



Science Data Life Cycle Model

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September 11, 2013

Why?

- **Foundation**
- **Supports Data Management**
 - Policies
 - Tools
 - Best Practices
- **DM aligned to Model**

Who (core)

Thomas Burley

David Govoni

Sally Holl

Elizabeth Martin

Cassandra Ladino

Lisa Zolly

Jennifer Carlino

Heather Henkel

Viv Hutchison

Ellyn Montgomery

Steve Tessler

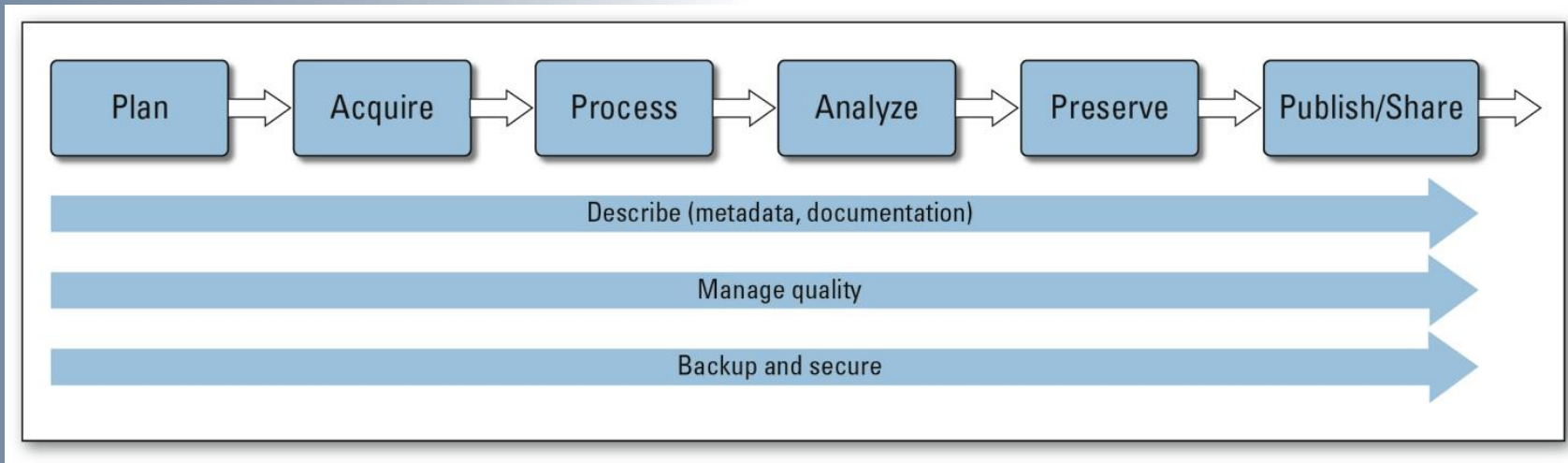
John Faundeen

aka “No detail is too small to discuss at length” group

How

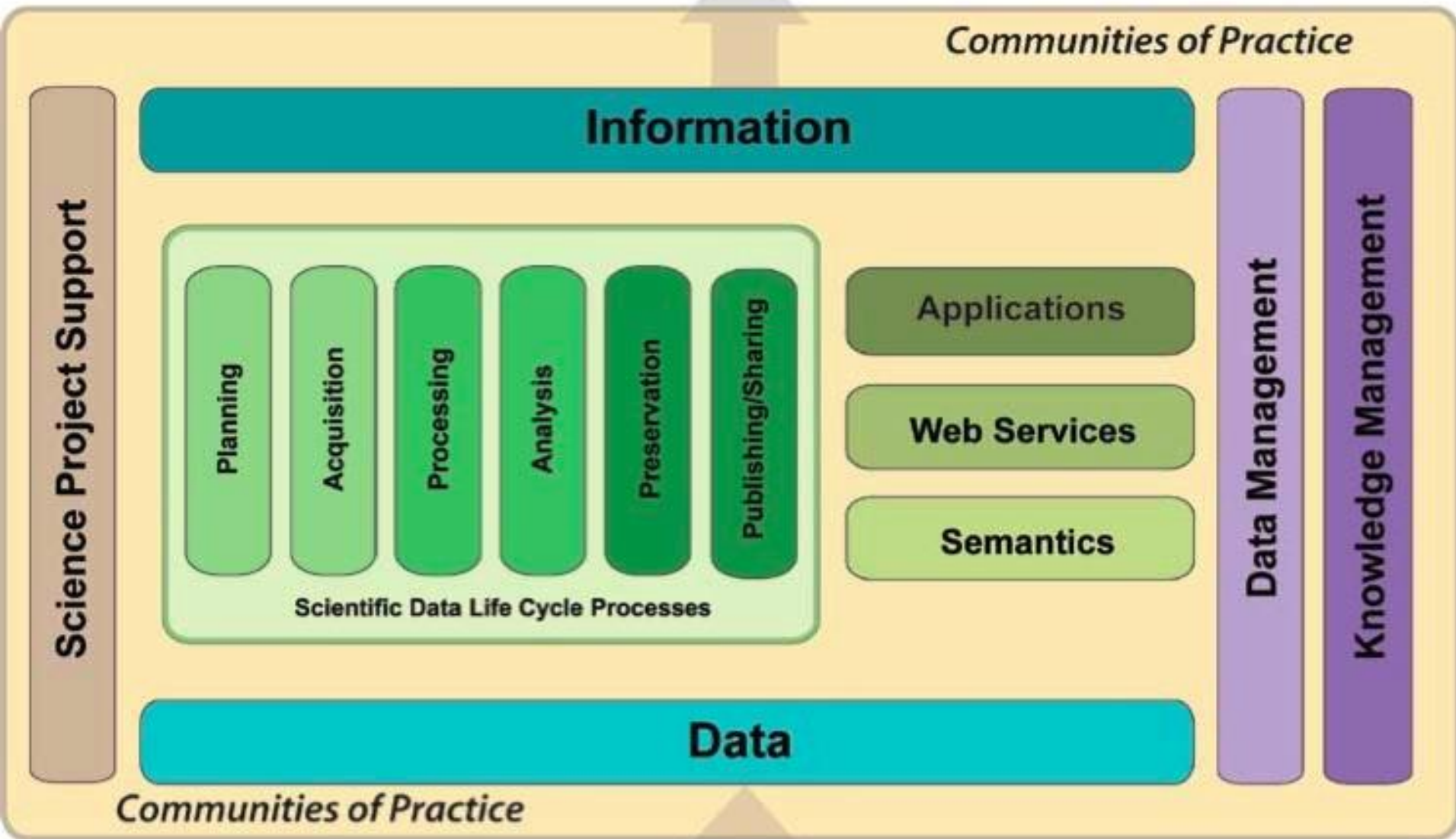
- **Literature Search**
 - 50+ Models Compiled/Reviewed
- **Face-to-Face**
 - 14 Faces for two days
 - core + Daniel Sandhaus & Richard Huffine
- **Monthly meetings**
- ***5 Billion Email Exchanges***
- **2012 CDI Annual Meeting**
- **CDI Review**
- **Kevin Gallagher & Linda Gunderson Approval**
- **Open File Report**

The Result

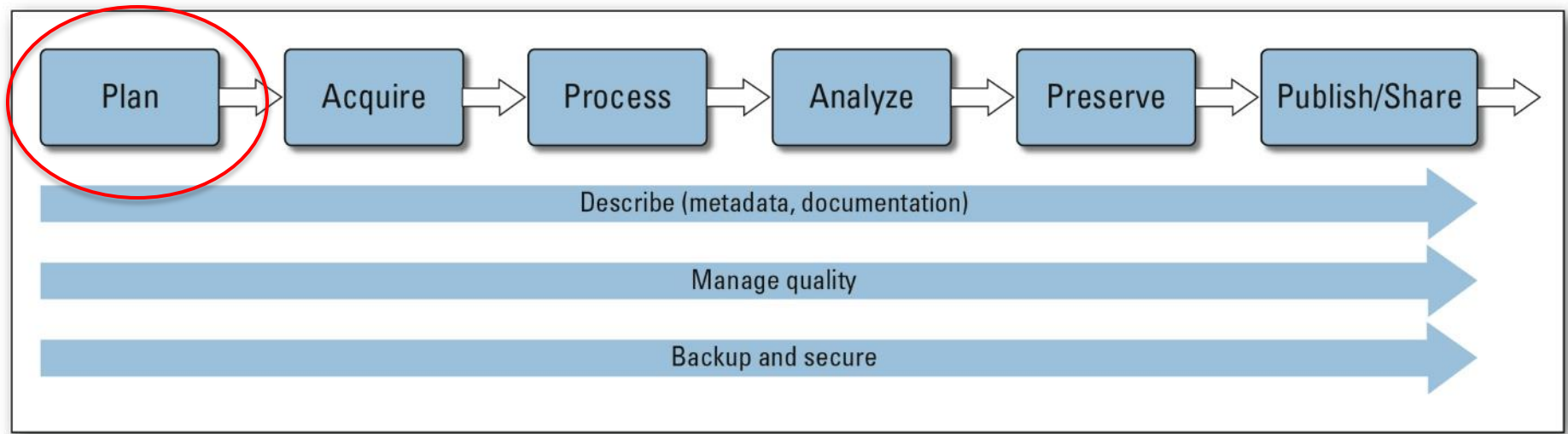


ain't it a beaut!

Knowledge: Understanding of Earth Systems



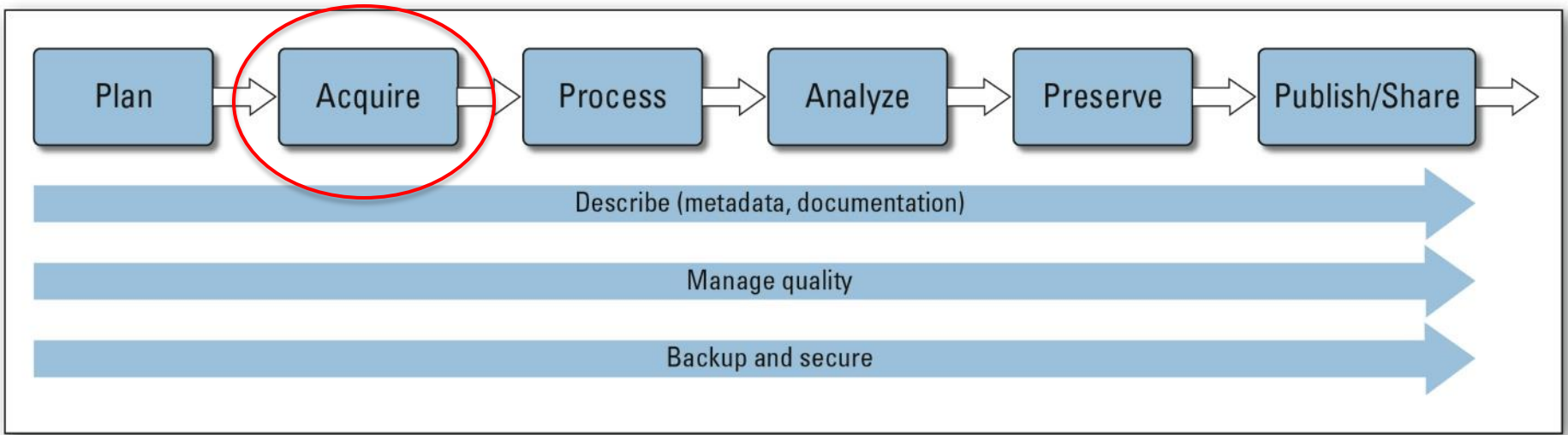
Monitoring, Assessment & Research



- **Planning for Data**

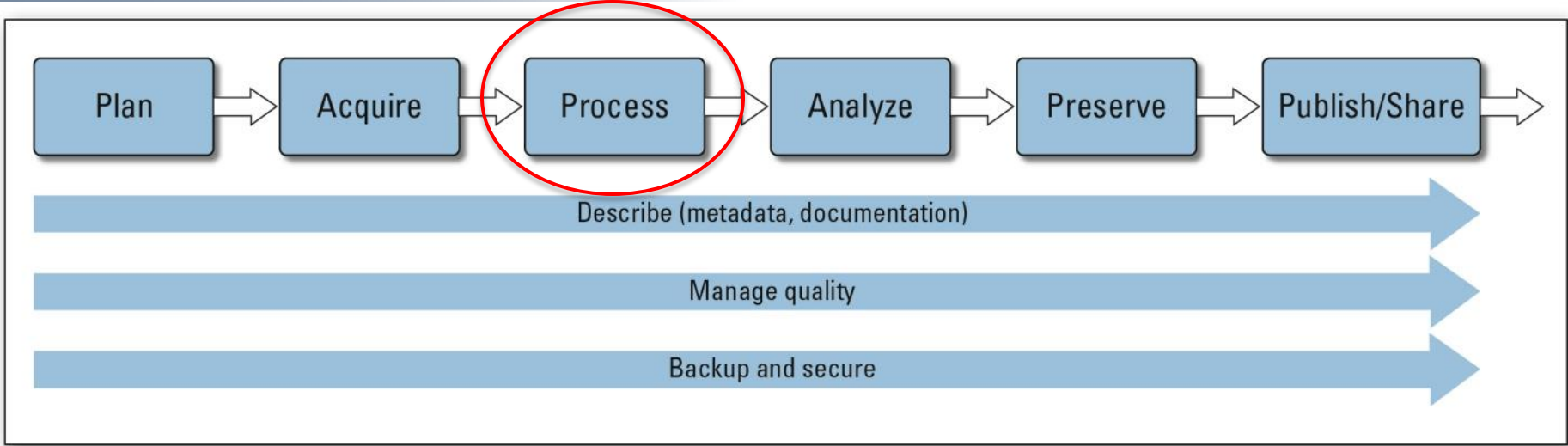
- What data, from where, with what conditions
- How will the data be used?
- In 5 years where will the data be?
- How will the data be shared?
- Documentation begins...

See <http://www.usgs.gov/datamanagement/plan.php>



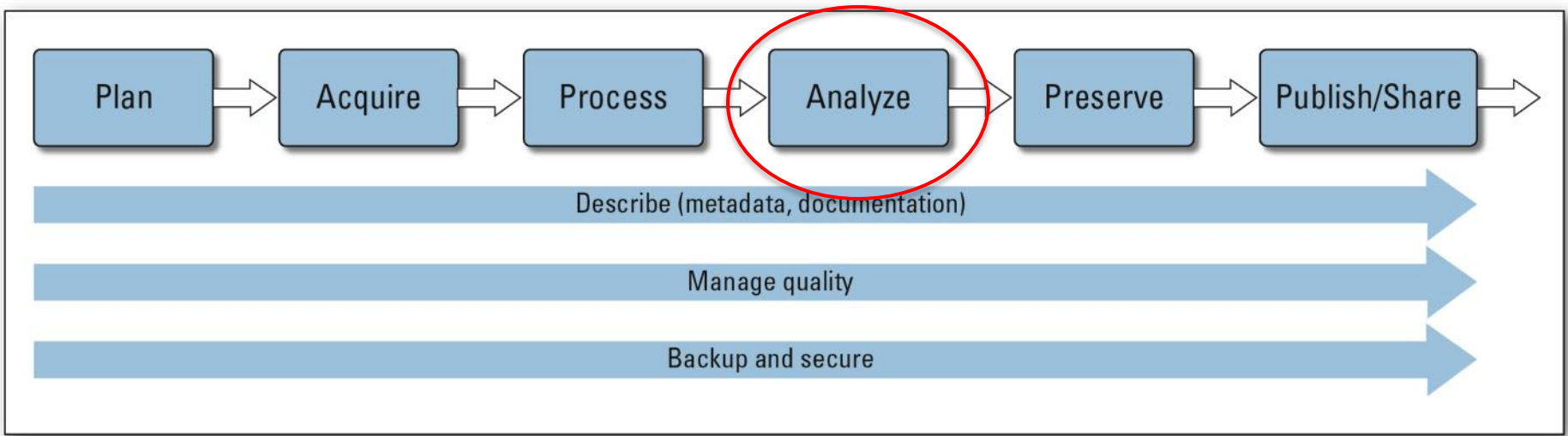
- **Collect existing data and/or generate new?**
- **Provenance understood**

See <http://www.usgs.gov/datamanagement/acquire.php>



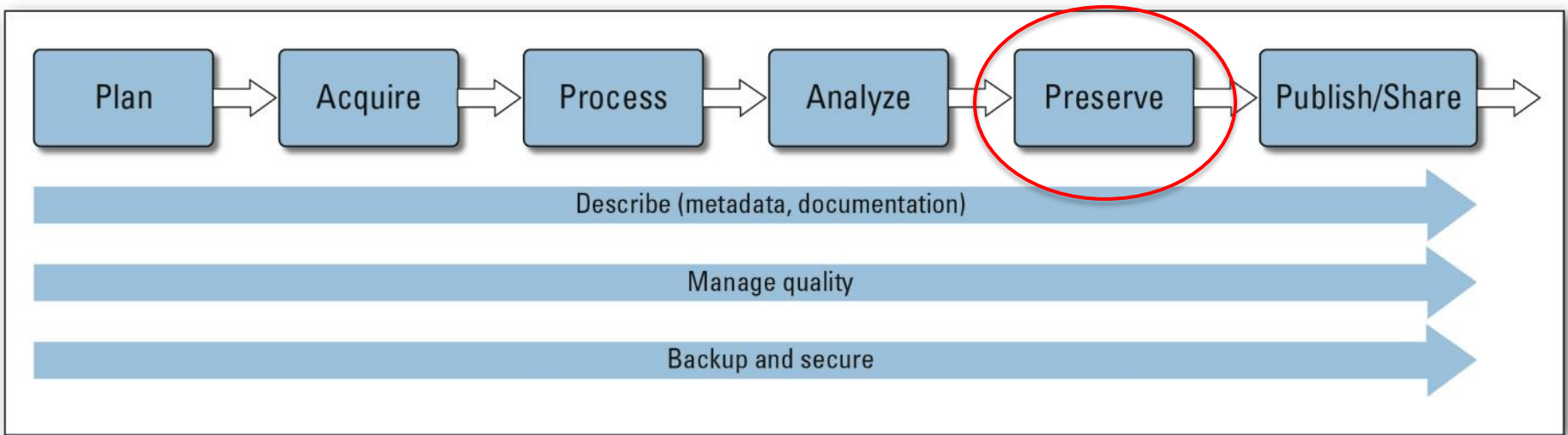
- **Data preparation, cleanup, transformation**
- **Data elements defined**
- **Applicable standards**

See <http://www.usgs.gov/datamanagement/why-dm/lifecycleoverview.php>



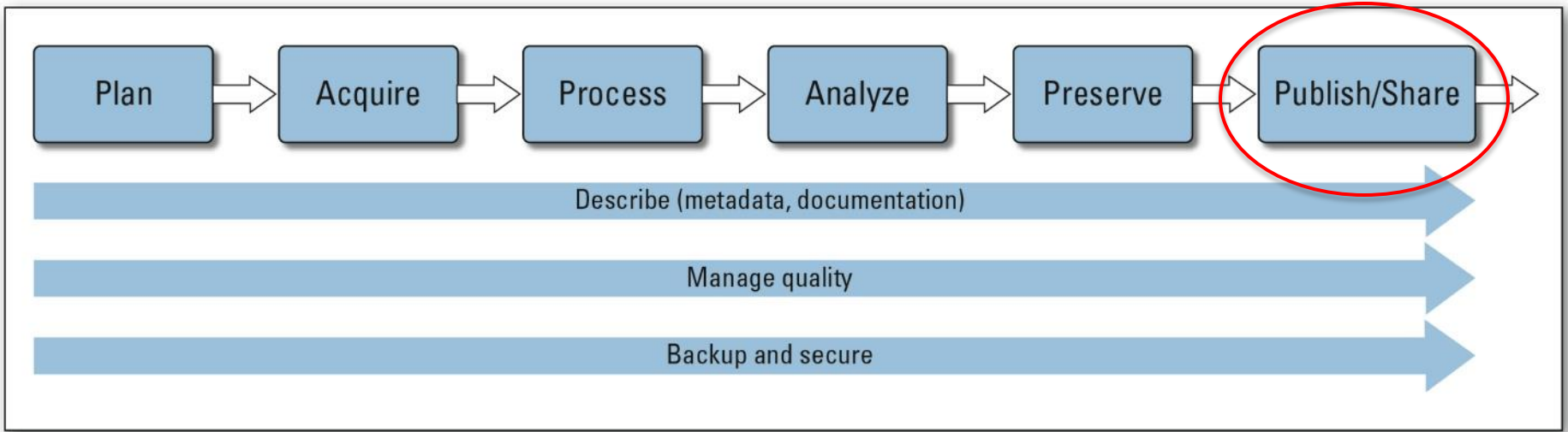
- **Statistical analysis, spatial analysis, modeling**
- **New information/conclusions generated**

See <http://www.usgs.gov/datamanagement/why-dm/lifecycleoverview.php>



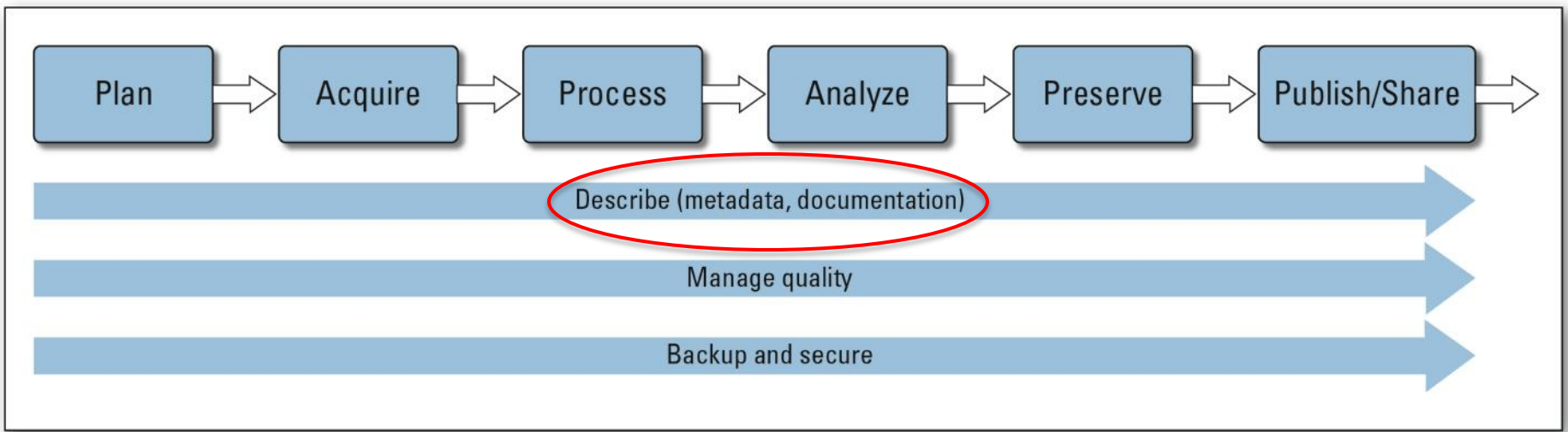
- **Capture what has been accomplished to date**
- **Implement data/metadata preservation tasks**
- **Long-Term > 5 years**

See <http://www.usgs.gov/datamanagement/preserve.php>



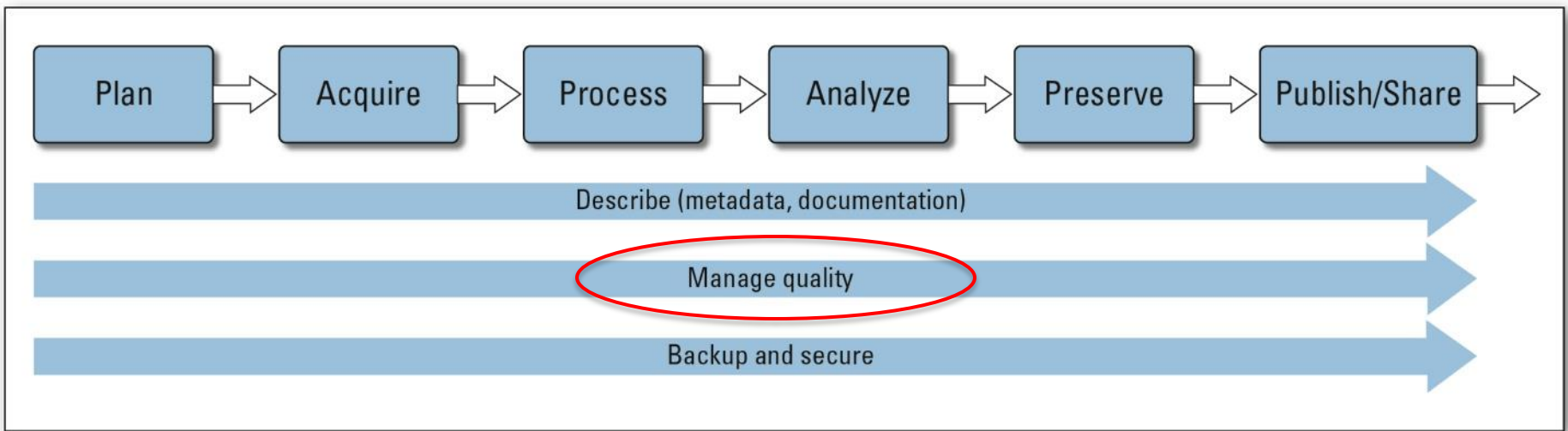
- **Traditional and/or web, mobile, next wave**

See <http://www.usgs.gov/datamanagement/share.php>



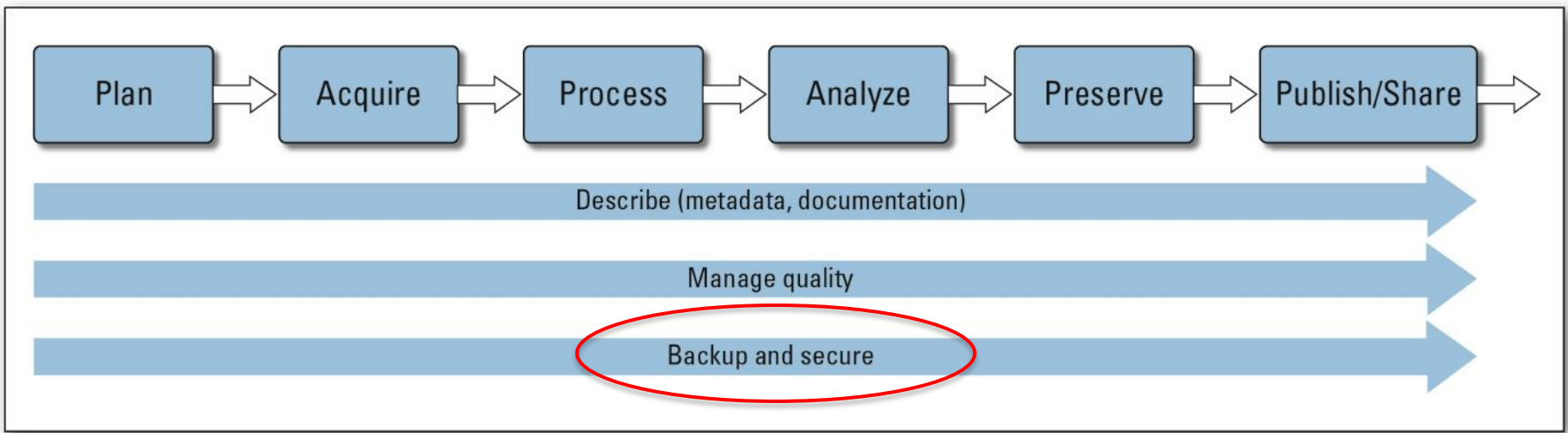
- **Documentation throughout**
- ***Failure is not an option...***

See <http://www.usgs.gov/datamanagement/describe.php>



- **Ongoing quality control monitoring**
 - Document the process

See <http://www.usgs.gov/datamanagement/qaqc.php>



- **Mitigate Risks**
- **Supports long-term preservation efforts**
- **All data and metadata**
 - Versions
 - Analysis methods
 - Published products

See <http://www.usgs.gov/datamanagement/backup.php>

Summary

- **Addresses Data Management from the ground up**
- **Group Consensus Throughout**
- **USGS Scientific Data Management: Foundation Policy (SM)**
- **Roll Out Includes OFR**

Questions?

- **Contact Email:**
 - John Faundeen: faundeen@usgs.gov
- **Web URL:**
 - <http://www.usgs.gov/datamanagement/why-dm/lifecycleoverview.php>