

## Spoken legal discourse analysis

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Challenge 2015

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# Agenda

- Wolters Kluwer
- Product landscape
- Use Case description
- Core requirements

# Wolters Kluwer - A global information service provider

WKD is local organization in Germany, active in the legal and tax market

## WKD Legal & Regulatory

<ul style="list-style-type: none"><li>■ <b>Companies/Brands</b><ul style="list-style-type: none"><li>- Carl Heymanns Verlag</li><li>- Luchterhand</li><li>- Werner Verlag</li><li>- Carl Link</li><li>- CW Haarfeld</li><li>- Deutscher Wirtschaftsdienst</li><li>- Jurion</li><li>- AnNoText</li><li>- Trigon Data</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ <b>Products (Examples)</b><ul style="list-style-type: none"><li>- Intellectual Property Law, Administrative Law, Civil Law, Family Law, Construction Law</li><li>- Products for Schools and Nurseries</li><li>- Health Insurance</li><li>- Magazine „Personalwirtschaft“ (HR Management)</li><li>- Software for Lawyers and Notaries</li></ul></li></ul>
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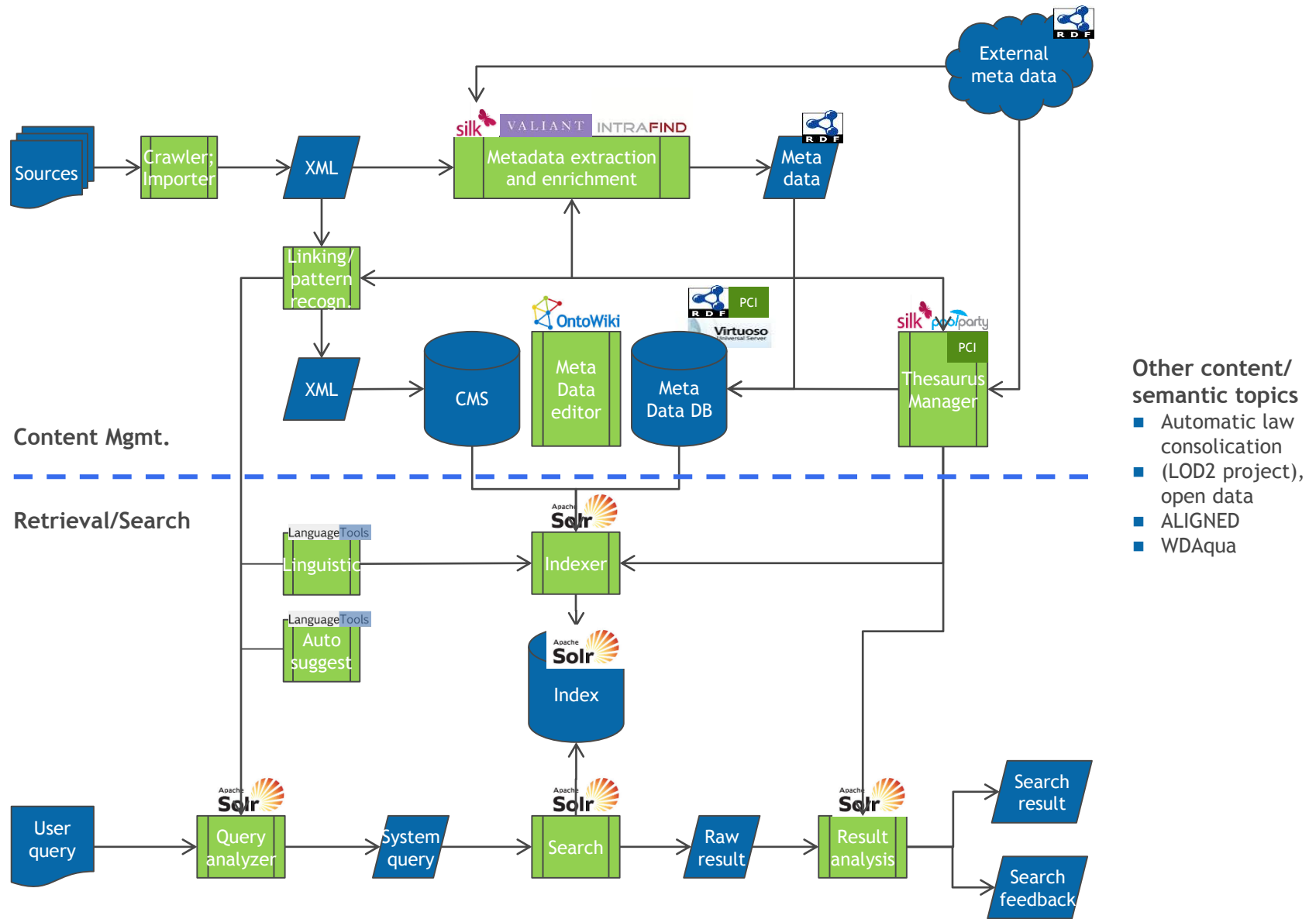
## WKD Tax & Accounting

<ul style="list-style-type: none"><li>■ <b>Companies/Brands</b><ul style="list-style-type: none"><li>- Akademische Arbeitsgemeinschaft Verlag</li><li>- Addison Group</li><li>- Schleupen Tax</li><li>- Wago Curadata</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ <b>Products (Examples)</b><ul style="list-style-type: none"><li>- Tax Software for Consumers</li><li>- Software for Tax Consultants</li><li>- Software for SMEs with a focus on controlling and accounting</li></ul></li></ul>
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## WKD is a Part of Wolters Kluwer n.v.

<ul style="list-style-type: none"><li>■ <b>Target Groups</b><ul style="list-style-type: none"><li>- Lawyers</li><li>- Tax Consultants</li><li>- Companies</li><li>- Financial Institutions</li><li>- Health Sector</li><li>- Authorities</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ <b>Global Focus</b><ul style="list-style-type: none"><li>- Europe</li><li>- North America</li><li>- Asia/Pacific</li></ul></li></ul>
	<ul style="list-style-type: none"><li>■ <b>Economic Success</b><ul style="list-style-type: none"><li>- Revenue: € 3,66 million (2014)</li><li>- ~19,000 Employees</li><li>- Listed Amsterdam SE</li></ul></li></ul>

# Architectural overview: Content pipeline and Semantic Search at WKD



# JURION platform in German legal market

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## JURION

- Legal database with more than 1m documents
- Semantic search
- E-Folder application with workflow support
- OCR of incoming attachments
- Legal analysis of documents, e.g. references and topics
- Aggregation and integration of internal and external sources
- Cloud solutions
- Mobile solutions

Wolters Kluwer Startseite AnNoText™

Start | Juristische Software | Spracherkennung | AnNoText E-Lösungsanbieter | Support | Referenzen

Startseite | Philosophie | Installation | Training | Hardware | Referenzen | Kontakt | DictaPlus App

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**DictaPlus 8**  
fügt sich ganz ohne Schnittstellen in jede Arbeitsumgebung ein. Die ideale Softwarelösung für eine effiziente und schnelle Dokumentenbearbeitung.

DictaPlus 8 bietet

- Dokumentenerstellung ohne Transkriptoren
- Installationsaufwand auf ein Minimum reduziert
- Hohe Aufgabenabwicklung in kurzer Zeit
- Schnelle und hochgenaue Erkennungsgenauigkeit
- Gemeinsame Nutzung zentraler Wörterbücher

Hoher Flexibilität in jeder Anwendung

- Große Sprechwahl mit einer Lizenz
- 100%ige Flexibilität

## Annotext

- Legal office software, including e.g. Customer handling, Accounting and Billing
- Speech recognition software
- Cloud solutions
- Mobile solutions

# Use Case Description - Legal discourse

## Situation

- A lawyer is having a first conversation with his new customer at his premises
- They are sitting in an office and their conversation is recorded via a normal recorder
- The customer is talking about his car accident
- The lawyer is mainly asking for more details, so that he gets a comprehensive picture

## Information processing

- The conversation is automatically transformed into text
- The text is structured into logical units
- Legal terms and facts are recognized and highlighted
- Background information like legal references or core topics are connected to the respective text pieces

## Desired outcome

- All important information from the conversation is digitally available
- The lawyer can easily and fast scan the important parts
- Available background information is sufficient for straightforward cases
- Result can be semi-automatically included in his local knowledge management solution
- Conversation is secured for archiving and easy access in the future

# Use Case Description - Example conversation fragment

- So you were hit by a car ? ... Article L2123 - personal damages, latest jurisprudence from the high court, typical damages based on class of injuries
- So how much time off from work did the doctor give you ? 10 days ! ... Damages for work interruption > 8 days, 20% of annual salary
- Ah, and the driver was not insured ? ... Caselaw xyz, article L5645 from the insurance code - penalties for insurance default

# Use Case Description - Legal discourse - Belgian extension

## Situation

- A lawyer is searching for information relevant for his current case
- Recent court cases dealing with similar topics are extremely important
- Many court cases are only available in one language (Dutch or French)
- The lawyer must find all relevant court cases, so also in both languages

## Information processing

- The lawyer is searching for court cases
- He selects one relevant court case
- He wants to see all other relevant court cases
- He wants to see what the core statements of the court cases are

## Desired outcome

- All relevant court cases are found
- The kind of relationships between them are transparent for the lawyer
- A short summary of core statements is available both in Dutch and French



# Core requirements

## Speech recognition and processing

- Speech collected via microphone is recognized in a high quality
- No training is necessary, because this is not tolerated for colloquial talks
- The software is capable of dealing with a mixture of everyday and legal terms

## Information extraction

- Structure of the conversation is detected and coded in the text file
- Legal references are detected and tagged (both use cases)
- Core legal terms are detected and tagged (both use cases)
- General legal field of the conversation is detected and tagged (both use cases)

## Information enrichment

- A summary of core statements is automatically generated (both use cases)
- Legal references and terms are connected to the source information in legal databases (both use cases)
- Similar conversations are found in the database
- Similar court cases are found across languages Dutch and French
- Conversation is archived with sufficient amount of metadata for easy findability

# Contact



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**SEMANTICS**  
Vienna 2015

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**Jurion Plattform**

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