Delta Science Vision – Sustaining Data Integration Efforts while Taking Advantage of Constantly Evolving Technology

Rainer Hoenicke, Delta Stewardship Council, Science Program

Tony Hale, SFEI-ASC

Shakoora Azimi-Gaylon, Delta Conservancy

Val Connor, State and Federal Contractors Water Agency

Karen Larsen, SWRCB

George Isaac, Delta Stewardship Council, Science Program

Delta Science Plan
"*One Delta, One Science*"

1. Host Data Summit

2. Develop Guidelines for Data Sharing

DELTA SCIENCE PLAN 12/30/2013

Delta Science Plan

One Delta, One Science
December 30, 2013

2014 Data Summit
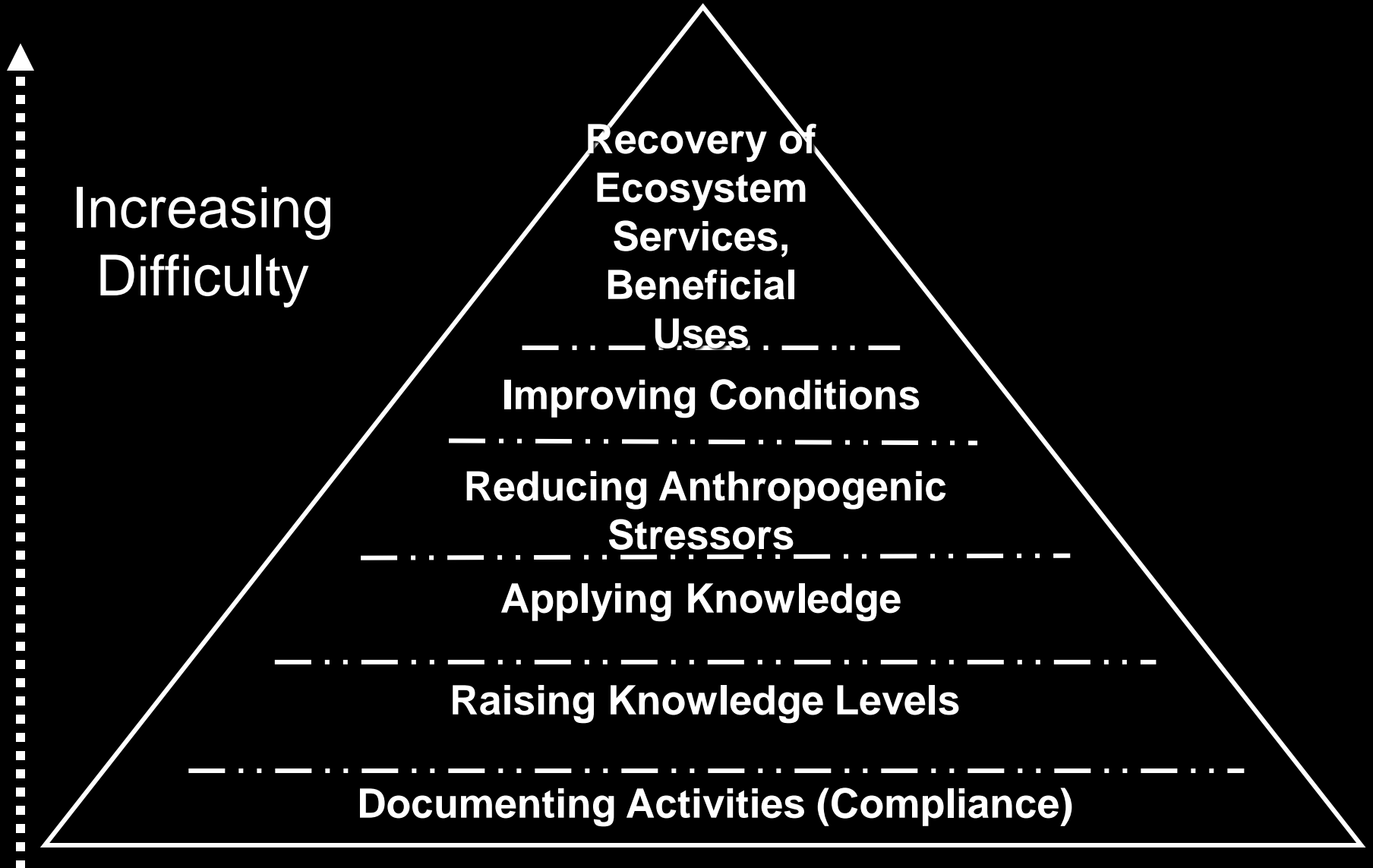
Why Improve Data Integration?

"Information is data endowed with relevance and purpose"

Peter F. Drucker

"Only a synthetic, integrated, analytical approach to understanding the effects of suites of environmental factors [stressors] on the ecosystem and its components is likely to provide important insights that can lead to the enhancement of the Delta and its species."

National Research Council, 2012

Assessment Outcome Levels

Increasing Difficulty

Recovery of Ecosystem Services, Beneficial Uses

Improving Conditions

Reducing Anthropogenic Stressors

Applying Knowledge

Raising Knowledge Levels

Documenting Activities (Compliance)

Challenges to Data Integration

- Expectations for "transparency"

Challenges to Data Integration

- Expectations for "transparency"

- Data quality standards and documentation

Challenges to Data Integration

- Expectations for "transparency"
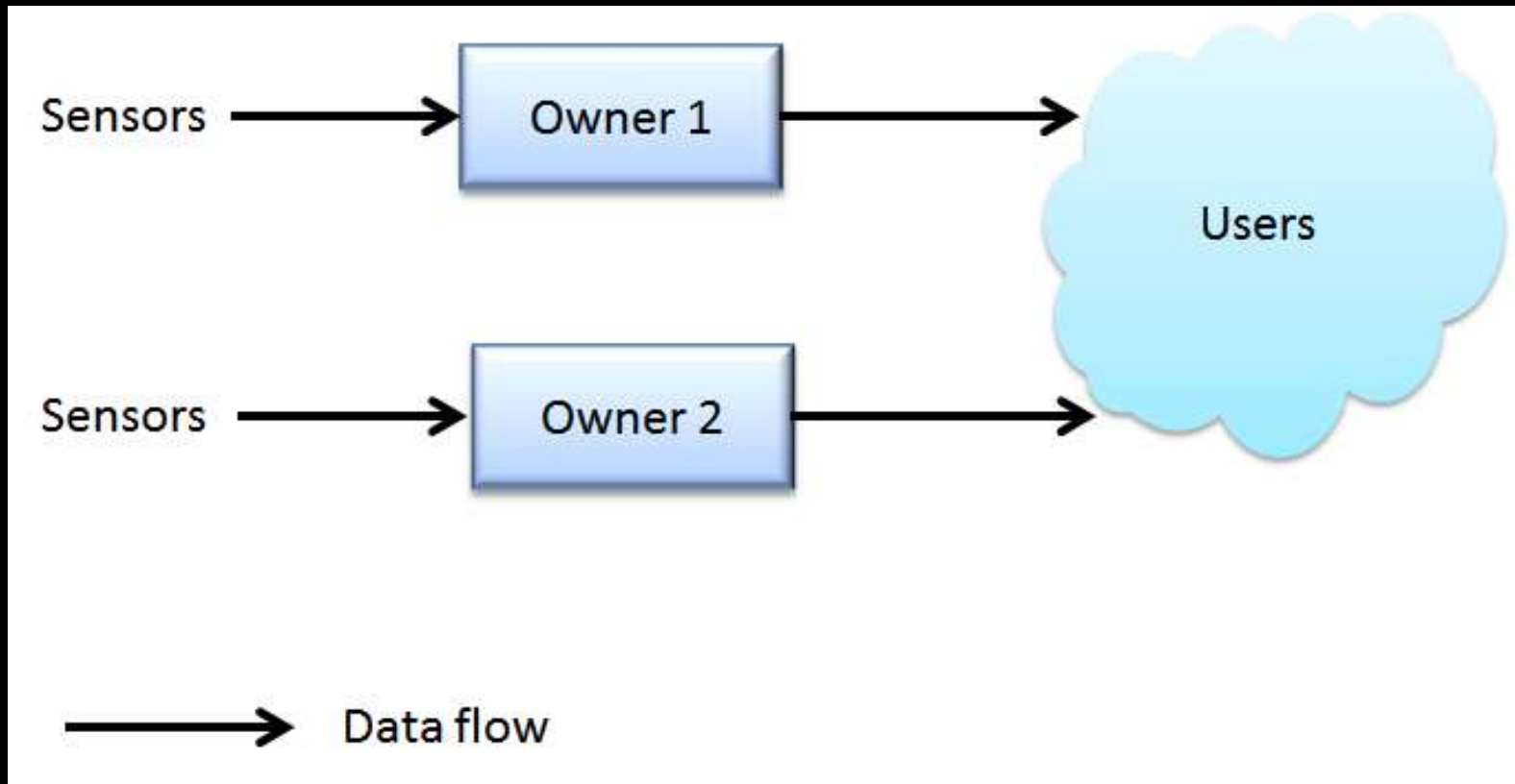- Data quality standards and documentation
- Heterogeneous data

Challenges to Data Integration

- Expectations for "transparency"

- Data quality standards and documentation

- Heterogeneous data

- Unanticipated costs

Challenges to Data Integration

- Expectations for "transparency"
- Data quality standards and documentation
- Heterogeneous data
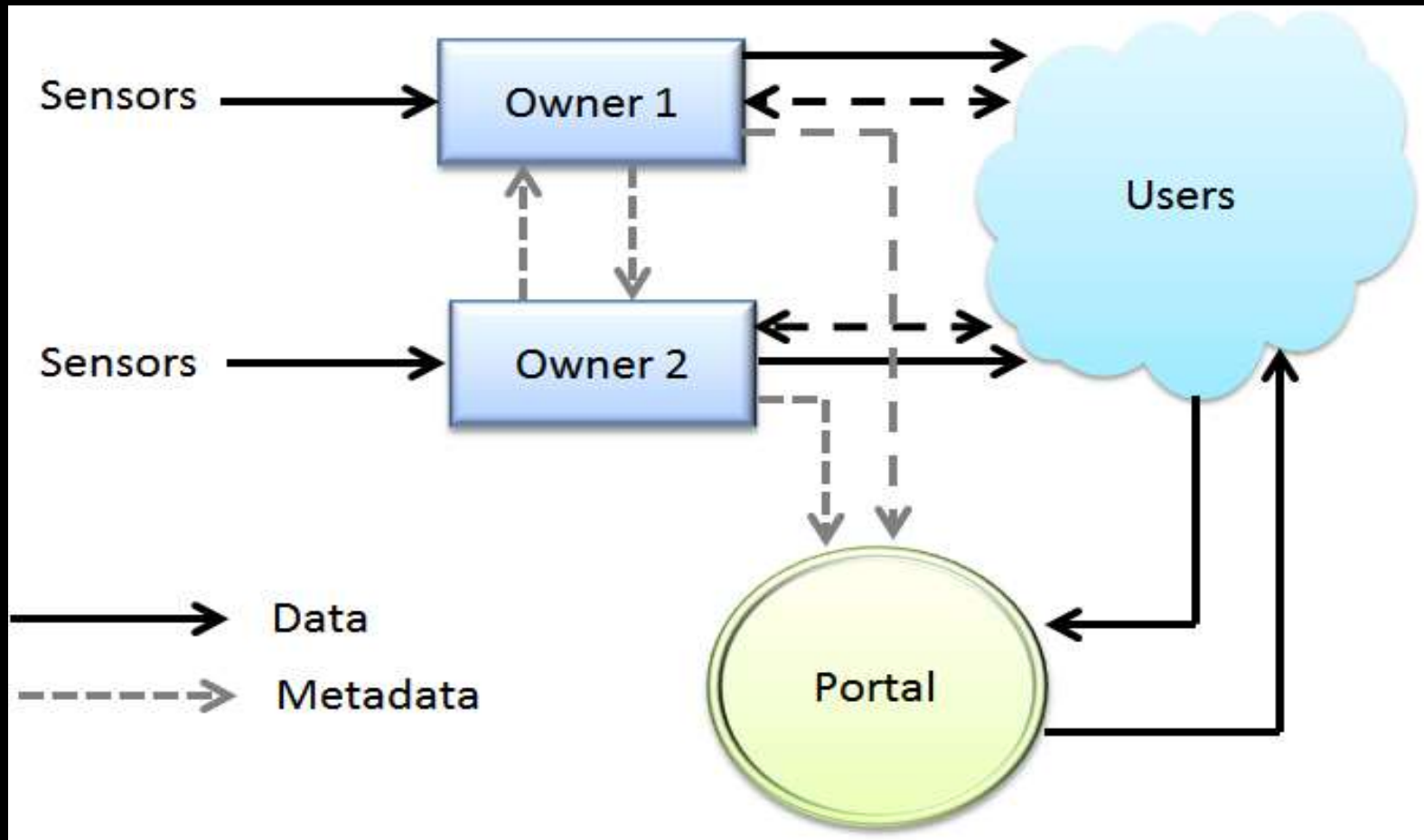- Unanticipated costs
- Lack of cooperation and coordination

A Path Forward

- Sign on to a federated data model

Compare this...

…with this

A Path Forward

- Sign on to a federated data model
- Promote metadata standards

A Path Forward

- Sign on to a federated data model
- Promote and document data standards
- Require data management plans for all data acquired

A Path Forward

- Sign on to a federated data model
- Promote and document data standards
- Require data management plans for all data acquired
- Embrace data of different quality, resolution, sources, as long as attributes are documented

A Path Forward

- Sign on to a federated data model
- Promote and document data standards
- Require data management plans for all data acquired
- Embrace data of different quality, resolution, sources, as long as attributes are documented
- Develop and use web services for data sharing

Thank You!