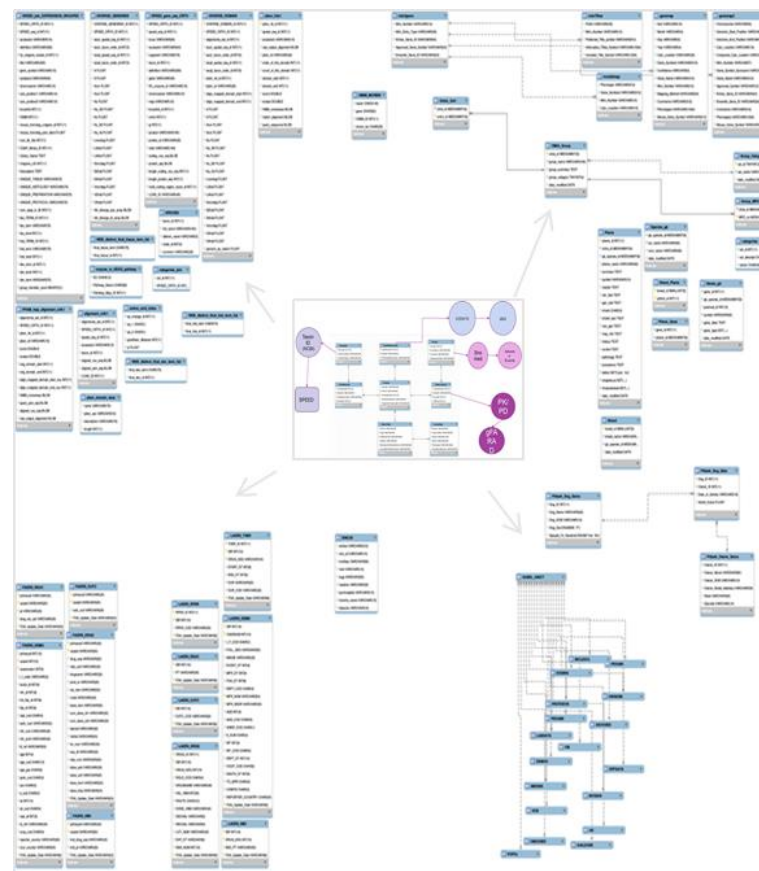


1DATA

Welcome!

1Data: Data sharing made easy

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Interim Chair, Div. of
Pharmacology and Pharm. Sci.,
UMKC School of Pharmacy



1DATA

A Collaborative Translational Research Project



1Data will improve human and animal life by:

- ...reducing the time of drugs to market
- ...reducing the number of animals being tested
- ...becoming an essential bridge for translational medicine

The goal is:

- ...to develop a never-before-created platform that will be a unique regional asset
- ...to begin sharing data across human and animal health
- ...to create a unique training environment for translational health partners
- ...to enhance collaborative research efforts and improve innovation

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One Health Data is 1Data

Data-sharing partners:

- Aratana
- Elanco Animal Health
- iShare Medical
- KSU College of Veterinary Medicine
 - (FARAD Data)
- RareKC
- FitBark
- Garmin
- KUMC, Frontiers Program

Grants submitted and/or funding:

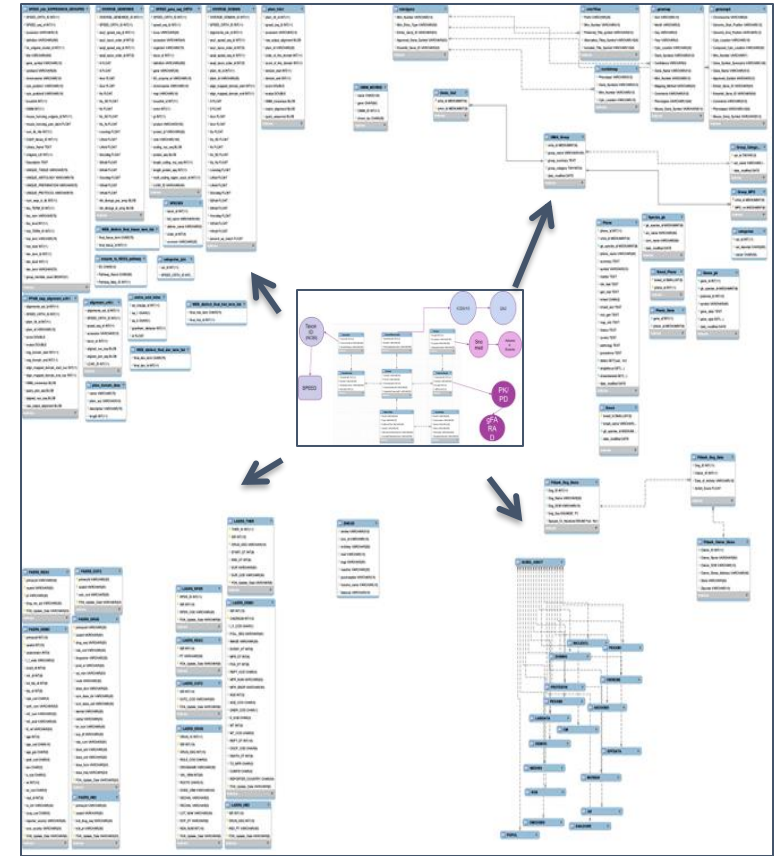
- FARAD USDA
- DOD DARPA Grant
- NSF Big Data and Health Outcomes with Engineering
- Office of the National Coordinator for Health Information Technology
- T32 for Training and Education
- SBIR (with corporate partners)

Public Data Sources:

- FDA adverse events
- PubMed
- PubChem
- Genbank/Genpept/RefSeq
- SPEED
- OMIM, OMIA
- ENSEMBL
- KEGG

Current or Past funders:

- Hall Family Foundation
- Bank of America
- Civic Council of GKC
- McCownGordon Construction
- Merck
- Ceva
- BioNexus KC
- Elanco



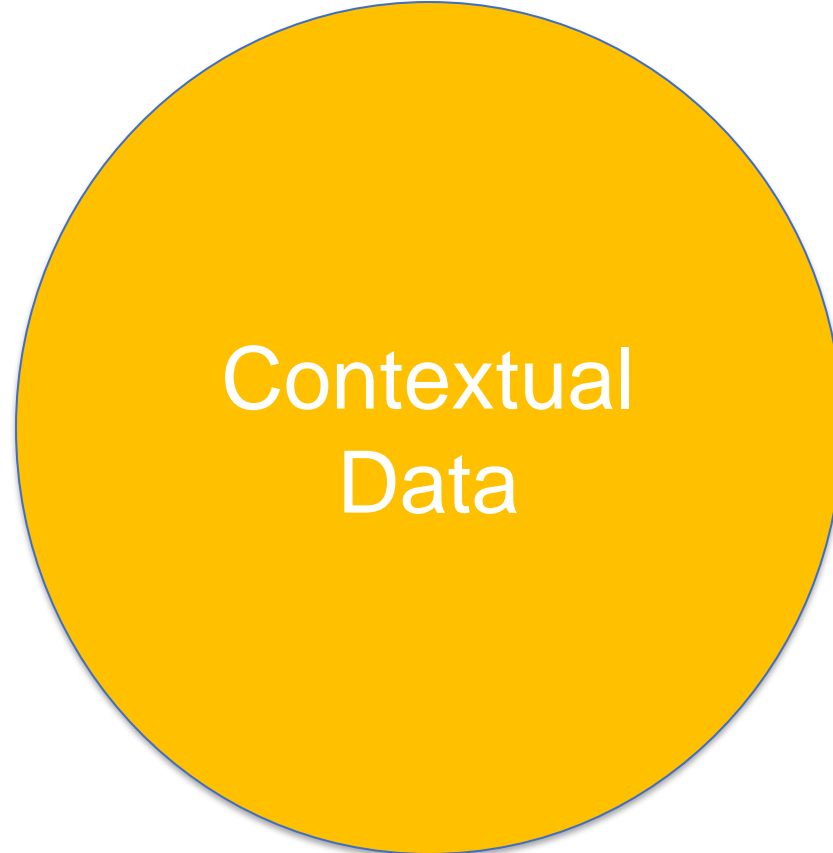
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The Challenge: Create Usable Data

Making data usable:

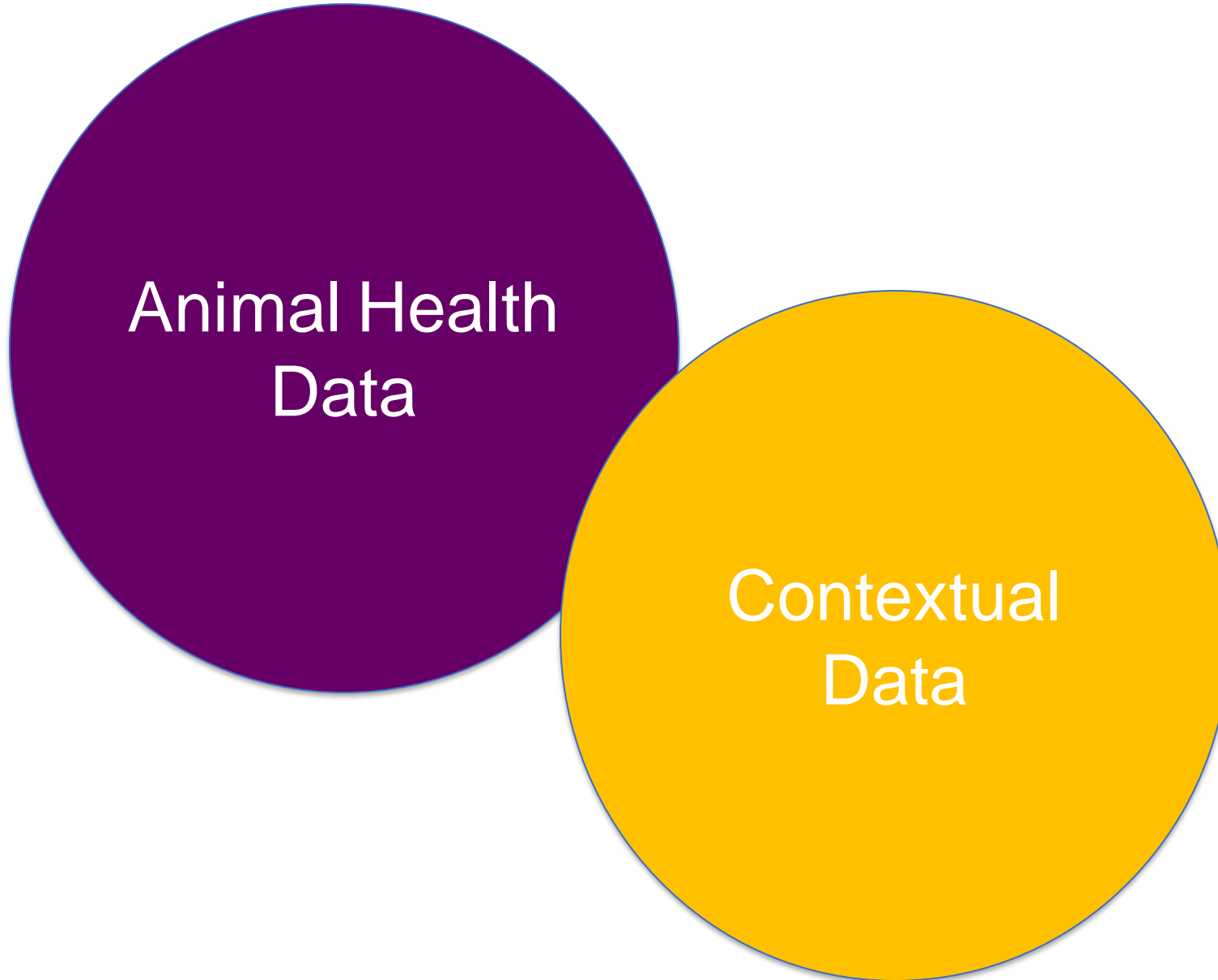
- Combining sparse data using “big data” analytics and structure from regulatory databases
- Provide data for development of apps
- Complex situations across linked data sources
- Ability to make inferences about larger populations
- Can be compartmentalized to allow users access to only portions of the data and protect intellectual property
- Generate quality data useful for regulatory process

What are we doing with Data?



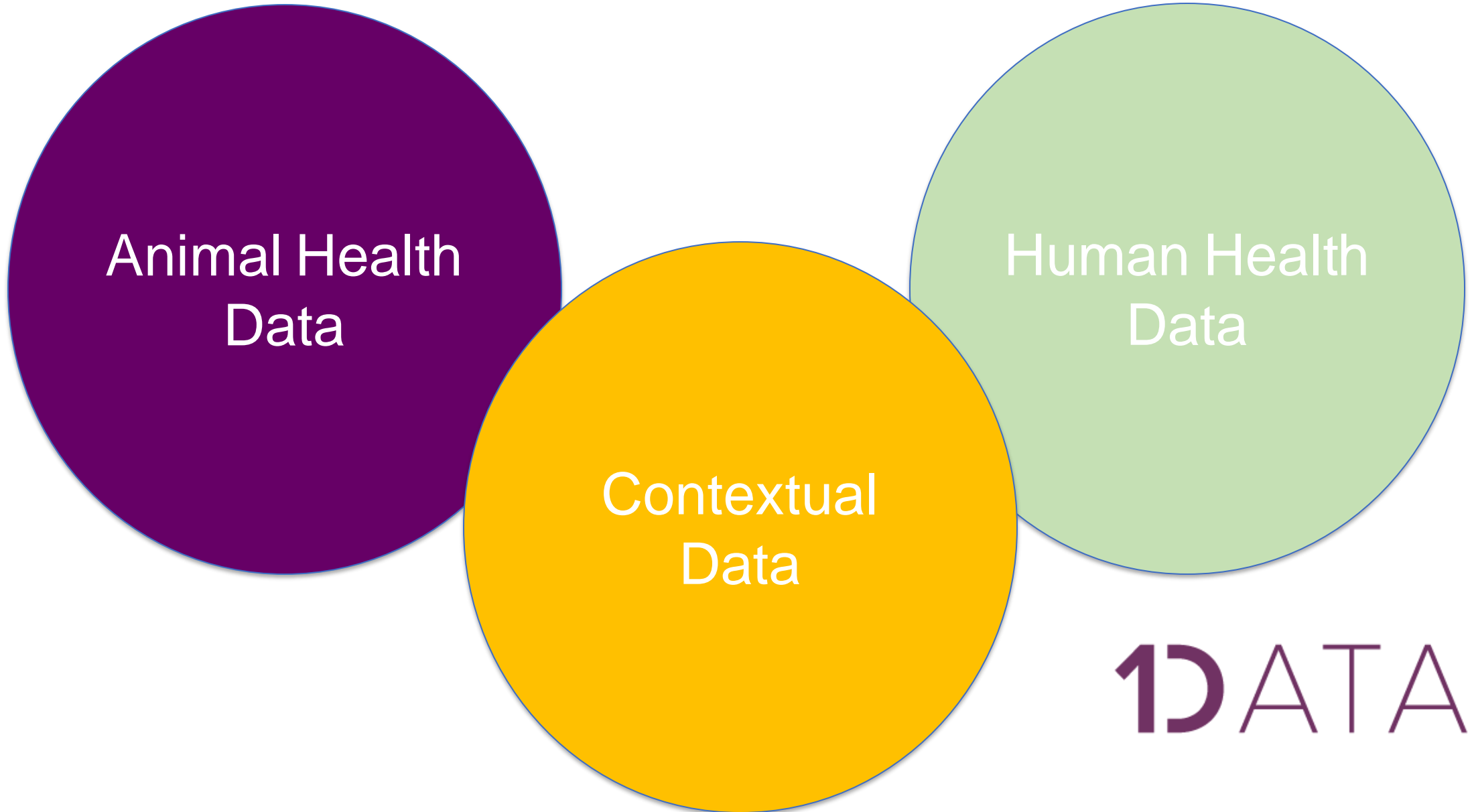
1D DATA

What are we doing with Data?

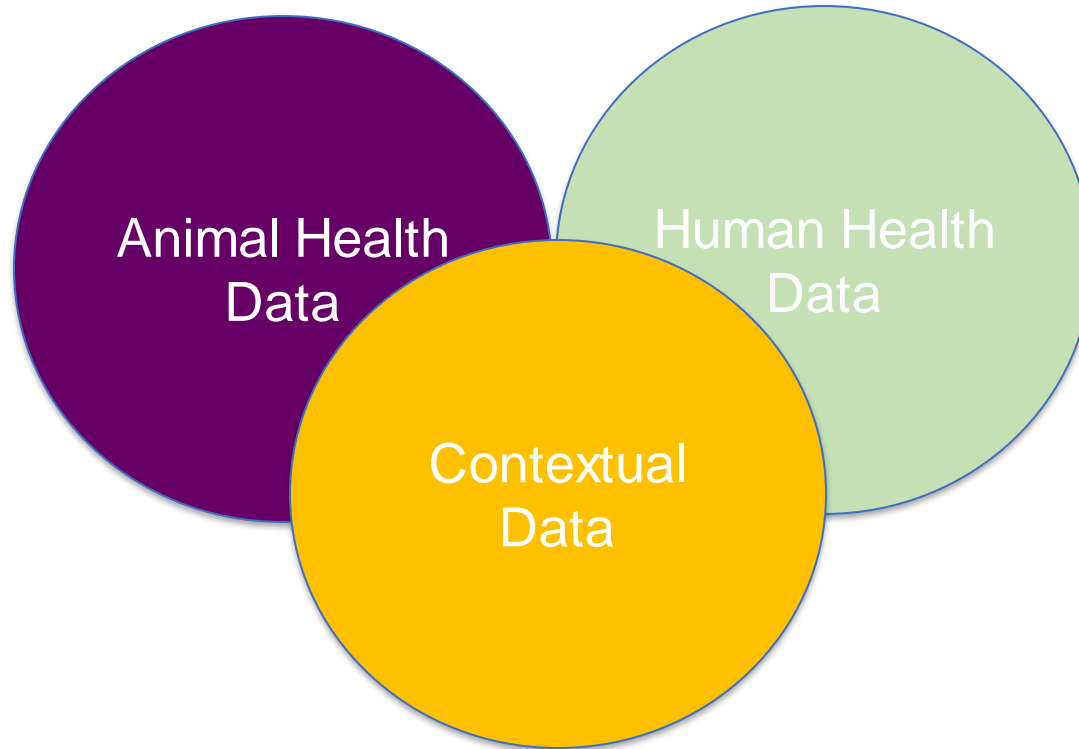


1D DATA

What are we doing with Data?

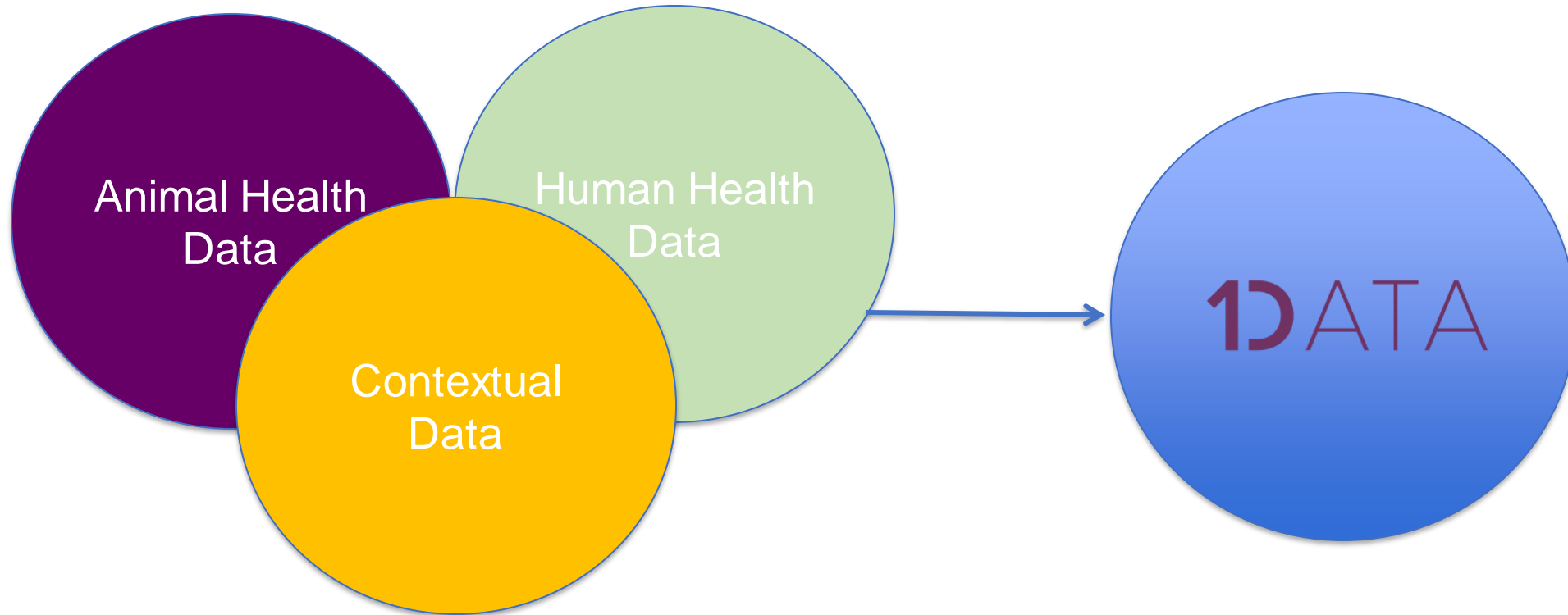


What are we doing with Data?



1DATA

What are we doing with Data?



A Bridge for Translational Medicine

- 1Data is a component of the “One Health” initiative that will help move animal health data into the human health sphere, and provide knowledge directly to improve human and animal health and welfare.
 - Reduce the time of drugs to market.
 - Need a new regulatory landscape
 - Reduce number of animals being tested.
 - Use the right animal model
 - Use simulations
 - Essential bridge for translational medicine.
 - Move data across disparate species
 - Make use of existing data (EMR, diagnostics, PK/PD) that needs integration

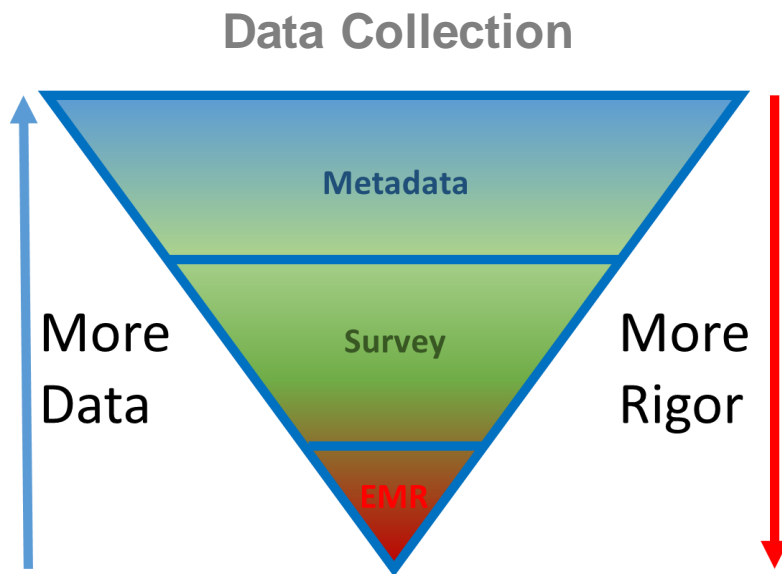


The SEADS platform

- Create **SEADS** : the *Structured Environment for Animal Data and Simulation*, a key enabling technology for regional translational medicine efforts.
- SEADS will bring together pre-clinical human and animal health data to develop a cohesive and structured environment to collect and disseminate information, which will improve the quality of human and animal health through improved, refined and enhanced collaborative research and education.

Point of Care Rare Disease Decision Support

- The 1Data team is **advancing a multi-pronged approach** toward developing a decision support tool at the point of care, **geared towards ending the rare disease diagnostic odyssey**.
- This approach is utilizing information from multiple sources in **1Data**, and in **partnership with iShare Medical**.

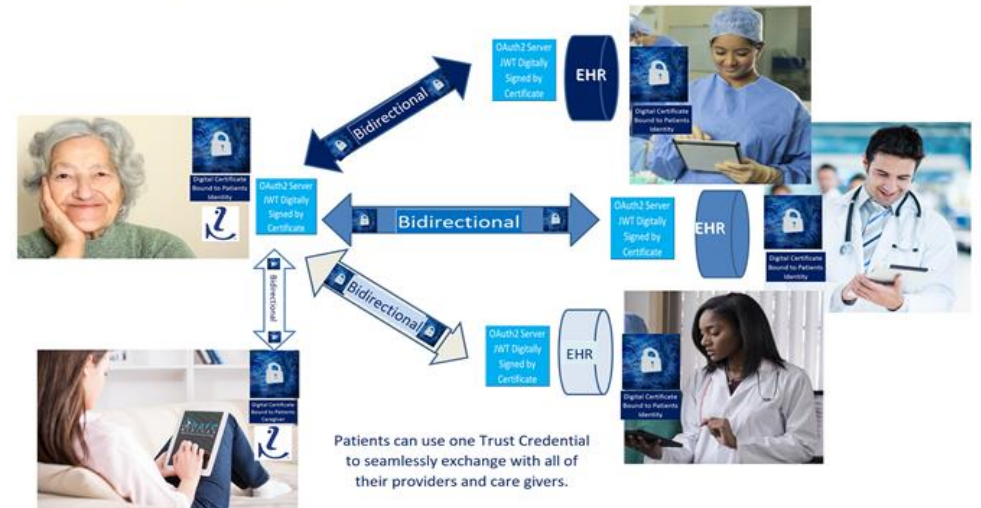


Data Analysis



Point of Care Delivery

Proposed Approach Also Scales for Patients and Their Loved Ones



Our approach

- Patient driven
- Outcomes focused
- Builds on regional strengths
- Collaborative
- Uses data at scale to create opportunities for development of precision tools
- New approach to treatments must follow



DATA

What to expect from Today!

Projects which showcase the importance of data sharing

How we've overcome data sharing obstacles

Opportunities to collaborate

What we want to do...

Hear what pain-points people have

Establish best practices

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