



**ALMA BOARD MEETING**  
**April 20-22, 2022**

**PUBLIC SUMMARY**

The ALMA Board convened via Zoom, between the 20<sup>th</sup> and 21<sup>st</sup> of April, with the following attendees:

Chair	Linda Tacconi (EU)	Board Assessors	Debra Fischer (NA)
Vice-Chair	James Di Francesco (NA)		Andreas Kaufer (EU)
Board Members	Joseph Pesce (NA)		Satoru Iguchi (EA)
	Xavier Barcons (EU)		
	Saku Tsuneta (EA)		
	Tom Ray (EU)		
	Daniel Weselka (EU)*		
	Tony Beasley (NA)		
	Karin Öberg (NA)		
	Toshikazu Onishi (EA)		
	Toru Yamada (EA)		
JAO	Sean Dougherty (ALMA Director)		
	Stuartt Corder (ALMA Deputy Director)		
	John Carpenter (Observatory Scientist)		
	Cristian Puentes (Head of Administration)		
	Norikazu Mizuno (Head of Engineering)		
	Ivan Lopez (Safety Manager)		
	Jorge Ibsen (Head of Computing)		
	Elizabeth Humphreys (Head of Science Operations)		
	Rafael Mena (HR Manager)		
	Valeria Foncea (EPO Manager)		
Executives	Adam Cohen (AUI President)		
	Leonardo Testi (ESO ALMA Programme Manager)		
	Phil Jewell (NRAO ALMA Program Manager)		
	Álvaro González (NAOJ ALMA Program Manager)		
	Paulina Bocaz (AUI/NRAO Representative in Chile)		
	Tetsuhiro Minamidani (NAOJ Representative in Chile)		
	Luis Chavarria (ESO Representative in Chile)		
	Crystal Brogan (NA Program Scientist)		
	Rob Ivison (ESO Director of Science)		
	Mistato Fukagawa (EA ARC Manager)		
ASAC	Mario Tafalla (ASAC Chair)		
Board's Secretary	Alejandra Voigt (ALMA Executive Officer)		

*\*Could not attend*

## **PUBLIC SUMMARY**

The ALMA Board held its April 2022 meeting, via Zoom.

The Board's Chair, Dr. Tacconi, welcomed all Board members, assessors and attendees, noting especially the attendance of Adam Cohen, AUI President, all members of the ALMA Management Team, the JAO Core Management Team, the representatives in Chile for ESO, AUI/NRAO and NAOJ, the ASAC Chair Mario Tafalla, the Director of Science from ESO, Program Scientists from NRAO and the EA ARC Manager.

The Chair expressed the Board's appreciation for all her contributions, especially to the Science Committee, to You-Hua Chu, and welcomed Professor Toru Yamada, from JAXA, who was appointed as the new Board member from East Asia.

In addition to other matters during the meeting, the Board:

1. Reviewed the status of the activities to transition to regular operations and the preliminary outcomes of Cycle 8 and the preparations for Cycle 9 Proposal review Process.
2. Approved a restated 2022 ALMA On-site Budget, due to macro-economic factors.
3. Received the ASAC report from the ASAC Chair and discussed the preliminary feedback from the Board.
4. Assessed the ongoing Development Projects and the current efforts with the implementation of the ALMA Development Roadmap.
5. Approved the ALMA 2030 Digitization to Correlation Path Prototyping and System Demonstration project.
6. Decided that the next November 2022 meeting will be held in presence in Santiago and that the April 2023 meeting will be held virtually.

### **ALMA Overview**

The Board noted the presentation given by the ALMA Director, regarding the status of ALMA, including:

- Progress accomplishing regular operations and continuous efforts to minimize the risk of the pandemic.
- General outcome of Cycle 8 and the projections for Cycle 9.
- The remarkable scientific output with (now) 2783 publications from ALMA.
- Main current challenges:
  - Maintenance backlog due to the pandemic
  - Budgetary constraints, especially related to prevailing macro-economic factors.
- The preparations for Cycle 9 proposal review process
- Cycle 10 - Increased Science Opportunities
- The plans to implement joint proposals with JWST, VLT and VLA.
- The progress and challenges related to the implementation of the ALMA2030 Roadmap.
- Other JAO considerations, such as:

- Safety highlights
- EPO main activities and successful results

## **Scientific Matters**

The Board noted the presentations given by the Chair of the ASAC, the Head of the ALMA Department of Science Operations, the Observatory Scientist and the Chair of the Board's Science Committee regarding:

- Assessment of the performance of ALMA scientific capabilities.
- Cycle 8 Science Operations Outcomes and operational performance.
- Ways to maximize ALMA's scientific impact, including high-frequency, joint proposals and large programs.
- Analysis and lessons learned from the Cycle 8 distributed peer review process and plans to improve the proposal review process for Cycle 9.
- The plans to implement joint proposals between ALMA and other observatories.

## **Financial Matters**

The ALMA Board noted the report of the ALMA Budget Committee on the 2021 budget execution and financial results, the projections for 2022, under the current macroeconomic pressures and the long-term planning, including the obsolescence and major maintenance issues under consideration.

The Board discussed the risks and challenges ahead for the 2022 budget and the approach to address the current macro-economic challenges, particularly the rising price of fuel and the weakening Chilean Peso.

Finally, The ALMA Board approved to restate the on-site Budget, as recommended by the Director's Council, subject to appropriated funds made available by national governments, funding agencies and governing bodies of the Parties and asked the ALMA Director to provide regular monitoring of budget status.

## **Long Term Power Strategy**

The Board addressed the power generation vision and strategic action plan towards a more sustainable Power Generation for the JAO, upon a presentation provided jointly by the Deputy Director and the Executive Officer.

## **ALMA Development Program Update**

The ALMA Board noted the presentation by the Deputy Director regarding the status of the ALMA Development Program. This covered the on-going projects and studies, the projects that will be submitted for approval in the near future related to the Wideband Sensitivity Upgrade. The Board also noted a presentation from the NA Program Scientist on the

upcoming 2<sup>nd</sup> Generation ALMA Correlator project, named ALMA TALON Central Signal Processor (AT.CSP).

Finally, the Board approved the ALMA 2030 Digitization to Correlation Path Prototyping and System Demonstration project, as an ESO contribution to the ALMA Development Program.