Midwest Big Data Hub

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On behalf of the Midwest Big Data Hub

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SEEDCorn: Sustainable Enabling Environment for Data Collaboration (aka MBDH)

- A partnership of academia, government, industry, nonprofits

- Over 100 partners already
  - Colleges, Universities, Medical Centers, of all types
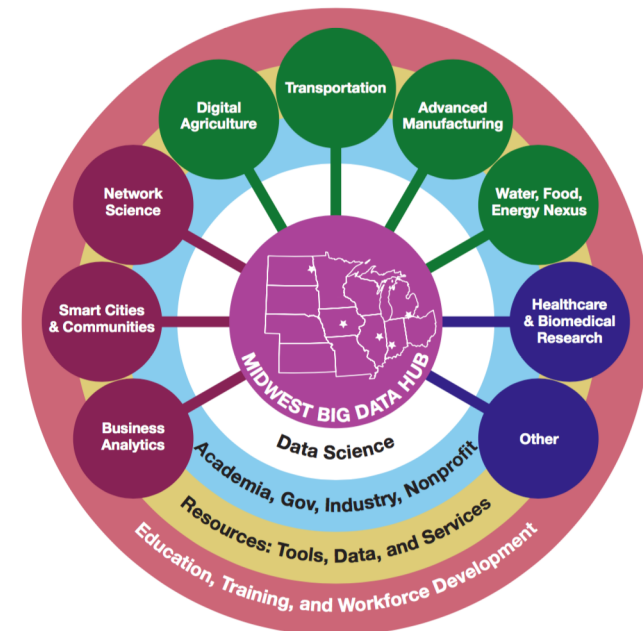 - Industry, Non-profits, NGOs
  - States, cities, communities

Spokes *Currently* Identified by MBDH
(Leaders across midwest for each area!)

- **Network Science**
  - *Including Data Intensive Research in the Social, Behavioral, and Economic Sciences….*

- **Urban Science**
  - *Including Smart and Connected Communities…*

- **Business Analytics**

- **Digital Agriculture**

- **Transportation**

- **Advanced Manufacturing**

- **Food, Energy, Water**

- **Healthcare & Biomedical Research**
  - *Including neuroscience…*

- **Others as proposed…**
  - *Including Data Privacy*

Spokes are supported by the Hub
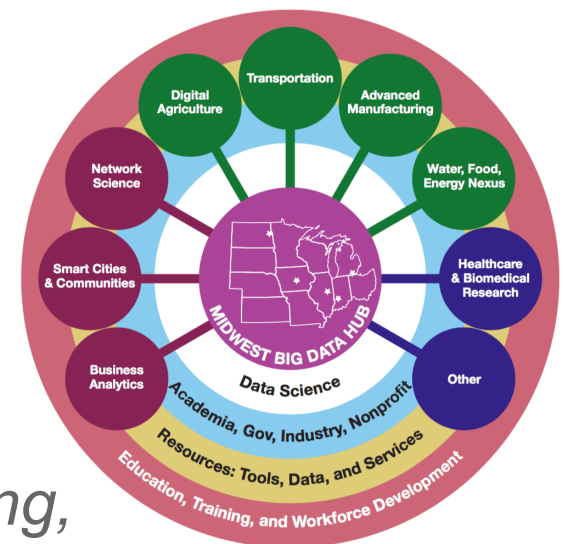
Crosscutting Rings Supported by MBDH

- **Data Science**
  - *Including Data Intensive Research in the Social, Behavioral, and Economic Sciences…*
  - *Replicability and Reproducibility in Data Science*

- **Education**
  - *Including new approaches to STEM learning environments…*

- **Data Tools and Services**

Rings are cross-cutting, supporting all spokes

Goals and Outcomes/Impacts Expected

- Strengthening, creating and securing funding numerous new public-private partnerships
  - Additional funding from agencies (NSF, NIH, DOE, NIST, USDA…), NGOs, governments, industry will be sought
- Accelerating technology transfer projects
- Introducing new Big Data educational activities into universities, industry and government
  - Data policies, management, and best practices with real data for real impact
  - Will involve, train many young data scientists

Goals and Outcomes/Impacts Expected

- Starting *pilots* in data environments (SEEDCorn!)
    - Collaborations will come together to develop and test new approaches to data sharing, policies, algorithms
    - Will work with various organizations to test pilots with real data
        - For example: helping farmers balance productivity and sustainability with detailed data on crop growth, soil conditions & environment
        - Research Data Alliance (RDA), National Data Service (NDS), other orgs. HPC centers supporting pilots
- Developing and implementing new sustainability models
    - Models for long term data stewardship, private-public partnerships, educational practice
    - Different approaches will be needed!

Midwest Big Data Hub
Accelerating the Big Data Innovation Ecosystem

We are just getting started!

- We are bootstrapping our way to function
  - Executive Director sought!
  - You are invited to join!
- Our initial planning involves a series of startup meetings beginning in January…
- Check out our website at **midwestbigdatahub.org**
  - White papers, *interim* steering group leadership, and more...

Midwest Big Data Hub

Accelerating the Big Data Innovation Ecosystem

Let the Hubs begin!!

TIMELINE

Key Near-term Dates for Hub Actions

- Nov 6: Steering Committee mails
- Nov 9: Mailing entire collaboration with guidelines for how to propose MBDH activities
    - If not already involved, sign up on website if want to receive this
- Dec 9: Draft LOI due
    - Proposers to coordinate with spoke leads if appropriate
    - Additional document describing how you leverage hub assets, what you expect, what data collections you might bring, and more…see website and mail for details
- Dec 16: Hub governance team meet in Chicago to plan
- Mid January: First All Hands meeting

Summary

- MBDH is highly integrative across all sectors from academia, governments, NGOs, and industry
  - Building collaborations around grand challenges in science and society, focused on Midwest region
  - Helping to automate big data life cycle
  - Enablign access to and increasing use of dat aassets
- Regional structure to bring together communities across region, nation
  - Focus on problems of the region, and beyond
  - Working groups formed, interim steering committee, workshops planned
- We are starting to prepare for first NSF spoke solicitation
  - Join us!