

# A Case Study for Information Integration and Analysis with **Wistract® – A new Platform for Scientific Information**

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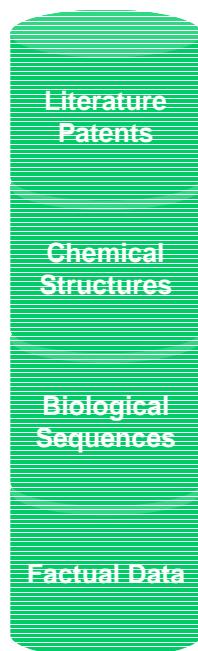
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Fachhochschule  
Gelsenkirchen

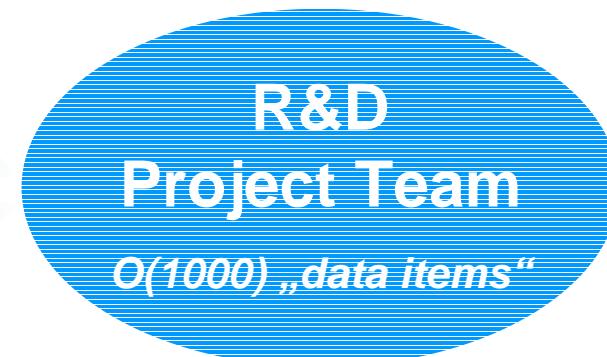
# R&D Information Space

**Outside World**

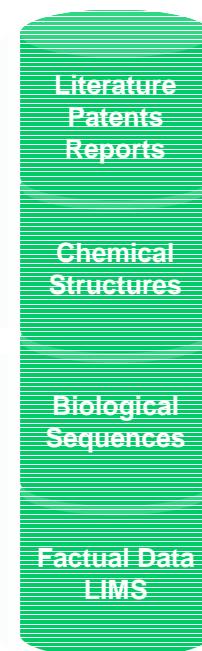


End-user  
Information  
Systems

Information  
Brokering



**Company**

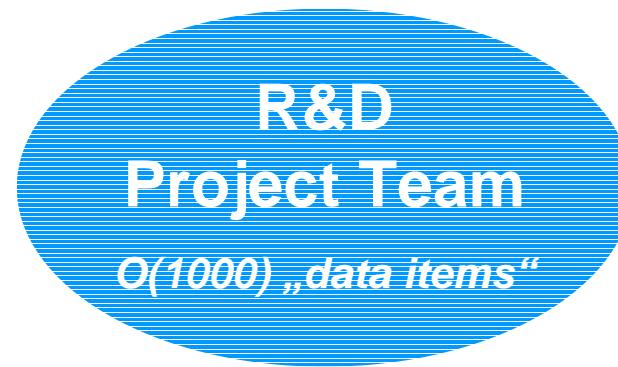


End-user  
Information  
Systems

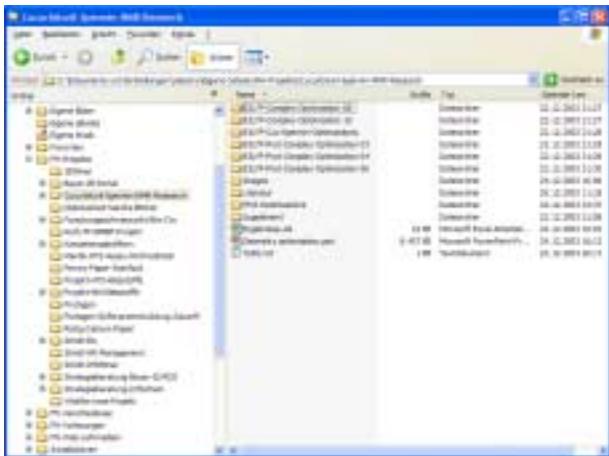
Information  
Brokering

**Heterogenous**  
Data Information Space

# R&D Information Organisation

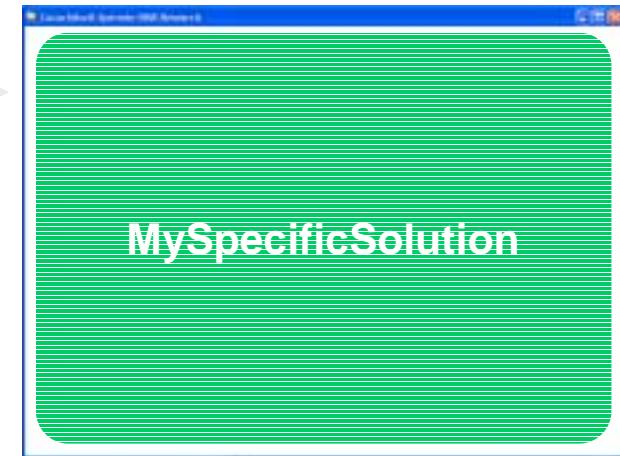


**File system (or flat container)**



**too simple**

**Ideal user specific IT system**

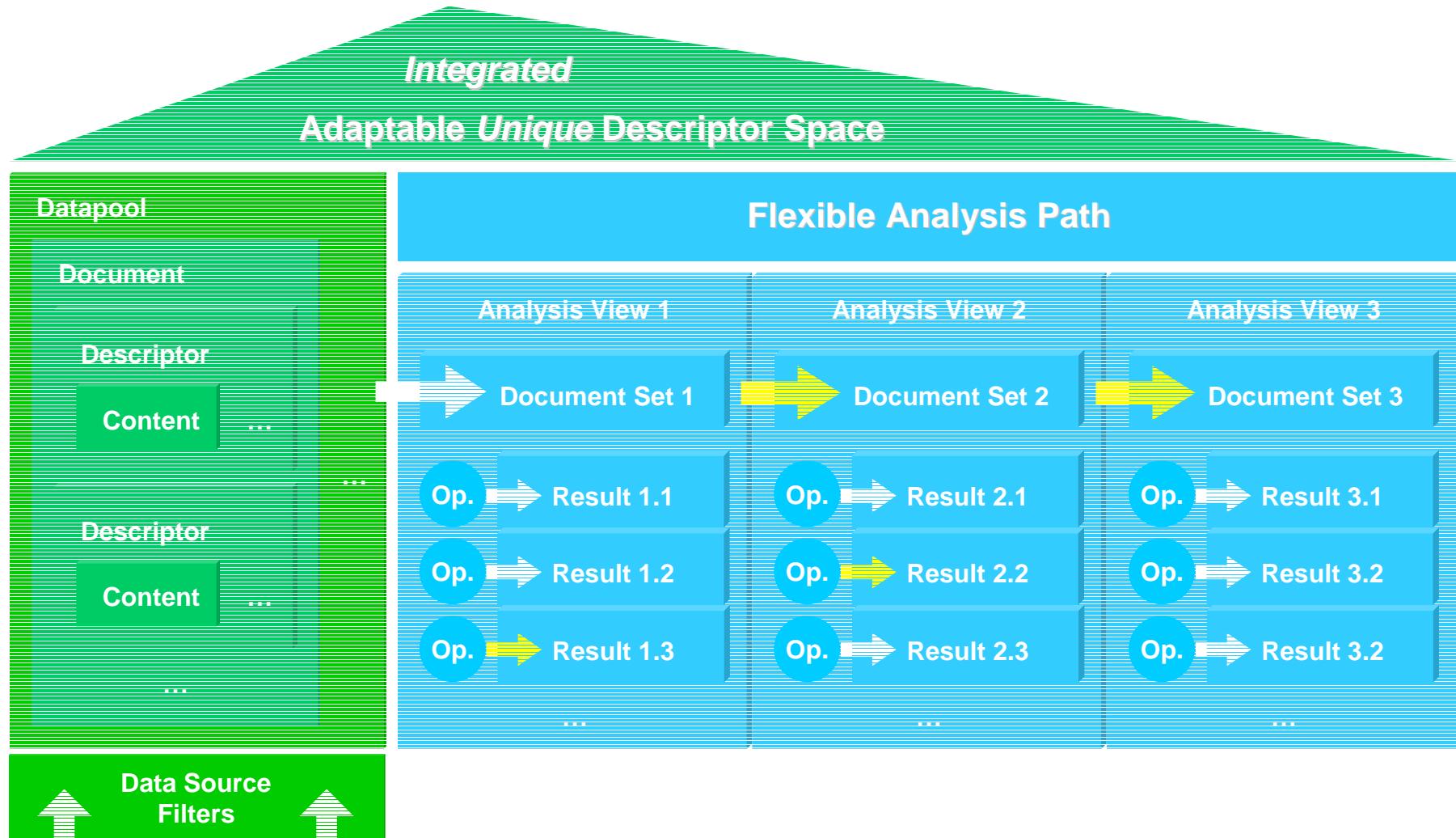


**too expensive**

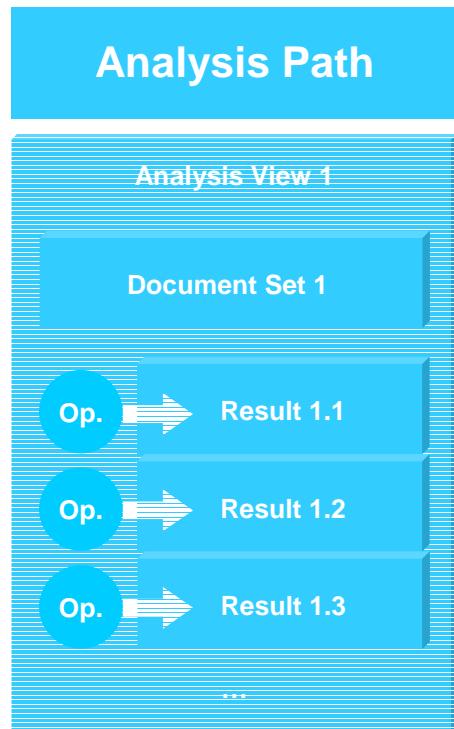
No ...                      Perfect ...  
... Level of Abstraction

**Helpful &  
Affordable  
Solution?**

# Solution Schema



# Solution Schema



Op.

Descriptor/content-based analysis operation, e.g.

- **Textual queries**
- **Frequency distributions**
- **Similarity ranking and classification**
- Chemical (sub)structure/similarity search
- Biological sequence alignment
- Rule-based descriptor generation
- Profile scoring ...

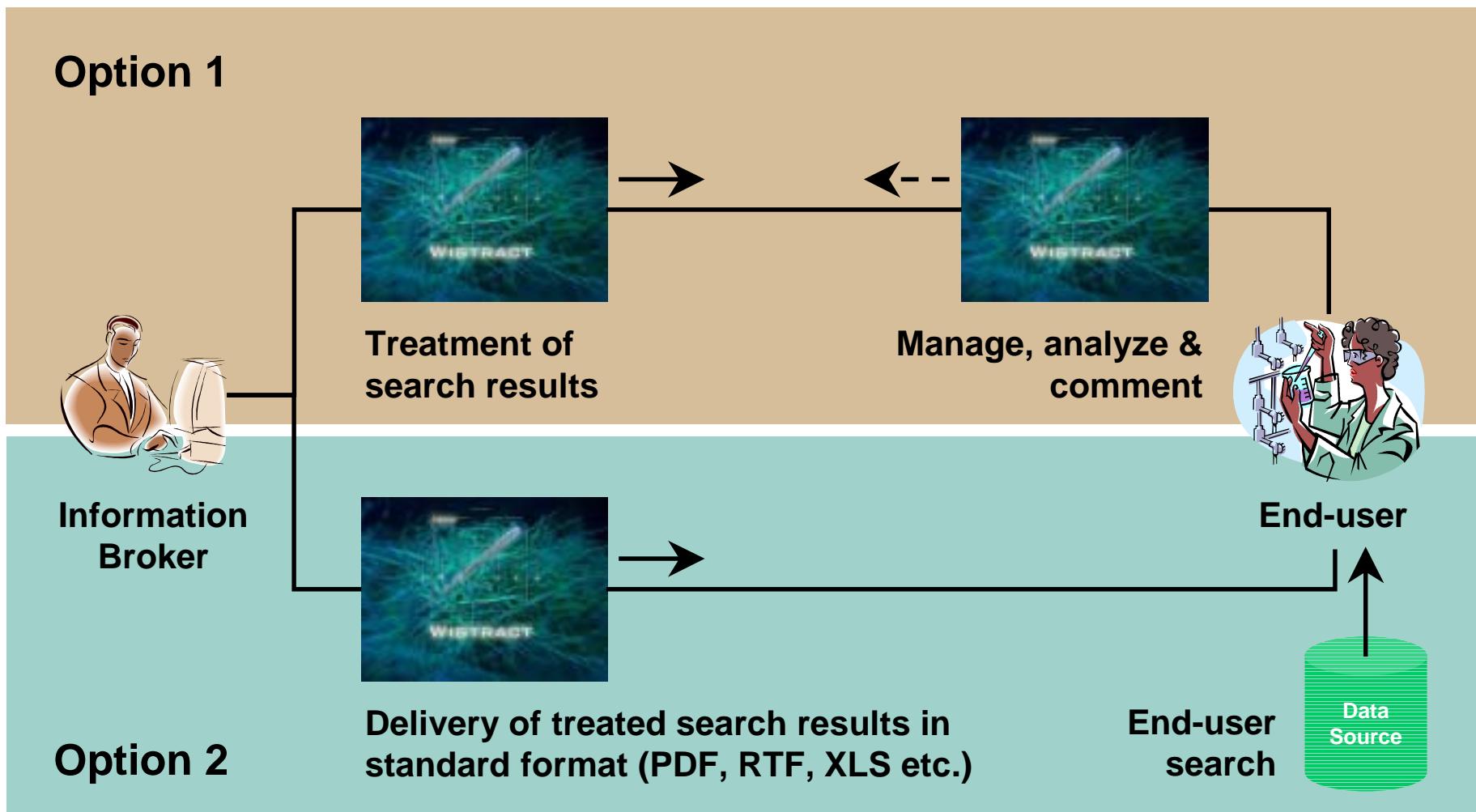
**Flexible** analysis operation step = **Every** useful operation on one ore more descriptors

# Wistract® – Platform for Scientific Information

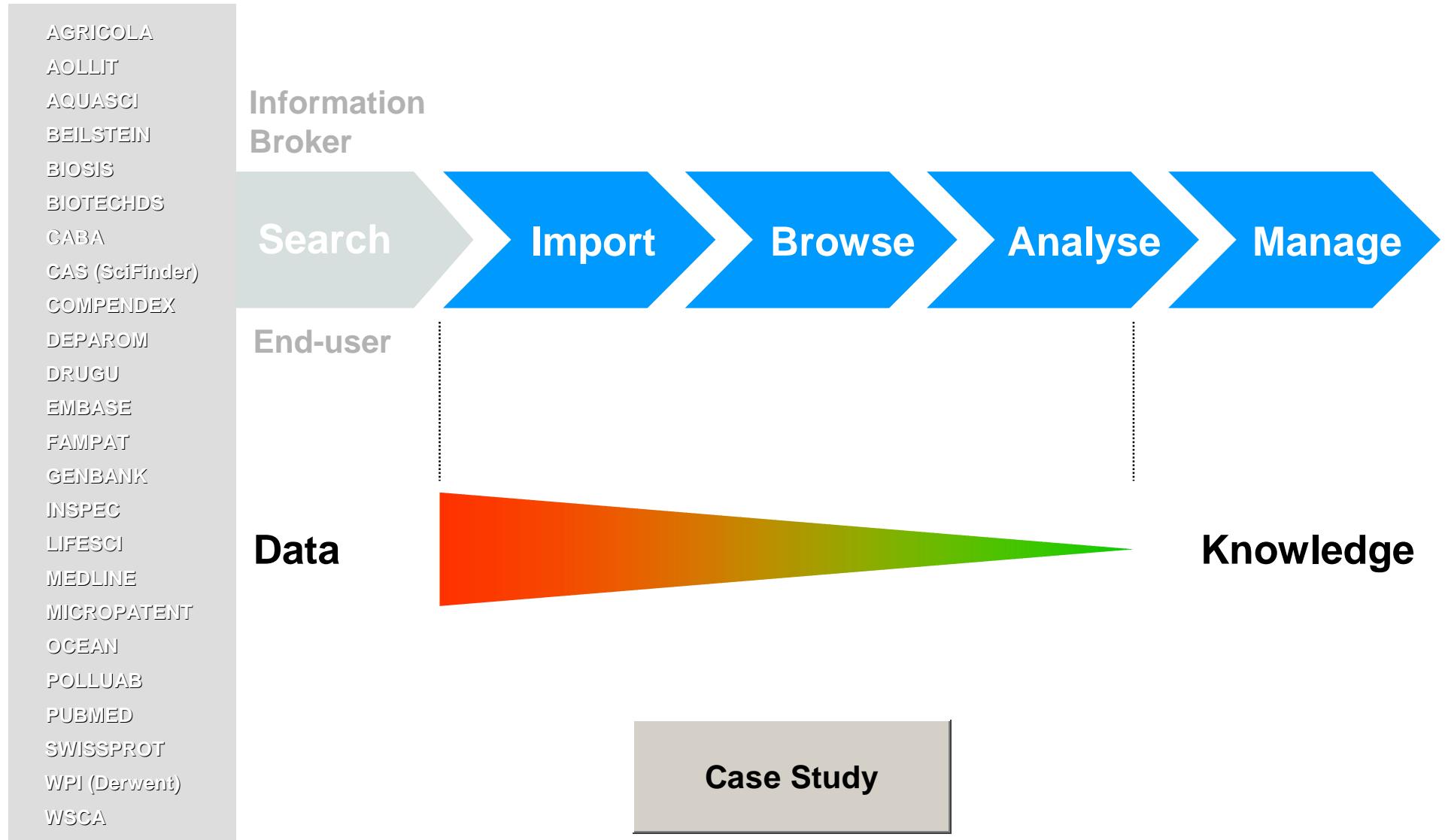
The screenshot displays three main windows of the Wistract platform:

- Top Left Window:** A search interface titled "Wistract - Search by keyword or phrase". It shows a histogram of document counts across various categories (e.g., Class 1, Class 2, Class 3) and a search bar with the query "Chamaecyparis spissima".
- Bottom Left Window:** A detailed document view for "Studies on constituents from Chamaecyparis spissima and antibacterial activity of diterpenes". The document includes authors (Sasi, D., Kavvouni, Mavrou, Basil, Tsiotsis, Matziori, Briniotaki, Lekka, Stathis, Mavroudis, Mavroudi, Gavrota, Kostas, Kavvouni, Sasi), journal information (College of Pharmacy and Dentistry, Indiana Agricultural University, West 3000 E. Peirce Rd., Dept. of Chemical and Pharmaceutical Sciences (2001), 43(1), 43-51), abstract, and a chemical structure diagram.
- Right Window:** A circular phylogenetic tree titled "WISTRACT". The tree branches into several major clades, each labeled with a letter (A through N). Various chemical structures are mapped onto the tree, corresponding to different taxonomic groups.

# Wistract® – Use Cases



# Wistract® – Case Study



# Acknowledgements

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**[www.wistract.com](http://www.wistract.com)**

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