



**General  
Bioinformatics**

**Innovation, Open Access  
SMEs, Integration, Private  
Data**



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Bioinformatics**

## **Enabling discovery by connecting data with science**

- **Scientific data management**
- **Data integration service**
- **Scientific analysis**

- Diversity
  - Ambitions
  - Offerings
- Biological samples
- Medical technologies
- Data services
- Structural biology
- Imaging
- Genomics
- Systems biology



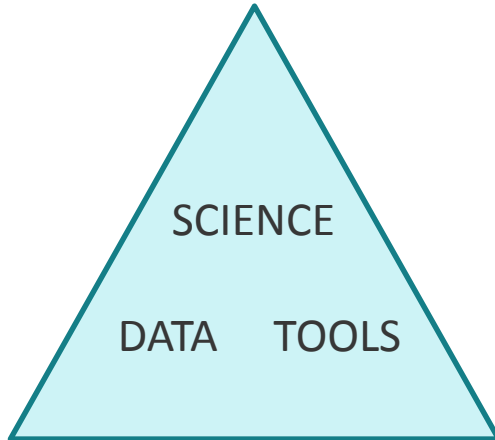
- Innovation is to further business success
- Business success comes from selling something to someone!
  - **Who** will pay? Pharma, Health Providers, Public, Institutes
  - **What** will they pay for?
  - **How much** will they pay?
  - NEED, VALUE, MARKET: GOING RATE, USP

Open Data both allows, facilitates and forces innovation:

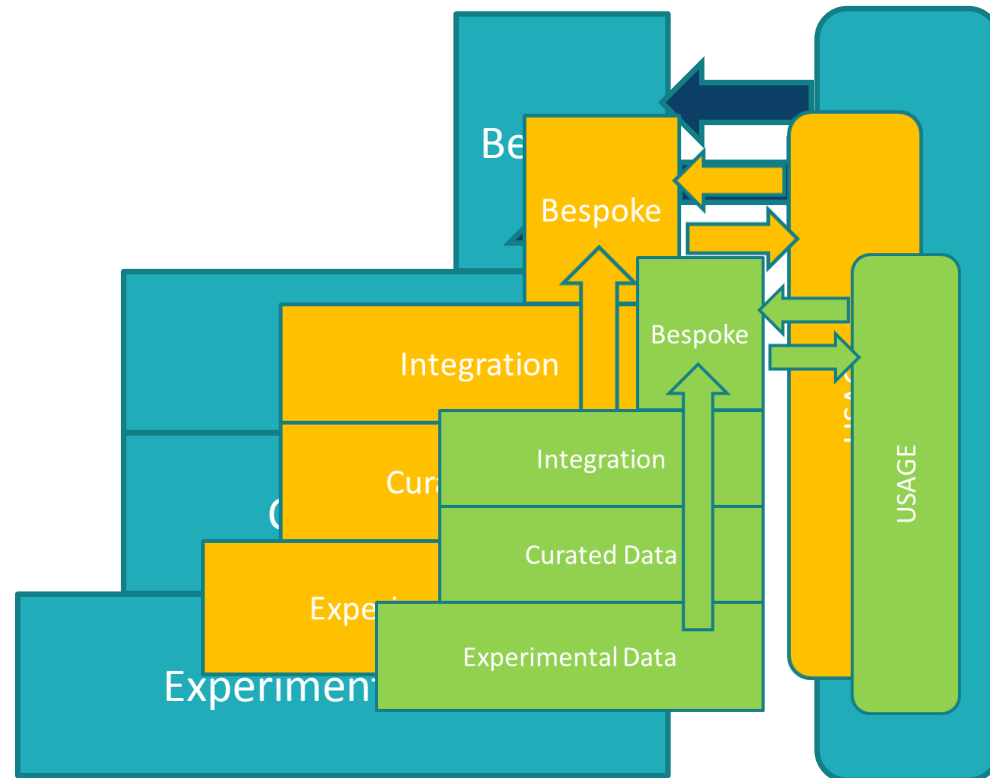
- Strong Foundation:
  - You can build a service or platform from a stable platform, it thereby underpins innovation
- Common language
  - Innovation is a team effort, OpenData means that everyone has access to the same content so can share ideas
- The Change Imperative:
  - Open offerings grow, therefore the boundary of what is innovative keeps moving, so you have to keep moving

# OpenData challenges the market





- RDF, Mongo
- RDBMS data
- Galaxy
- Cytoscape
- R, Python, Jupiter
- DS3, BioJS



- Mind the Byte: Computational Chemistry, SaaS
- Intelligent Pharma: Computational Chemistry, Service
- Eagle Genomics: Genomics data management, Software
- General Bioinformatics: Genomics data, Service
- Made of Genes: Personal genomics for the public
- Repositive: Finding Genomics data
- DataTons: Big data analytics, IT
  
- Almost all products and services in the sector are in some way rooted in the Open world. It is how they apply that to a specific customer problem that creates value.
- Sourcing data and services from a supplier puts a monetary value on something, this can be helpful



- SMEs are particularly vulnerable to big shifts in public provision and strategic shifts in the industry.
- OpenAccess hides the big challenge of value (that companies face every day).
  - Not all data is equally valuable
  - Monetising data is possible and enables the value debate but it goes against current OpenAccess models
- The trend toward “public/private” funding.
  - Example: IMI
  - How does that site with a sustainable business model for an SME?
  - Innovation in what it is to be an SME
- “The MarketPlace” mentality
  - Throughput, Value, Sustainability, Innovation