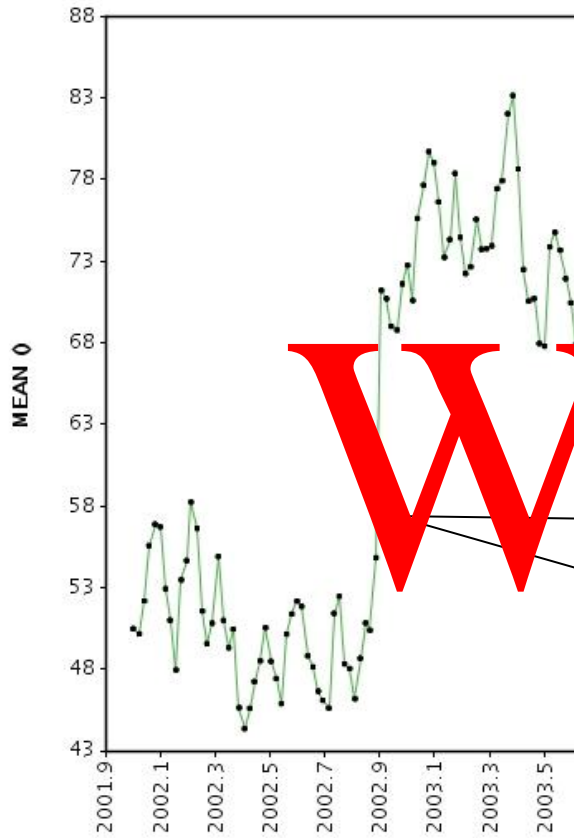


A Documentation Consortium

Ted Habermann, NOAA



i checked my 2002 email archives, and here is what i found out:

it appears that the current 3rd generation algorithm was implemented into operations around Oct-Nov 2002 time frame. cannot say more precisely, as all email correspondence i am looking at, talks about this indirectly. (maybe it's what's referred to as the Phase II algorithm.) At the same time, we had implemented quite a few other changes fixing data bugs and formats: view angle problem, increased digitization in all channel's reflectances and AODs, etc.

The jump is deemed due to introducing 3rd generation algorithm, which replaced the 2nd generation. The new numbers (~ 0.08) look more realistic than the previous ones (~ 0.05 or so). The changes seen in the data is close to the expected effect of this change. The 3rd gen alg takes into account the exact spectral response, whereas the 2nd gen is generic ("one size fits all").

hopefully this settles the issue..

Documentation: It's not just discovery...

New Documentation Needs

The climate scientists at the centre of a media storm over leaked emails were yesterday cleared of accusations that they fudged their results and silenced critics, but a review found they had **failed to be open enough about their work.**

scandal?

Climategate, as attained mythic status, involved 1,000 or so e-mails sent in the last year from the University of East Anglia, England, establish that global warming is a scientific conspiracy. What happened.

In November 2009, the documents and e-mail from the Climatic Research Unit (CRU) at the University of East Anglia (UEA) were not in doubt. His investigation concluded they did not subvert the peer review process to censor criticism and that key data was freely available and could be used by any "competent" researcher.

Sir Muir Russell, the senior civil servant who led a six-month inquiry into the affair, said the "rigour and honesty" of the scientists at the Climatic Research Unit (CRU) at the University of East Anglia (UEA) were not in doubt. His investigation concluded they did not subvert the peer review process to censor criticism and that key data was freely available and could be used by any "competent" researcher.

Muir Russell during the release of his report into the scandal of the hacked emails sent by climate scientists from University of East Anglia. Photograph: Sang Tan/AP

The climate scientists at the centre of a media storm over leaked emails were yesterday cleared of accusations that they fudged their results and silenced critics, but a review found they had failed to be open enough about their work.

UEA's delayed response to climate emails caused by shock, says professor. Former head of research unit responds to criticism by arguing for necessity of assessing excerpts by

Environment
Hacked climate science emails
Climate change
scepticism

Science
Climate change

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Designated Communities - Users

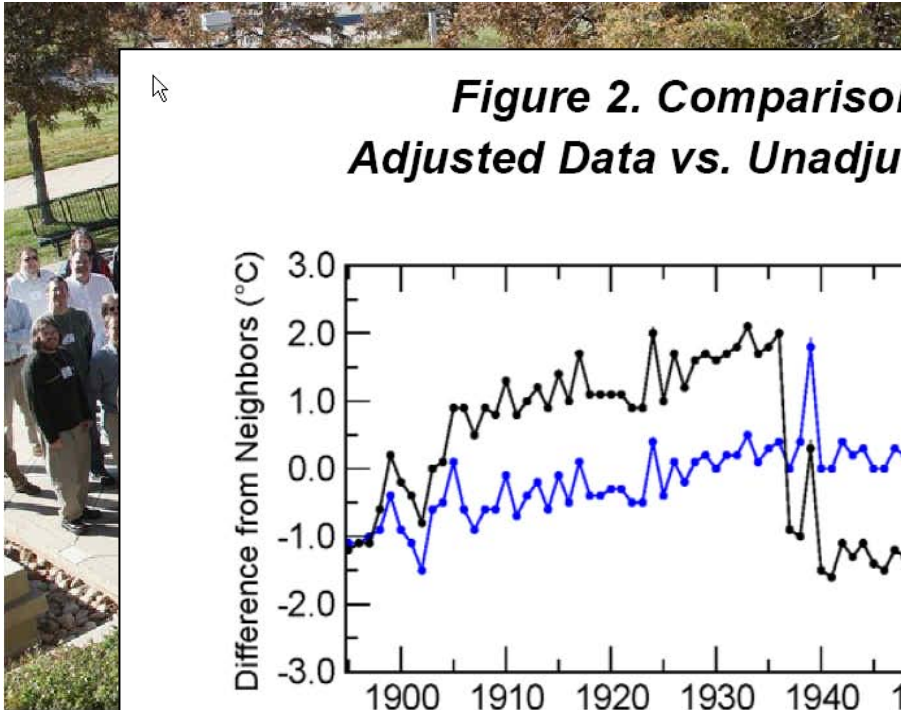
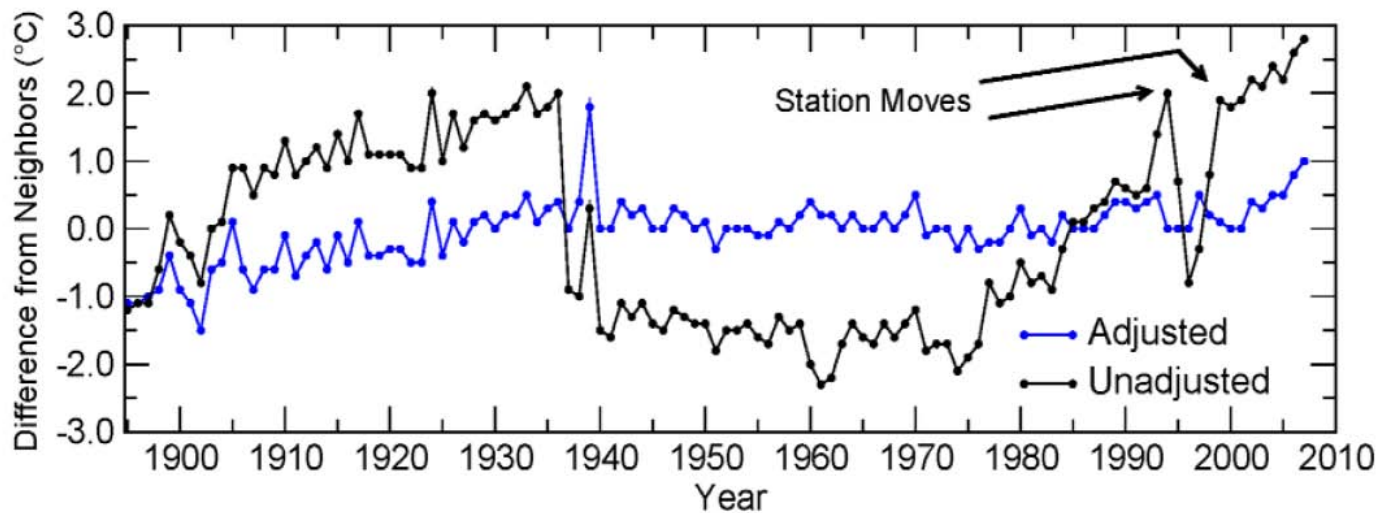
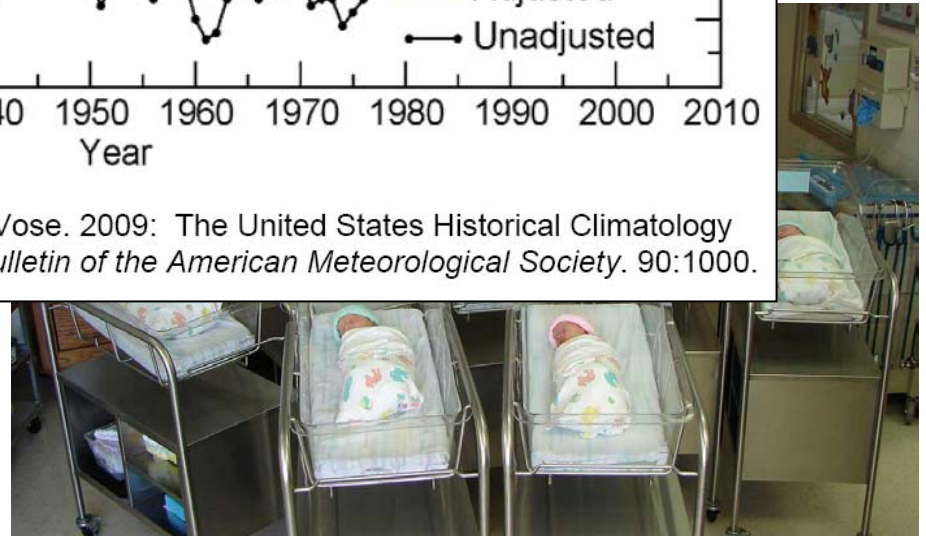


Figure 2. Comparison of USHCN Version 2 Adjusted Data vs. Unadjusted Data in Reno, Nevada



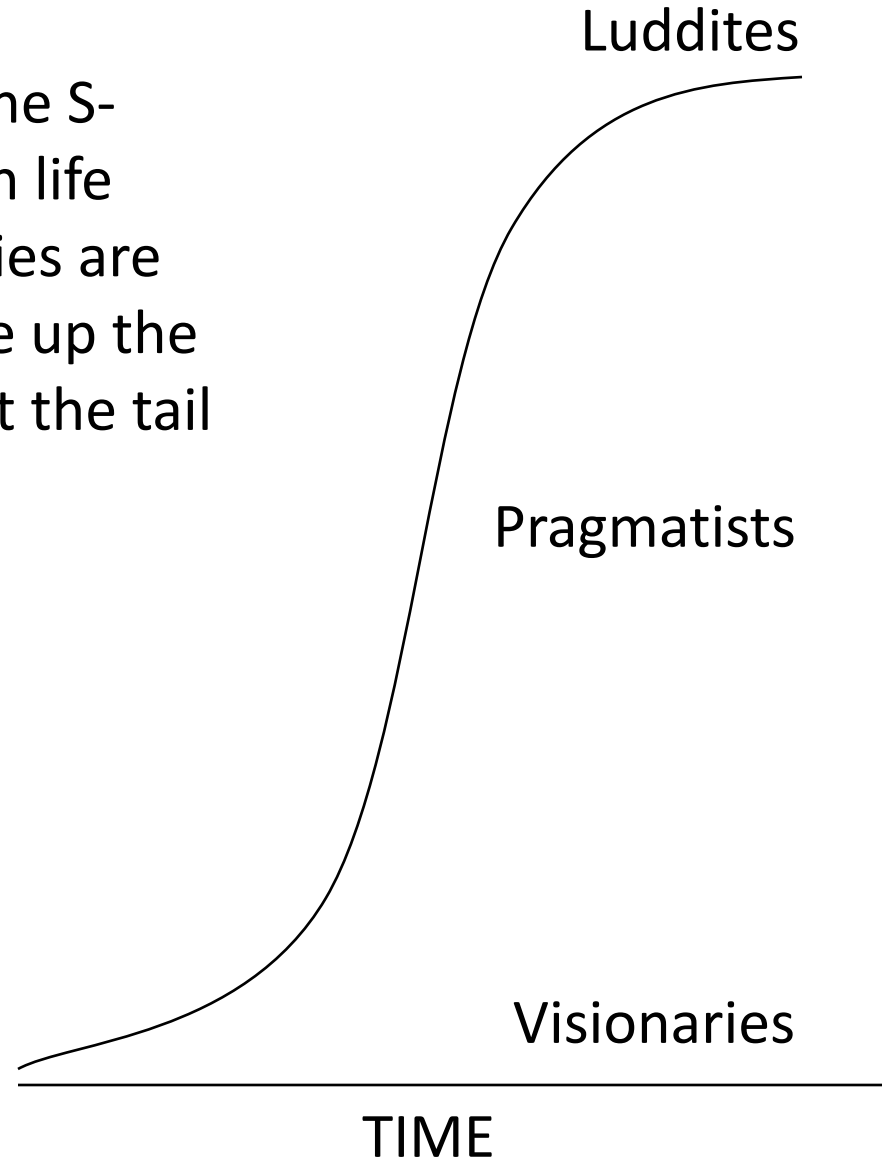
Source: Menne, M.J., C.N. Williams Jr., and R.S. Vose. 2009: The United States Historical Climatology Network Monthly Temperature Data—Version 2. *Bulletin of the American Meteorological Society*. 90:1000.

Documentation:
communicating with the
future



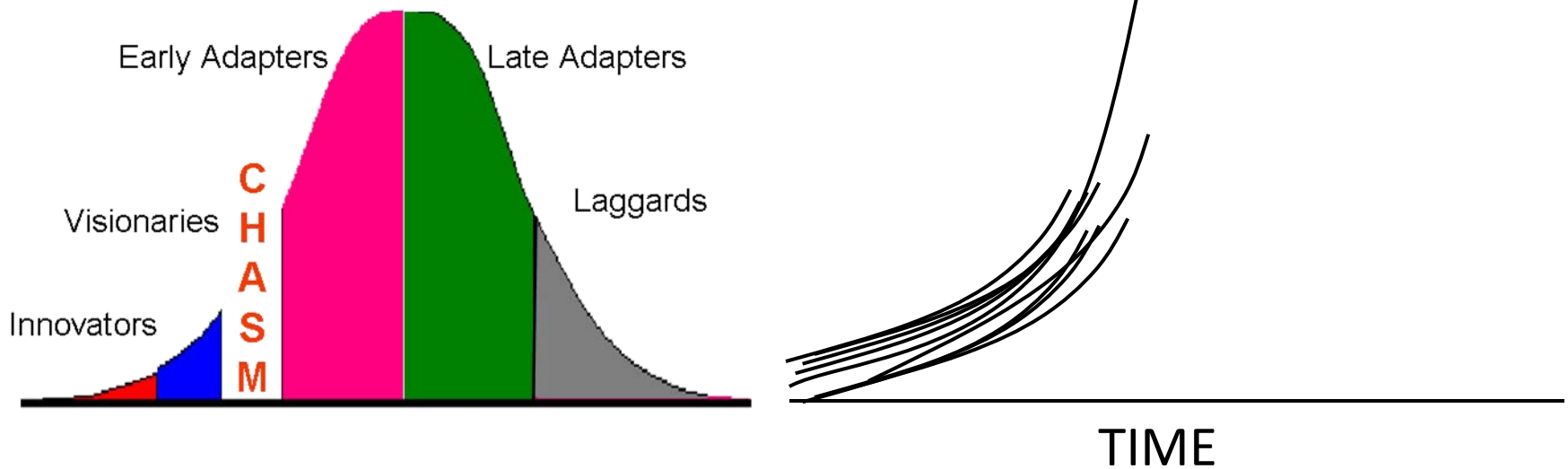
The Adoption Curve

Geoffrey Moore has attributed the S-curve to the technology adoption life cycle where techies and visionaries are early adopters, pragmatists make up the bulk of users, and luddites fill out the tail of the distribution.

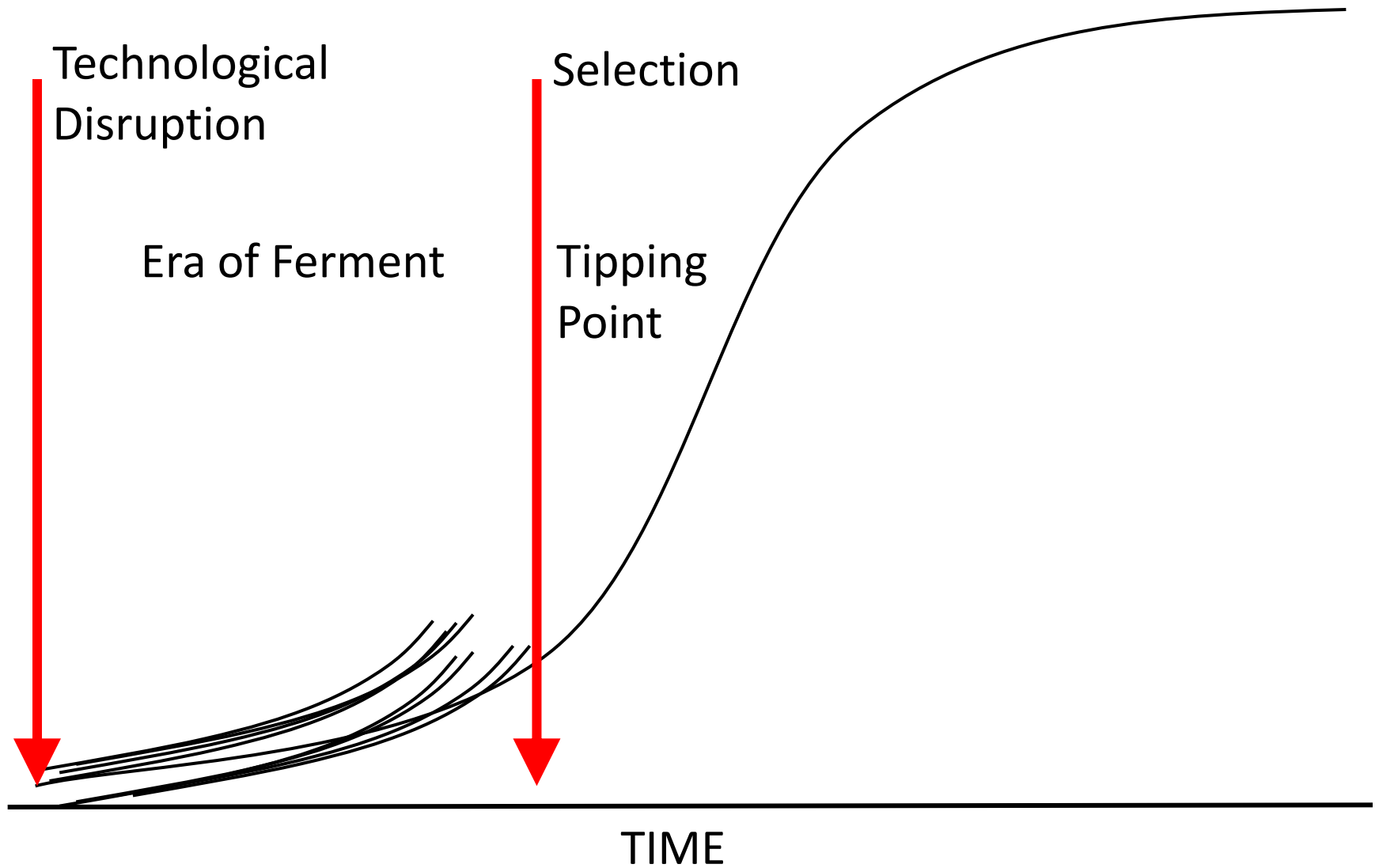


Technology Adoption

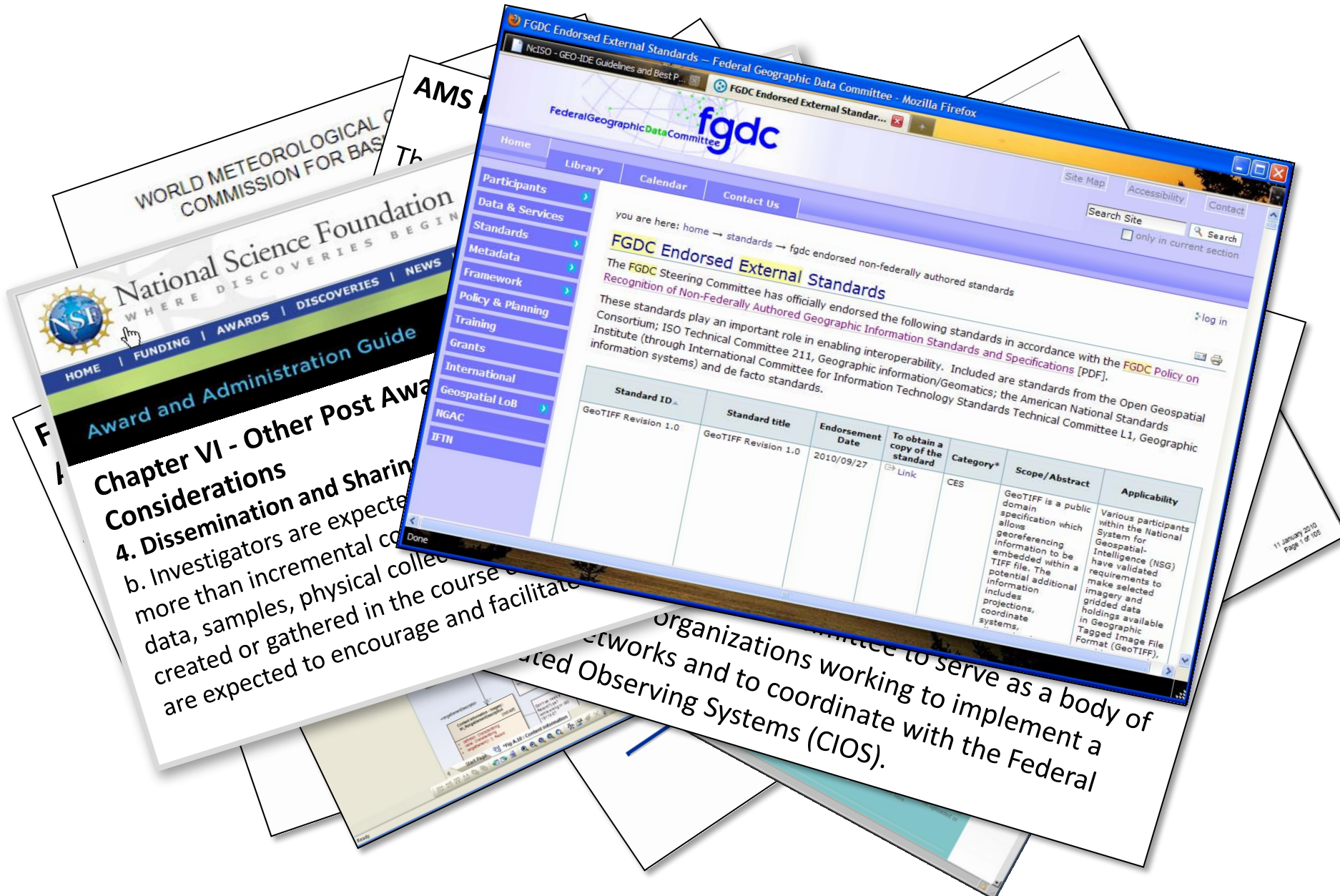
Moore described the “chasm” in the adoption life cycle. He proposes that many new technologies do not make it across the chasm between visionaries and early adapters. They fall into the chasm. The technology S-curve with the chasm might look like:



Technology Cycle



What Does a Tipping Point Look Like?



FGDC Endorses External Standards

GeoTiff, TIFF, UML, HDF5, netCDF, Codes for identifying states, hydrologic units and many other things

ISO:

North American Profile of 19115, 19103, 19104, 19107, 19108, 19109, 19110, 19111, 19111-2, 19112, **19115**, **19115-2**, 19118, 19119, 19123, 19127, 19131, 19132, 19133, 19134, 19135, 19136, 19138, 19139, 19141, 19144, 3166, 6709

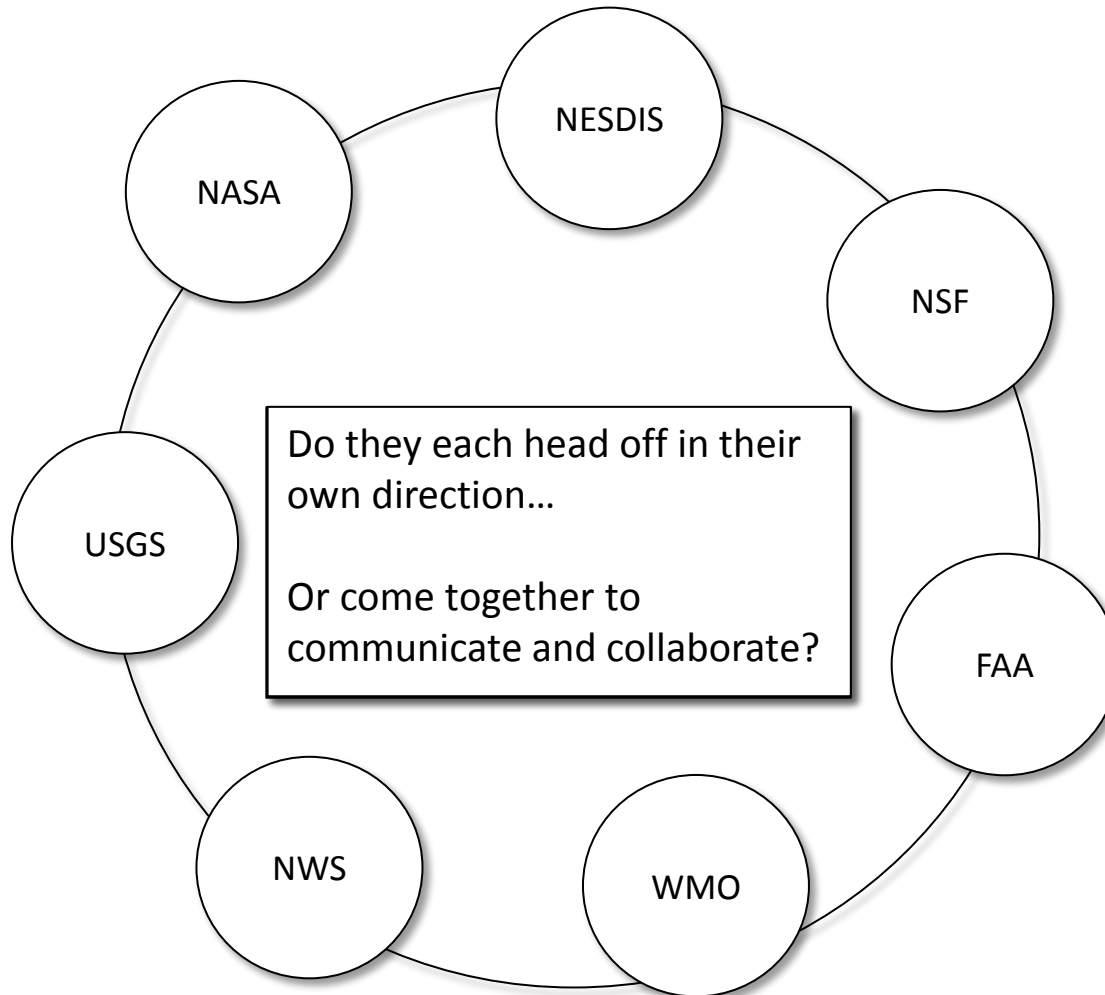
OGC:

WFS, Filter Encoding, Web Map Context, WPS, Symbology Encoding, SOS, Tracking, WMS, SensorML, Catalog Service, Web Map Tile, WCS, KML, **Sensor ML**, SPS

Endorsement – The non-Federally authored standard or specification has the same status as that of an FGDC developed standard, i.e., its use by Federal agencies is mandatory.

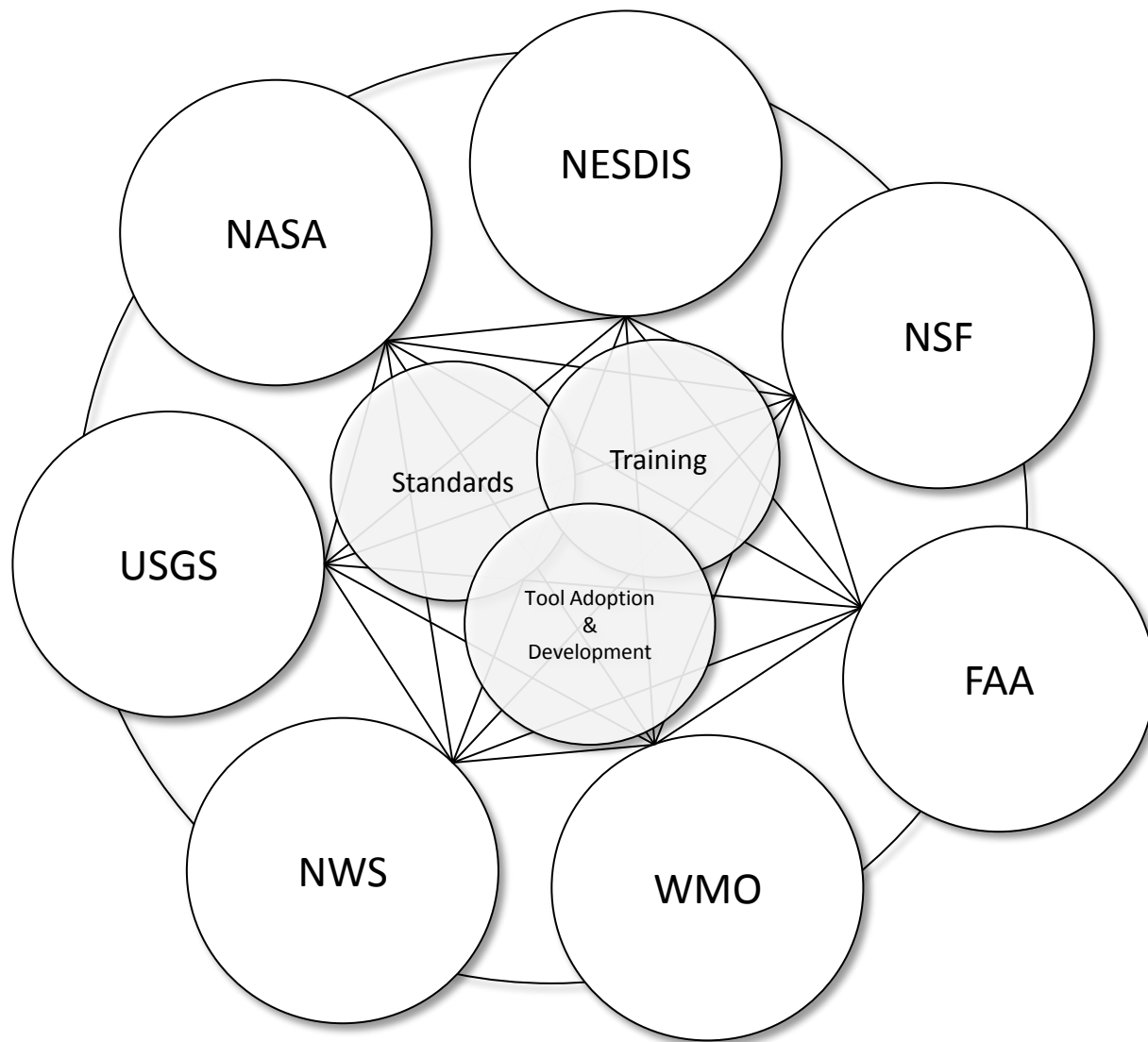
http://www.fgdc.gov/standards/fgdc-endorsed-external-standards/index_html

Shared Needs

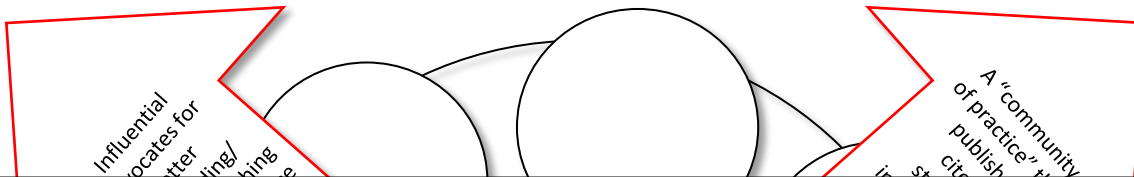


The Documentation Consortium

A **consortium** is an association of two or more organizations with the objective of participating in a common activity or pooling their resources for **achieving a common goal**: to enhance the exchange, **understanding** and use of Earth-systems data across disciplinary and international boundaries. Initially to coordinate and facilitate the transition to effectively use of ISO Documentation Standards.

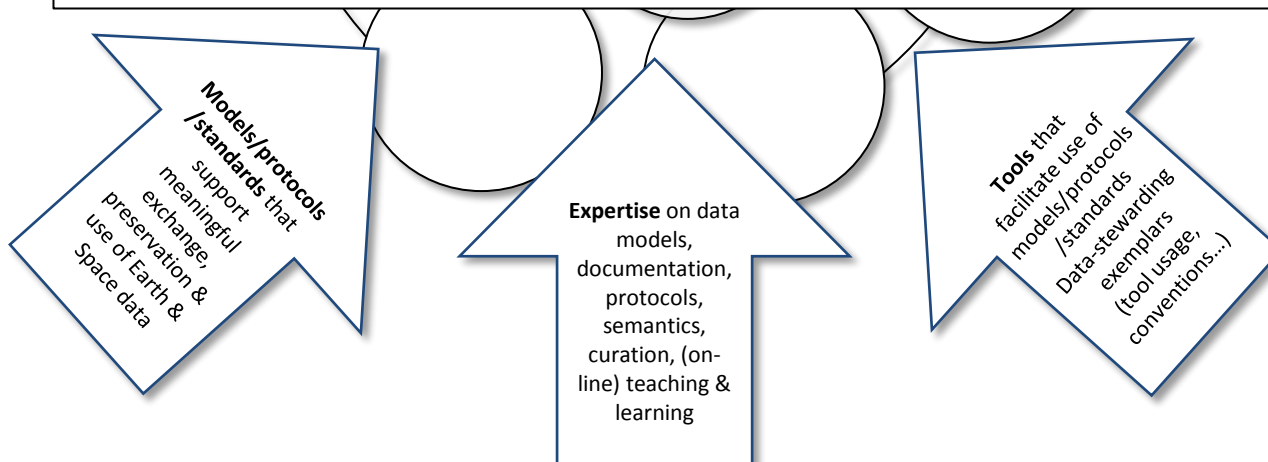


Mission: To foster stewardship & meaningful publication of Earth & Space data for world-wide cross-disciplinary & citizen use, today and tomorrow.



Outcomes:

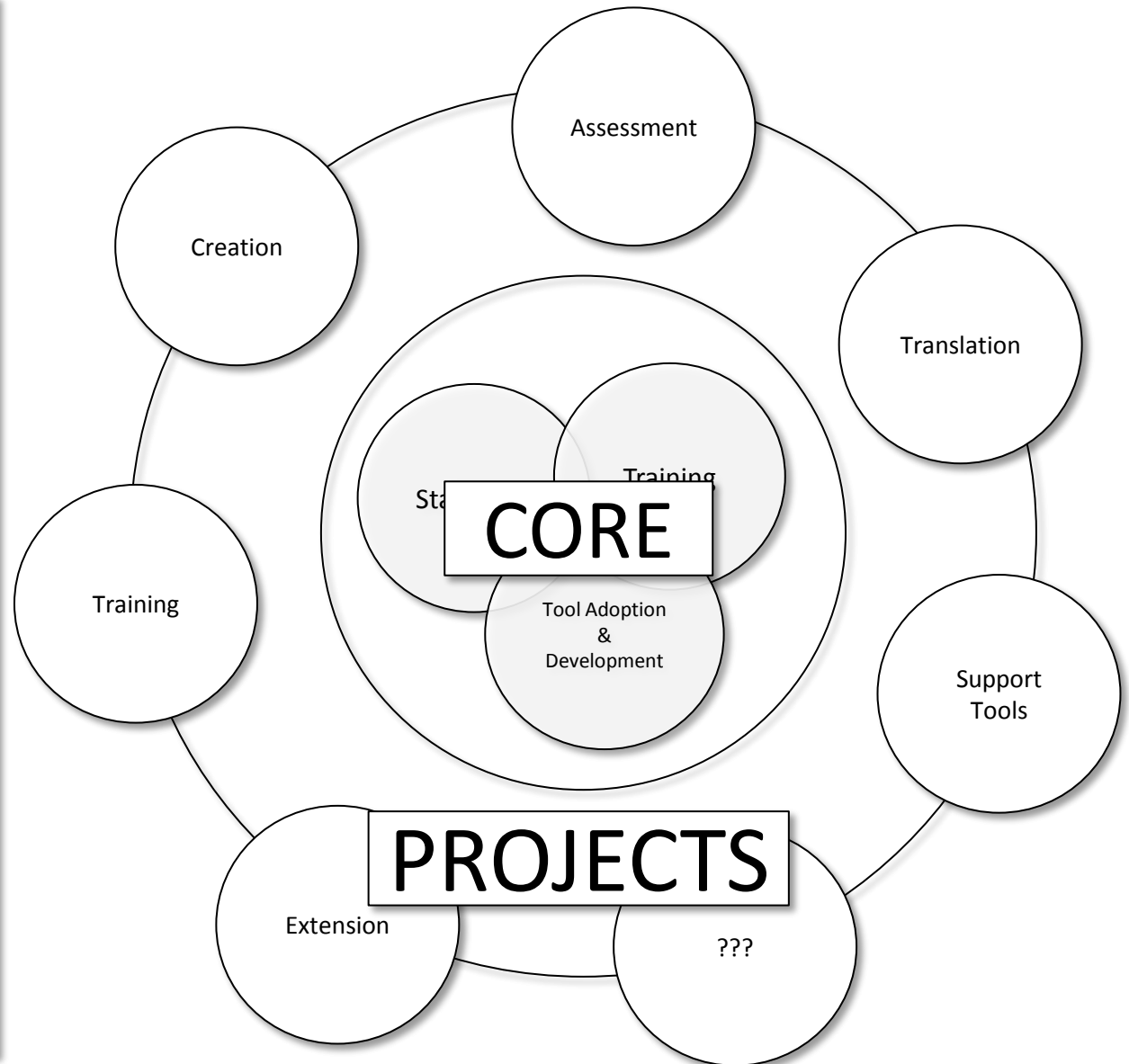
1. Greater (public) trust in scientific results (on climate change, e.g.)
2. Better reproducibility of results from data-intensive, scientific studies of Earth & Space
3. Accelerated progress in sciences where data-intensity is high and interoperability is needed



Consortium Structure

Core Tasks of the consortium will include outreach, standards evolution, and guidance / best practices.

Project Tasks will support specific needs of partners and will be done in collaboration with those partners. They could include documentation assessment, creation, translation, and extension, as well as training and tool development.



UCAR Community Programs

The **Joint Office for Science Support (JOSS)** of the University Corporation for Atmospheric Research provides professional and administrative support to the research and educational community. Perhaps most vigorous Educational Program to support and teachers, graduate students and the development of atmospheric engineers, professional and administrative.

Earth Observation Lab provides robust, accessible [Data Services](#) and tools to the research and educational community.

Perhaps most vigorous Educational Program to support and teachers, graduate students and the development of atmospheric engineers, professional and administrative.

COMET Formed to promote a better understanding of mesoscale meteorology and to maximize the benefits of new weather technologies. Today the COMET Program addresses education and training needs in the atmospheric and related sciences through Distance Learning, Research and Outreach.

Unidata Mission: To provide the data services, tools, and cyberinfrastructure leadership that advance Earth system science, enhance educational opportunities, and broaden participation.

UCAR Organization | UCAR

UCAR ▾ NCAR ▾ Find People ▾ Contact/Visit ▾

UCAR Our Organization ▾ Events ▾ News ▾ Research+Resources ▾ Education ▾ Libraries ▾ For Staff

Google Custom Search Search

TDF Technology

HAO High Altitude Observations

AIM Atmospheric Instrumentation

C&H Corona & Helios

LSA Lower Solar Atmosphere

SIV Solar Interior

NESL NCAR Earth System Laboratory

ACD Atmospheric Chemistry Division

CGD Climate & Global Dynamics Division

MMM Mesoscale & Microscale Meteorology Division

RAL Research Applications Laboratory

AAP Aviation Applications Program

CSAP Climate Science and Applications Program

CA Corporate Affairs

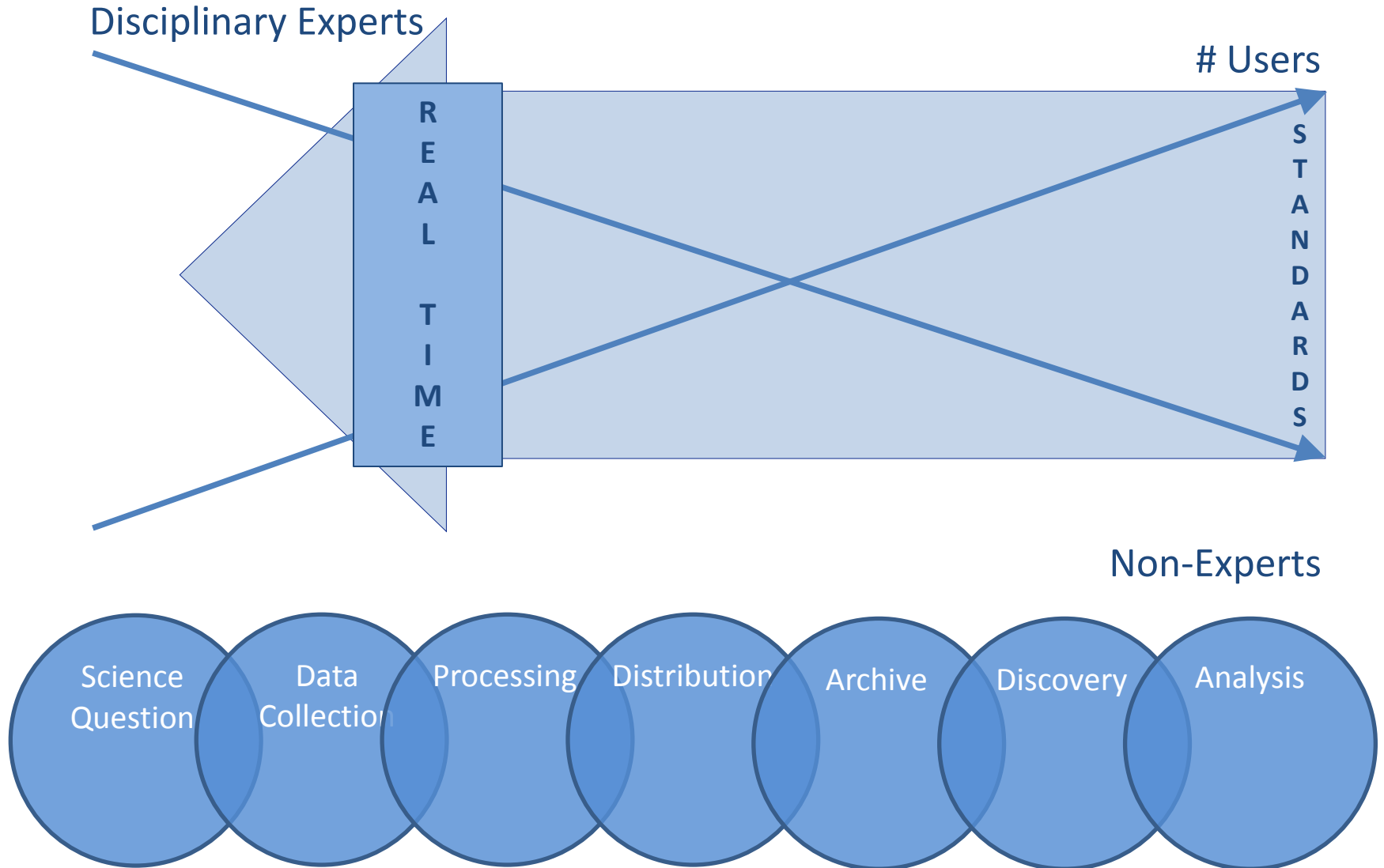
Vice President for Corporate Affairs

Comm Communications Office | New

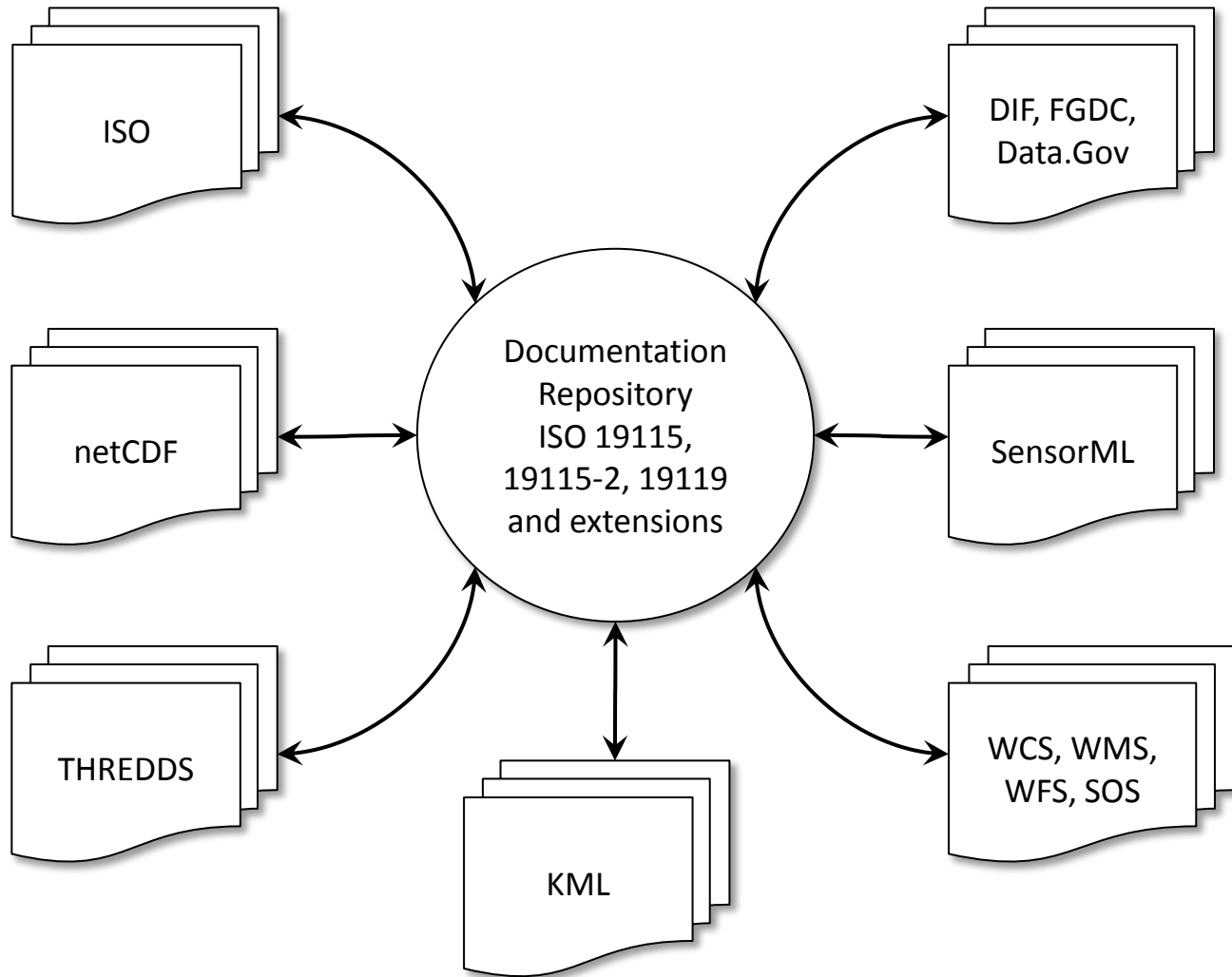
Gov Governance, Membership & A

OGA Office of Government Affairs

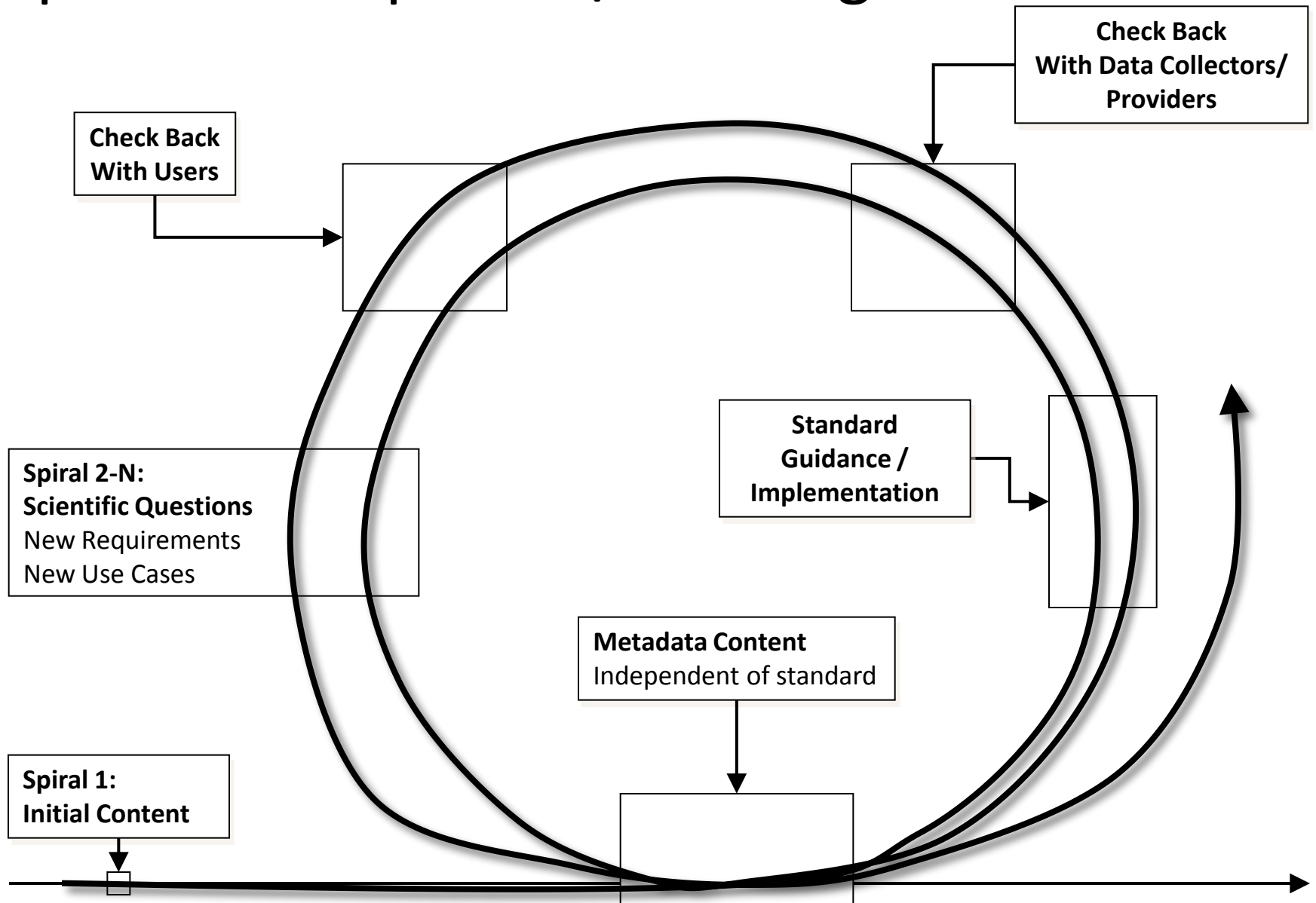
Migrating Standards Upstream



Multiple Dialects and Connections



Spiral Development / Training



Questions?



What Are All These Numbers?

ISO 19115 is a content standard that defines a conceptual model for documentation of environmental data. Part 2 of that Standard (**19115-2**) adds instruments, platforms, and improved data quality.

ISO 19139 is an XML Format for ISO 19115 and 19115-2.

Sensor Model Language (SensorML) is a *process* and *instrument description* standard that includes content and encoding. Originally developed at University of Alabama in Huntsville, SensorML was adopted in 2007 by the Open Geospatial Consortium (OGC) and is part of OGC's Sensor Web Enablement standards

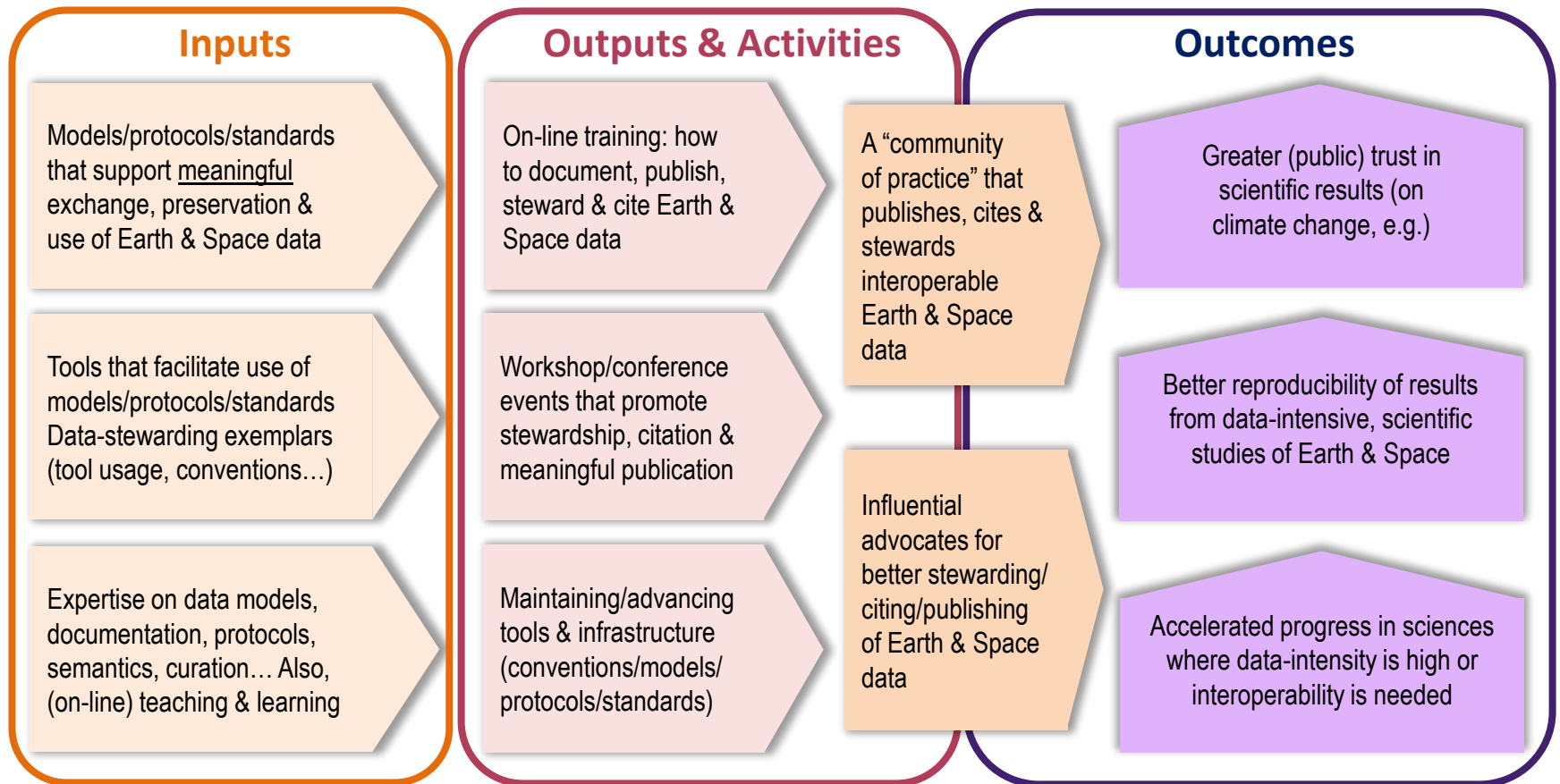
ISO has structure with elements designed to cover a broad range of data types and a capability to extend the standard for specific datasets.

SensorML has structure that holds information and characteristics. It consists of parameter-value pairs where the parameters depend on instrument, process, and data type.

**Logic Model: 4th-P
DataPub Consortium**

Mission: To foster stewardship & meaningful publication of Earth & Space data for world-wide cross-disciplinary & citizen use.

Situation: The data-intensive “4th Paradigm of Science” is creating broad needs for tools & support services (training, maintenance...) that enable/enhance data stewardship & publication with meaning.



Assumptions: The evolving complexity of multiagency stewardship & “meaningful data publication” suggests a consortium/community approach.

External Factors: Agency needs/intentions can be translated to cash flows for tools & support services (i.e., a plausible business model exists).