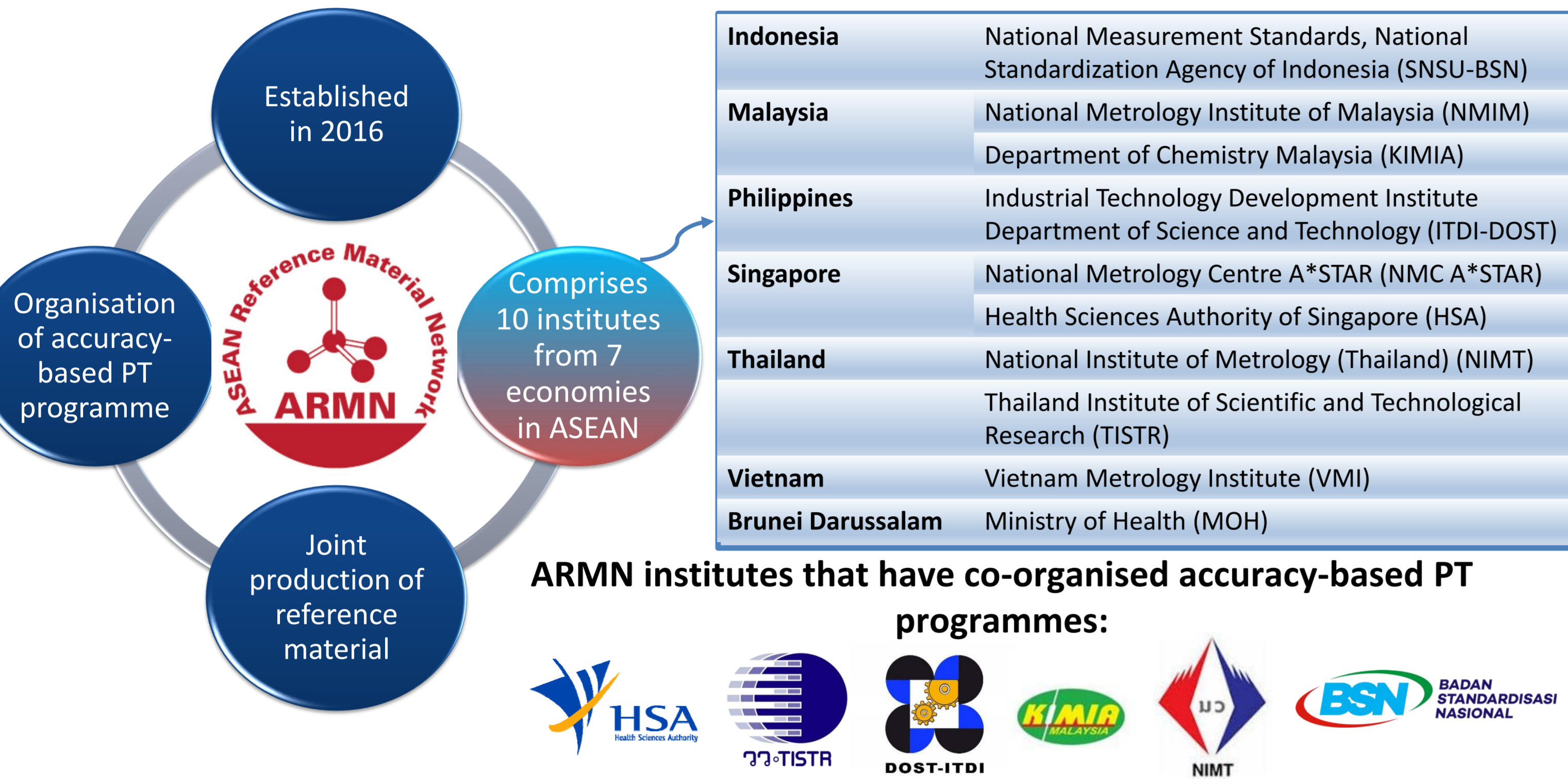


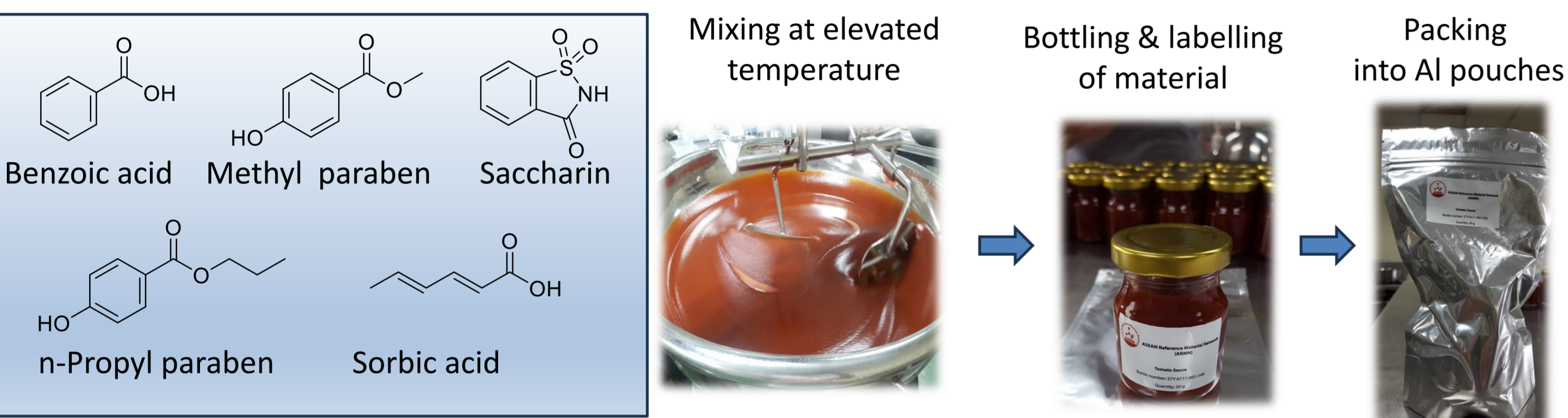


Introduction



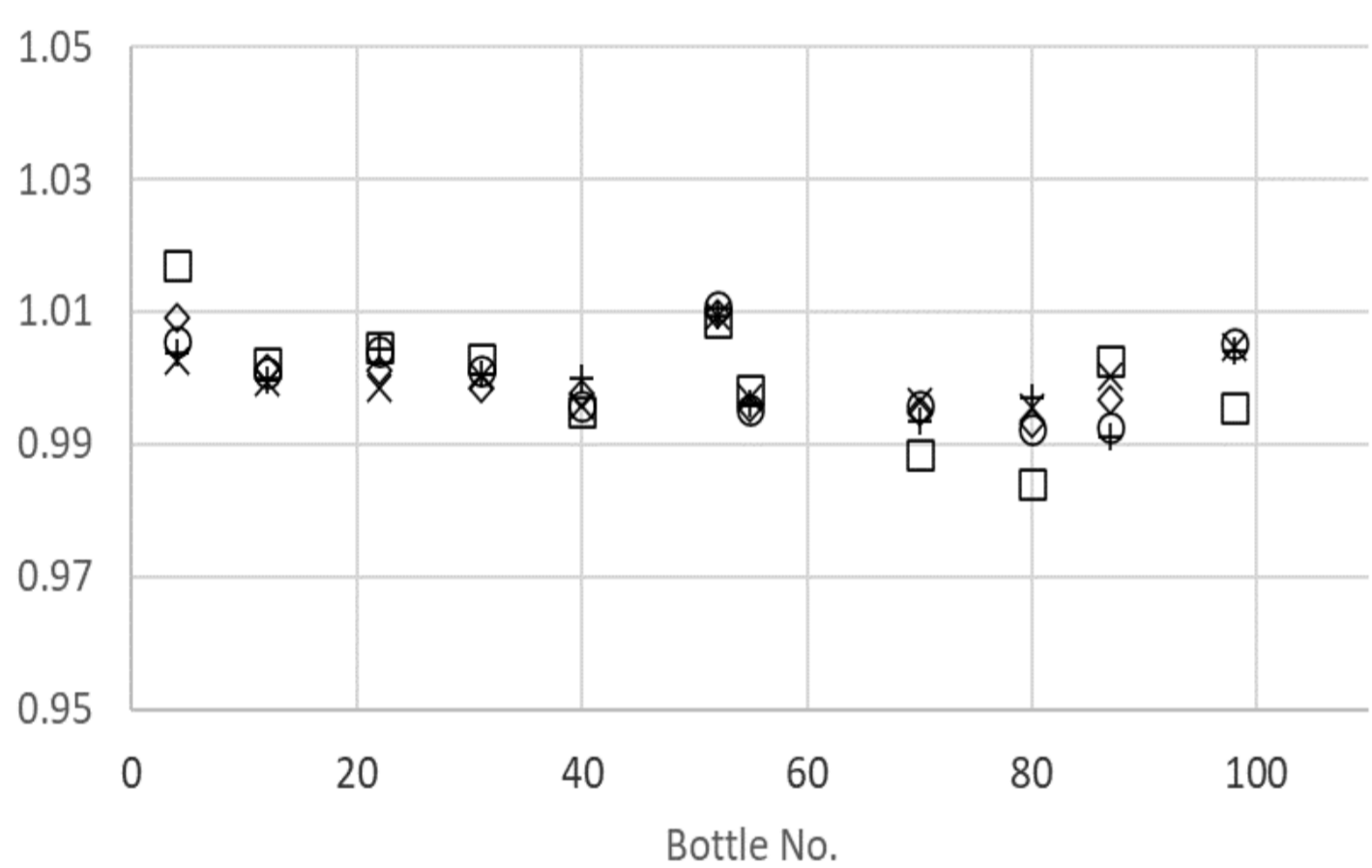
PT Programme on Additives in Food Sauce (2020)

Preparation of PT samples performed by TISTR:

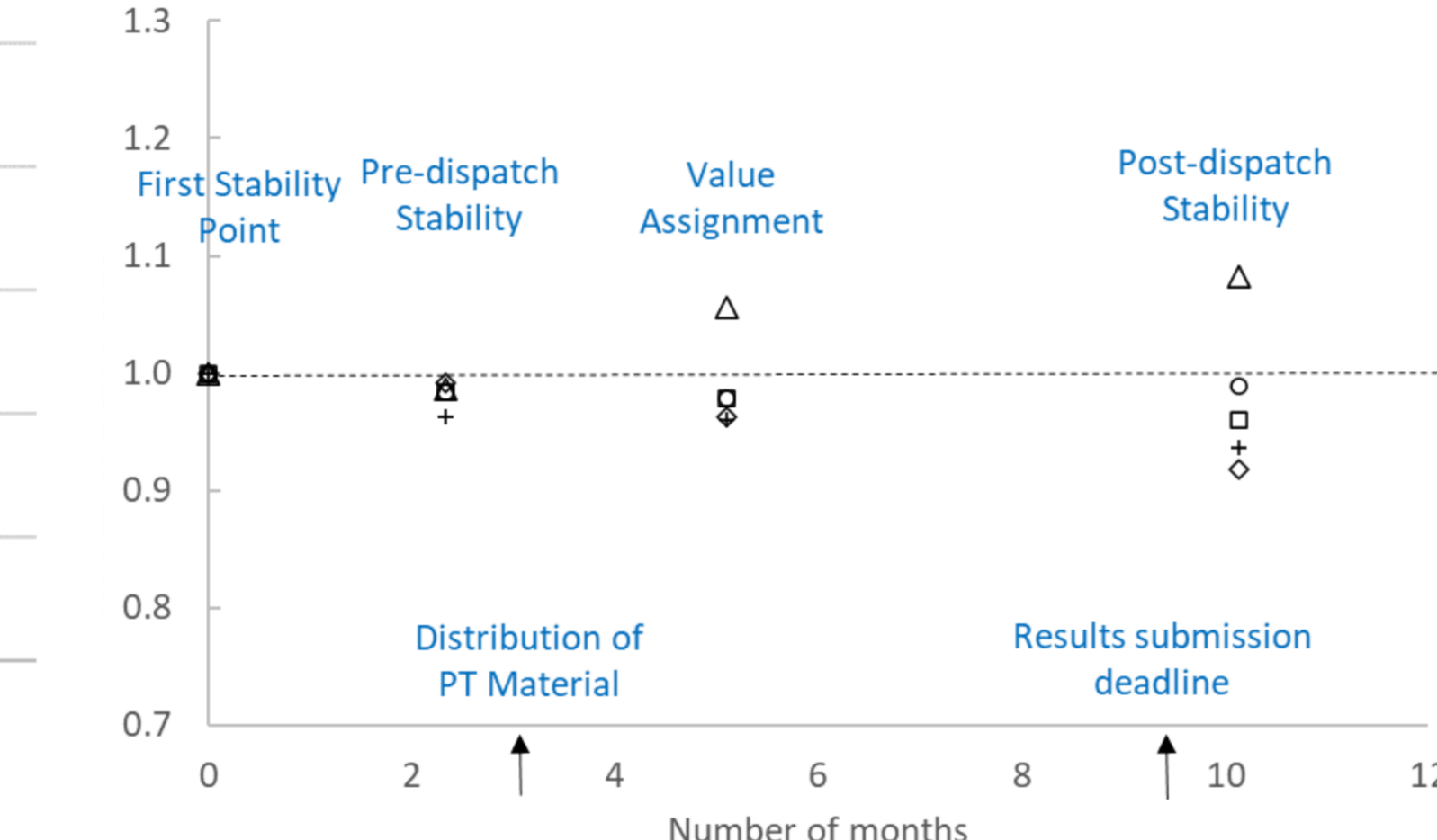


Homogeneity and stability studies performed by HSA (results were evaluated following ISO 13528:2015):

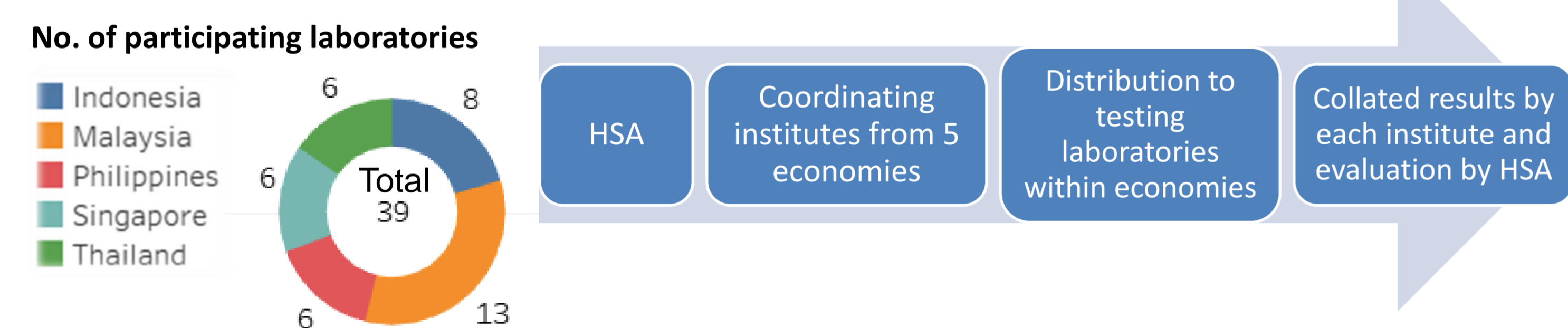
Homogeneity study



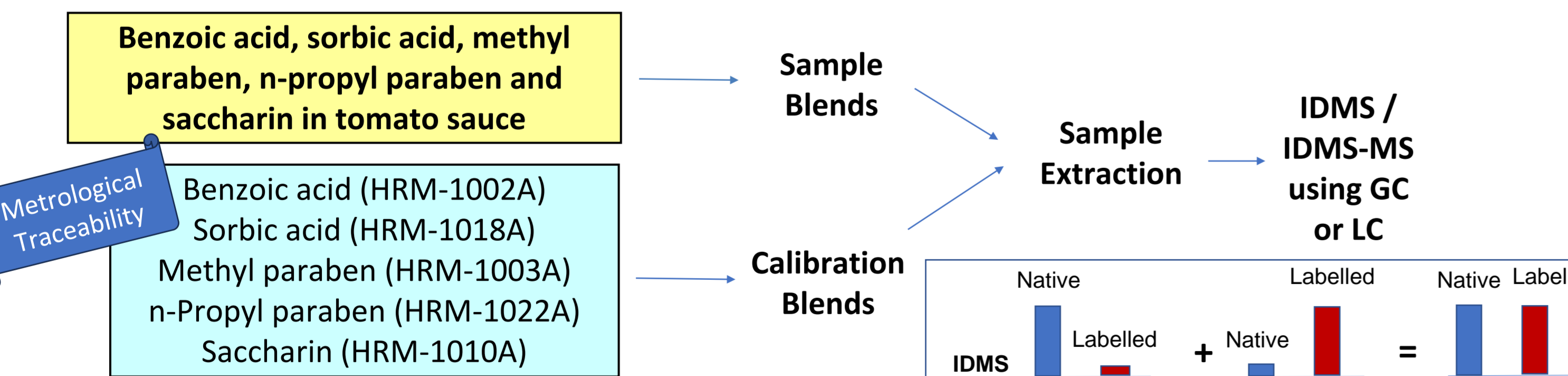
Stability studies



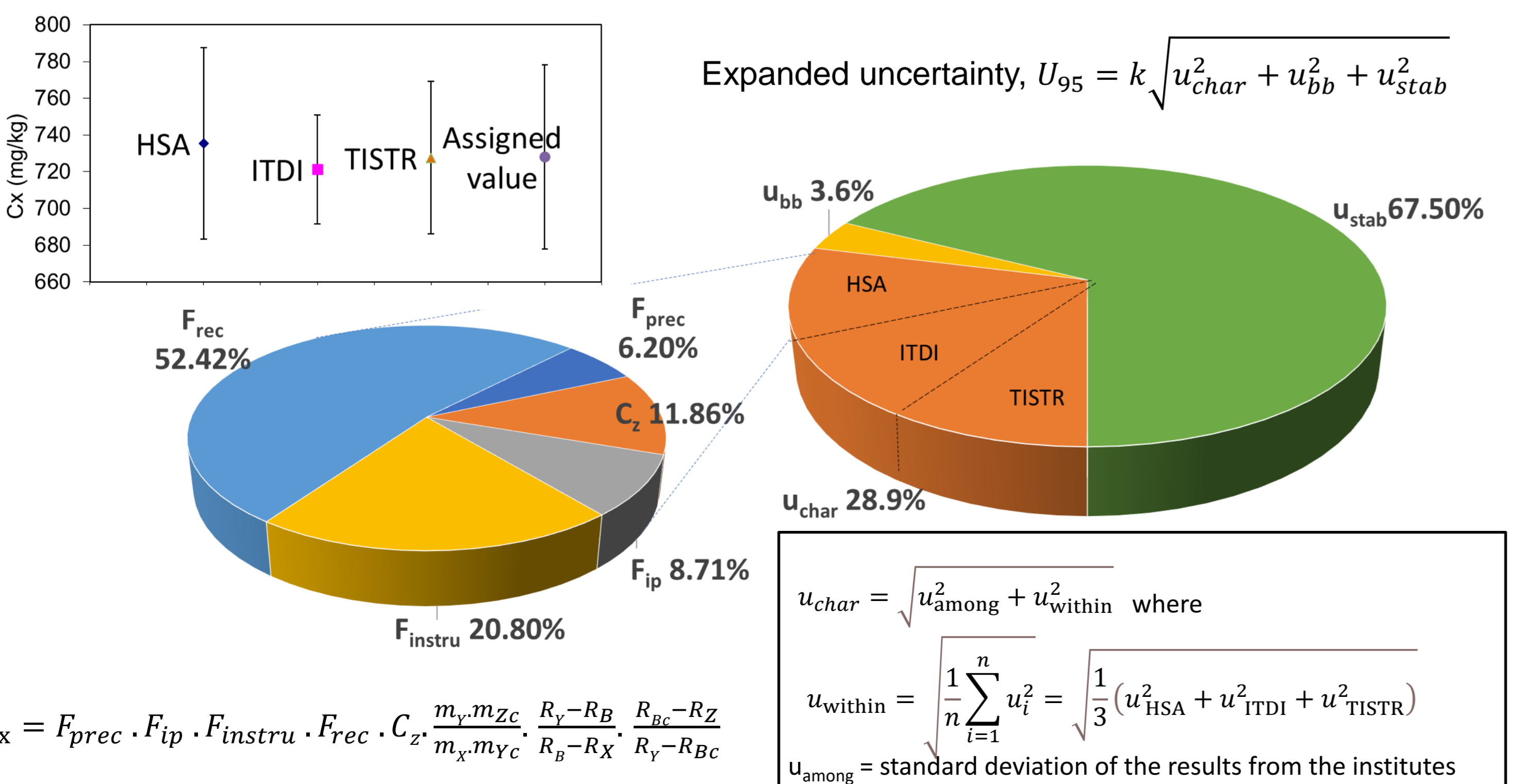
PT Coordination:



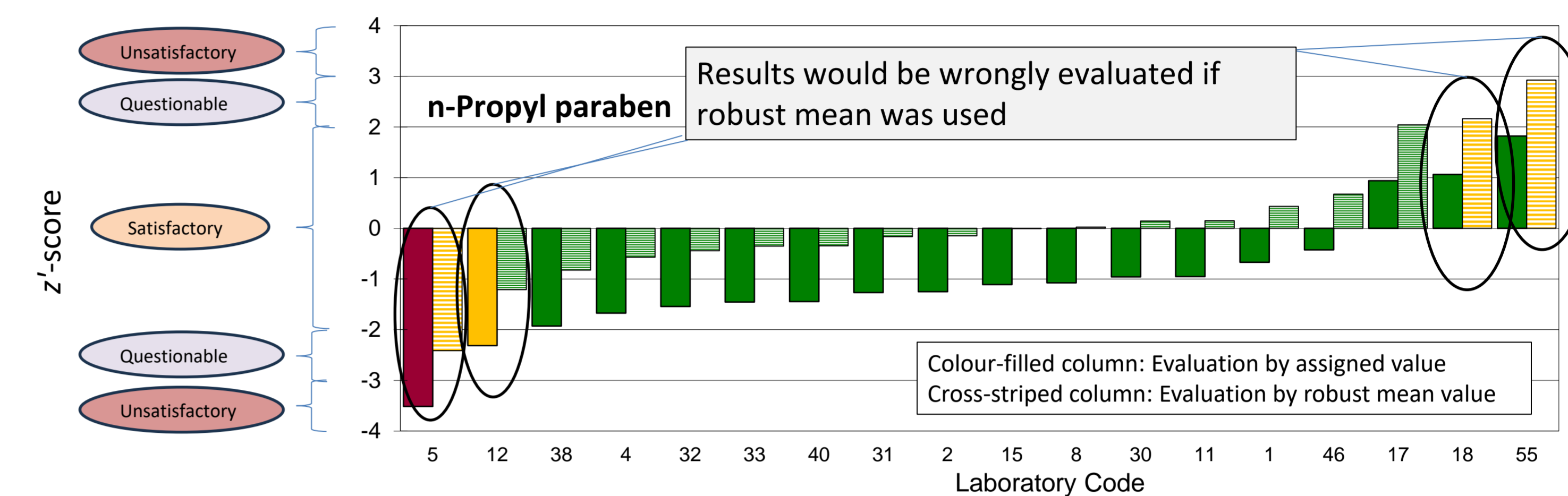
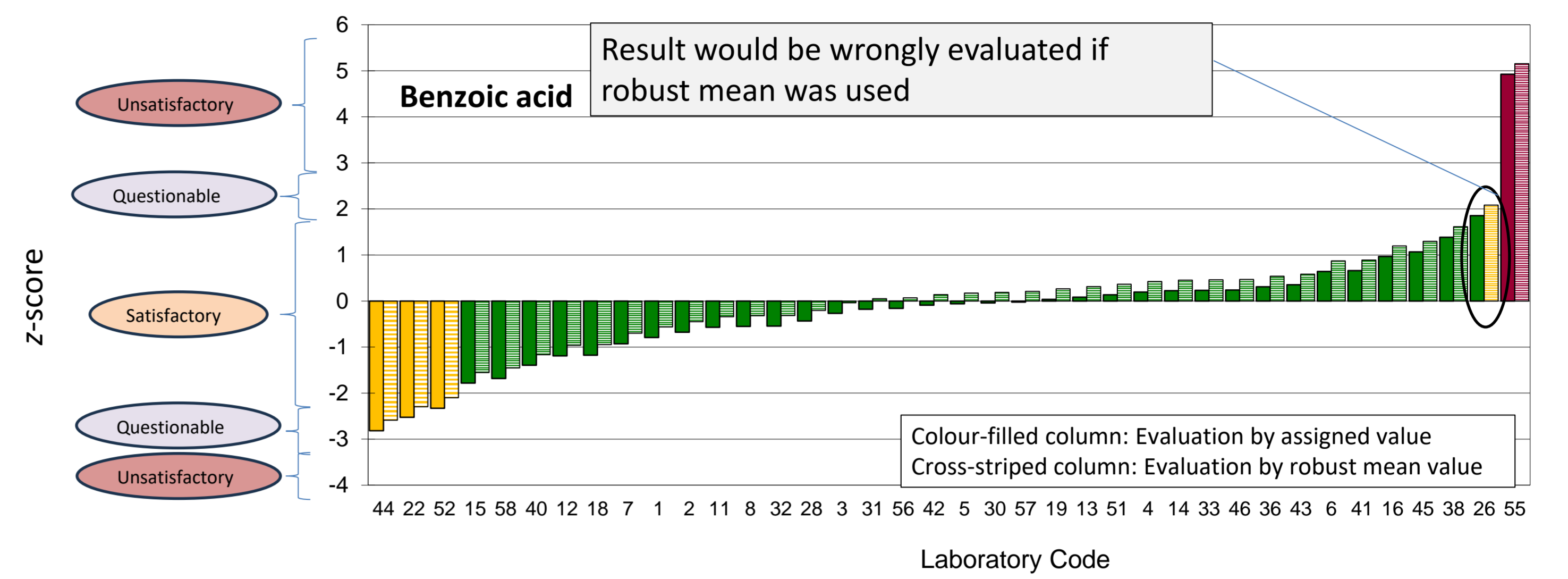
Assigned values* for the five analytes jointly determined by HSA, TISTR and/or ITDI:



Assigned value of benzoic acid and its measurement uncertainty as example:



Evaluation of participating laboratories' results using independently determined SI traceable assigned values (not consensus approach):



PT Programme on Toxic Elements in Lipstick (2021)

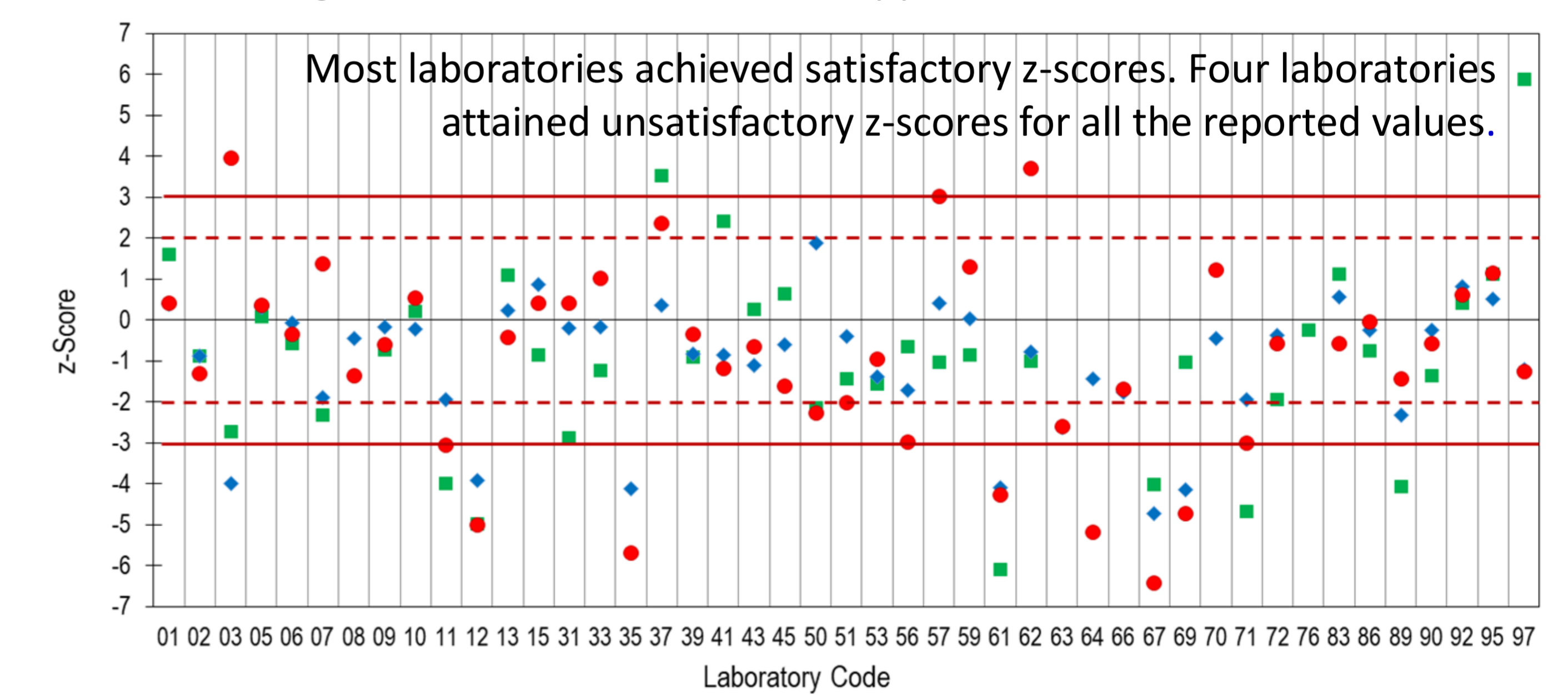
Homogeneity performed by HSA and stability studies performed by NIMT.

PT Participation:

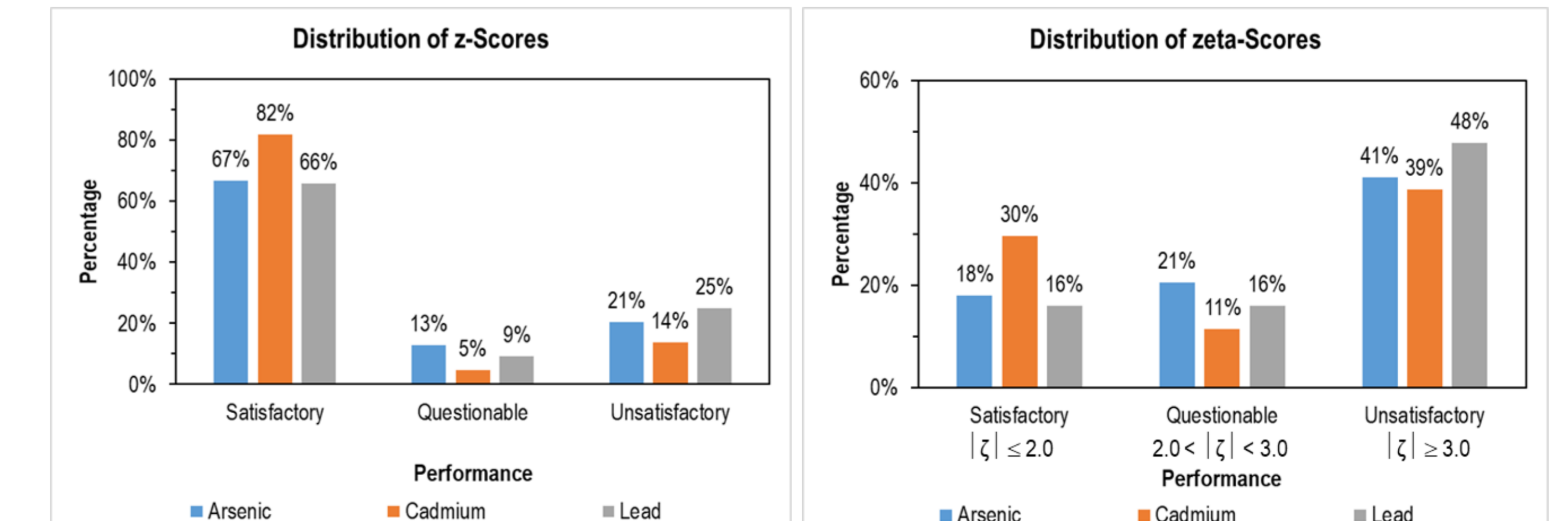
45 Cosmetic testing laboratories from Indonesia, Malaysia, Philippines and Singapore participated in this programme.

Assigned value for the three analytes jointly determined by HSA and NIMT: Assigned value for arsenic was determined by standard addition method, while the assigned values for cadmium and lead were determined by ICP-IDMS method. Standard Reference Materials from NIST (SRM 3103a for arsenic, SRM 3108 for cadmium and SRM 3128 for lead) were used as the calibration standards. The values were calculated based on arithmetic mean of results reported by HSA and NIMT.

Evaluation of participating laboratories' results using independently determined assigned values (not consensus approach):



High percentage of laboratories attaining unsatisfactory z-scores suggested underestimation of their measurement uncertainties.



Conclusion

This coordinated effort, gathering a larger number of participating laboratories, enabled a broader understanding of the laboratories' measurement capabilities across multiple ASEAN economies with less manpower and resources commitments from each institute. The remaining PT materials were made available as ASEAN reference materials (ARMs) for quality control or method validation.

Reference

P. S. Cheow, T.L. Teo, T.J. Fortune, B.A. Ebarvia, S.N.N.S. Hashim, D. Styarini, J. Wang, E.M. Gui, T. Lu, T. Mungmeechai, P. Tangtrirat, A. Dacuya, A.R. Veranga, G. Amandy, H.L. Li, Y. Aristiawan, C. Elishian, A. Hindayani, "Efficient delivery of metrological services by institutes through accuracy-based proficiency testing programme on additives in food sauce for laboratories in the Southeast Asian region." Accreditation and Quality Assurance, 27 (2022): 205-222.