



## Market Intelligence and Tender Monitoring – A Turnkey InfoCodex Solution

### 1 Scenario

Business entities, ranging from small and medium size companies and organisations to large multi-national enterprises comprising several different geographically dispersed departments, and even loose and diverse association of individual companies heavily rely on high quality market intelligence to gain a market advantage. In particular, a constant monitoring of the market to identify and *recognize new trends and facts* in specific fields of interest, as well as the timely collection of comprehensive information on active public and private tenders in order to act on the market demand in time, are important key processes.

This should be achieved at minimal costs and without the commitment of large human resources for cumbersome information research and analysis. In addition, *synergies*, for example arising owing to the close relation between the fields of interest of different departments or individual companies in an association, should be exploited as effectively as possible.

### 2 The Solution

On a central InfoCodex server two large document collections are generated in the general InfoCodex domain for the common use by the individual business units (e.g. departments or member companies of an association):

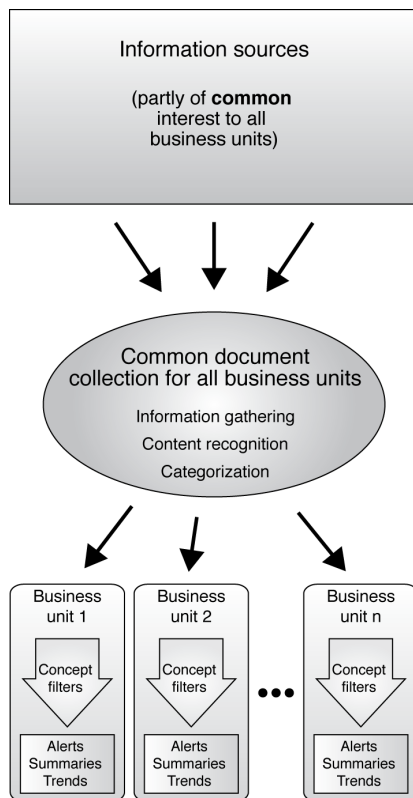
- 1 Market Intelligence
- 2 Tender Monitoring

The *document sources* for these two collections are composed of various internet searches (Google, Yahoo, Google Scholar, etc.), of specific web sites including sources from the “deep web” not accessible by general internet search engines (i.e. web sites with their own search engines such as <http://ted.europa.eu/> for the tender monitoring collection) and cover the entire segment of the information spectrum that is of interest to the business units. The automatic import of the documents is controlled by InfoCodex’s *spider agents* and *job scheduling with periodical updates* (e.g. every second day).

Each business unit has its own InfoCodex subdomain, where it can define *concept filters* to characterize its specific fields of interest. These concept filters can be descriptions of products or services. They are used to extract those documents from the general collections that are of particular interest for the individual business unit. The individual units can benefit from the information that is available to other business units as well, enabling the *optimal exploitation of synergies*.

### 3 Main Applications

After every update of the document sources, the following analyses are automatically performed and individual alert lists generated for each business unit:



Concept filters extract the information that is of specific interest to each business unit

**Using synergies in market intelligence**



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### A New Facts (referring to the collection “Market Intelligence”)

The newly added documents whose content similarities with the deposited concept filters are higher than a selectable threshold (e.g. higher than 70%) are summarized in an HTML page which can be viewed with any browser.

#### **Market Intelligence: New facts for business unit n** (update of 21.07.2008)

Date	Words	Origin
1	Cash focus – financial analysis, forecasting and budgeting software.	
	Calculates Economic Added Value (EAV) and does Free Cash Flow analysis ... Communicate and measure	
21.07.08	433	<a href="http://www.cashfocus.com/">http://www.cashfocus.com/</a>
2	Nonprofit, Government & Healthcare Software and Accounting Solutions	

...

### B Surveillance of Changes (referring to the collection “Market Intelligence”)

The documents which changed since the last import (textual and/or numerical changes) and whose content similarities with the deposited concept filters are higher than a selectable threshold are summarized in an HTML page, and the users have the possibility to **view the differences** between the updated and the previous state of the document (through clicking [diff](#)).

#### **Market Intelligence: Surveillance of changes for business unit n** (update of 21.07.2008)

Date	Words	Origin
1	<a href="#">diff</a> IDG Connect: Evaluating Financial Management Software	
	Designated trademarks and brands are the property of their respective owners ... This whitepaper walks th	
21.07.08	129	<a href="http://idgconnect.com/software/enterpriseapplications/eval">http://idgconnect.com/software/enterpriseapplications/eval</a>
2	<a href="#">diff</a> Financial Software for Envelope System – Wise Bread Forum	

...

### C New Tenders (referring to the collection “Tender Monitoring”)

The newly added public or private tender documents whose content similarities with the deposited concept filters are higher than a selectable threshold are summarized in an HTML page which can be viewed with any browser.

#### **Tender Monitoring: New tenders for business unit n** (update of 21.07.2008)

Date	Words	Origin
1	achat, installation et maintenance d'un système de sauvegarde informatique	
	Conditions et mode de paiement pour obtenir les documents contractuels et additionnels: Le cahier des charges ...	
18.07.08	627	<a href="http://www.journal-officiel.gouv.fr/jahia/Jahia/marches-publics/c">http://www.journal-officiel.gouv.fr/jahia/Jahia/marches-publics/c</a>
2	Information technology services	

...

All alert lists may optionally be supplemented by **automatically generated abstracts** for the individual documents which can facilitate considerably the targeted finding of relevant content.

In addition to the generation of the alert lists described above, **e-mails** are sent to each business unit containing a brief summary of the **new alerts**.



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### 4 The Concept Filters

A concept filter is a document that comprises text blocks and/or keywords describing a specific field of interest (unlimited in size). When generating the alert lists described above, the concept filters are used to establish whether a document is of interest to a particular business unit by determining the *similarity* between the document's content and the concept filter. This is done using InfoCodex's unique content similarity measure. Documents with a similarity higher than a set threshold are retrieved.

**Example:** An individual business unit may enter a datasheet of its main product and it will receive new market facts or newly published tenders relating to this product.

The **only administrative efforts** of each business unit comprises the generation of one or more concept filters for each of the two common collections "Market Intelligence" and "Tender Monitoring". This maintenance work is very simple and requires almost no work.

The administration of the concept filter can be carried with any web browser and is illustrated in the following example where a new concept filter for market intelligence is generated. Multiple concept filters can be defined (up to 20) for each of the two collections, each filter consisting of multiple text blocks and/or keywords (unlimited in size). The text blocks and keywords are simply entered into a mask, together with the required similarity (min relevance) and the maximum number of documents retrieved per round. If more documents than this maximum number have the required minimum similarity, only the ones with the highest similarity up to the maximum number of documents are retrieved.

**edit Concept Filters**

Short description:

Min. Relevance:

Max. Documents:

Text:

- InfoCodex is an instrument for the semantic knowledge integration. It enables the gathering of information contained in unstructured documents from various sources (i.e. the majority of business relevant facts) and their mechanised consolidation.
- The technology helps gaining an overview over the available knowledge, and it can categorize the documents according to their content without any human efforts: comparable to a fully automatic creation of "well-organized book-shelves"
- It is currently the only system on the market that can perform true cross-lingual search and an automatic categorization without training (the system recognizes that an English translation of a German document has the same content as the original). Supported languages are: English, French, German, Italian, Spanish (Dutch coming soon)
- Immediate Use: No reorganization of existing file archives necessary; no cumbersome training for document classification needed (InfoCodex adapts to

Editing a selected filter

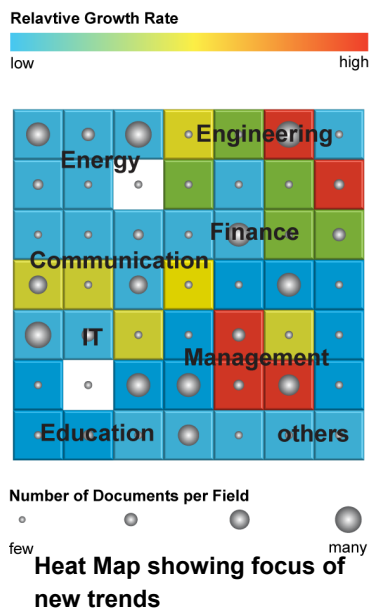
No.	Description	Min. Relevance	Max. Doc.		
1	Core business	70	1000	<a href="#">edit</a>	<a href="#">delete</a>
2	Web design	80	500	<a href="#">edit</a>	<a href="#">delete</a>
3	Search technology	80	500	<a href="#">edit</a>	<a href="#">delete</a>
<a href="#">new filter</a>					

### 5 Access to the Generated Summary Pages (Alerts)

The InfoCodex system offers three channels to access the periodically updated information extracts:

#### A E-mail

The user receives an e-mail with the latest alerts (containing the links to the corresponding documents).



#### B Overview over the current and past alerts (via web-browser)

The InfoCodex subdomain for each individual business unit contains a pseudo collection **Alerts** which is automatically generated by the system. When a user selects the collection **Alerts** the overview is presented in the following form:

##### Overview over the Alerts for business unit n

New Facts (Market Intelligence)	Surveillance of Changes (Market Intelligence)	New Tenders (Tender Monitoring)
<a href="#">23.07.2008</a> (3)	<a href="#">23.07.2008</a> (2)	<a href="#">23.07.2008</a> (8)
<a href="#">21.07.2008</a> (2)	<a href="#">21.07.2008</a> (4)	<a href="#">22.07.2008</a> (9)
<a href="#">19.07.2008</a> (4)	<a href="#">15.07.2008</a> (7)	<a href="#">21.07.2008</a> (3)
<a href="#">15.07.2008</a> (4)		<a href="#">19.07.2008</a> (4)
		<a href="#">17.07.2008</a> (6)

#### C Viewing new trends and new facts

The user can get an overview over the bulk content shift of the newly occurring documents (*trend view*), e.g. in the form of a heat map. The topics with a high growth rate are coloured in red and they indicate the new trends.

#### 6 Benefits

With an extremely small administrative and organizational effort, and almost no

efforts for training of personnel, the customer gets an instrument that enables

- comprehensive competitor monitoring and market observation

- early recognition of new occurrences and new facts

- automatic generation of alerts

- visualisation of trends

In addition to the specific applications described above, the user has also the

possibility to make use of the semantic search and visualization technology

offered by InfoCodex. This means:

##### **Quality improvement**

enhanced knowledge base through previously not accessible information

##### **Gain in time**

early supply of information in good time

##### **Saving of costs**

unburden of qualified personnel from unattractive information gathering

In short: **Improved business competence in less time**