spent from Subaru Telescope in fact
  - Hard to see Subaru-side’s effort means hard to evaluate the role of Subaru Telescope to realize PI-type instrument

## 4. Ideas for Improvement

Followings are ideas for better operation. Please let us (Subaru Telescope) know if you have any comments. These are just ideas so far. No immediate change is expected. **Your communities’ feedback is very important.**

- a) Management Level:
  - Start a “Call For” system, instead of “on-demand” basis
  - Call for Letter of Intent, Call for Proposal Document will be announced every year (TBD)
  - Review schedule will be set in advance
- b) Engineering Level:
  - Ask PI to come and make a Site Visit for “Suriawase”
  - PI and Subaru’s engineer work together for facility modification
- c) Technical Level:
  - PI team will stay always in Hawaii and work together with Subaru’s technician
- d) Lack of Interface Control Document (ICD) :
  - It is not realistic to make an ICD from now
  - “Suriawase” management, i.e., Close Communication and Site Visit in our case would be equivalent with ICD in the project management
- e) Effort Management:
  - Depending on the degree of contribution, ask PI to add them to the development team (PI-team), especially for engineering level work
  - Evaluate and report Subaru-side's FTEs for PI-type Instrument activities to Subaru Leadership Group, SAC, and communities appropriately.