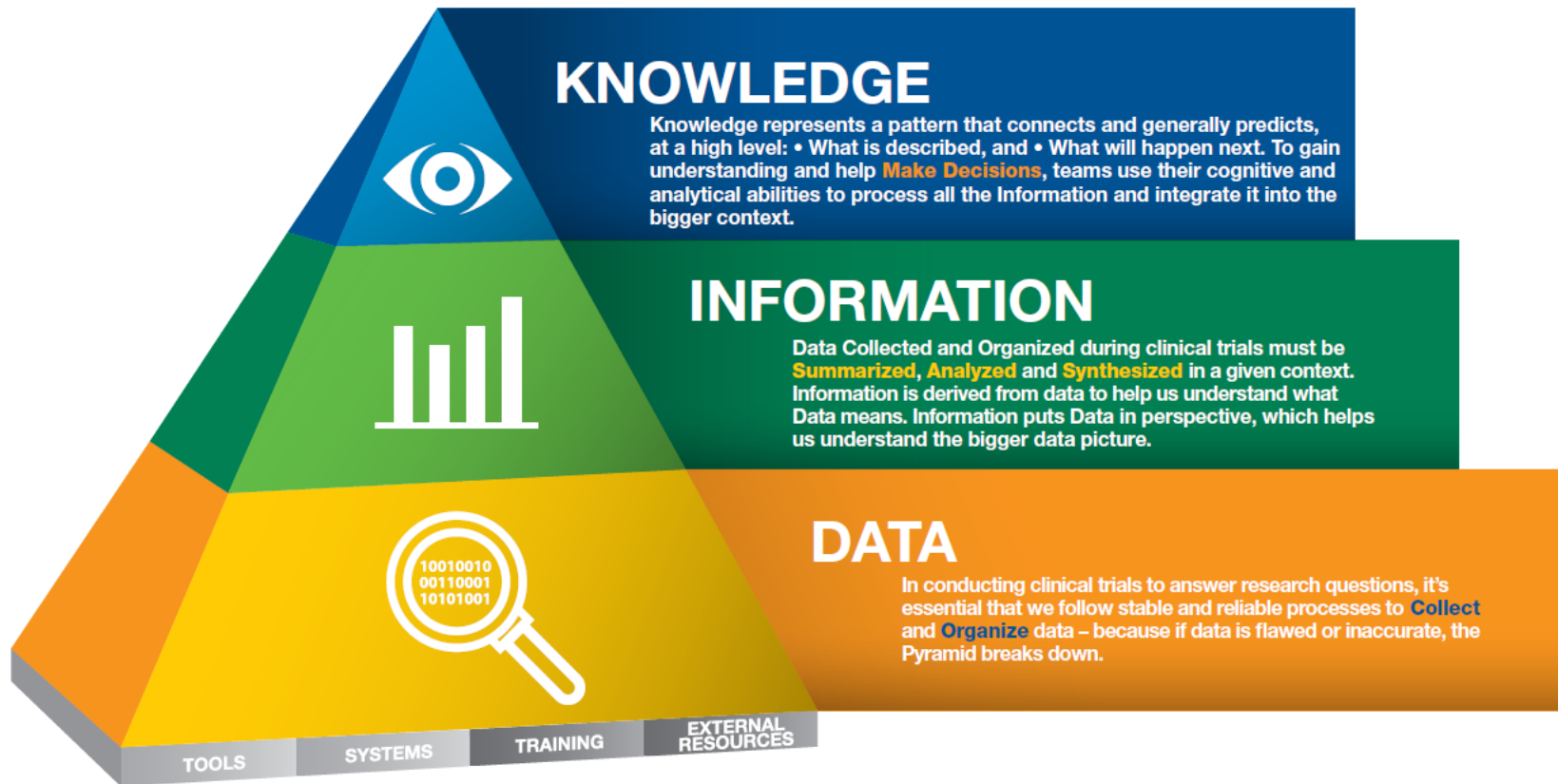


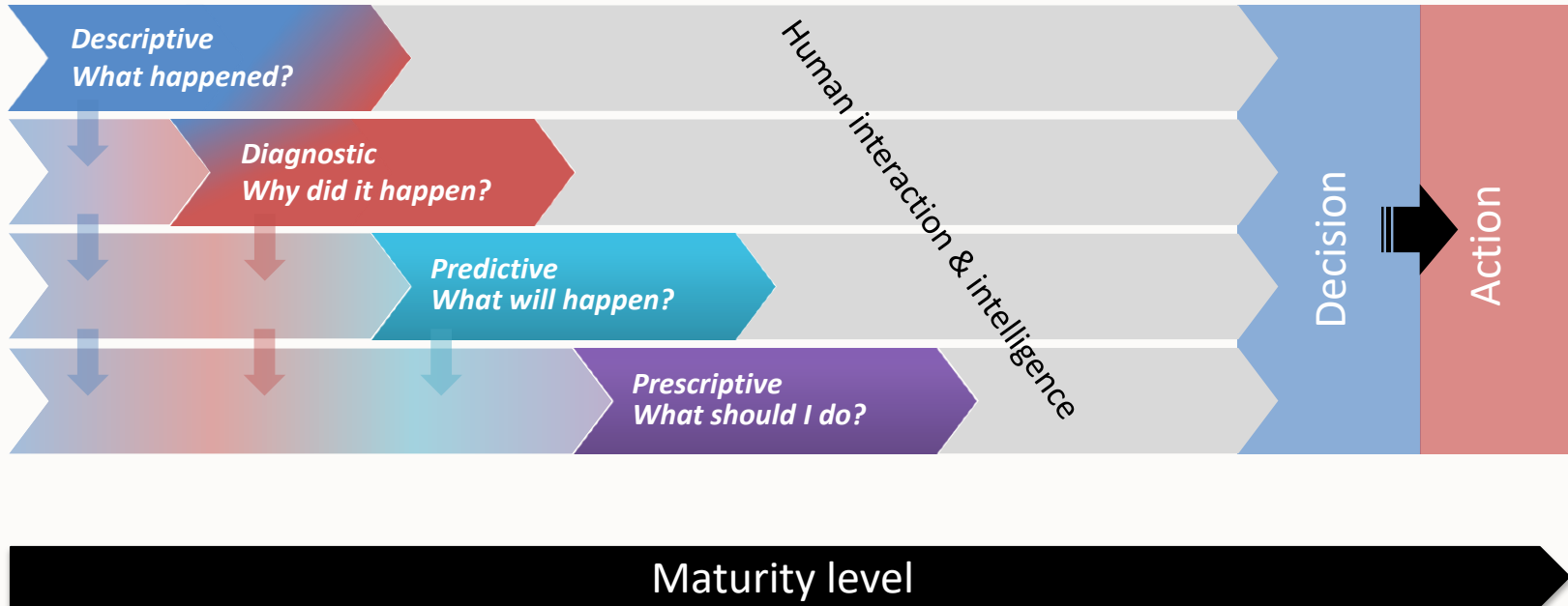
What does DS&A do?

DATA SCIENCES & ANALYTICS TURNING DATA INTO KNOWLEDGE



Data science and strategic direction

Data science is an interdisciplinary field about processes and systems to extract knowledge or insights from data in various forms, either structured or unstructured, which is a continuation of some of the data analysis fields such as statistics, data mining, and predictive analytics.



Where are we on this scale

Key working areas

Performance

- Meet the need for speed
- Companies need faster insight generation
- Challenge is going through the sheer volumes of data and accessing the level of detail needed, all at a high speed.
- The technology landscape

Information quality

- Even if you can analyze data quickly the value of data for decision-making purposes will be jeopardized if the data is not accurate
- To address this issue, companies need to have a data governance process in place to ensure the data is of high quality - Reliable.

Future readiness

- Disseminate awareness of current and evolving data science technologies
- New skill sets need to be acquired
- Cognitive computing & machine learning

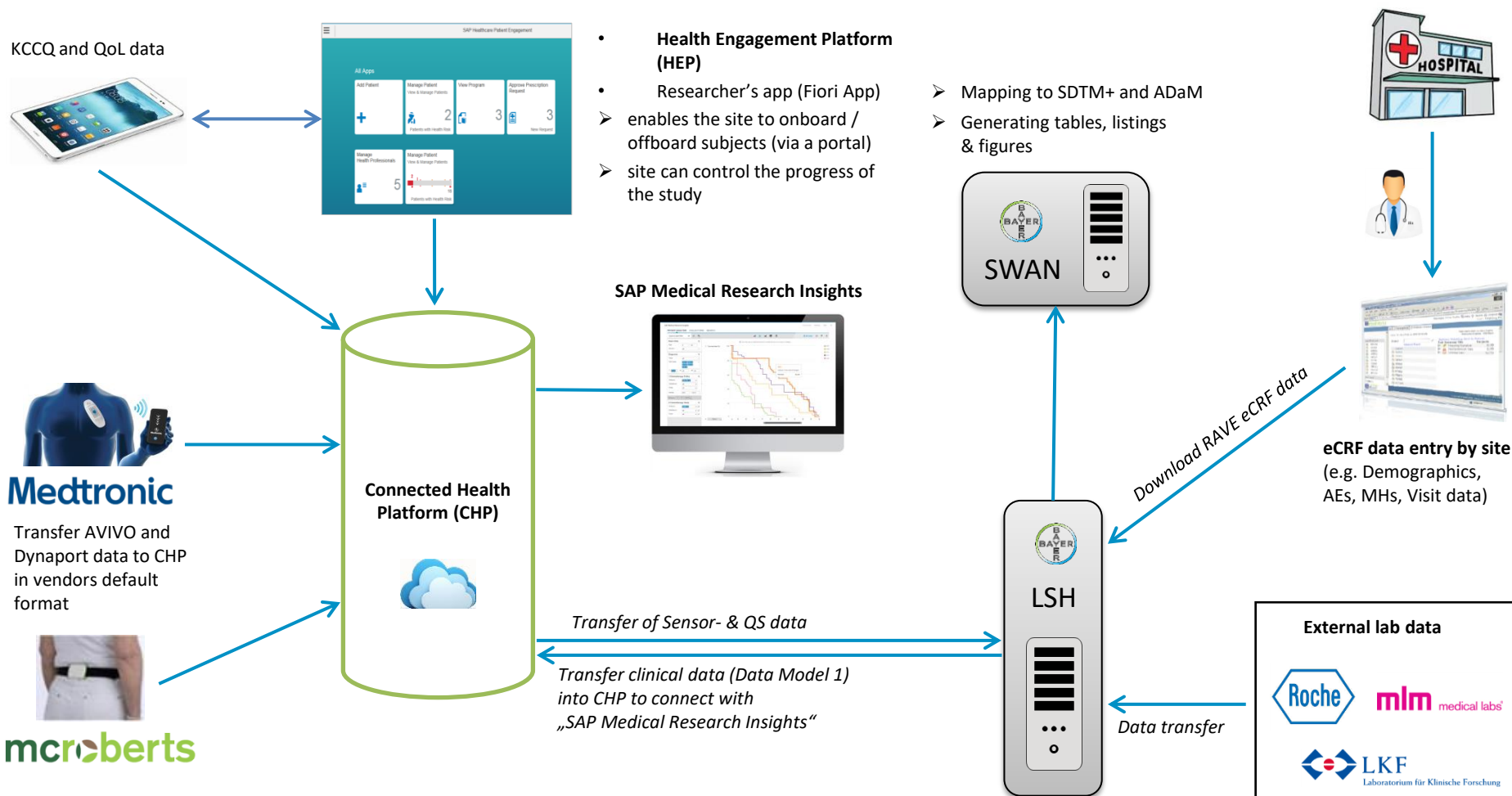
Data needs

- Continuous pipelines to and from different pools of information
- Allow ad-hoc pulling of information
- Deep understanding to get data in the right shape for the analysis stuff

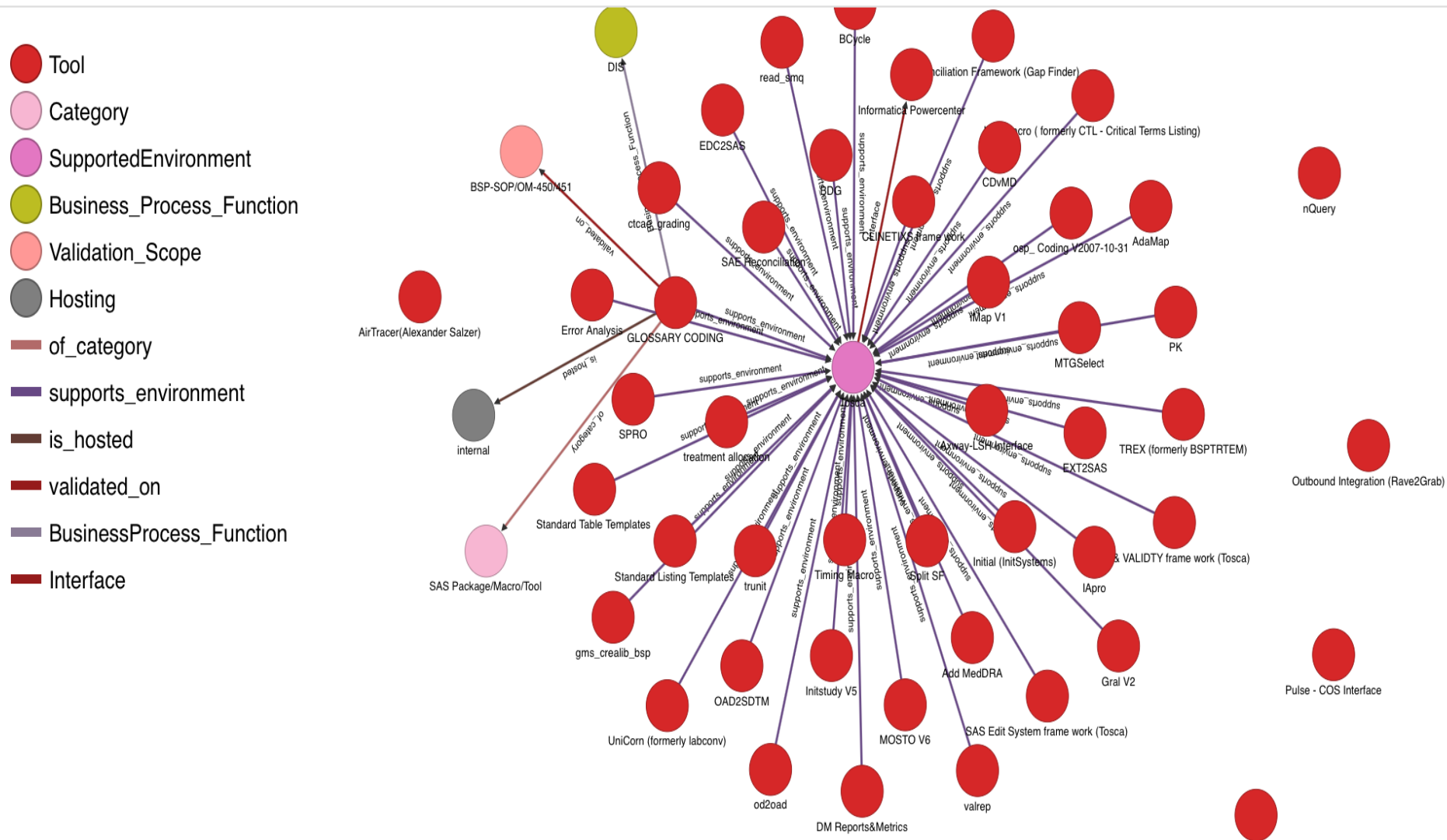
Analytics / Visualization

- Graphical representations / visualization communicate trends/outliers much faster than tables containing numbers and text.
- Apply advanced analytics, predictive technologies, deep learning or cognitive computing

Performance

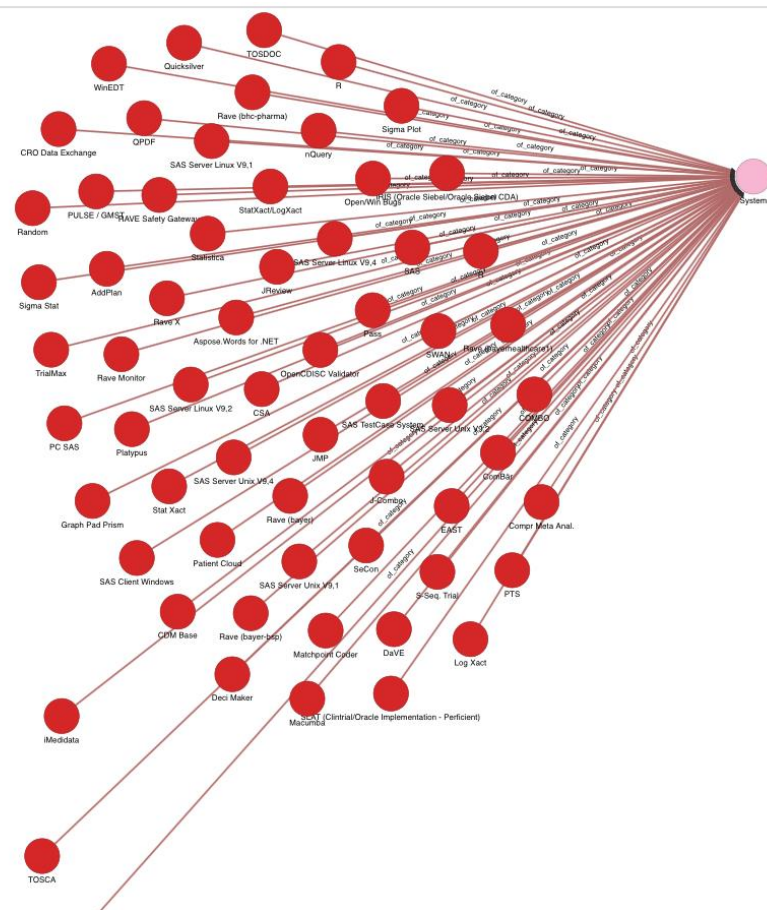
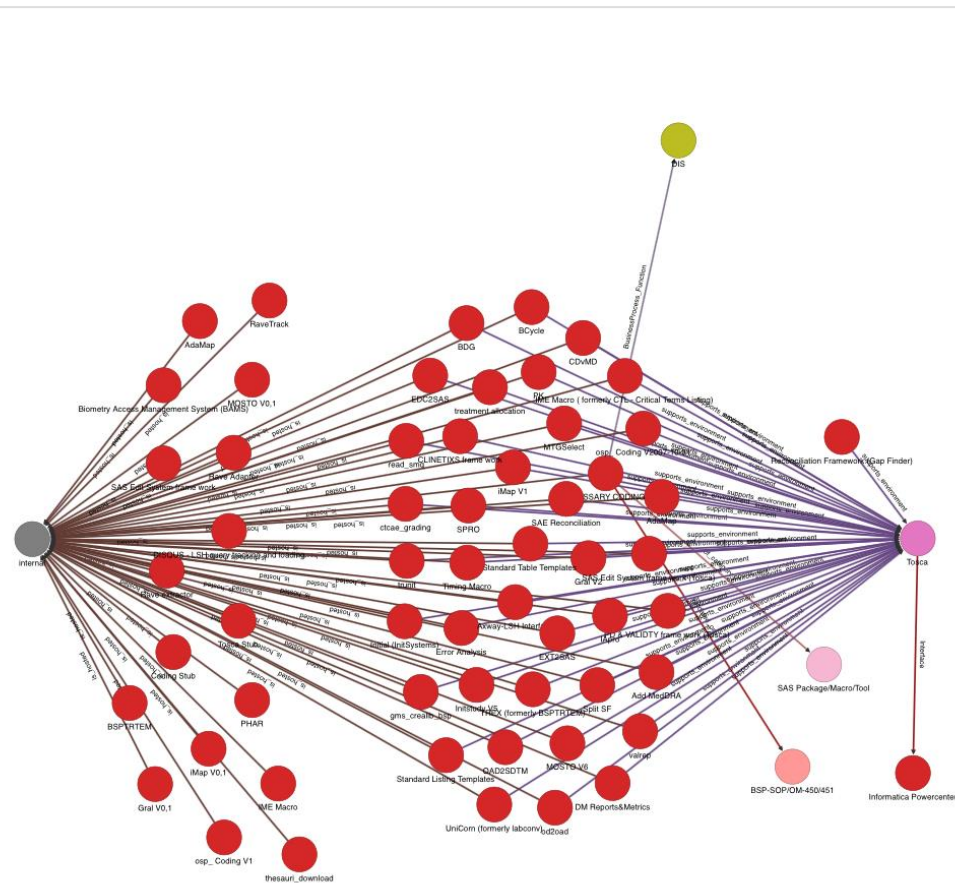


Data and Platform Governance



Data and Platform Governance

Process, systems, data, programs



Data Science

Big Data Jobs and Skills



Data Analyst

Acquire, crunch, and perform statistical analysis.



Data Architect

Create the blueprints for data management system landscapes. They design a plan to integrate, centralize, protect, and maintain all data sources, so that employees can access critical information in the right place, at the right time.



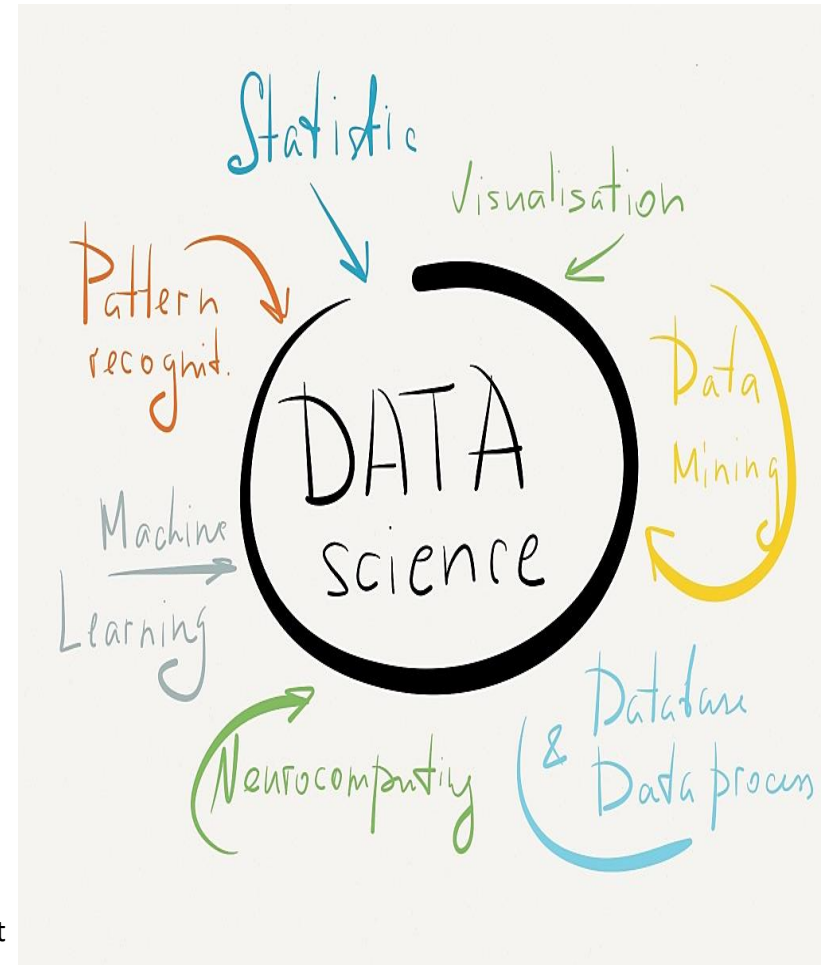
Data Engineer

Build massive reservoirs for big data. They develop, construct, test, and maintain architectures such as databases and large-scale data processing systems. Once continuous pipelines are installed to and from these huge “pools” of filtered information, data scientists can pull relevant data sets for their analysis.

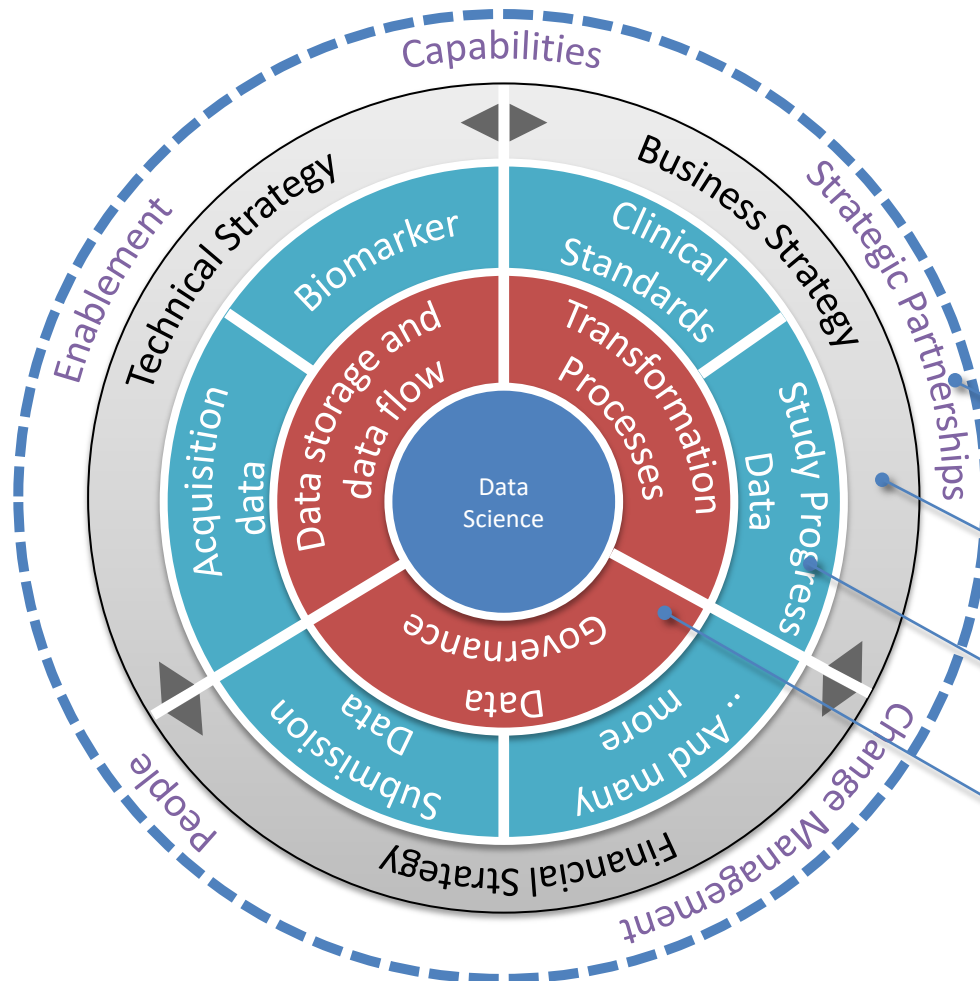


Data Scientist

Big data crunchers. FIRST they take an enormous mass of messy data points (unstructured and structured) and use their formidable skills in math, statistics, and programming to clean, massage and organize them. THEN they apply all their analytic powers to uncover hidden information, trends, ideas, ect. relevant to the business – here patient health.



Influencing factors



Multiple factors are influencing the feasibility of data science – all need to be considered!

Bayer
Framework

Strategic Goals

Data sources and
data bases

Operational data
handling