

# Consensus Result: Phantom

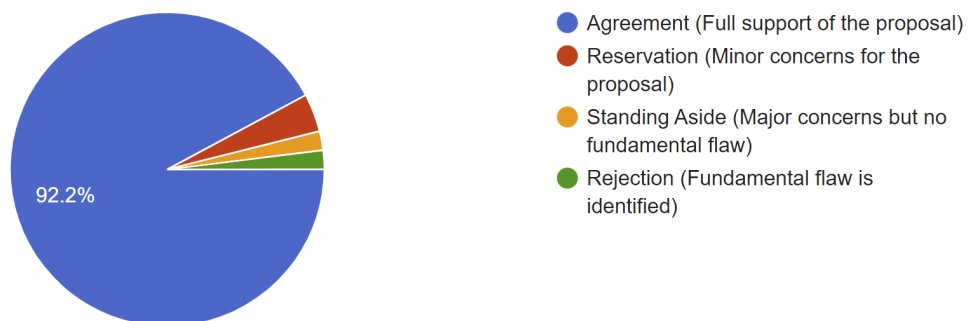
Consensus vote start: 5th of June 2023  
Consensus vote end: 19th of June 2023

## Consensus Vote result:

Number of votes: **51**

Agreement: 47 (92.2%)  
Reservation: 2 (3.9%)  
Standing Aside: 1 (2%)  
Rejection: 1 (2%)

51 responses



## Vote outcome:

With >70% agreement and <10% rejection, the document will be published on the IPASC.science website and will remain labelled "Agreed Proposal". Further comments are welcome and might be implemented in a second version of the document.

## Feedback comments during the vote:

Thanks for a great job!

In overall agreement but have important concerns about many details for which changes in the current version are essential due to errors of statements and data.

1. "Safe to prepare in a laboratory environment; no expert training required for material fabrication" - I have exactly the opposite view - the phantoms should be standardised and this

way it is easy to refer to the phantom used (which immediately brings up a list of properties - bespoke manufacturing means that you need to have additional quality assurance with regards to the instruments used for measuring the properties. 2. I am unable to comment on the numbers or the methods of measuring these properties before a systematic review is conducted.

Excellent report!

No discussion about ocular imaging, or bone as a potential target for a photoacoustic phantom.

I have a few minor concerns with word choice (generally avoid using shall, page 1, direct comparison instead of direct comparison), but they do not detract from my full support of the document.

While the document is well-written, I have concerns that with increasing interest in NIR-II/SWIR imaging, this document/phantom materials chosen may become less relevant by the time they are ready for widespread adoption.

Excited about these recommendations!

The proposal is overall well-written. However, the title is not consistent with the contents and the use cases for the proposal are not specified. The title is too general, therefore implying that this document applies to all photoacoustic phantoms. The paragraph under the title appropriately specifies that this document specifically applies to “tissue-mimicking” phantoms. This is an important distinction because not all photoacoustic phantoms need to mimic tissue to achieve a desired objective. For example, if I want to evaluate the validity of a beamformer, replicating the sound speed of tissue is not an essential material property for phantom construction with this sole end goal. The title should be updated to specify that the associated recommendations apply to tissue mimicking phantoms, and the document should be updated to reflect that specific use cases and project objectives or goals can warrant acceptable deviations from the recommended properties, with evaluations of the validity of beamformers as one prime example.

### **List of voters:**

Ledia Lilaj, Janek Grohl, Ruiqing Ni, Mark “Marty” Pagel, Jeff Bamber, Varray, Zhiyang Wang, Chao Tian, Lina Hacker, Kristen M. Meiburger, Wouter Muller Kobold, Antonio López Marín, Nina Reistad, Marty Pagel, Wenfeng Xia, Jeeseong Hwang, Yeni Yucel, Francis Kalloor Joseph, Gijs van Soest, Min Wu, Kurinchi Gurusamy, Sarah Bohndiek, Vassili Ivanov, Shufan Yang, Manojit Pramanik, T. Scott Rowe, Mengjie Shi, Rui Cao, Handi deng, Efthymios Maneas, Ferdinand Knieling,

Ben Cox, Jason Raymond, Jasper Vonk, Srinath Rajagopal, Lena Maier-Hein, William Vogt, Camilo Cano, Lawrence Yip, Hisham Assi, Maximilian Waldner, Sarah Lee, Guenther Paltauf, Amir Gholampour, Mantvydas Jasinskas, Muyinatu Bell, Weylan Thompson, Bryan Clingman, Adrien Desjardins, Po-Wah So, Naoto Sato