

Interactive Visualisation for Precision and Translational Medicine

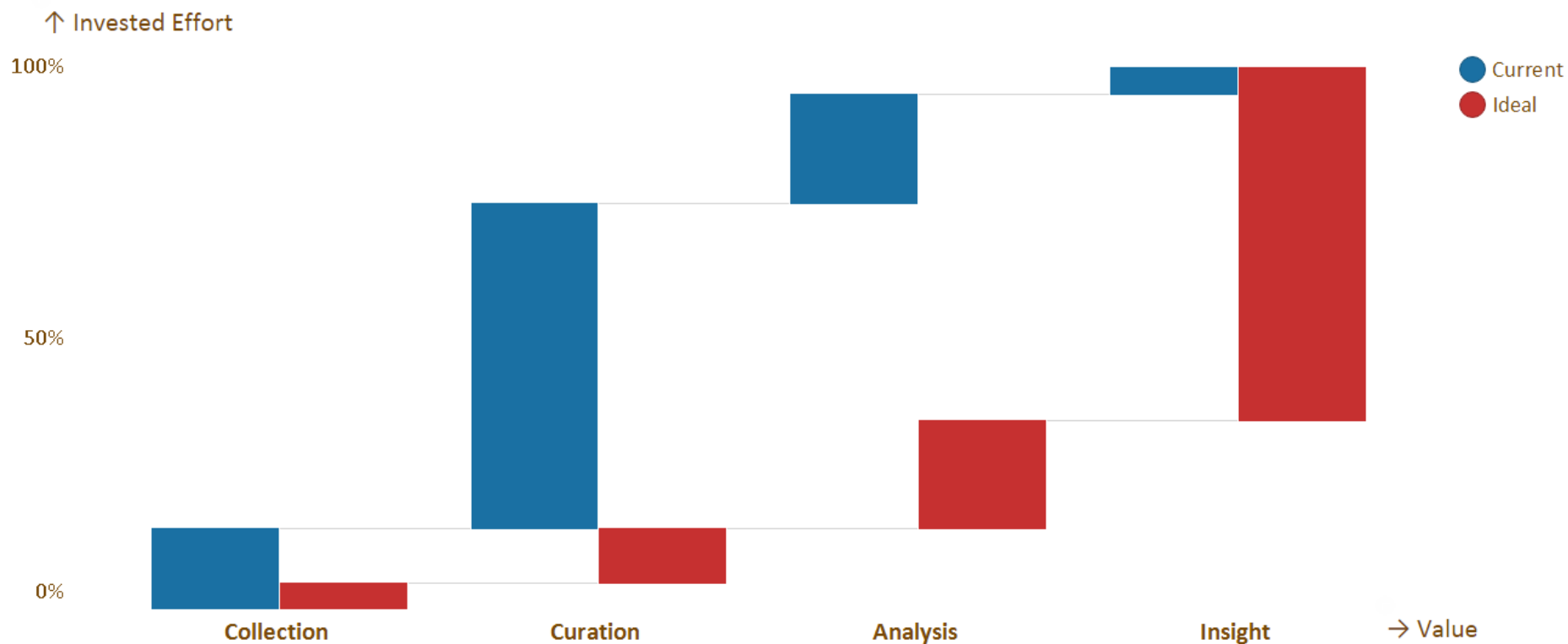
Dr. Christof Gaenzler



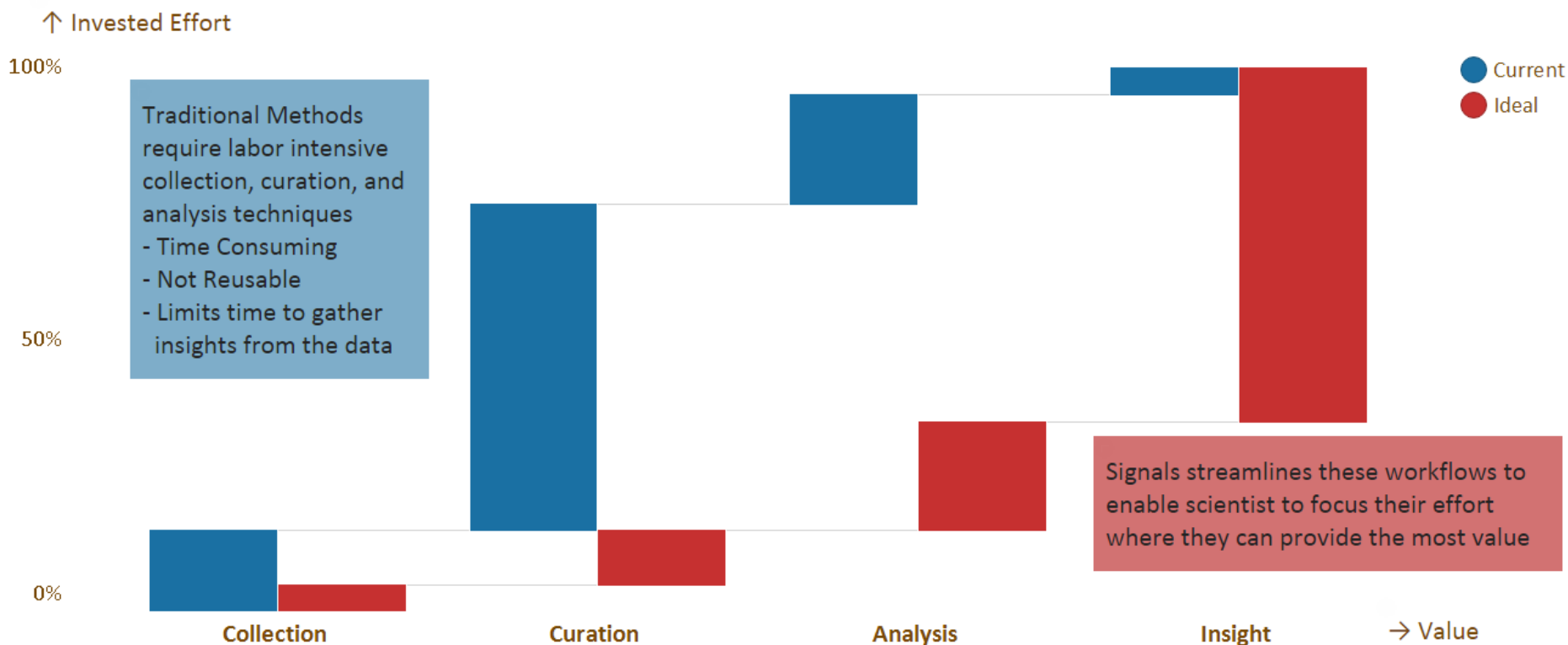
Introduction

- **Precision and Translational medicine change healthcare**
- **Visual Interactive Analytics should drive decision-making**
- **Customers need more complete solutions**
- **Too much effort is invested in Data Collection and Curation**
- **A shift towards higher value activities is needed**

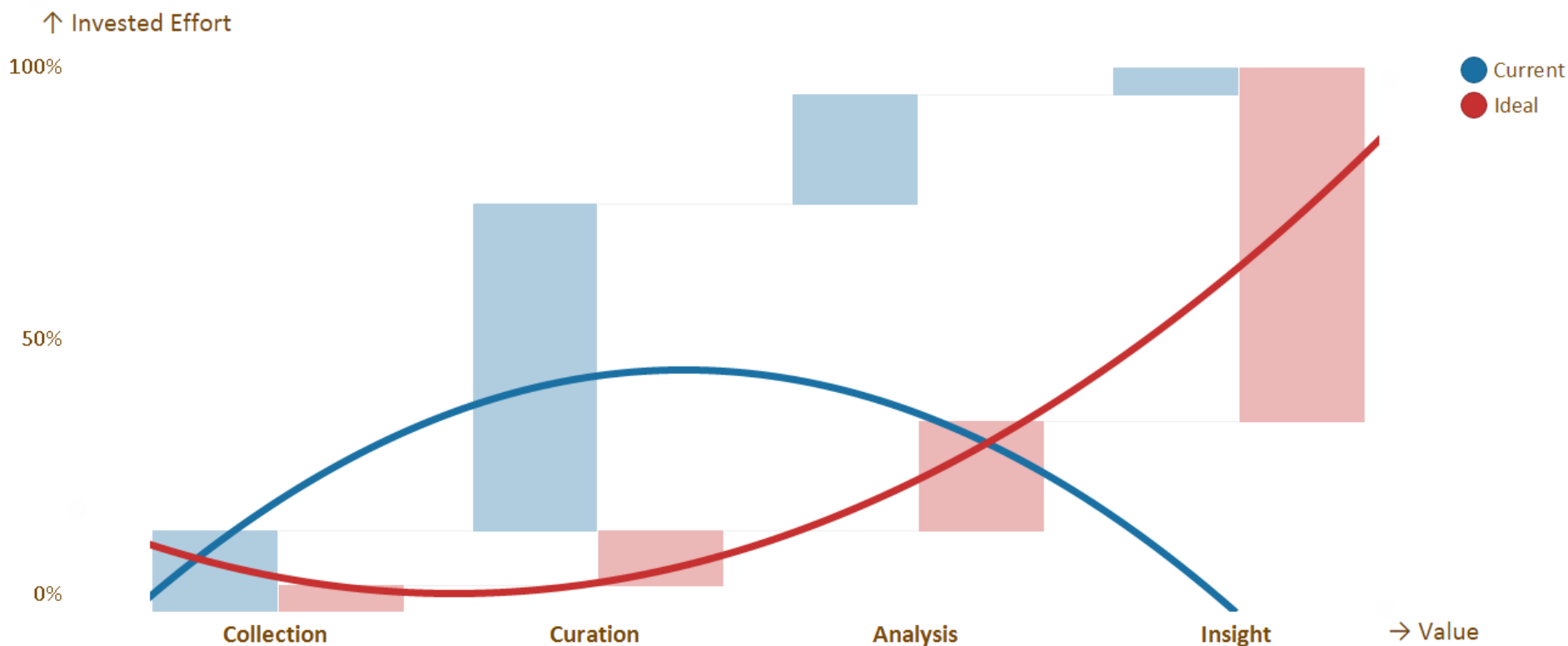
Shift Effort Towards the Higher Value Activities



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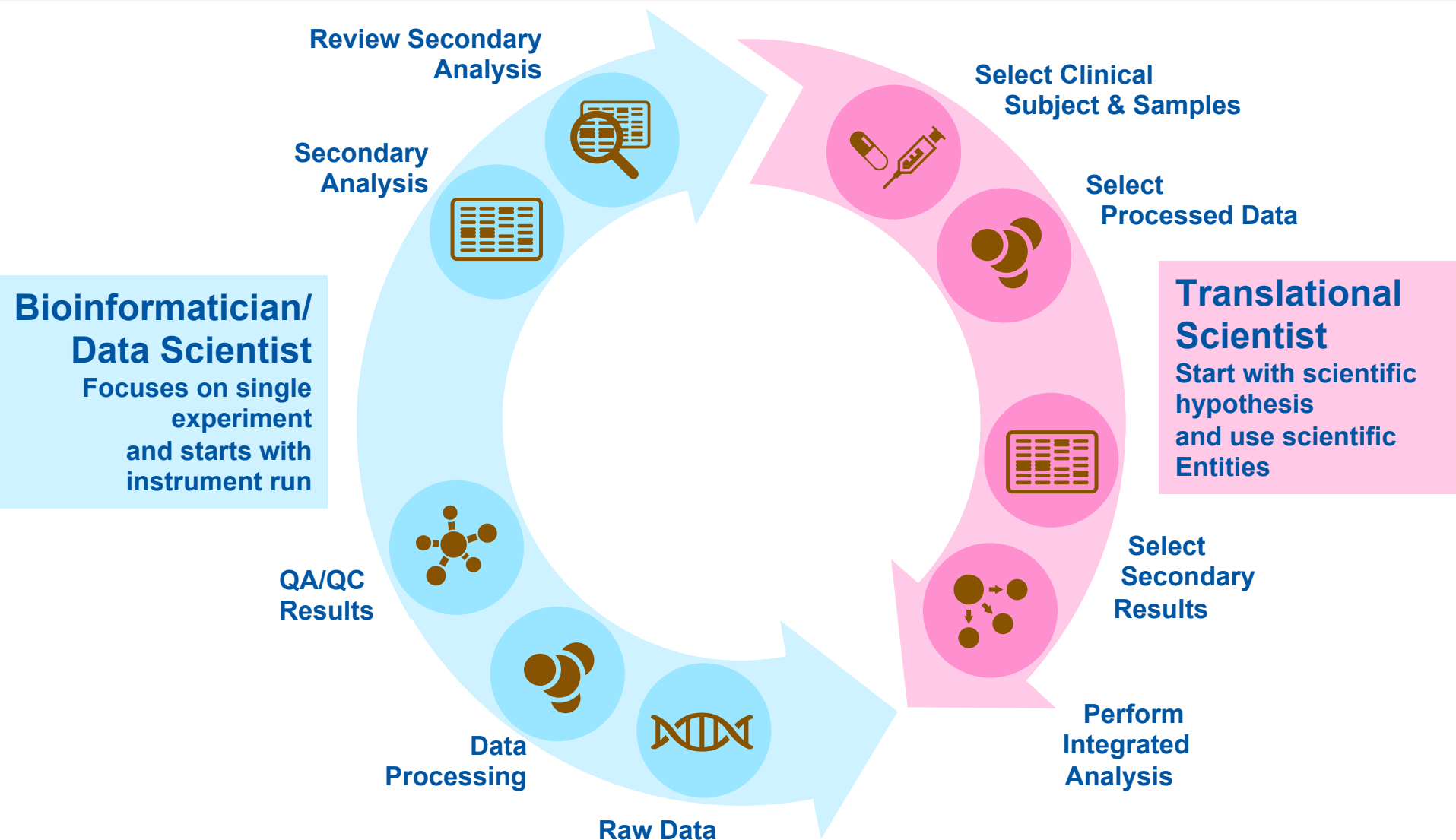


Visual Information Seeking

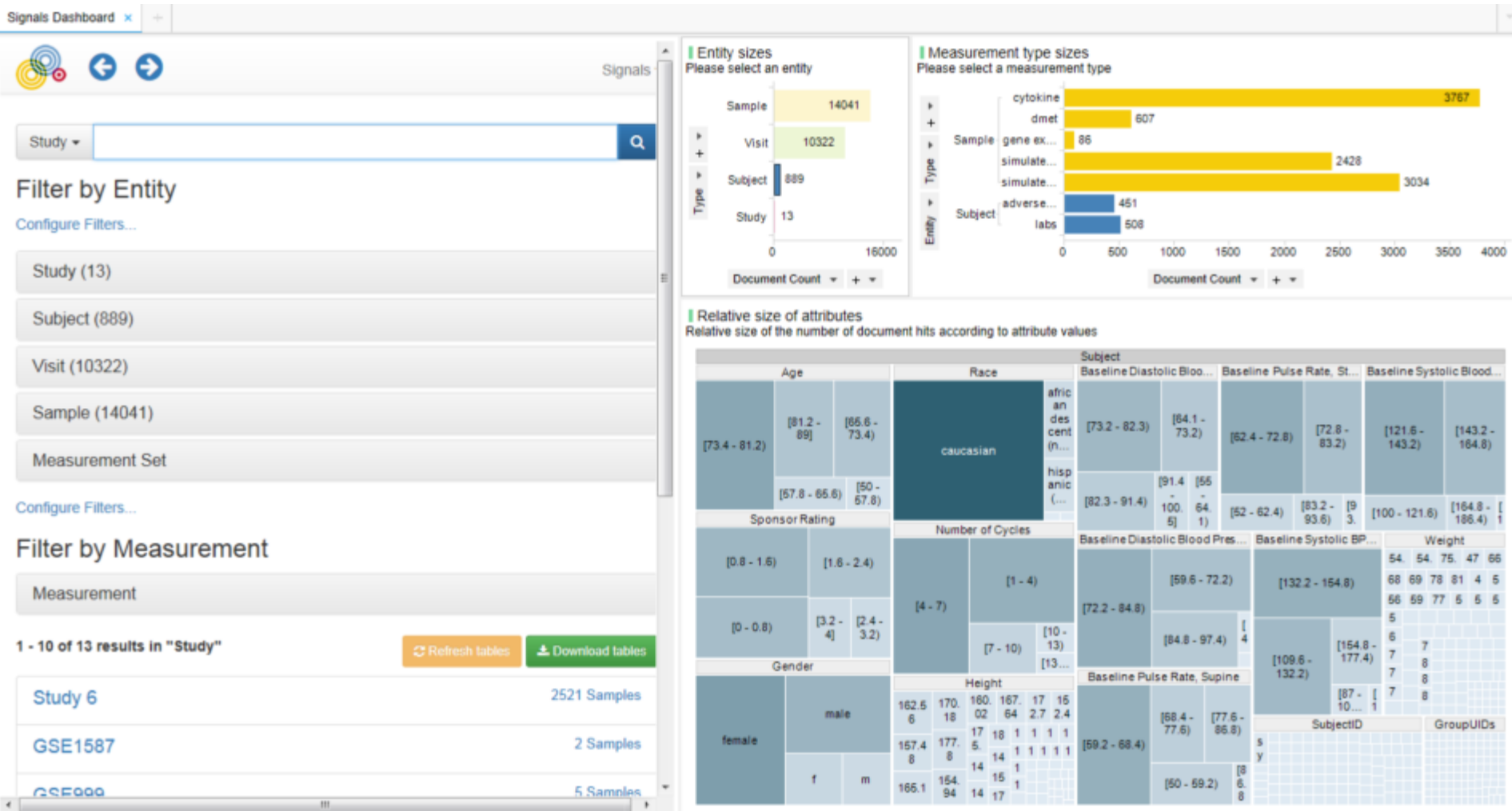
- **Visual browsing & interacting with data**
- **Graphical interactive display of data**
- **drill-down, drill-across, filtering**

- **Important in Translational Science**
- **Disparate datasources not designed to fit together**

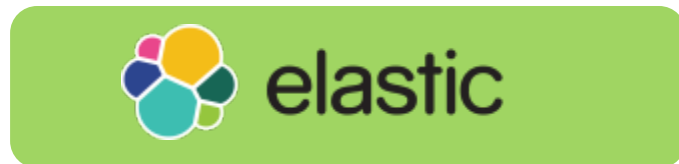
Translational Medicine Workflows



Spotfire as „Query Tool“ for Selection steps



How does it all fit together?



Signals for Translational
Combines technologies into
a single solution for the
translational scientist

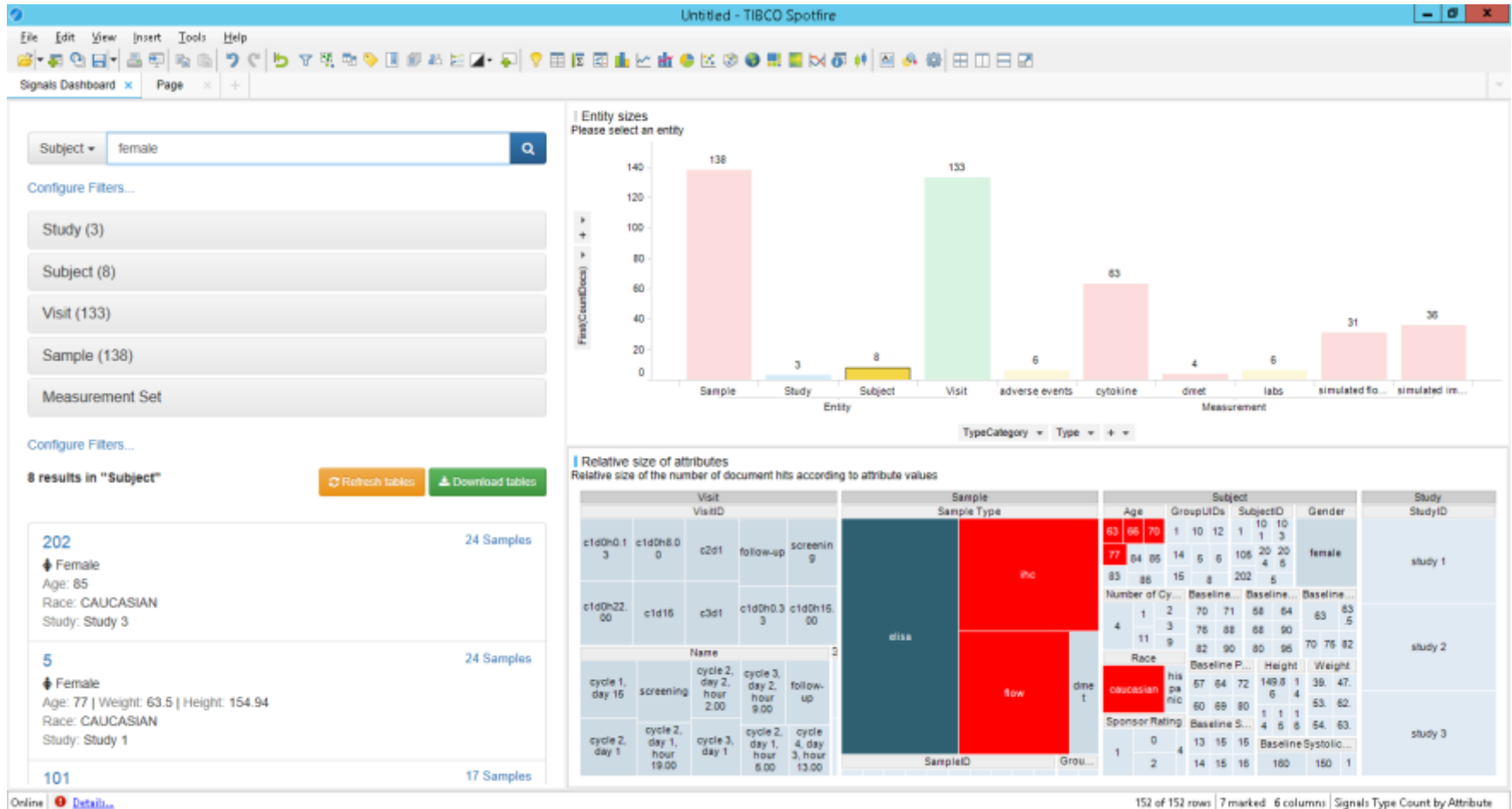
**Public Data Source
Connectors**
Leverage existing data
sources with the power of
the platform

Signals Perspectives
Adds data discovery for
disparate data sets

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Visual Metadata Exploration...



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Real World Evidence across the Pharma Value Chain

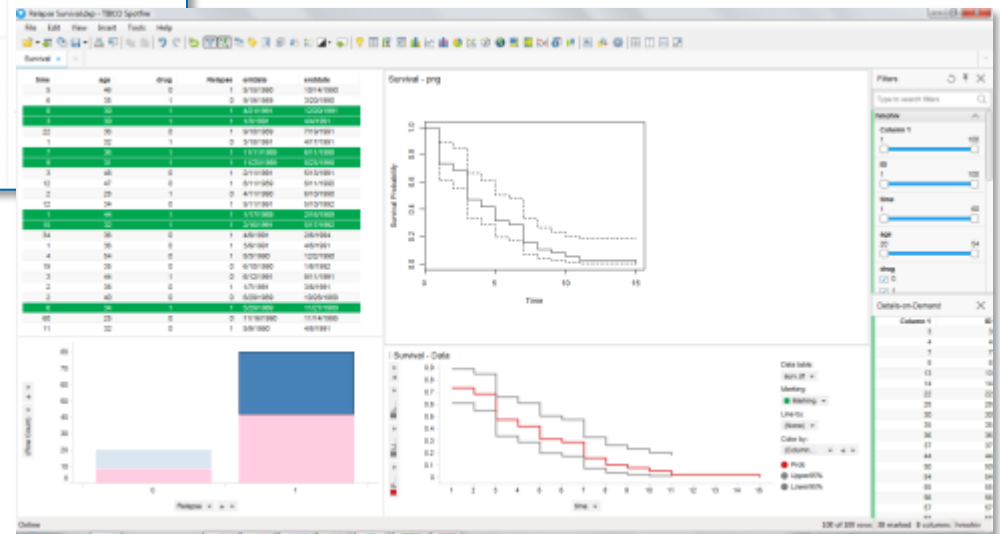
- R&D
 - Translational, Trial Simulation & Recruitment
- Medical & Safety
 - AE / Signal Detection, Risk Management
- HEOR
 - Local Burden of disease and cost
- Market Access
 - Speed to market, outcomes-based pricing
- Commercial
 - Patient flow, Launch planning

RWE Use Case Specific Analysis

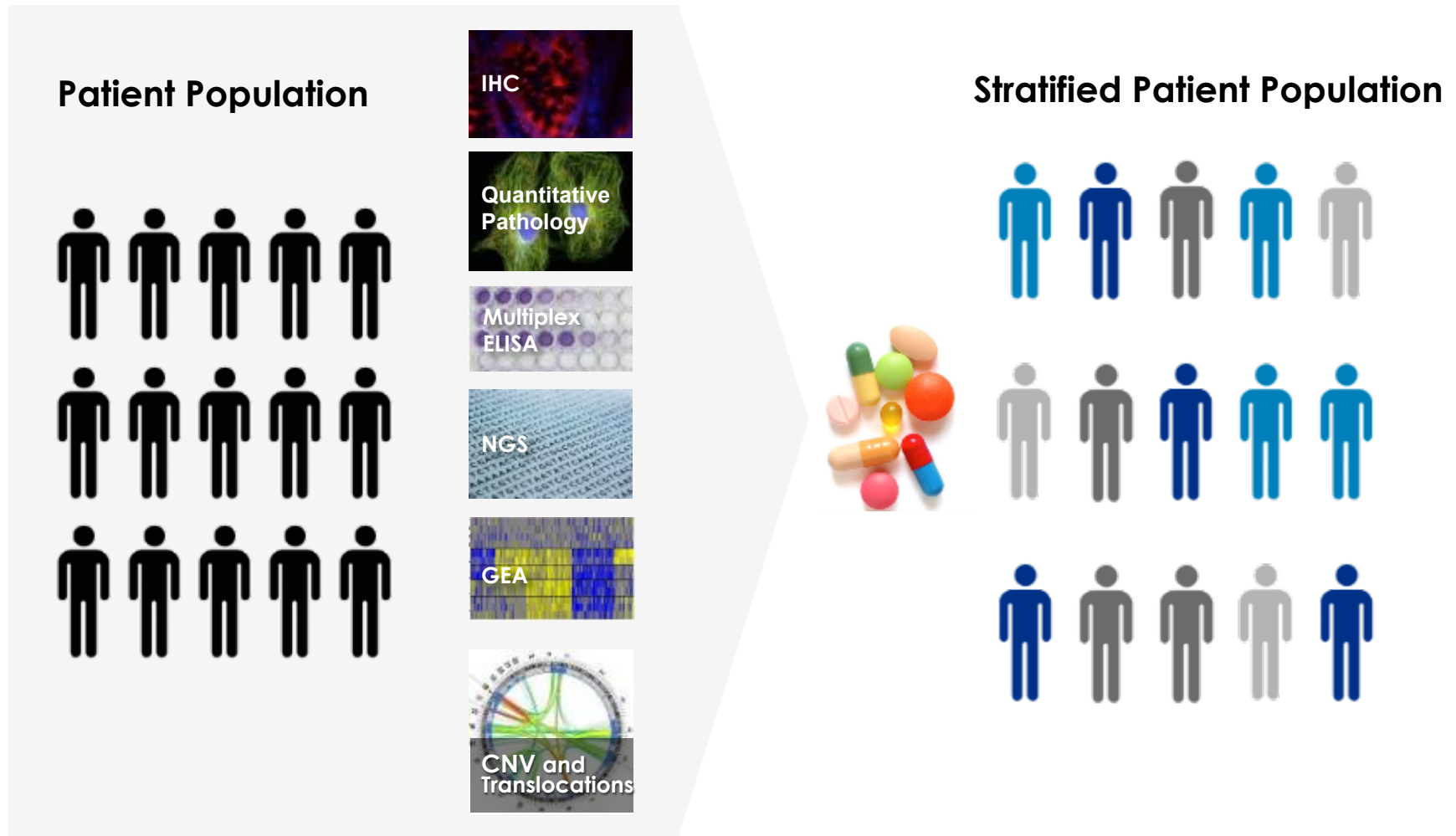
Forest Plot of hazard ratios by cohort



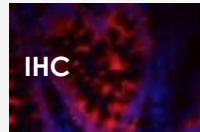
Kaplan-Meier Plot - also known as the product limit/survival estimator



Cohort Studies - Data Mashup: Combining Clinical and Biomarker Data



Translational Medicine will become Personalized Medicine



IHC



Quantitative
Pathology



Multiplex
ELISA



NGS



GEA



CNV and
Translocations

Precise diagnosis



Targeted Therapy

Features of Desired Analytical Ecosystem

- Open and Collaborative
 - Within and between Business units
 - Also with Vendors
- Comprehensive
 - Deep set of “out of the box” capabilities
 - From data to insight
- Flexible
 - Exists as part of current architecture without disruption
- Grows and changes over time!



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