CASE STUDY

A Competitive Intelligence Solution at a Large, Diversified Pharma

CAMBRIDGE SEMANTICS

THOMSON REUTERS

Competitive Intelligence Solution Value

- First-mover advantage
- Reduced uncertainty
- High-quality content
- Improved decision-making efficiency

Introducing a Joint Competitive Intelligence Solution from Cambridge Semantics and Thomson Reuters

Several leading pharmaceutical companies are deploying tailored competitive intelligence solutions using integrated capabilities provided by Cambridge Semantics' award-winning Anzo Pharma Competitive Intelligence Solution and Thomson Reuters Cortellis Life Sciences content. These solutions are in use today by business development, competitive intelligence, informatics, and knowledge management teams.

In this case study, we outline how a large, diversified pharma is using this joint competitive intelligence (CI) solution for early-stage business development to identify and screen new compounds, technologies, and companies for licensing & partnership relationships. By using Anzo and Cortellis together, the pharma is able to:

- Reduce licensing cost and risk via timely identification and evaluation of early-stage licensing opportunities;
- Improve effectiveness of scouting for new opportunities at partnering meetings;
- Deploy always up-to-date analytics, dashboards, alerts and workflows tailored to the needs of different competitive intelligence stakeholders; and
- Repurpose curated competitive intelligence information for a number of other operational and strategic uses.

About Cambridge Semantics' Anzo

Cambridge Semantics' Anzo Pharma Competitive Intelligence solution allows pharma companies to create tailored competitive intelligence solutions either behind their firewalls or in a secure, private cloud. Anzo is a unified information access platform that lets companies combine data residing in their own databases, documents and spreadsheets with content from Thomson Reuters Cortellis and other public and proprietary 3rd-party sources. Anzo aggregates and harmonizes diverse data to produce curated and customized dashboards, analytics, alerts, and operational applications to solve specific business needs.

About Thomson Reuters Cortellis

Built from the ground up, Thomson Reuters Cortellis was designed to address everyday challenges faced when collecting information to form a complete picture of the competitive landscape. Taking rigorously reviewed, manually curated, and dynamically updated data from multiple sources, Thomson Reuters Cortellis is an intuitive intelligence tool with access to an extensive database of drug pipeline, deals, patents, scientific literature, regulatory information, and companies content, coupled with latest industry news (conferences, press releases).

The Pharma Industry's Data Challenges

The pharma industry faces mounting data challenges:

- A growing demand to derive value from data from third parties (CROs, content vendors, public data sets, regulators, etc.)
- Ever-changing regulatory and competitive landscapes that require novel and proactive assessments across varied sources of data
- Rapidly expanding data volumes, multitudes of data formats, unreliable data quality, and varied sources of data from inside and outside the enterprise

These trends apply throughout a pharma organization—whether R&D, clinical, manufacturing, sales & marketing, safety, etc.—but perhaps nowhere do they have more strategic importance than in the realm of competitive intelligence.

Consider two illustrative examples:

Using data to combat the growing cost of bringing new products to market: As R&D yields decline, commercialization costs increase, and high-revenue drug patents expire, there is mounting pressure for pharma companies to discover and use data to reduce time and cost to market.

⇒ ***Example Question:*** *In an increasingly competitive environment, how can a pharma secure first-in-class or best-in-class licensing opportunities as early as possible?*

Pharmas' "Big Data" Challenges

- Too many formats
- Too many sources
- Too many locations
- Always changing

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Proactive CI data management: The increase in regulatory rules requiring public data disclosure coupled with the increased ease with which various groups can access and analyze this data threatens pharma go-to-market plans and requires more proactive CI data management. Pharmas need smarter and more flexible response capabilities to preempt and/or effectively respond to data-driven discoveries from regulators, watchdog groups, journalists, or competitors.

⇒ ***Example News:*** *Fierce Biotech, "Teva tries to slow arrival of Biogen's competing MS blockbuster". Teva filed a petition with the FDA accusing Biogen Idec of posting "unlawful, pre-approval promotion of an unapproved drug product" on the web.*

> ***"How can pharmas proactively protect themselves from competitive analysis of their publicly disclosed data?***

A Knowledge Management Team's Challenge

At a large, diversified pharma company, the knowledge management (KM) team is responsible for discovering, evaluating, curating, aggregating, and distributing information to many business groups throughout the organization. One of their most important responsibilities is to work with stakeholders across nine different therapeutic areas to identify potential compound licensing opportunities. The opportunities that the KM team delivers to their customers must be:

- *Early-stage* – to ensure first-mover advantage against competing would-be licensees;
- *Well-understood* – to mitigate the risk inherent in pursuing pre-clinical or phase 1 products; and
- *Relevant* – to target product portfolio gaps identified by the therapeutic areas as strategically important.

Endless Manual Searching

Traditionally, KM analysts spend hours searching for the next best-in-class compound in:

- **Grant applications**
- **Patent filings**
- **Literature**
- **Biotech websites**
- **VC websites**
- **Conference proceedings**
- **Clinical trials databases**

To identify opportunities that match all three criteria, members of this team need to scour dozens of information sources about development projects around the world. Early awareness of development could come from anywhere—grant and patent applications, conference proceedings, published literature, investor or company websites, primary intelligence, etc. And given that each of the nine therapeutic areas might have twenty or more combinations of indications, development stage, mechanisms of action, and other criteria that define high-priority portfolio gaps, the KM team finds themselves regularly running hundreds of searches across dozens of sources to try to find ideal licensing candidates.

For each candidate opportunity, KM analysts must then aggregate all known information about the company or compound. This involves searching through both internal and external repositories to gather together scientific information, project financials, safety and efficacy expectations, revenue forecasts, competing projects, and more. And because different repositories use different identifiers and names for the same companies, compounds, drugs, etc., KM analysts again finds themselves poring over hundreds of search results to assemble complete dossiers of information about the opportunity. These dossiers were then delivered to licensing officers within the appropriate therapeutic area to decide whether to pursue a licensing agreement.

Finally, this entire procedure occurs against the backdrop of an industry in which changing priorities cause the therapeutic areas to regularly alter the diseases, mechanisms, etc. that they consider strategically important. For the KM team, each changing priority kicks off a new round of searching that consumes KM resources for weeks more. In fact, because of the manual nature of the process, the KM team and therapeutic areas agreed to delay portfolio strategy changes and only act on them twice a year.

Defining an Ideal Early-Stage Competitive Intelligence Solution

Based on these challenges, the KM team turned to Cambridge Semantics and Thomson Reuters to deliver a solution that would:

- Gather and harmonize information from diverse sources;
- Automate the identification of candidate licensing opportunities;
- Flexibly address the different needs of different therapeutic areas;
- Replace the twice-a-year calendar-driven search process with a continuous, always up-to-date process that could accommodate strategy shifts immediately; and
- Provide stakeholders with easy-to-use ways to consume detailed information on candidate compounds and technologies.

The team's CI solution allows each therapeutic area to formally yet flexibly define the types of compounds and technologies that they're looking for. The flexibility allows one therapeutic area to specify their needs in terms of targets alone while another might specify detailed requirements including formulation, full mechanism of action, geography, financials, and more. Whereas these parameters used to be informally communicated in spreadsheets, emails, and via word of mouth, the new CI solution allows the KM team to gather these criteria using standardized vocabularies and taxonomies.

Meanwhile, the solution continually monitors both internal and external sources of information on industry-wide development activities and aggregates it in a knowledgebase. Stakeholders can access the knowledgebase at any time via user-friendly web dashboards, analytics, spreadsheet reports, and more.

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Other Uses of CI Data

- Biopartnering meeting prep
- Tailored newsletter distribution
- Improve internal data repository quality
- Self-service competitive analysis
- Acquisition due diligence

At the same time, the system automatically compares every development activity with the therapeutic areas' wish lists. If a compound is found that matches the criteria that a therapeutic area is looking for, an alert is sent to all interested parties: the therapeutic area's licensing officer, field licensing liaisons who cover the developing company's geographic region, and the KM analysts responsible for the disease area and region in question.

The solution also makes it easy to repurpose the CI knowledgebase for other purposes. For example, the KM team uses it to:

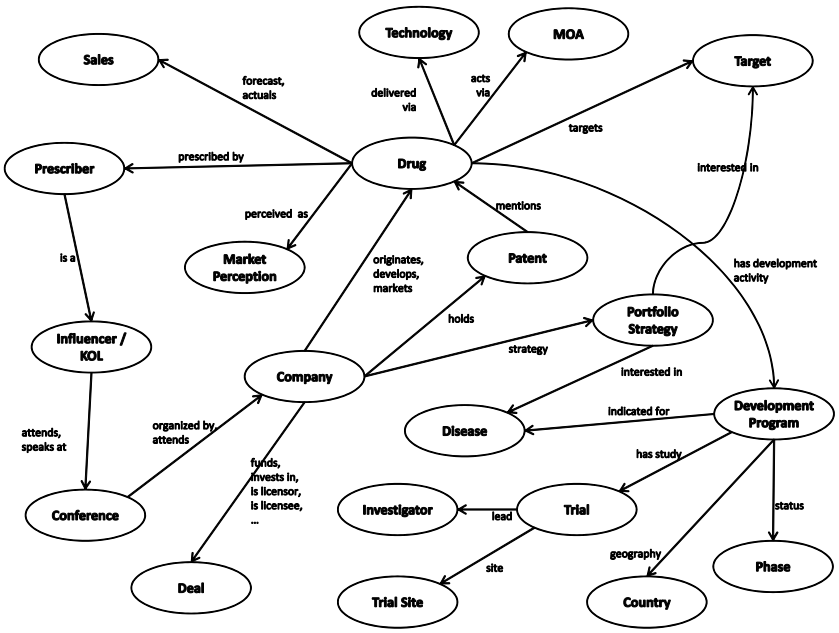
- Identify and prepare for one-on-one meetings with previously unknown companies at biopartnering meetings;
- Automatically generate and distribute weekly newsletters that highlight key developments in programs of interest to recipients; and
- Improve the quality of data within internal business development, target, and compound databases.

A Joint Solution with Anzo and Cortellis Addresses the KM Team's Challenges

The KM team used Anzo and Cortellis as the foundation of this solution:

- Cortellis provides a core, comprehensive set of curated, high-quality information on development activities across the industry
- Anzo brings in internal content and additional external content, monitors news and other web content, and provides customized alerts, dashboards, analytics, and reports to stakeholders on the KM team and across the therapeutic areas

The CI solution is driven by an *ontology*, a comprehensive semantic model of all concepts and relationships of interest within the drug-development world. Anzo allows the KM team to map any source of information—including Cortellis data, internal databases, and also ad-hoc spreadsheets, presentations, web pages, literature, and more—to this ontology. At the same time, Cortellis provides dictionaries, taxonomies and thesauri of diseases, targets, mechanisms of action, technologies, countries, development statuses, drugs, and companies that are used within Anzo to harmonize data as it comes in from diverse sources.



The Anzo / Cortellis solution is driven by flexible conceptual models (ontologies)

Anzo and Cortellis are connected via Anzo's Thomson Reuters Cortellis Content Link. This Content Link takes advantage of the Cortellis Web services Application Programming Interface (API) to ensure that all Cortellis Life Sciences content within the solution is always up-to-date. Anzo then applies sophisticated text analytics to both the Cortellis content and other unstructured content to further enrich the information in the CI knowledgebase.

Once the data has been combined from various sources, Anzo provides a suite of tools that let users search the knowledgebase, define analytics to identify new trends and insights, answer ad-hoc CI queries, generate daily and weekly reports and newsletters, and create interactive executive dashboards that showcase the most relevant information from Cortellis and the other sources.

Immediate Value Realized from the KM Team's CI Solution

> *"The KM Team's CI Solution proactively alerts stakeholders to candidate opportunities; allows therapeutic strategies to be updated on the fly; and automates many tedious CI support tasks.*

The customer is in the early stages of broader adoption and rolling out the Anzo/Cortellis CI solution across all therapeutic areas. However, team members and stakeholders are already seeing the benefits of an up-to-date and comprehensive view of the entire industry from trusted sources both internal and external. These benefits include:

Quicker and better-informed decision making. Senior licensing officers within each therapeutic area are no longer inundated by irrelevant or incomplete licensing opportunities. Instead, the solution proactively alerts KM team members to candidate opportunities, and only the most relevant and complete opportunities are disseminated to decision makers.

Agile, on-the-fly strategy adjustments. As scientific, clinical, competitive, or regulatory developments warrant a change in a therapeutic area's strategic interests, a new strategy can be put into place right away, rather than waiting months for the next scheduled strategy review process. All stakeholders are immediately informed of potential licensing opportunities that match the new or updated strategy.

Streamlined and automated information distribution. Hundreds of manual searches have been replaced by automated data collection and harmonization by the Anzo/Cortellis solution. The solution also streamlines the work needed to prepare for biopartnering meeting, to generate weekly industry-update newsletters, and to answer ad-hoc CI questions, saving days and weeks of work in the process.

The KM team continues to work with Cambridge Semantics and Thomson Reuters to add additional analytic capabilities and internal data sources. They are also starting to showcase and scale the solution for broader enterprise deployment.

A Broader Perspective

Timely and relevant data and analytics continue to drive smarter decisions and better results across all parts of the pharma business. Thomson Reuters and Cambridge Semantics are working together to deploy a flexible and easy to use competitive intelligence solution based on Cambridge Semantics' Anzo platform and Thomson Reuters Cortellis content. The solution uses Anzo to integrate high-quality, curated data about the drug development landscape from the Cortellis APIs with internal corporate databases and other external data sources.

This combination of Anzo's flexible unified information access approach and Cortellis' curated structured content allows pharmas to create solutions that go beyond competitive intelligence. These solutions integrate varied data sources in weeks rather than months, automate previously manual tasks, and provide increased self-service capabilities to users. Users can search, aggregate, analyze, set up their own dashboards, integrate data from spreadsheets, documents or other internal or external sources, and monitor competitive activity to gain better understanding. They can also share and collaborate on analytics and have unambiguous agreement on shared business terms and corporate data.

To Learn More

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About Cambridge Semantics

Cambridge Semantics provides the award-winning Anzo software suite, an open platform for building interactive Unified Information Access (UIA) solutions.

Enterprises face an increasing need to rapidly discover, understand, combine, and act on data from diverse sources both from within and across organizational boundaries. Anzo makes it easy for both IT and end users to deal with this need by rapidly creating solutions that leverage unified access to structured and unstructured data from varied sources in the context of specific business problems.

About Thomson Reuters

Thomson Reuters is the world's leading source of intelligent information for businesses and professionals. We combine industry expertise with innovative technology to deliver critical information to leading decision makers in the financial, legal, tax and accounting, intellectual property and science and media markets, powered by the world's most trusted news organization.

Thomson Reuters Life Sciences supports R&D productivity across the Pharma lifecycle with respected and comprehensive intelligence solutions. Offering unbiased scientific, competitive, regulatory, and generics information, analytics, and expertise for your organization, Thomson Reuters Life Sciences empowers and enables effective, evidence-based decision-making at every stage from discovery to launch and beyond.