## Indigenous Knowledge: Key Considerations for Polar Data Planning

Statement from the *Sharing Knowledge: Traditions, Technologies, and Taking Control of our Future Workshop* held 22-24 September 2015, Boulder, Colorado Organized by the Exchange for Local Observations and Knowledge of the Arctic (ELOKA)

Indigenous peoples are increasingly leading and contributing to science and research activities across the Arctic. Indigenous knowledge is being documented in myriad ways in these activities and there is a need for this knowledge to be preserved, managed, and shared along side other data.

Indigenous knowledge is not western scientific knowledge and we should not try to make it so. We must recognize and embrace the differences and avoid the singular dominance of "hard data" or "hard science". We must be aware and careful of privileged perspectives in Arctic research and data management.

Working with Indigenous knowledge requires understanding the context of the knowledge and the context of Indigenous peoples in the Arctic. For example, Indigenous languages must be respected and supported. Language is more than a means of communicating, but a way of thinking. It is also deeply connected to (among others) observing, knowing, and skill. Also, Indigenous peoples should not be viewed as a group of "stakeholders" in the Arctic. The Arctic is a homeland to Indigenous peoples and there are critical issues related to the assertion of rights, sovereignty, security, and self-determination. These contexts must be considered when working with Indigenous data.

There is a need for distributed systems. Indigenous knowledge is geographically and culturally specific and information systems should reflect this. We need to avoid aiming to establish a centralized system but rather focus on meeting the needs of individual communities and on interoperability between systems.

Indigenous communities in the Arctic are the providers of information, users of information, monitors of information, and decision-makers. The uses of data technology are changing rapidly in these communities. We need to continue to work to put control of technology in local hands and invest in improving bandwidth, access to technologies, training and capacity building.

Establishing protocols for proper consent related to data collection and use, and for data management for Indigenous knowledge is critically important and urgent. There is a need for research and data management planning to be driven by Indigenous peoples, communities, families, and organizations. There is a need for infrastructure and resources so this can be realized.

Protocols are needed for documenting and using Indigenous knowledge in a digital form, however, these must be reflexive and consider cultural, historical, and geographical contexts rather than focusing on technical aspects of standards. Adaptability is key.