

## Record of Agreement:

# O5 Coating Selection for AdV+ and A+

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[LIGO-M2100225](#)

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As outlined in [LIGO-M2100135/VIR-0938A-21](#), it is now expedient to escalate development of low-CTN O5 test mass coatings to full aperture and optical performance, using (and thereby vetting) facilities and equipment that can ultimately support production. While no experimental coating sample has yet achieved all targets at once, further delay of steps toward industrialization will put O5 network sensitivity at risk.

Based on detailed presentations by the leading low-CTN coating research groups and review of publications and data, a joint advisory panel convened by LIGO and Virgo has delivered a consensus favoring pursuit of Titania-Germania alloy for full-scale development (see [LIGO-M2100169/VIR-1207A-21](#)).

In accepting and endorsing this consensus, we embrace the panel's additional suggestion to empower a joint AdV+/A+ Ti:Ge Working Group. This group will be charged to prioritize and execute supporting R&D, focusing coordinated resources of both Collaborations toward realization of O5 coatings on the required schedule.