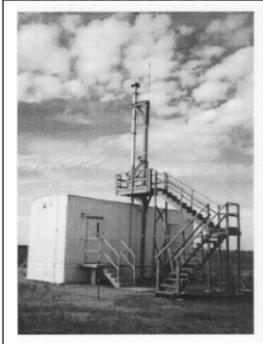


A Decade of new era ARM Aerosol Measurements

First AOS: SGP



The Aerosol Observing System (AOS)

Then...

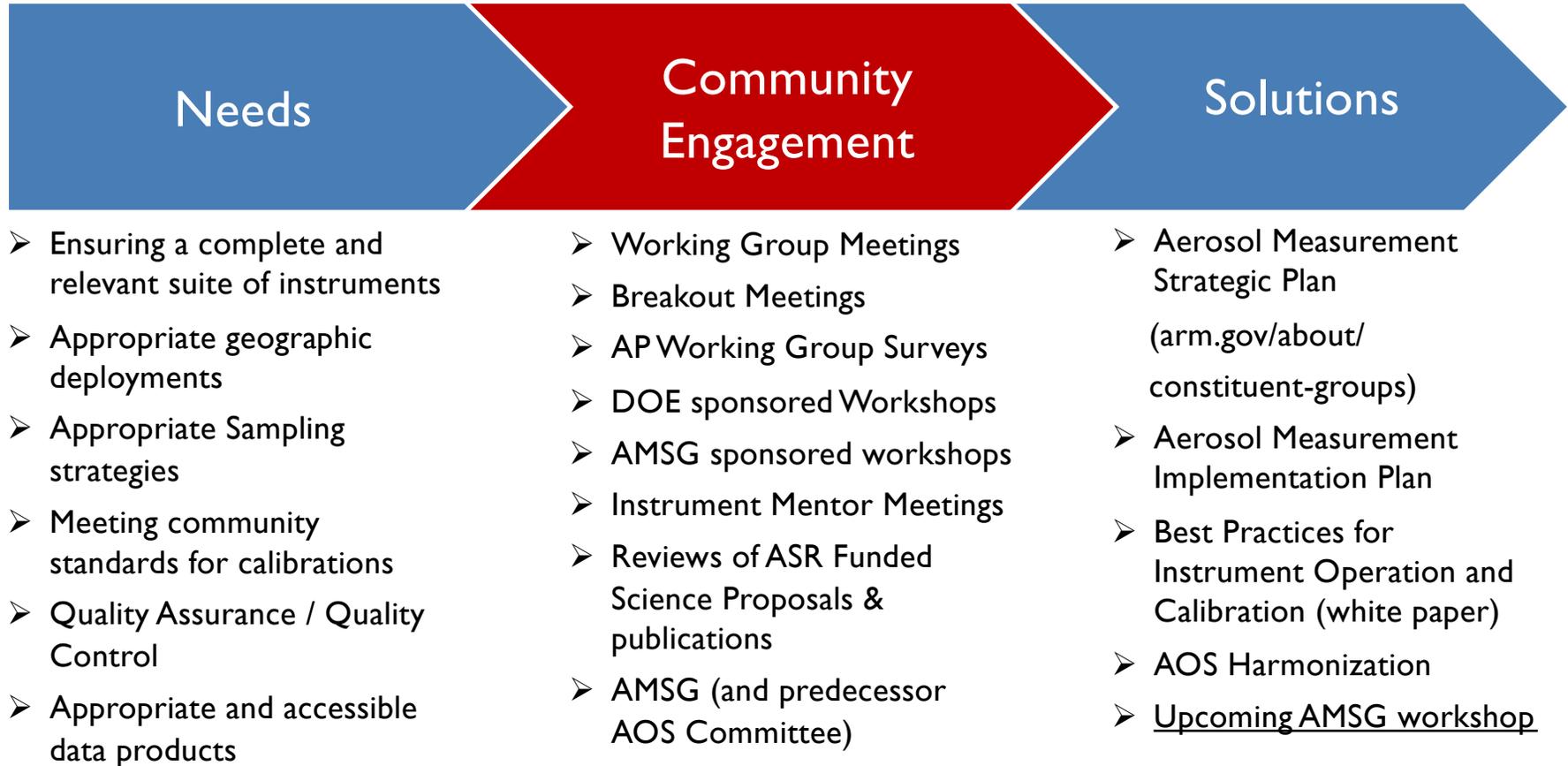
...and Now

Instrument	AMF1 AOS00	SGP AOS09	AMF1 AOS01	AMF2 AOS02	AMF3 AOS03	ENA AOS06	MAOS ^{*1}	SGP AOS07
ACSM/Q								
ACSM/TOF				Guest for MOSAiC				
Aethalometer								
APS								
CAPS								
CO								
CCN	CCN-100	CCN-100	CCN-200	CCN-200	CCN-200 non	CCN-100		CCN-200
CPC								
μCPC								
GHG								
HTDMA			removed for CACTI		non winter			
1- 10-μm Impactor								
n-SMPS								
Neph, Amb								
Neph, Dry								
Nox								
O3								
PASS-3			sunset					sunset
PILS							removed	
PSAP								
PTRMS								
SMPS				Guest for MOSAiC				
SO2								
SP2				Guest for MOSAiC				
TAP								
UHSAS								
WXT520								

New AOS: SGP

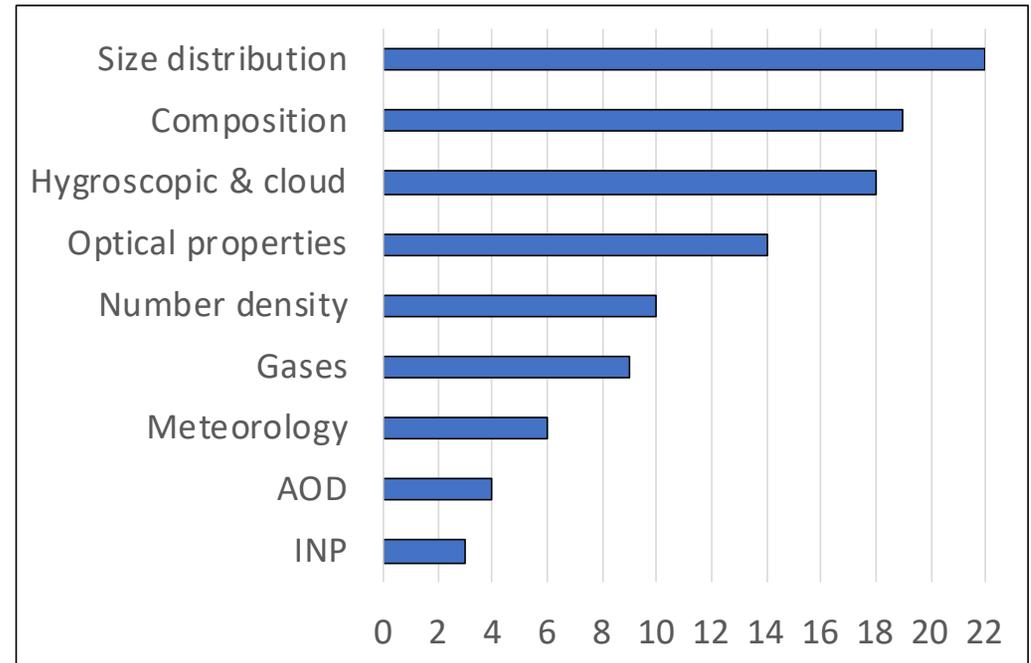


ARM Aerosol Measurements Supporting ASR Science



Aerosol Processes Working Group: ARM Data Users Survey

1. Which ARM aerosol data products are you using in your research?
 - Campaigns 43 vs Fixed Sites 14
2. If you are not using ARM data products in your research, why not?
 - Data quality
3. Are there data products that you wish ARM could provide, but currently does not?
 - wider range of size distributions
 - Vertical profiles



Measurement areas from Table 1 in McComiskey & Sisterson, *ARM Aerosol Measurement Science Group Strategic Planning Workshop 2017* (plus AOD and INP)

ARM Aerosol Measurements Supporting ASR Science

Discussion Outcomes and Looking Forward

Affirmation and adjustments to the existing Aerosol Measurement Strategic Plan...

...with an eye to future needs w.r.t. frontiers in process science and ARM endeavors
(LASSO, AMF3 SEUS)

Locational deployments – instruments/measurement suites specific to target science at ARM sites

Sampling paradigms – everything everywhere (statistics) vs intensive IOPs/data epochs (process);
spatially distributed measurements

Supporting Modeling – evaluation vs process representations call for different measurement paradigms

Vertical Profiles – linking in situ and remote sensing of aerosol properties throughout the column

Data quality – communication of calibration and processing protocols

Data Accessibility – aerosol product presentation on Data Discovery is overwhelming requiring simplification and documentation to guide users efficiently to the appropriate data