



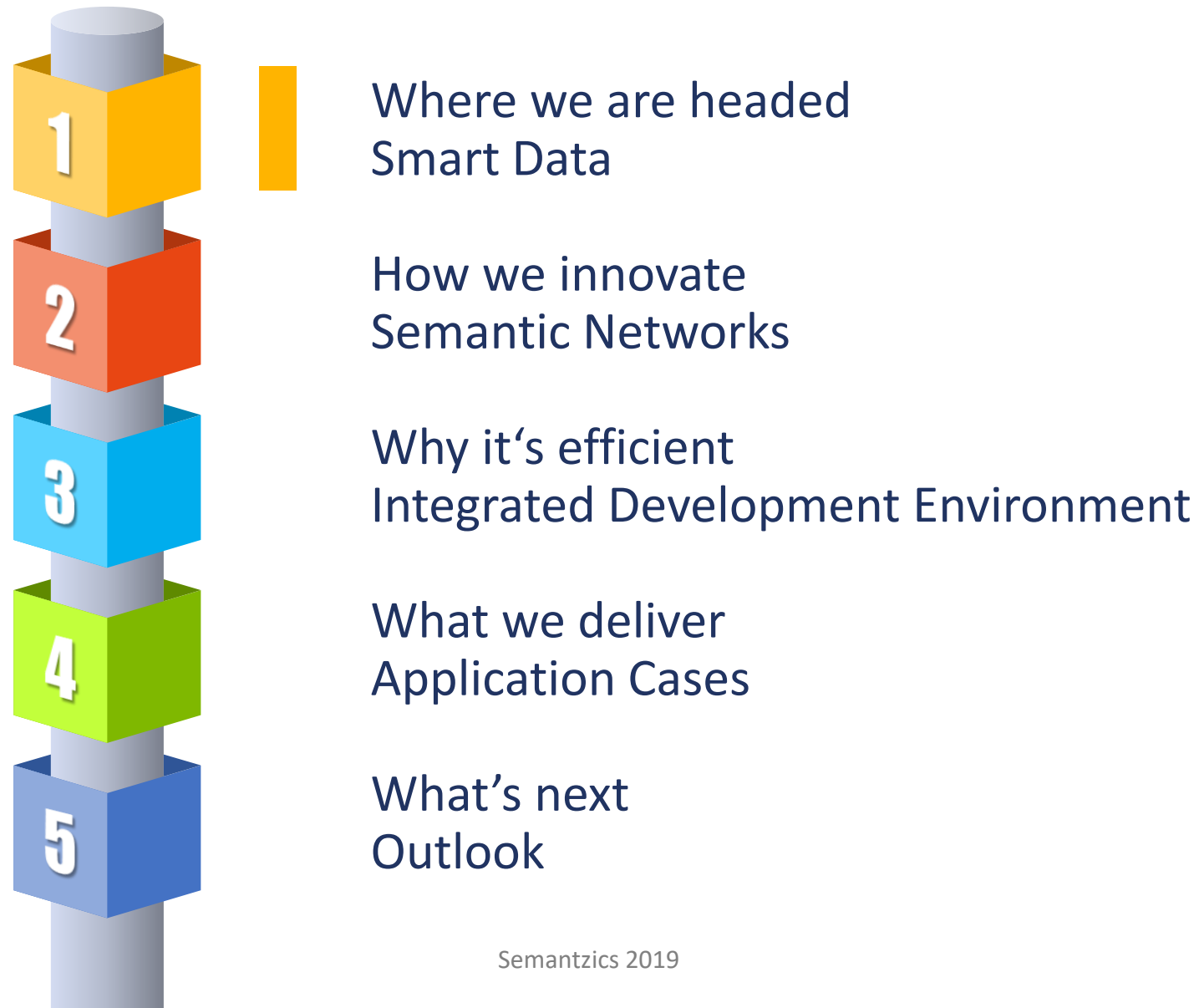
Integrated development environment for business solutions based on knowledge networks for smart data

Semantics 2019 Conference

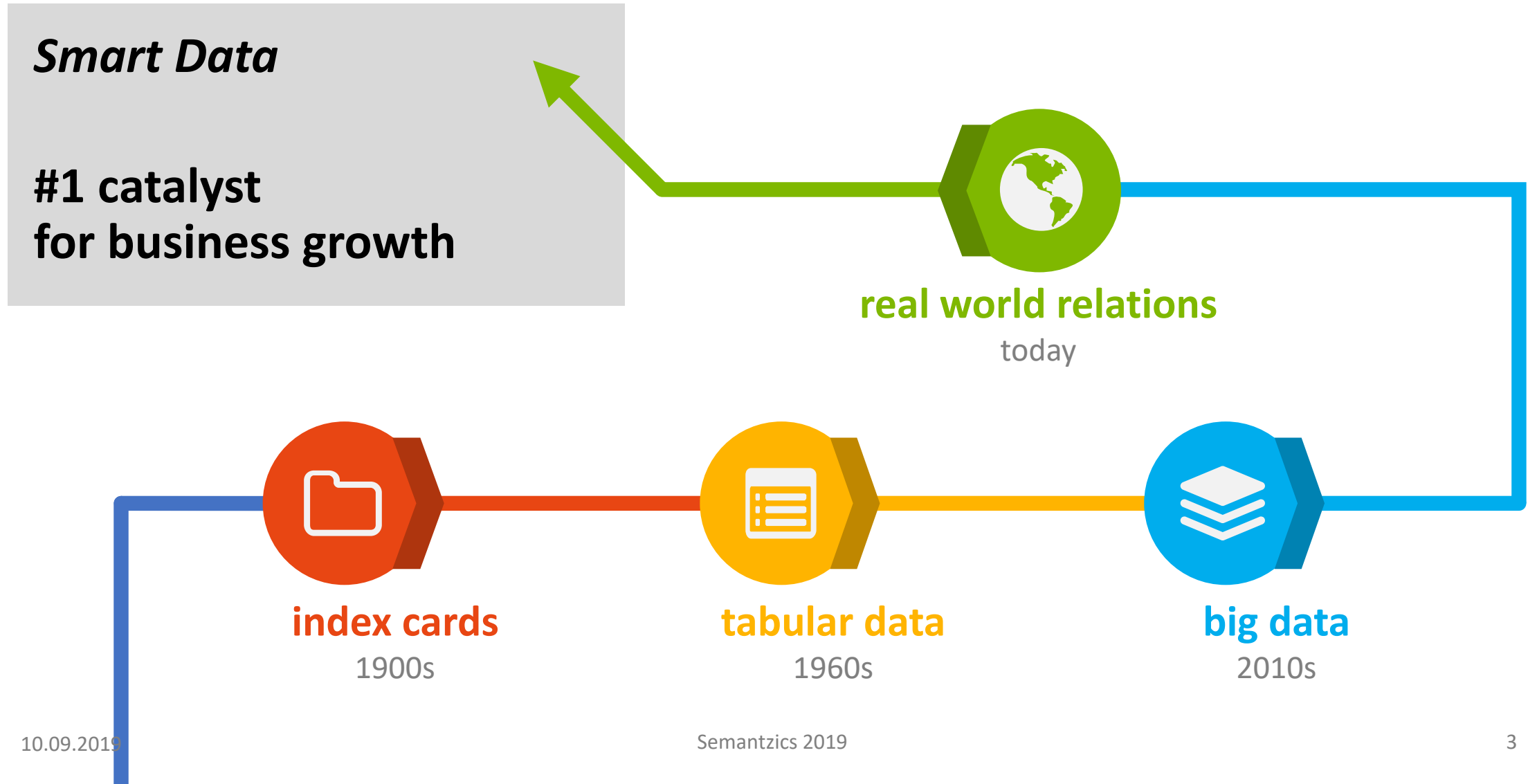
September 10, 2019

Christian Piepenbrock, Johannes Munk

Klarso GmbH Berlin – www.klarso.com



Shift in the Information Landscape



Smart Data for Product Information and Content Delivery

Customers Expect Smart New Experiences

Product Information

Relevant offerings

Personalized service

Comprehensive info

Requirements are met

Product configuration



Content Delivery

Highest quality

Content interaction

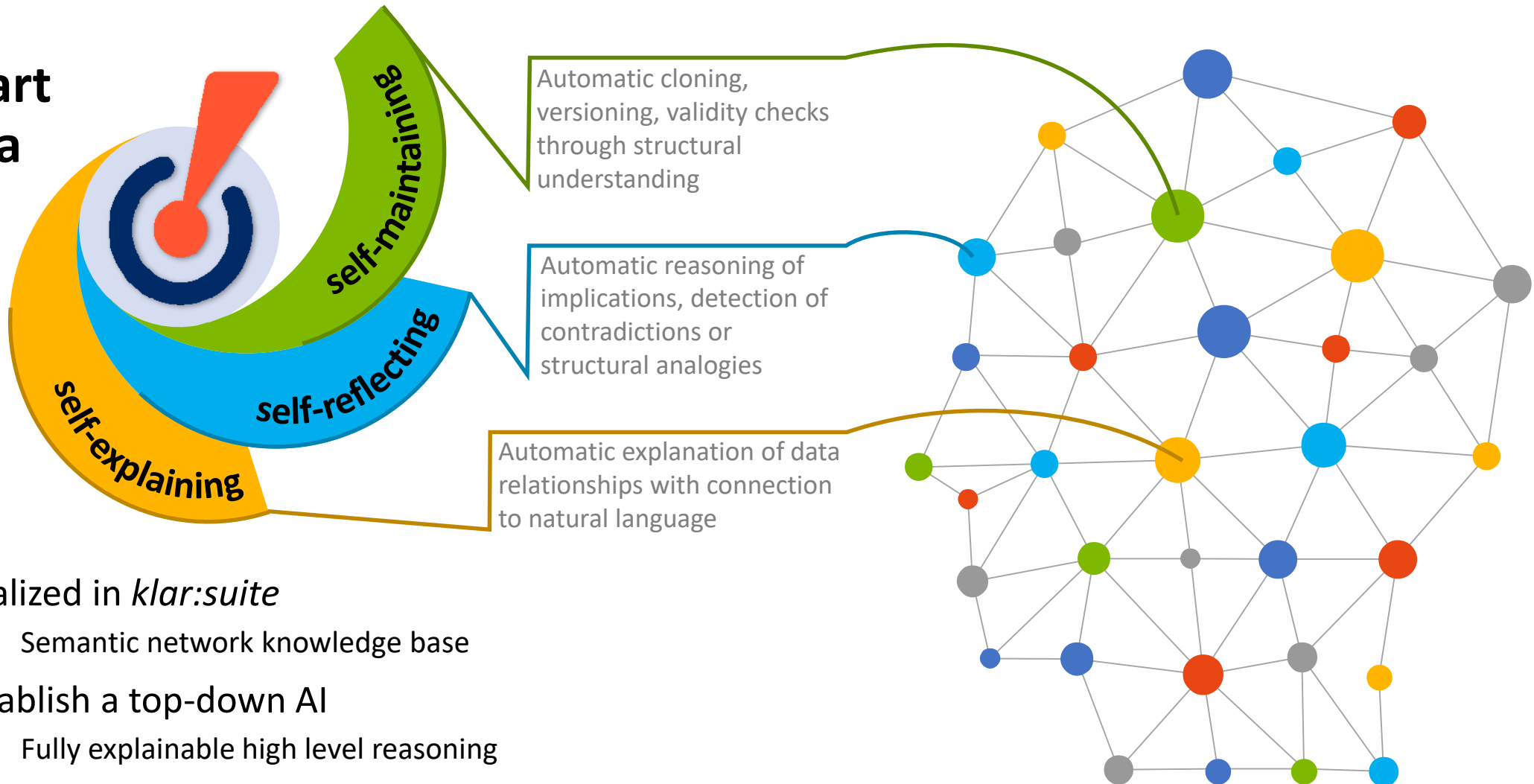
Social context

Deep search

Information advantage

Smart Data to Create Your Top-Down Artificial Intelligence

Smart Data



- Realized in *klar:suite*
 - Semantic network knowledge base
- Establish a top-down AI
 - Fully explainable high level reasoning



Where we are headed
Smart Data

How we innovate
Semantic Networks

Why it's efficient
Integrated Development Environment

What we deliver
Application Cases

What's next
Outlook

Semantic Network Problems and Claims



Innovation: We Revolutionize Semantic Networks in 6 Ways

1 Representation power

Continuous abstraction, context awareness, new relation types

2 Flexibility and agility

Scripted user interface and other modules with continuous live deployment

3 User interaction

Specialized tools to visualize, edit, curate data; workbench with workflows



4 Scalability and speed

Data in proprietary decentralized fast memory-mapped database

5 Linking external data

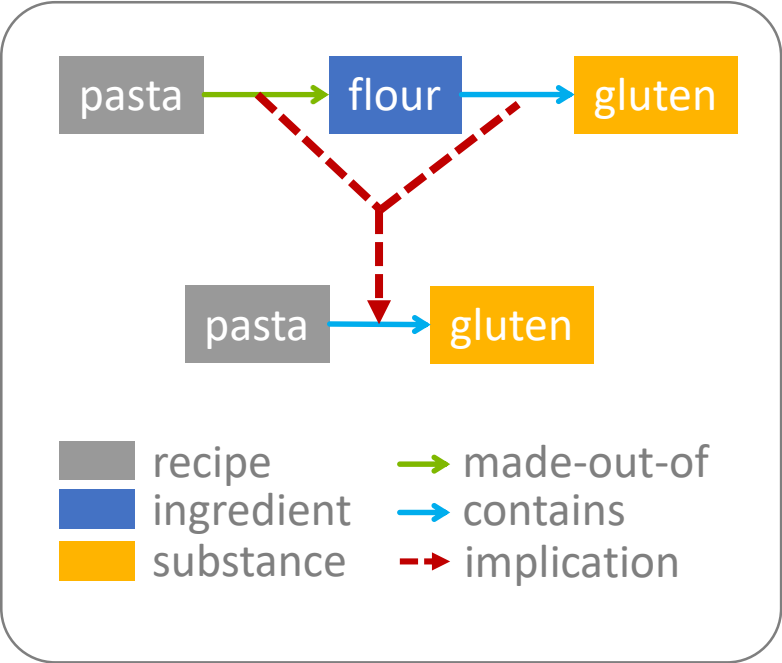
Master data management to map/link/transform/enrich/sync external data

6 System integration

Semantic network embedded into a complete system of integrated modules

Innovation: We Revolutionize Semantic Networks in 6 Ways

1 Representation power



■ recipe → made-out-of
■ ingredient → contains
■ substance - - -> implication

- relations between relations
- more than binary relations
- integrated ontology: relations between types and entries

Smart for: self-maintenance and sustainability, logic, references, context definition

Innovation: We Revolutionize Semantic Networks in 6 Ways

2 Flexibility and Agility



Semantic Network

- powerful representation allows **natural structure**
- **organic evolution** of semantic relations through successive enrichment
- sustainable through shared or generated **lookup actions** to query related entities – avoiding code redundancy.

Smart for: agile adaption of data design to changing requirements.

Innovation: We Revolutionize Semantic Networks in 6 Ways

3 User interaction



outline
text 1
text 2
history
search

Metazolol
[Pharmakologie]

Metazolol, das auch als Novaminsulfon bezeichnet wird, wirkt von den Mitteln der Stufe 1 der Schmerztherapie am stärksten. Man nimmt an, dass die Wirkung darauf beruht, dass sowohl Metazolol selbst als auch eines seiner Abbauprodukte in verschiedenen Teilen des Nervensystems schmerzzustellend wirken. Da Metazolol auch kollitragische Schmerzen schnell und sicher unterbricht, nahm man an, es hätte krampflösende Eigenschaften. Das ist jedoch umstritten.

Metazolol senkt zuverlässig hohes Fieber, indem es in das Wärmeregulationszentrum im Gehirn eingreift und dafür sorgt, dass über die Haut vermehrt Wärme abgegeben wird.

Die Hersteller und die Arzneimittel-Zulassungsbehörde haben das Anwendungsgebiet von Metazolol sehr eng begrenzt: akute starke Schmerzen nach Verletzungen und Operationen, krampfartige Leibschmerzen und koliken, beispielsweise aufgrund eines eingeklemmten Nierensteins, starke

Nichtsteroidale Antirheumatika (NSAR)
[Pharmakologie]

Desketoprofen, Diclofenac, Ibuprofen und Naproxen gehören zu den nichtsteroidalen Antirheumatika (NSAR). Vertreter dieser Gruppe wirken entzündungshemmend und schmerzzustellend. Mit der Bezeichnung "nichtsteroidal" grenzt man diese Arzneimittel aufgrund ihrer chemischen Struktur von den ebenfalls entzündungshemmenden Glukokortikoiden ab, die in ihrem Molekül - anders als die NSAR - einen Steroid-Ring haben.

Die Gruppe der nichtsteroidalen Antirheumatika teilt sich in zwei Untergruppen: die älteren Vertreter, die auch als traditionelle NSAR bezeichnet werden, und die neueren Vertreter, die Coxibs. Der Zusatz "traditionell" soll deutlich machen, dass diese Substanzen in der Arthrose- und Rheumabehandlung schon eingesetzt wurden, bevor die Coxibs entwickelt wurden. Näheres zu den NSAR und ihrer Anwendung bei rheumatischen Beschwerden lesen Sie unter

Name	Stoff	ID	Versehen
1	Wirkstoff	Nichtsteroidale Antirheumatika...	28
2	Wirkstoff	Nichtsteroidale Antirheumatika...	17
3	Wirkstoff	Nichtsteroidale Antirheumatika...	17
4	Wirkstoff	Nichtsteroidale Antirheumatika...	17
5	Wirkstoff	Nichtsteroidale Antirheumatika...	17
6	Wirkstoff	Nichtsteroidale Antirheumatika...	17
7	Wirkstoff	Nichtsteroidale Antirheumatika...	17
8	Wirkstoff	Nichtsteroidale Antirheumatika...	17
9	Wirkstoff	Nichtsteroidale Antirheumatika...	17
10	Wirkstoff	Nichtsteroidale Antirheumatika...	17
11	Wirkstoff	Nichtsteroidale Antirheumatika...	17
12	Wirkstoff	Nichtsteroidale Antirheumatika...	17
13	Wirkstoff	Nichtsteroidale Antirheumatika...	17
14	Wirkstoff	Nichtsteroidale Antirheumatika...	17
15	Wirkstoff	Nichtsteroidale Antirheumatika...	17
16	Wirkstoff	Nichtsteroidale Antirheumatika...	17
17	Wirkstoff	Nichtsteroidale Antirheumatika...	17
18	Wirkstoff	Nichtsteroidale Antirheumatika...	17
19	Wirkstoff	Nichtsteroidale Antirheumatika...	17
20	Wirkstoff	Nichtsteroidale Antirheumatika...	17

Type 1 details

Type 2 details

Type 3 details

Import Report

search results

search filters

- fully customizable set, position and size of widgets/views
- setup can be stored and loaded to support multiple workflows
- on selection of an entry every widget populates itself accordingly
- different aspects seen in parallel, separation of concerns

Innovation: We Revolutionize Semantic Networks in 6 Ways

4 Scalability and speed



- data stored in **proprietary, decentralized, fast memory-mapped database**
- Makes interactive views with **100k's** of requests possible
- **Efficient** manipulation of big data sets

Smart for: rich sustainable datasets, distributed collaboration





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klar:suite – software architecture

Goal: Affordable and sustainable custom tailored tooling for every project.

- Enduser: Efficient workflows. Ability to react quickly to changed requirements.
- Developer: Fast coding. Less pressure to generalize. Happy customers.

Scripted studio setup

- **Scripted user interface** and functions
- Scripts are part of semantic network
=> **seamless live deployment**

Powerful framework on semantic net

- Scripting based on **JavaScript**
- **High performance** C++ core
- **Cross platform** deployment with Qt
- **Model-Views** & HTML5-WYSIWYG with direct read-write access
- Central **event hub** on entries to interconnect widgets and maintain *separation of concerns*
- **Notifications** for local and remote actions
- **Reusability** through central solution repository and widget inheritance

klar:suite – framework modules



klar:base – semantic database
 entries, types, type inheritance, attributes, relations, n-adic, relations between relations, lists, sets, multi-lingual; *smart*: versioning, ownership.



klar:widgets: enhanced widgets for table and treeviews, full range of Qt5 widgets.



klar:grammar – parsing
 Link-Grammar and spaCy for semantic data extraction from natural language.



klar:search: Concept based custom ranking, autocomplete, phonetic reduction, fulltext index.



klar:server/API: daemon with full access to semantic network. Executes same JavaScripts as Studio.

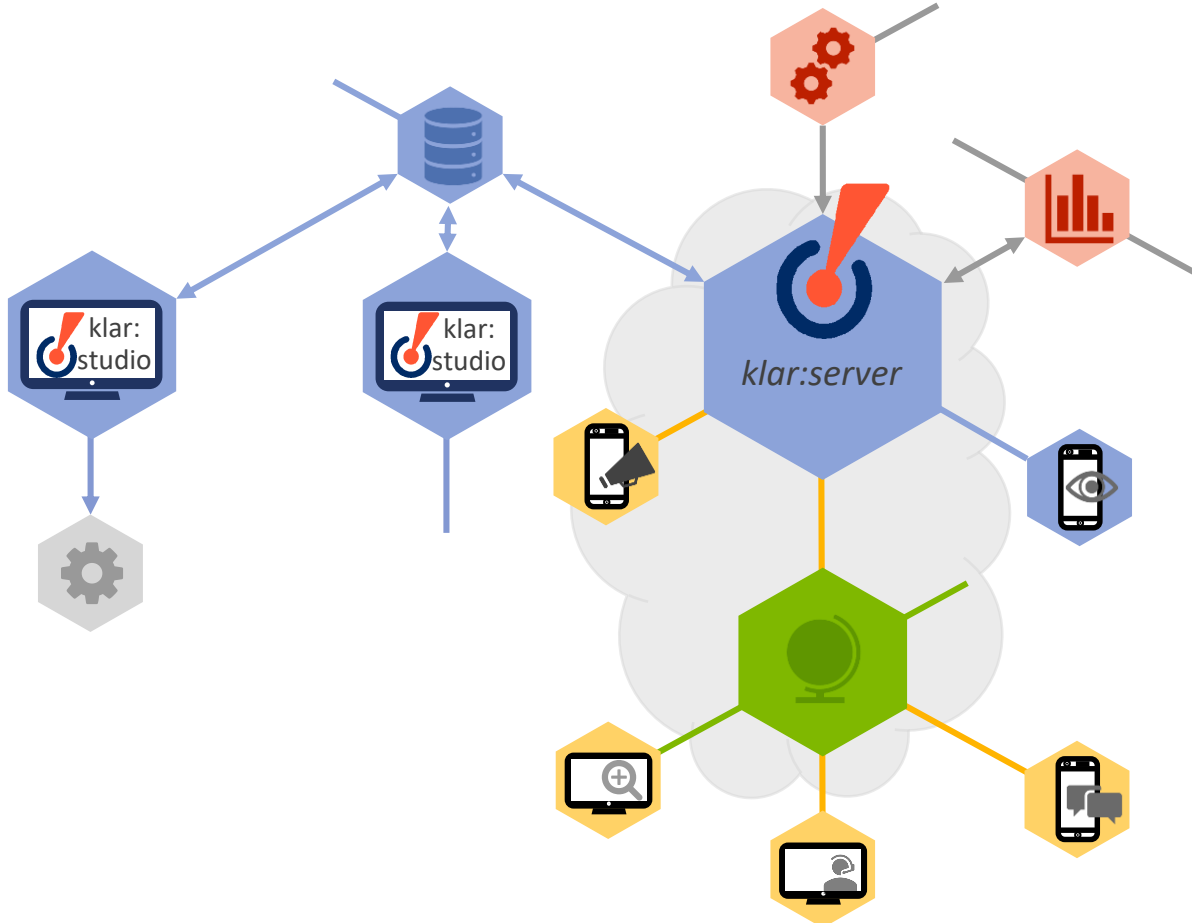


klar:file: XML; PDF output through HTML5; Excel-xlsx; Word-docx; csv/tsv; Arbitrary (binary) formats.



klar:sync: synchronization of user instructions. Offline capable.

How we Deliver In-House and Cloud Services



Integrate

Import or sync other data sources like ERP, XML content, CRM.



Semantic Network

Distributed semantic network

Instructions synced through SQL server

Export (e.g. XML, PDF, print prepress)

Live or offline on PC or smartphone.



Cloud Services

Connect web server and services by API.



Web & App Access

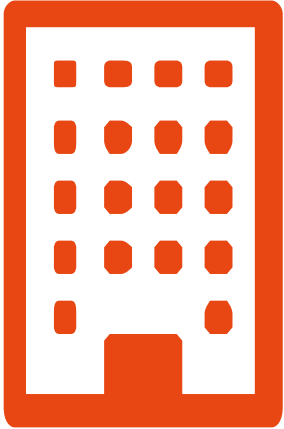
Deliver HTML or API to clients.



Tooling Perspective

klar:suite

- standard modules in agility centered framework
 - specialized custom built user interfaces
 - ... enhanced over time



standard software

- e.g. Excel for tables, iViews for graphs
- no deeper "understanding" of data structure
- no custom editors and views
- **risks**: data inconsistencies, high manual effort

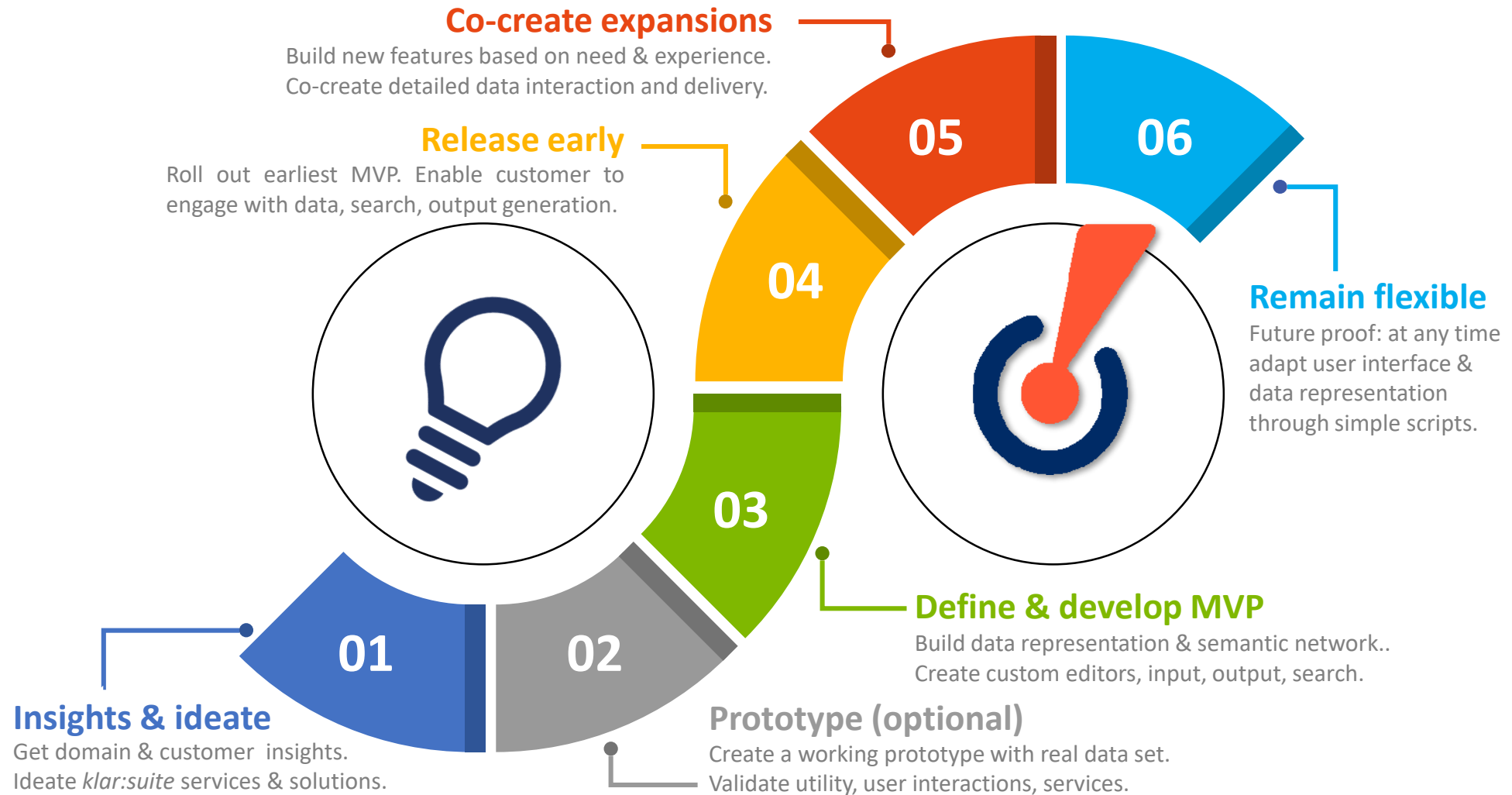


fully custom built software

- high development costs
- often dead end in terms of architecture
- know how management critical
- **risks**: data silos, lack of agility



A klar:suite Project Flexible and Agile





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Smart Data Customers



Consumer organization

Product information management for "Medicines in Test"

Forklift manufacturer

Product information management for European markets



Scholarly publisher

medical reference platform "Pschyrembel"



Online news publisher

Automatic language analysis for news articles



B2B supplies

Vendor product data onboarding

Product information management for medical drugs (Stiftung Warentest, Project “Medicines in Test”)



- The project
 - End consumer web platform with details and test results on the 8.000 most used drugs by consumer organisation „test“
- The *klar:suite* system
 - Semantic database for medical drugs and all general diseases semantically interlinked for disease, symptoms, treatments, mechanisms of action, molecule, delivery form, trade names, packages, side effects, etc.
- The features
 - Fully featured editorial backend system to edit and semantically enrich the data
 - Regular automatic update through import of externally provided drug database
 - XML/HTML export to frontend web platform

Layout view

Text: hmk35-i05a Harnwegsinfektionen, Reizblase Status: Veröffentlichung

Diff (+) ABH AC LC

Antibiotika wie **Chinolone** und **Cephalosporine** erhalten bei unkomplizierten Harnwegsinfekten die Bewertung "mit Einschränkung geeignet", denn sie einzusetzen ist normalerweise nicht notwendig. Diese Antibiotika sollen der Behandlung von komplizierten Infektionen vorbehalten bleiben. Näheres dazu lesen Sie unter "Spezielles bei der Beurteilung".

Bei schwangeren Frauen dürfen Chinolone nicht angewendet werden.
(DEGAM-Leitlinie Nr. 1: Brennen beim Wasserlassen, Anwendungsversion der S3-Leitlinie Harnwegsinfekte, 2009)

Komplizierte Harnwegsinfektionen

Welches Antibiotikum verordnet wird, sollte sich bei komplizierten Harnwegsinfektionen nach dem Ergebnis der Erregerbestimmung richten. Dann können Chinolone, das Penizillin **Sultamizillin** oder die Antibiotikakombination **Amoxicillin und Clavulansäure** geeignete Arzneimittel sein.

Cephalosporine sind ebenfalls geeignet, wenn ein entsprechender Erregernachweis vorliegt.

Table view

Bewertung

Indikation: hmk35-i05a Harnwegsinfektionen, Reizblase | JM494 --7996499

Aggregat	Artikelstamm	Indikation	Wirkstoff	WS-Text	Beurteilung
411	OflloHEXAL	Oflloxacin	Oflloxacin	hmk35-i05-ws0...	Mit Einschränk...
412	Norfloxacina ST...	NORFLOXACIN ...	Norfloxacina	hmk35-i05-ws0...	Geeignet
413	Norfloxacina AL	NORFLOXACIN ...	Norfloxacina	hmk35-i05-ws0...	Mit Einschränk...
414	Norfloxacina AL	NORFLOXACIN ...	Norfloxacina	hmk35-i05-ws0...	Mit Einschränk...
415	Norflonal	NORFLOSAL Fil...	Norfloxacina	hmk35-i05-ws0...	Geeignet
416	Norflonal	NORFLOSAL Fil...	Norfloxacina	hmk35-i05-ws0...	Mit Einschränk...
417	NorfloHEXAL	NORFLOHEXAL ...	Norfloxacina	hmk35-i05-ws0...	Geeignet
418	NorfloHEXAL	NORFLOHEXAL ...	Norfloxacina	hmk35-i05-ws0...	Mit Einschränk...
419	Nitroxolin	NITROXOLIN for...	Nitroxolin	hmk35-i05-ws0...	Wenig geeignet
420	Nitrofurantoin	NITROFURANTOIN...	Nitrofurantoin	hmk35-i05-ws0...	Geeignet
421	Nitrofurantoin	NITROFURANTOIN...	Nitrofurantoin	hmk35-i05-ws0...	Wenig geeignet
422	Nifurettin	NIFURETTEN 2...	Nitrofurantoin	hmk35-i05-ws0...	Geeignet
423	Nifurettin	NIFURETTEN 2...	Nitrofurantoin	hmk35-i05-ws0...	Wenig geeignet
424	Nifurantin B-ss...	NIFURANTIN B ...	Nitrofurantoin	hmk35-i05-ws1...	Wenig geeignet
425	Nifurantin	NIFURANTIN 1...	Nitrofurantoin	hmk35-i05-ws0...	Geeignet
426	Nifurantin	NIFURANTIN 1...	Nitrofurantoin	hmk35-i05-ws0...	Wenig geeignet
427	Nifurantin	NIFURANTIN 5...	Nitrofurantoin	hmk35-i05-ws0...	Geeignet
428	Nifurantin	NIFURANTIN 5...	Nitrofurantoin	hmk35-i05-ws0...	Wenig geeignet
429	Monuril	MONURIL 3000...	Fosfomycin	hmk35-i05-ws1...	Mit Einschränk...

Workflow view

Workflow

Aktuell Neu Versionen

ID: bakt_infektionen_scheide Typ: Indikation

Titel: lle Infektionen der Scheide Name: lle Infektionen der Scheide

CID	Version	Status	Geände
AS3266131	25	Veröffentlichung	2018-09-18
CH3307020	24	Kontrolle	2017-11-27
CH2882954	23	Lektorieren	2017-11-27
CH2881230	22	Gegenlesen Ph...	2017-11-21
IG732589	21	Bearbeitung Te...	2017-11-21
CH2249099	20	Gegenlesen Ph...	2017-11-15
IG164145	19	Bearbeitung Te...	2017-10-30
CH346577	18	Bewertung Pha...	2017-10-06
JM689 --61389...	17	Bearbeitung Le...	2017-05-17

Search box

Suche

infektion

Wirkstoffe (0/0) FAM (0/4) PS4 Titel (0/30) Volltext (0/0)

[alle Typen] [beliebiger Status]

Zeige alte Elemente

Alle Versionen

Neueste Versionen

Veröffentlichte Versionen

1/1 PS4 Titel für infektion

Indikation	Typ	Name	Titel	ersic	Status	Geände
Indikation	Bakterielle Infe...	hmk80-i05a Bak...	17	Veröffentlichung	2016-08-03	
Indikation	Chlamydieninf...	hmk45-i10a ChL...	12	Veröffentlichung	2015-12-16	
Indikation	Bakterielle Hau...	hmk05-i40a Bak...	11	Veröffentlichung	2015-09-02	
Indikation	Harnwegsinfek...	hmk35-i05a Har...	18	Korrektur	2017-02-28	
Indikation	Pilzinfektionen ...	hmk05-i30a Pilzi...	20	Veröffentlichung	2016-12-02	
Indikation	Pilzinfektionen ...	hmk20-i15a Pilzi...	10	Veröffentlichung	2016-03-08	
Indikation	Pilzinfektionen ...	hmk45-i15a Pilzi...	12	Veröffentlichung	2015-12-16	
Indikation	Trichomonade...	hmk45-i05b Tric...	14	Veröffentlichung	2015-12-16	
Indikation	Bakterielle Infe...	k45-i35a Bakteri...	16	Veröffentlichung	2015-03-10	
Indikation	Desinfektion v...	K01-i09a Hautde...	14	Veröffentlichung	2015-03-10	
Indikation	Pilzinfektionen ...	k45-i30a Pilzinf...	14	Veröffentlichung	2015-03-10	
Indikation	Pilzinfektionen ...	k20-i05a Pilzinf...	8	Veröffentlichung	2015-03-10	

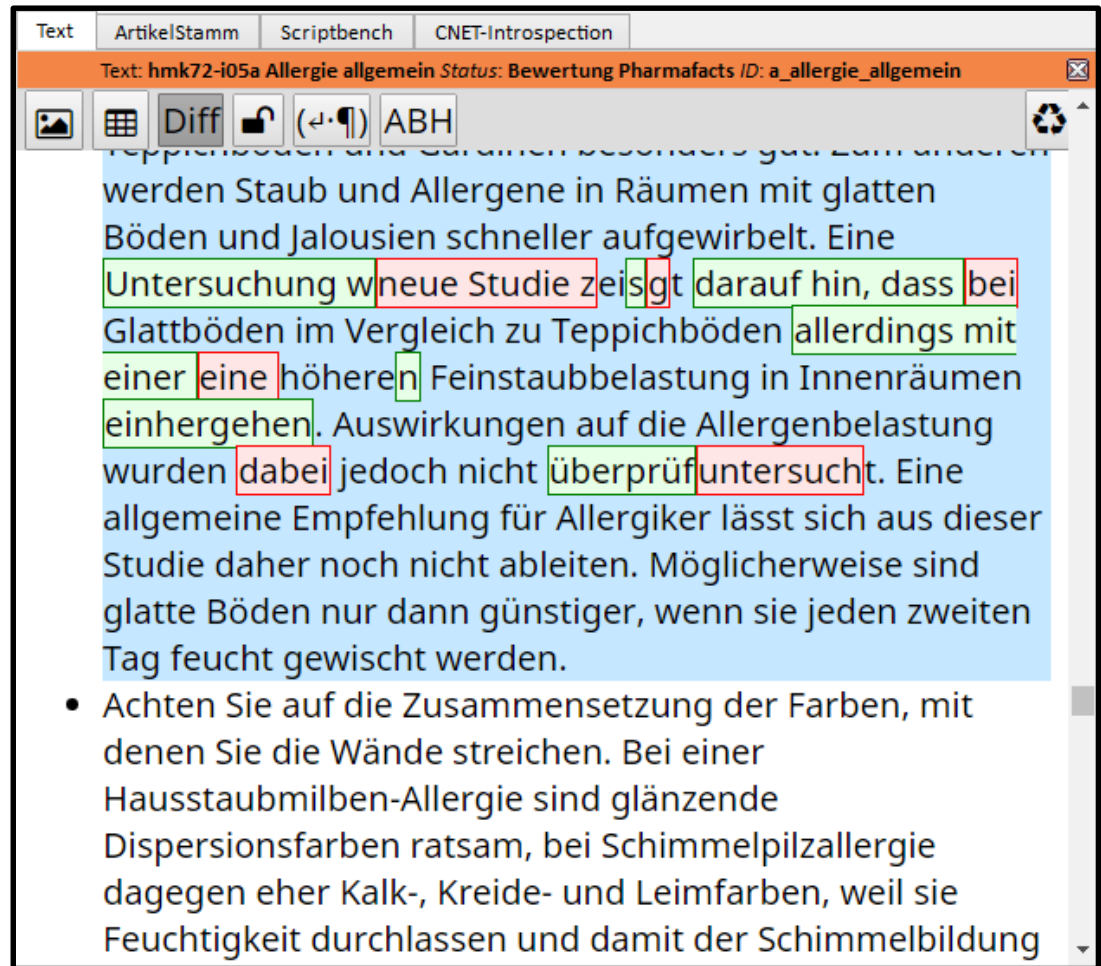
Product information management for medical drugs (Stiftung Warentest, Project “Medicines in Test”)

- Flexible data model allows the agile development of visionary new prototypes
- Direct interaction with the semantic network through custom-tailored dynamic data views
- Highest quality content through automatic data consistency checks and reports
- Fine granular data representation of entities and relations to avoid redundant editing
- Lightweight reports allow prompt responses to marketing enquiries
- Smart heuristics for external data integration and self-maintenance of expiring datasets

Product information management for medical drugs

Versions, revisions, approval

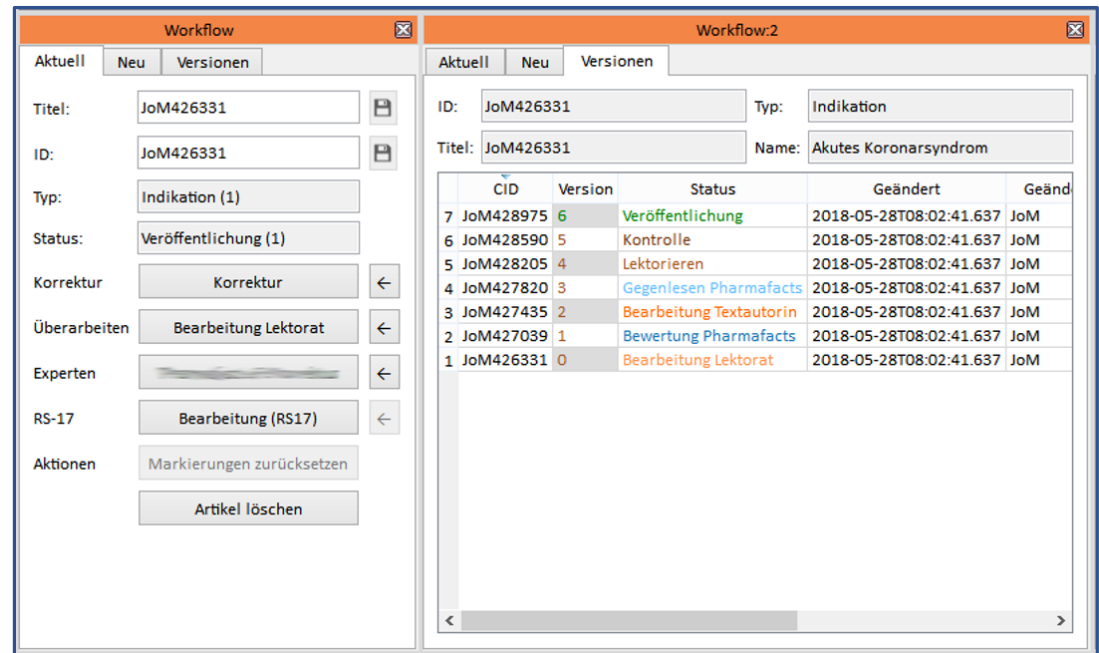
- Diff view
 - Doc diff view between any two texts
 - Individual approval/rejection of changes
- Validation
 - Automatic rule-based validation of docs
- Approval
 - Custom approval workflows as needed, e.g. for docs, modules, translations, etc.
- Automatic revisions
 - Automatic processes for updates/revisions, e.g. price updates, aggregate changes, etc.
- On-demand generation
 - Automatic document generation on demand, e.g. template-based live views



Product information management for medical drugs

Workflows: status, rights, versions, collaboration

- Status
 - Custom status for docs, modules, transl., etc.
 - Tracking of changes, timestamps, editors
- Workflow & rights
 - Custom workflows, pre-defined or click&go
 - Differentiated user views and rights
 - Preferred: allow changes but require approval
- Versions
 - Full version history, diff views, cloning of docs
 - Branching (e.g. „in production fix“ vs. „beta“)
- Collaboration
 - Fully featured editor seat: *klar:studio*
 - External search, review, input: web view
 - External editors through Word/Excel im-/export



The screenshot displays two overlapping windows from the Klar software. The 'Workflow' window on the left shows a form for document management with fields for 'Titel', 'ID', 'Typ', 'Status', and 'Korrektur'. The 'Workflow:2' window on the right shows a similar form with a 'Name' field and a table of version history.

	CID	Version	Status	Geändert	Geänd
7	JoM428975	6	Veröffentlichung	2018-05-28T08:02:41.637	JoM
6	JoM428590	5	Kontrolle	2018-05-28T08:02:41.637	JoM
5	JoM428205	4	Lektorieren	2018-05-28T08:02:41.637	JoM
4	JoM427820	3	Gegenlesen Pharmafacts	2018-05-28T08:02:41.637	JoM
3	JoM427435	2	Bearbeitung Textautorin	2018-05-28T08:02:41.637	JoM
2	JoM427039	1	Bewertung Pharmafacts	2018-05-28T08:02:41.637	JoM
1	JoM426331	0	Bearbeitung Lektorat	2018-05-28T08:02:41.637	JoM

Product information management automotive (Crown Lift Trucks, forklift manufacturer)

CROWN
lift trucks

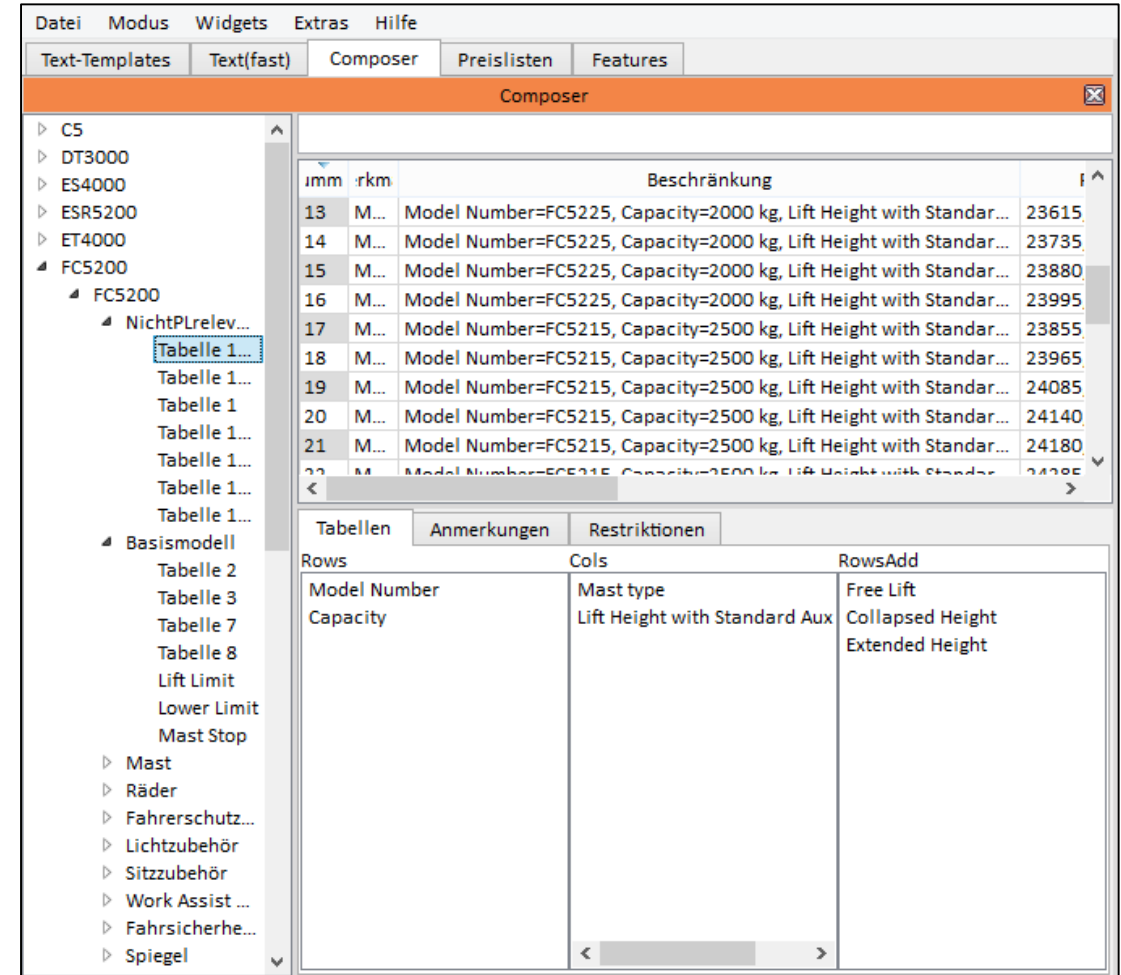
klar:so

- The project
 - PIM for all model series and options, with prices for all European markets and channels
- The *klar:suite* system
 - Integrate highly complex product data for all model variants, options, and configuration rules from ERP and sales systems
 - Deliver PDF price lists with all product rules
- The features
 - Full control over product data, configuration options, and prices in-house with *klar:studio*
 - Clean single point of truth for all product data
 - Automated generation of specific price lists for all markets, currencies, and distr. channels
 - Richest possible dataset for next generation marketing and sales solutions

CROWN		MPC 3000 Series Order Picker with Mast	
MPC 3000 Series	Battery Identification and size	Modifications	
Order Picker with Mast	When a dealer or customer is supplying the battery for a Crown lift truck, the battery must be within the minimum/maximum weight specified. Also, its dimensions must be such that the battery will not move more than 13mm in a horizontal direction. If the size requirements are not met, appropriate modifications of the spacing shall be made by the dealer or customer.	The user must have written approval from Crown to add attachments or to make modifications or additions to any trucks that are already in the field.	
24 Volt		Standard Equipment	
ORDER INFORMATION	ORDER INFORMATION	Descriptive information on all standard equipment and detailed dimensional specifications are listed in Crown's specification sheet.	
Orders cannot be placed in the production schedule until Crown order form is completed with all information required.			
MPC 3040-1.2 1200 kg capacity at 600 mm load center			
	Mast Type	NT Mast	TL Mast
Lift Height	mm	4000	4000
Free Lift	mm	0	0
Overall Height Collapsed	mm	2080	2080
Overall Height Extended	mm	4080	4080
Model	MPC 3040-1.2	€ 181.179,-	€ 181.179,-
1: without load backrest			
MPC 3040-1.2 1200 kg capacity at 600 mm load center			
	Mast Type	TF Mast	
Lift Height	mm	3000	3000
Free Lift	mm	0	0
Overall Height Collapsed	mm	2080	2080
Overall Height Extended	mm	3080	3080
Model	MPC 3040-1.2	€ 177.945,-	€ 177.945,-
1: without load backrest			
OPTIONAL EQUIPMENT		Battery Options	
Maximum Battery Box Size		Battery Connectors	
L x W x H		<input type="checkbox"/> DIN 150	Standard
<input type="checkbox"/> 330 x 790 x 784 mm	Standard	<input type="checkbox"/> Anderson SBE 160 Red	€ 117,-
		<input type="checkbox"/> Anderson SB 175 A Gray 1	€ 117,-
		<input type="checkbox"/> Anderson SB 175 A Red 1	€ 117,-
		1: not available with EU manufacturing standard	
		<input type="checkbox"/> Lithium-Ion Battery Ready (not available with cold store conditioning, contact Crown for current list of pre-approved Lithium-Ion batteries)	€ 200,-
printed in Germany DLR January 2019		MPC 3000 Series	21 - 1

MPC 3000 Series Order Picker with Mast	
Power Unit Options	
Battery Lift Out	
<input type="checkbox"/> Side Covers on Both Sides	Standard
<input type="checkbox"/> No Side Covers (not available with SAA manufacturing standard)	€ 481,-
Battery Rollout	
<input type="checkbox"/> Right Side Rollout 1 (LH cover)	€ 270,-
<input type="checkbox"/> Left Side Rollout 1 (RH cover)	€ 270,-
<input type="checkbox"/> Both Sides Rollout 1 (no covers)	€ 545,-
<input type="checkbox"/> Both Sides Rollout (including covers, not available with EU manufacturing standard)	€ 371,-
1: Not available with SAA Manufacturing Standard	
Battery Rollout Height	
from floor	
<input type="checkbox"/> 160 mm	Standard
<input type="checkbox"/> 190 mm (not available with EU manufacturing standard)	No Charge
<input type="checkbox"/> Battery Retainer Sensor (not available with EU manufacturing standard)	€ 180,-
<input type="checkbox"/> Cold Store Conditioning - 30 °C	€ 485,-
<input type="checkbox"/> Rubber Bumper	€ 70,-
Power Supply	
<input type="checkbox"/> 12 Volt	€ 885,-
<input type="checkbox"/> 24 Volt	€ 995,-
Audible Travel Alarm	
<input type="checkbox"/> Forks First	€ 385,-
<input type="checkbox"/> Power Unit First	€ 385,-
<input type="checkbox"/> Both	€ 385,-
Load Backrest	
W x H	
<input type="checkbox"/> 775 mm x 1200 mm	€ 302,-
<input type="checkbox"/> 775 mm x 1435 mm (for 800 mm NT mast only)	€ 396,-
InfoLink Ready	
requires front Work Assist accessory tube	
<input type="checkbox"/> Standard	€ 877,-
<input type="checkbox"/> Advantage	€ 877,-
Mast Guard	
<input type="checkbox"/> Plexiglass	Standard
<input type="checkbox"/> Metal (standard with cold store conditioning)	€ 200,-
printed in Germany DLR January 2019	
MPC 3000 Series	21 - 2

- Organization of text modules
 - Custom doc types and structures, e.g. service, installation, maintenance, training, mktg.
- Assembly of modules to documents
 - Dynamic generation from semantic analysis
 - Insert text modules with drag & drop
 - Flexible module granularity: word - paragraph
- Document templates
 - Start from templates or cloned document
 - Rules enforceable; variants, e.g. print vs. web
- Automatic validation: content & consistency
- Permanent backlink to source data element
 - Exact links for modules, terms, numbers, etc.
 - Edits in preview modify the source element



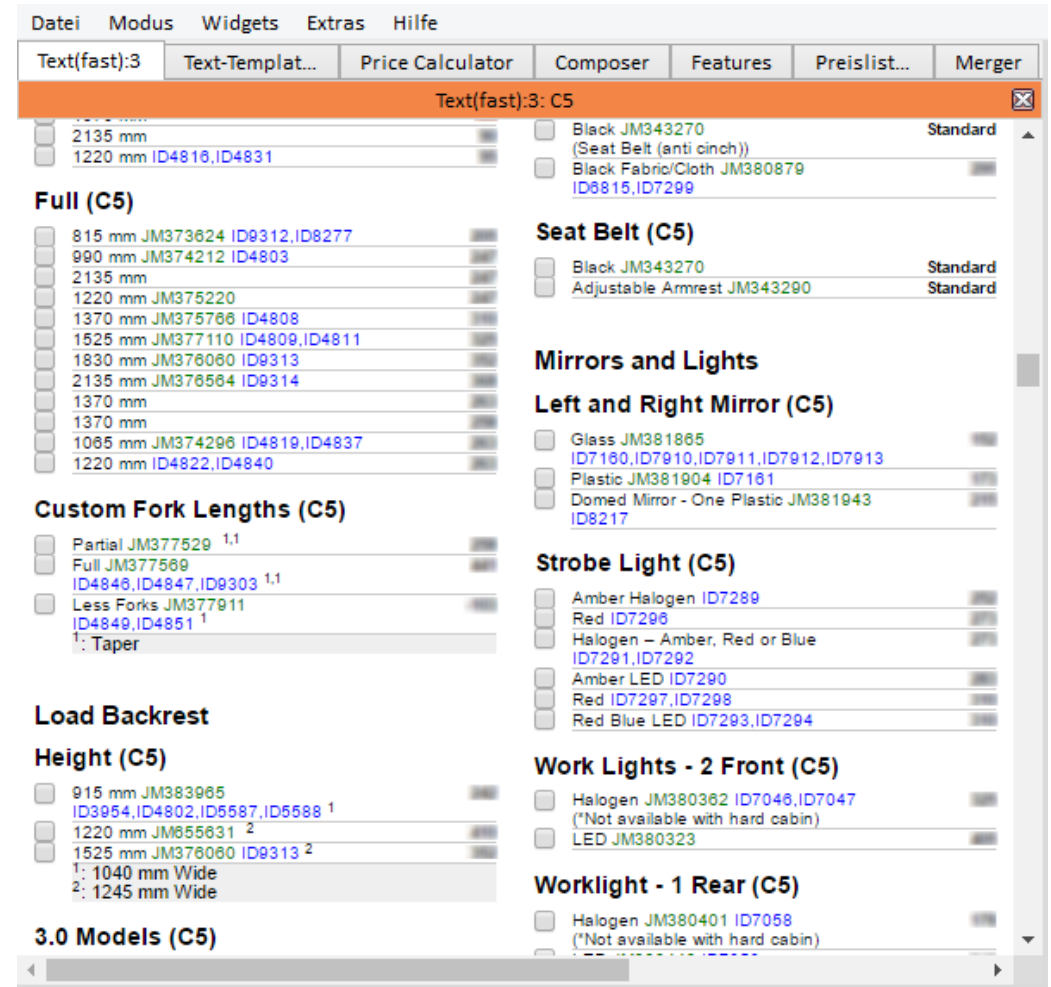
The screenshot shows the 'Composer' window with a tree view on the left and a table of data on the right. The tree view includes folders like 'C5', 'DT3000', 'ES4000', 'ESR5200', 'ET4000', and 'FC5200'. The table on the right has columns 'Imm', 'rkm', and 'Beschränkung'.

Imm	rkm	Beschränkung	
13	M...	Model Number=FC5225, Capacity=2000 kg, Lift Height with Standar...	23615
14	M...	Model Number=FC5225, Capacity=2000 kg, Lift Height with Standar...	23735
15	M...	Model Number=FC5225, Capacity=2000 kg, Lift Height with Standar...	23880
16	M...	Model Number=FC5225, Capacity=2000 kg, Lift Height with Standar...	23995
17	M...	Model Number=FC5215, Capacity=2500 kg, Lift Height with Standar...	23855
18	M...	Model Number=FC5215, Capacity=2500 kg, Lift Height with Standar...	23965
19	M...	Model Number=FC5215, Capacity=2500 kg, Lift Height with Standar...	24085
20	M...	Model Number=FC5215, Capacity=2500 kg, Lift Height with Standar...	24140
21	M...	Model Number=FC5215, Capacity=2500 kg, Lift Height with Standar...	24180
22	M...	Model Number=FC5215, Capacity=2500 kg, Lift Height with Standar...	24285

Below the table, there are tabs for 'Tabellen', 'Anmerkungen', and 'Restriktionen'. The 'Tabellen' tab is active, showing a table with columns 'Rows', 'Cols', and 'RowsAdd'.

Rows	Cols	RowsAdd
Model Number	Mast type	Free Lift
Capacity	Lift Height with Standard Aux	Collapsed Height
		Extended Height

- Semi-interactive data mapping
 - Map different data sources
 - Automatic mapping with granular heuristics
 - Visualize mapping in table or layout view for review and revision
 - Inverted view: see multiple or missing mappings
- Mapping reports
 - Specialized reports for mapping errors: mismatches, missing data, ...
- Master data management
 - Single point of truth for each data point in *klar:suite* or externally
 - Store foreign keys as relations to imported / external data



Medical reference platform for physicians (De Gruyter, scholarly publisher, „Pschyrembel“)



DE GRUYTER



- The project
 - German medical reference dictionary, “online first” for web, app, and print
- The *klar:suite* system
 - Digital delivery platform for all channels
 - CMS system for smart authoring and semantic enrichment
 - Flexible data model with inter-linked enriched content (articles, references, glossary, etc.)
- The features
 - XML structure completely re-factored into a system that exceeds XML capabilities
 - Multiple publications integrated
 - Workflows to support editors with more than 250 external authors



3 Medical reference platform for physicians

Semantic search

- Search
 - Systematic access by specialty or ICD-10 code
 - Deep search for concepts
 - Customized search
 - Autocomplete, result snippets
 - Best hits with abstract
 - Search across multiple publications
 - Faceted search results with tree view
 - Search term highlighting
 - Full text search
 - Concept links

P Pschyrembel Online

FACHGEBIETE

- AINS 2
- Acidum lacticum () 1
- Allg. Pharmazie, Pharmakol. u. Toxikol. 7
- Allgemeinmed., Innere Med., Infektiologie 172
- Augen, HNO, ZMK, Zahnheilk. 14
- Chirurgische Fachgebiete 37
- Grundlagenfächer 39
- Gynäkol. u. Urol., Sexualmed., STD 42
- Heil- und Therapieberufe 10
- Komplementärmedizin 34
- Natriumcyclamid 1
- Neurologie, Psychiatrie, Psychother. 24
- Pathol., Mikrobiol., Labor-Med., Hämostaseol.,

diabetes

Diabetes **mellitus** Sammelbezeichnung für Glukosestoffwechselstörungen unterschiedlicher Ätiol...
Diabetes **mellitus** Gruppe heterogener Erkrankungen mit dem gemeinsamen Merkmal der chroni...
Diabetes **insipidus** Diuresestörung mit Verminderung der Wasserreabsorption in den renalen Sa...
Diabetes **salinus renalis** Nephropathie mit teils erheblichem Elektrolyt- bzw. Salzverlust über dist...
12 % (Alter 25-79 Jahre; International Diabetes Federation).
aus: Pschyrembel online

Diabetes mellitus (DM)

Gruppe heterogener Erkrankungen mit dem gemeinsamen Merkmal der chronischen Hyperglykämie. Ursächlich ist entweder eine Störung der Insulinsekretion, der Insulinwirkung oder eine Kombination dieser beiden.
aus: Herold Innere Medizin

weitere Treffer zu "Diabetes mellitus":

mellitus

(...) **Diabetes mellitus**.
aus: Pschyrembel online

Diät

(...) **Diabetes mellitus** Typ 2, polyzystischem Ovarialsyndrom protein- und elektrolytdefinierte Diät, z. B. bei Niereninsuffizienz (proteinarm) oder Protein-Energie-Mangelsyndrom (proteinreich) Sonderdiäten gastroenterologische Diät (z. B. bei Malassimilation oder postoperativem Kostaufbau) Diät bei speziellen Systemerkrankungen (z. aus: Pschyrembel online

Adipositas

3 Medical reference platform for physicians

Article display

- Article display
 - Navigation by section headings
 - Concept panel: lex. Info, synonymes, ethym., translations, ICD-10 codes
 - Terminology or links: preview on mouse-over
 - Media assets: images, video, tables w. caption
 - Breadcrumbs, abstract
 - Search within article
 - Paywall
 - Additional premium content

Diabetes mellitus

Pschyrembel Online

Einteilung

Pathobiochemie

Klinik

Komplikationen

Diagnostik

Therapie

Leitlinien

weitere Artikel

Herold

Diabetes mellitus

Sammelbezeichnung für Glukosestoffwechselstörungen unterschiedlicher Ätiologie und Symptomatik mit relativem oder absolutem Insulinmangel und Hyperglykämie als gemeinsamem Kennzeichen. Es handelt sich weltweit um die Erkrankung mit kontinuierlich zunehmender Tendenz. Die Prävalenz beträgt 12 % (Alter 25–79 Jahre; International Diabetes Federation).

Erhöhte Konzentration von Glukose im Blut, u. a. bei Diabetes mellitus. Aufgrund des schleichenden Charakters werden anhaltende Müdigkeit und Leistungsschwäche bei diabetischer Hyperglykämie zunächst häufig nicht wahrgenommen und erst nach Normalisierung der Blutzuckerwerte realisiert.

Einteilung

Ätiologische Klassifikation nach von American Diabetes Association (siehe Tabelle 1).

Diabetes mellitus Typ 1 (zerstörte B-Zellen)	
I	A immunologisch
	B idiopathisch
II	Diabetes mellitus Typ 2
	andere spezifische Diabetesformen
	genetische Defekte
1.	Chromosom 12 (HNF-1α)
III	2. Chromosom 7 (Glukokinase)

Diabetes mellitus Typ 2: Ohne erkennbare Ursache entstanden, Ursache nicht nachgewiesen. In der Medizin oft gleichbedeutend mit essenziell oder kryptogen gebraucht.

Tabelle 1: Ätiologische Klassifikation (Expert Committee on the Diagnosis and Classification of Diabetes Mellitus)

Automatic language analysis for news articles (Golem media, online news company)



- The project
 - Artificial intelligence analysis of incoming press releases for editors, archive, and topic aggregation with concept tagging
- The *klar:suite* system
 - Press release processing system that analyzes texts by natural language analysis
 - Discover and extract topics, entities (like people, products), relations (key statements)
- The features
 - The flexible data model gets continuously adapted through learning from texts, through training new grammatical structures, by externally validating extracted information
 - Golem now has an automatic press release database, tags it semantically, validates it using editors and crowd sourcing

NLP History

Link	Source	Target	Anzahl
2 hWV / dWV.v	LEFT-WALL	launches.v	14
6 Ss / Ss.v	Europeana[!]	launches.v	2
7 Ss:n-u / Ss.v	adventure.n-u	launches.v	2
1 Vrsi:j-v / Vrs*!iv	and-j-v	launches.v	1
3 Ss*o:ord / Ss.v	second.ord	launches.v	1
4 Ss:n / Ss.v	platformer[?]n	launches.v	1
5 Ss*gg / Ss.v	spanning.g	launches.v	1
8 S:n / Ss.v	puzzle-...	launches.v	1
9 S / Ss.v	Comms[!]	launches.v	1
10 Ss / Ss.v	!IMobile[!]	launches.v	1
11 Ss:n-u / Ss.v	game.n-u	launches.v	1

Link	Source	Target	Anzahl
2 MV.v / MVp	launches.v	on	6
4 MV.v / MV:r	launches.v	to.r	2
5 Ov / Os	launches.v	Transcribation[!]	2
7 MV.v / MVpn	launches.v	today	2
1 Ov / Os	launches.v	Workshop[!]	1
3 Ov / Os:n	launches.v	title.n	1
6 MV.v / MV:a	launches.v	second.a	1
8 MV.v / MVp	launches.v	over	1
9 Ov / Os	launches.v	Voice[!]	1
10 Ov / Os:n	launches.v	chatbot[?]n	1
11 Ov / Op:n	launches.v	innovations.n	1

250494: Second in vegetarian space combat and exploration series launches on PC and Mac.
 250494: Single-player puzzle platformer launches on consoles, meaning everyone's happy on Valentine's Day.
 250786: Noire-themed point-and-click adventure starring a girl/teddy detective duo launches second episode on Steam.
 250786: 2D puzzle-platformer launches today on Steam.
 251276: Silhouetty adventure based on Russian mythology launches on Steam.
 252063: Viking strategy game launches today on Steam Early Access.

M: Unknown Label
 V: Unknown Label

M: Unknown Label
 V: Unknown Label
 p: Unknown Label

Automatic language analysis for news articles

Natural language extraction

- Automatic entity extraction from natural language
- Integration into automatic workflows through APIs
- Validation of concepts and relations through editorial review and crowd-sourcing

Found 2 linkages (2 with no P.P. violations)
 Linkage 1, cost vector = (UNUSED=0 DIS=2 AND=0 LEN=22)

```

+-----Xp-----+
+-----Wd-----+-----Sp-----+
+-----Dmc-----+-----Js-----+
+-----A-----Mv-----Mvp-----G-----+
LEFT-WALL the new.a materials.n applied.v by Frauenhofer ISC improved.v the
  
```

```

-----Os-----+
-----Ds-----+
+-----AN-----+
|               |
manufacturing.g process.n .
  
```

Constituent tree:

```

(S (NP (NP The new materials)
      (VP applied
        (PP by
          (NP Frauenhofer ISC))))
  (VP improved
    (NP the manufacturing process))
  .)
  
```




Where we are headed
Smart Data

How we innovate
Semantic Networks

Why it's efficient
Integrated Development Environment

What we deliver
Application Cases

What's next
Outlook

Other applications and outlook

- Industry
 - offer generation
 - machine and product configuration
 - technical documentation
 - quality and regulatory
- Legal tech / insurance
 - complex document analysis
 - natural language processing
 - contract structuring and drafting
- Terminology management
 - term relations
 - domain knowledge management
- Automatic software code generation
 - based on natural language of developer comments

Make software development agile,
Make workflows flexible,
Make data smart



Thank you

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