

Wissensmanagement in der KI-Ära

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VP Forschung und Entwicklung

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Inhalt und Konzepte

- Was für Herausforderungen beim Wissenszugriff gibt es schon heute?
- Wie sehen die Anforderungen der Zukunft aus?
- Sind unseren jetzigen Technologien zukunftsgeeignet?
- Wie man sich zukunftssicher ausrüstet

Was für Herausforderungen beim Wissenszugriff
gibt es schon heute?

Am Anfang...



Wir haben angefangen, sie zu erfassen, damit sie nicht in Vergessenheit gerieten



Unser Wissensvermögen stieg sprunghaft an



Wir mussten es ordentlicher darstellen



Die Schleusentore wurden geöffnet...

Wir erfanden Bücher



...Bücher, die wie Pilze aus dem Boden schossen

Bucherübergreifende Wissensfindung wurde anspruchsvoll



Was hat uns gerettet?

Das digitale Zeitalter!

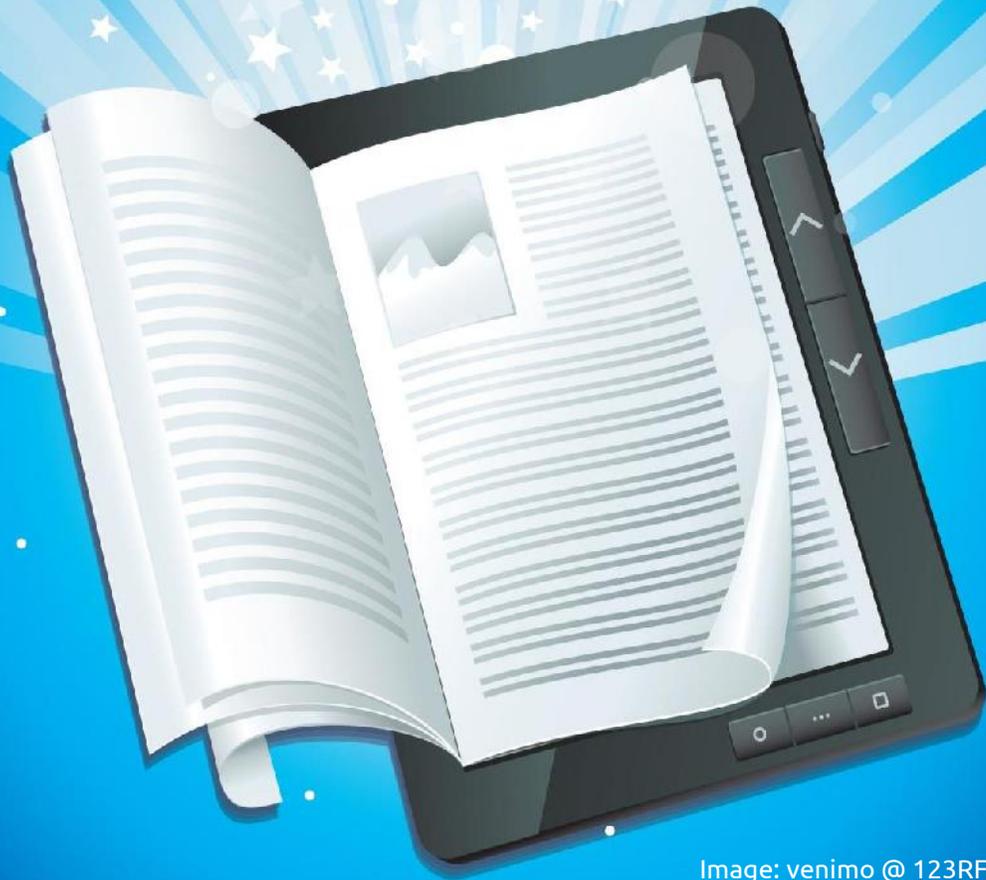


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Wirklich?

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	📁	3. Risk Management	...	Tuesday at 4:19 PM
	📁	4. Project Execution	...	Tuesday at 4:19 PM
	📁	5. Project Completion and Contract Closure	...	Tuesday at 4:19 PM
	📄	01. Introduction	...	February 20

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“performance guarantees plant system customer obligations”

Dokumententreffer

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	 01. Introduction	... February 20

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02. Guaranties

This chapter deals with **performance guarantees** only (better known in some jurisdictions as **performance warranties**), not with financial or delay-related **guarantees** ...

04. Consequences of Warranty Obligations

whether the defect concerns minimum **performance guarantees**, **performance guarantees** or any other contract specification ... Any provision allowing the **Customer** to choose the remedy ...

01. Performance Standards

it refers to the final completion of all **obligations** of the contractor at the end of the ... to achieve the more stringent **performance guarantees**, would not entitle the **Customer** to ...

03. Services

on the risks of services required by **Customer** after completion of the project in order to maintain or extend the usability of the **plant** ...

01. Warranty Scope

on the type of contract, the **Customer** may have various possible significant rights, including (i) subsequent and further **performance** of the work by the Contractor ...

Types of Contracts incl. international Standard Contracts

aforementioned categories, however, with respect to **Plant** or **System** Contracts, it is often the **Customer** who is providing the basis for the contract ... Payments under the Red Book are ...

01. Subcontractors

to transfer the technical and contractual **obligations** from its contract with the **Customer** correctly and completely to the Subcontractor ...

IPR, Know-How, Software

of a project in order to meet specific **Customer** requirements which are not covered by a ... It may also impose certain **obligations** upon the licensee (For example in the case of Open ...

03. Frame Agreements

A Frame Agreement is an agreement ... cover the business relationship to a **Customer** in various countries should generally be concluded by Siemens AG and the headquarter of the **Customer** ...

Project Financing, Supplier Financing, Public Private...

A typical debt to equity ratio in ... placed on the Contractor are based on **obligations** which the Project Company had to accept vis-à-vis its **Customer** (e. g. a power purchaser under a ...

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	📁	4. Project Execution	...	Tuesday at 4:19 PM
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	📄	01. Introduction	...	February 20

6 Seiten, korrekt

3 Seiten, inkorrekt

4 Seiten, inkorrekt

19 Seiten, korrekt!

Aber der Treffertext ist unklar, und die relevante infos sind auf Seite 8...

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10 Seiten, inkorrekt

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...USW...

...Ergebnisseite 1 von 3!

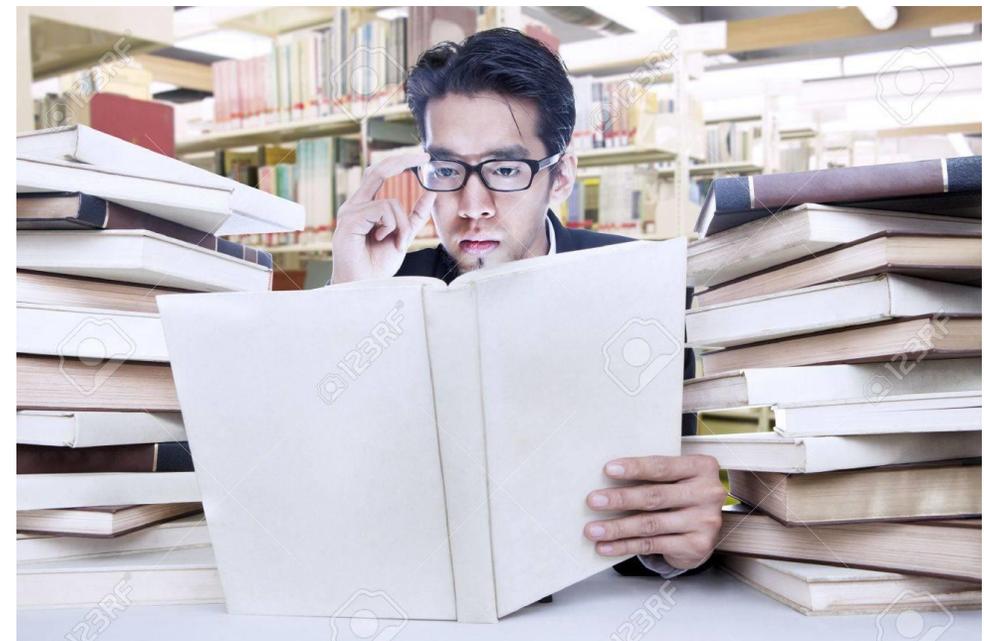
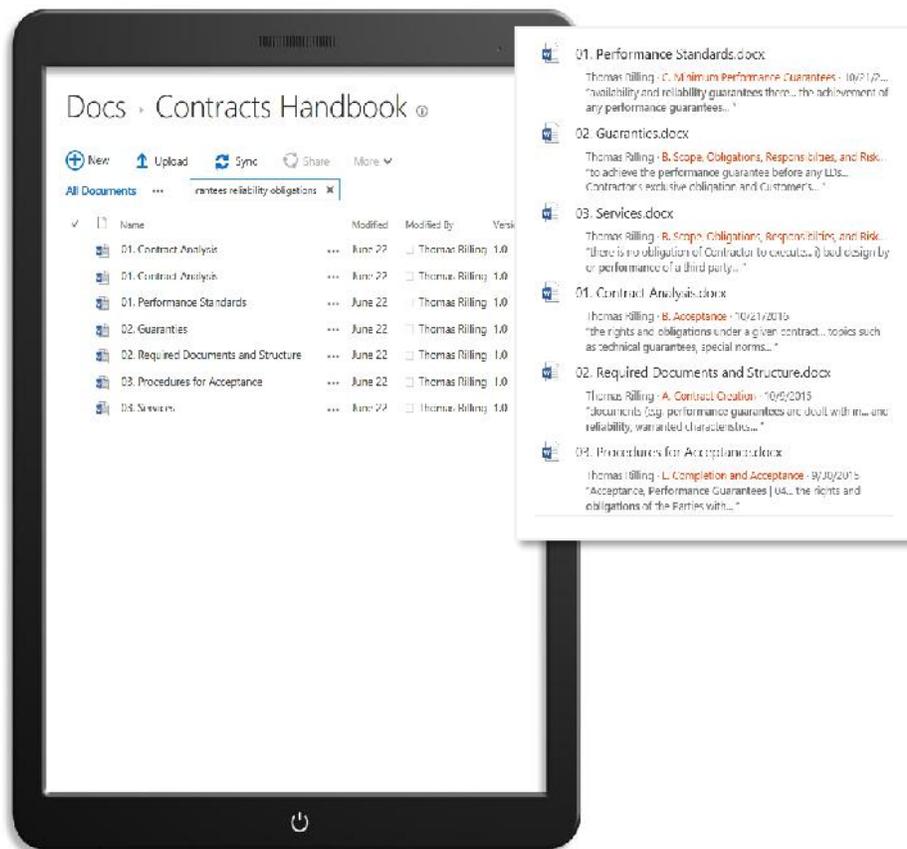
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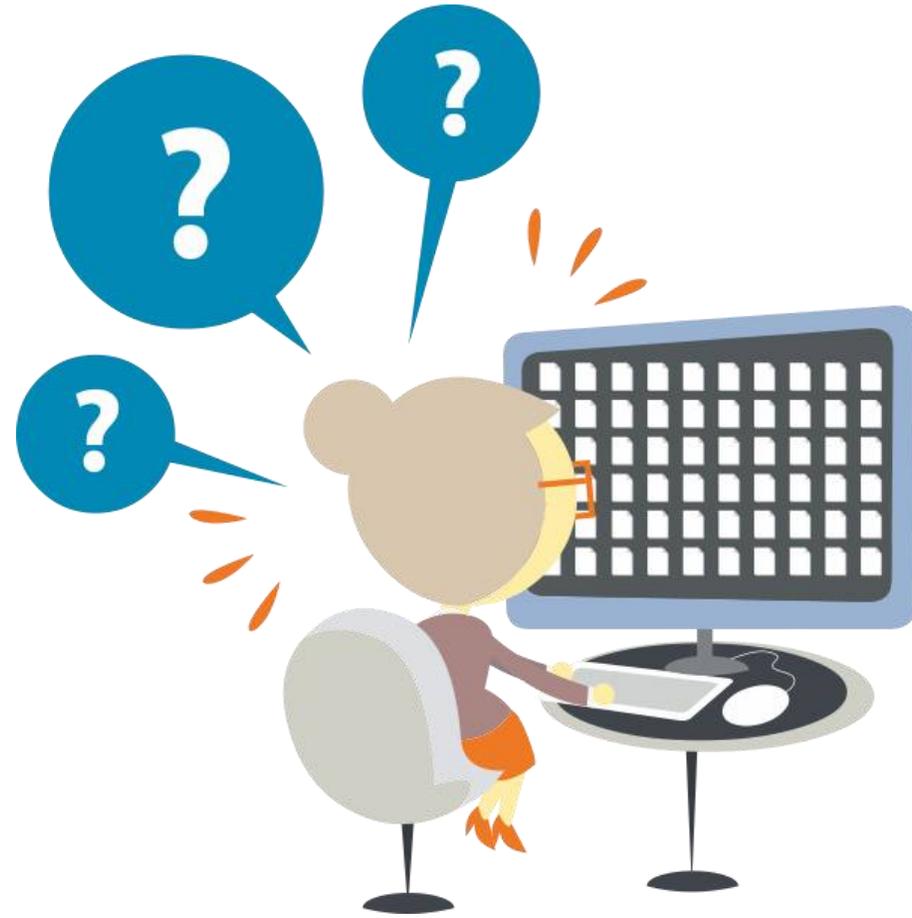
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Wie sieht Wissensfindung heute aus?

- Interne Richtlinien
- Interne Ausführungsbestimmungen
- Länderspezifische Richtlinien
- Industrienormen
- EU-Richtlinien
- ISO-Normen
- Alles wird ständig aktualisiert
- Suchmaschinen finden 1.000 Dokumente
- Endbenutzer brauchen Wissen
- Das Wissen - nicht die Dokumente – muss irgendwie “zusammenfließen”
- Ansonsten...



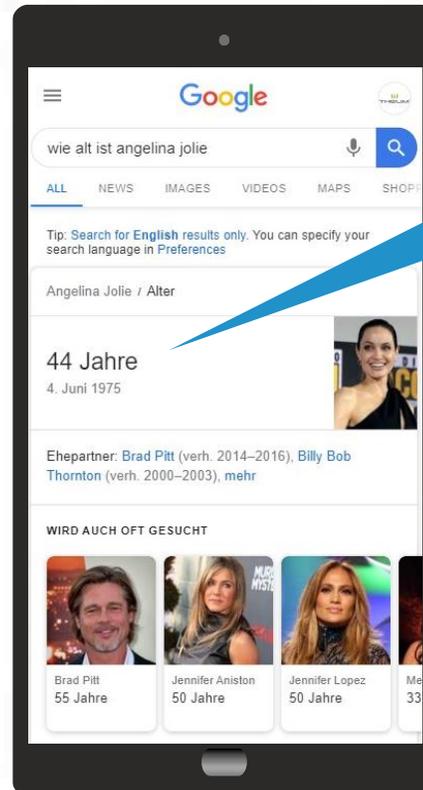


Das Wissen, das wir meistens brauchen,
befindet sich nicht mehr in einem Dokument.

Wie sehen die Anforderungen der Zukunft aus?

Datenbanken sind einfach

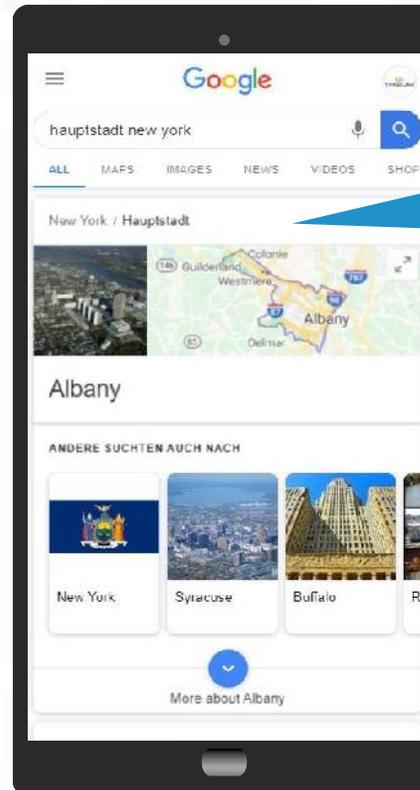
Liebe Suchmaschine,
Wie alt ist Angeline Jolie?



"44 Jahre"

Strukturiertes Wissen ist einfach

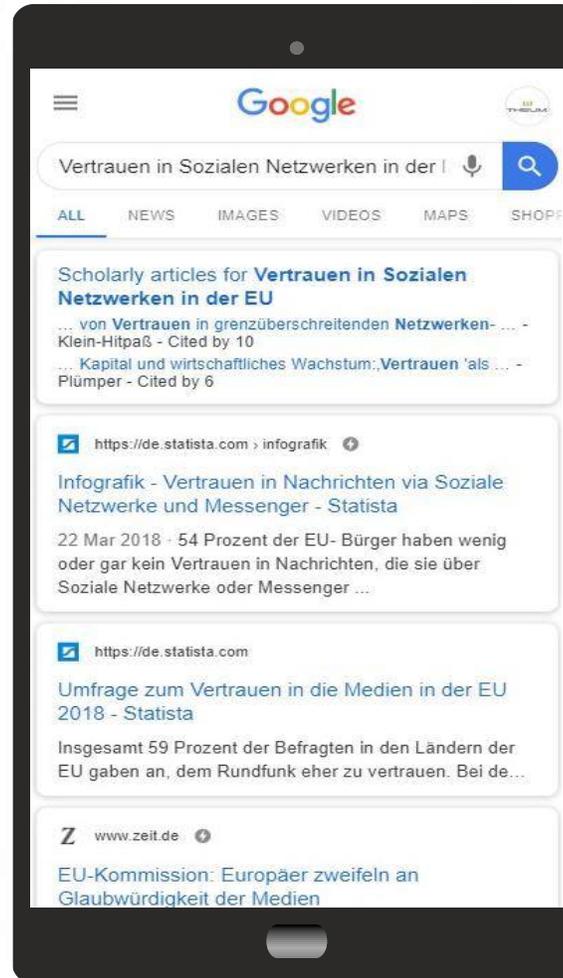
Liebe Suchmaschine,
Was ist die Hauptstadt von New York?



"Albany"
Link zu Karte
Link zur Wikipedia
Exzerpt von Website mit
Markup

Dokumentbasiertes Wissen ist eine Herausforderung

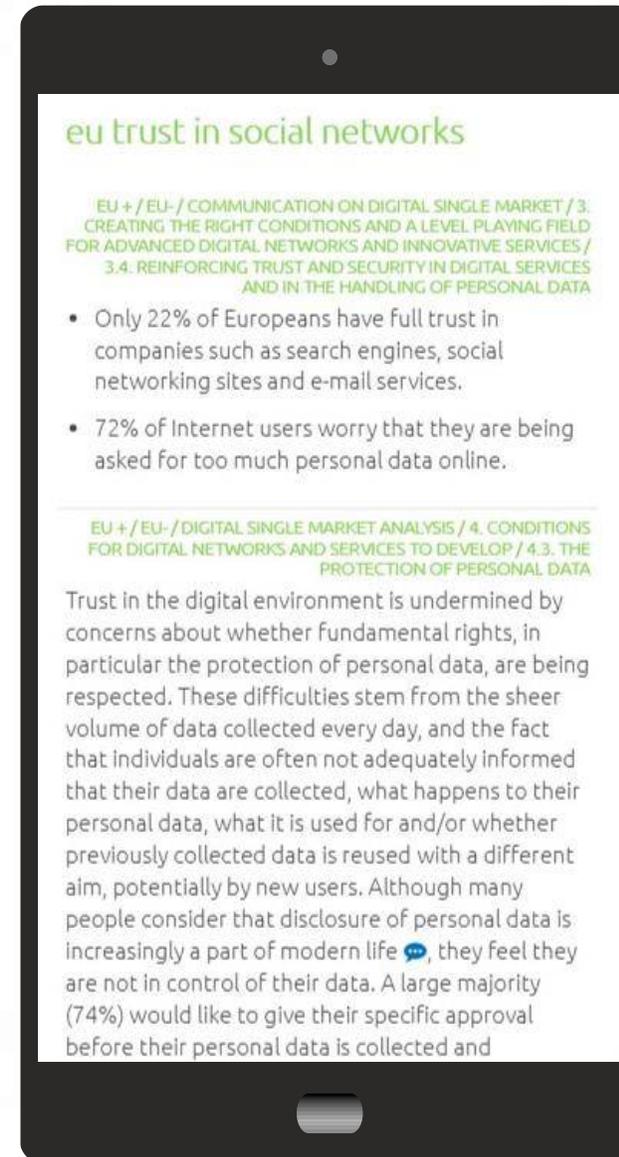
Liebe Suchmaschine,
Sag mir etwas über Vertrauen in
Sozialen Netzwerken in der EU.



Was Benutzer brauchen und wollen

Liebe Wissensexperte,
Sag mir etwas über Vertrauen in
Sozialen Netzwerken in der EU.

Hey Google, Alexa, Siri,
Sag mir etwas über Vertrauen in
Sozialen Netzwerken in der EU.



Only 22% of Europeans have full trust in companies such as search engines, social networking sites and e-mail services.

72% of Internet users worry that they are being asked for too much personal data online.

Trust in the digital environment is undermined by concerns about whether fundamental rights, in particular the protection of personal data, are being respected. These difficulties stem from the sheer volume of data collected every day, and the fact that individuals are often not adequately informed that their data are collected, what happens to their personal data, what it is used for and/or whether previously collected data is reused with ...

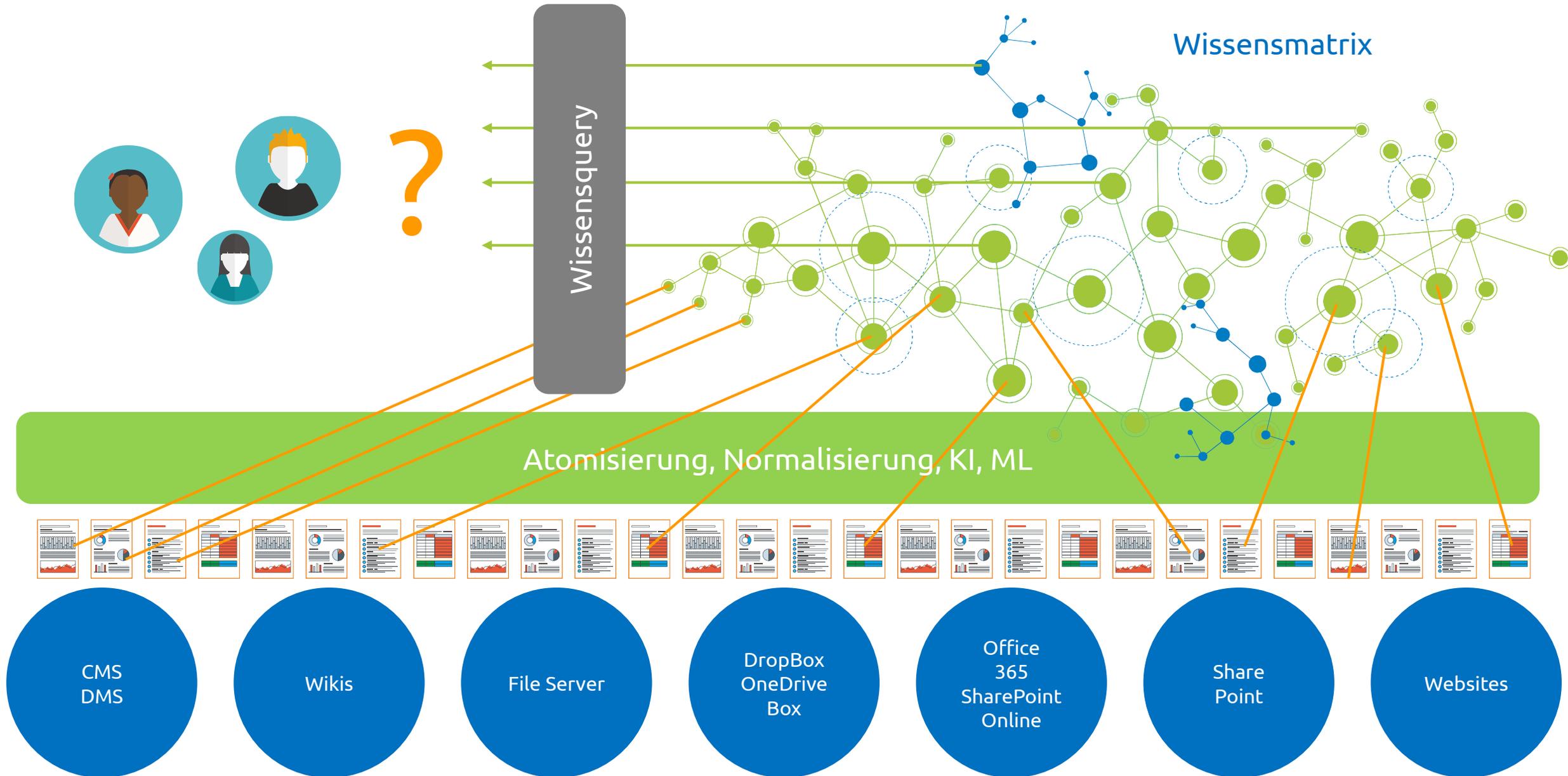
Anforderungen der Zukunft

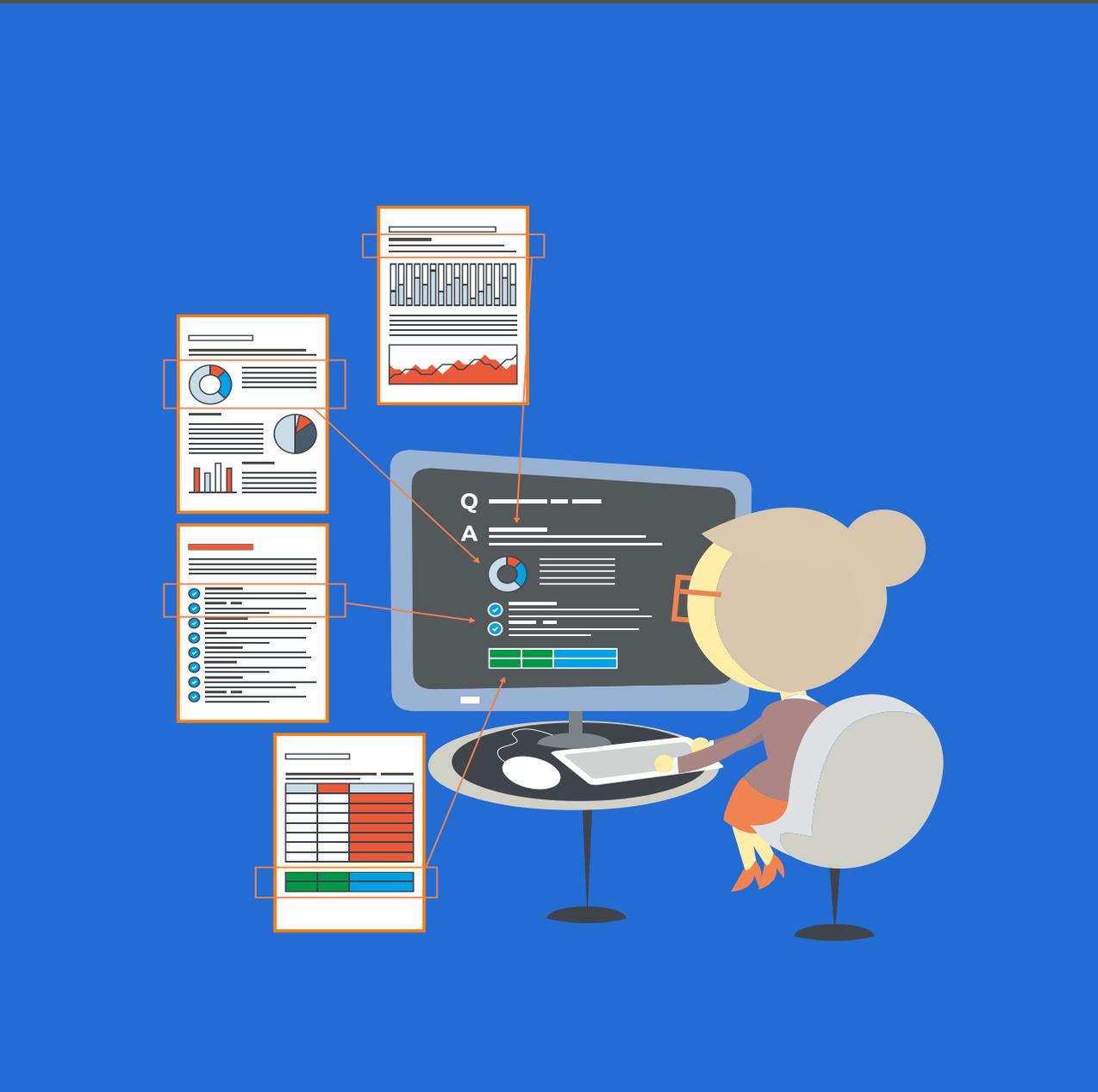
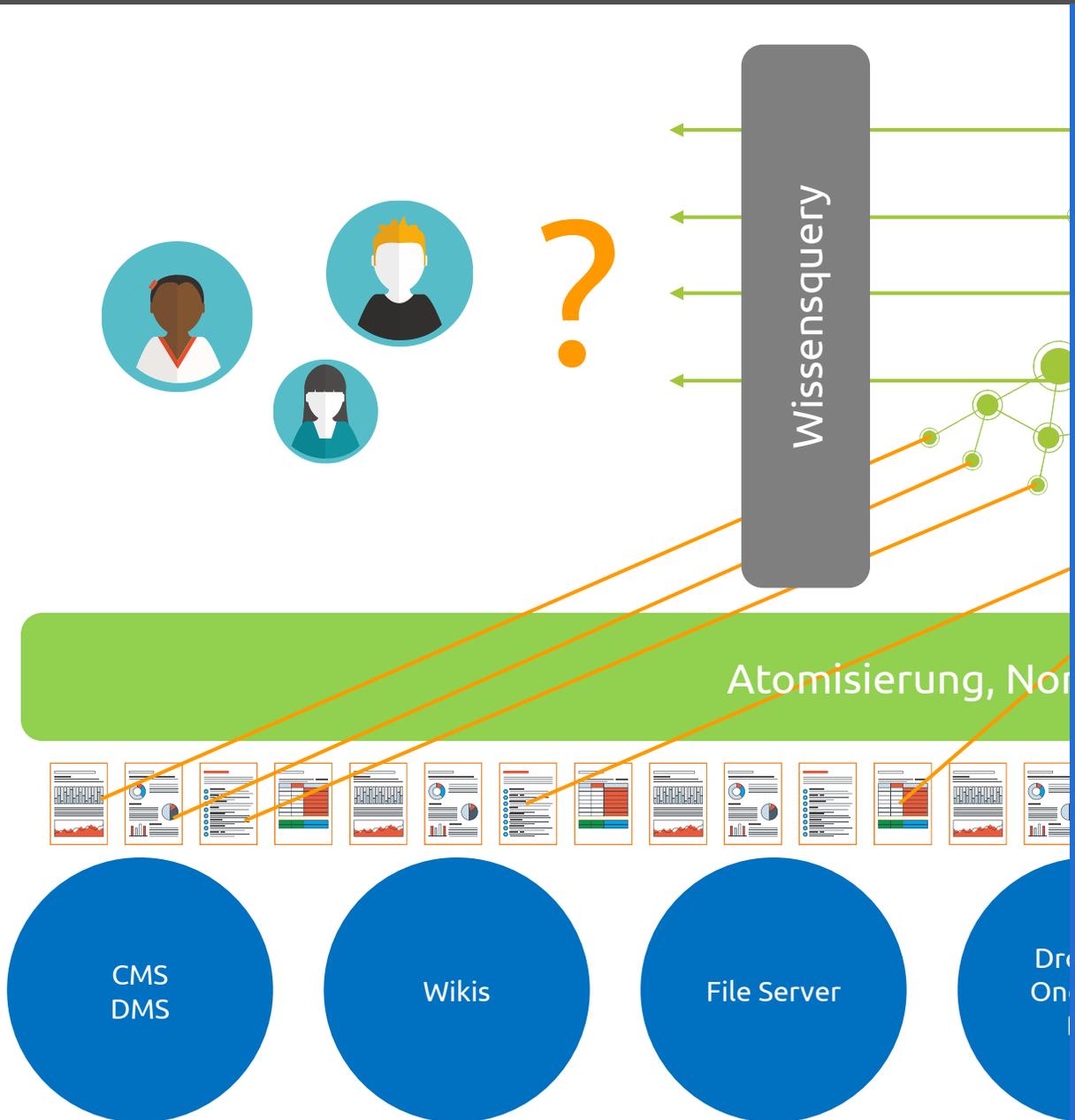
- „Antworten On Demand“
- Zugreifbares Wissen für jeden Zweck (Daten, nicht Dokumente)
 - Mensch, Gerät, Anwendung, System (Apps, Brille, Robot, PA)
- Schnellkombinierbares Wissen für jeden Kontext

Grundlagen

- Dokumente sind der beste Weg, um Wissen zu erfassen (narrativ)
- Dokumente sind ein schlechter Weg, um **Wissen** verfügbar zu machen
- Die “Antworten”, die wir heute brauchen, befinden sich nicht mehr in nur einem Dokument
- Wissen muss wie Datenbanken - und Big Data - funktionieren
- Suchmaschinen sind ein guter Weg, um Dokumente zu finden
 - KI einzusetzen, um Dokumente zu finden, ist richtig
- Suchmaschinen sind ein schlechter Weg, um Wissen zu finden, weil sie die ganze Arbeit dem Benutzer überlassen
 - KI einzusetzen, um Dokumente zu finden, ist gar nicht zukunfts führend!

Disruption: Die Zukunft ist “atomic”





Das Wissen muss sehr intelligent sein, damit die Systeme, Geräte, Chatbots und Menschen am Frontend sehr dumm sein können.

Heute haben wir genau das Gegenteil.

Der Trick:
Die KI benutzen nicht um Dokumente oder Wissen zu finden,
sondern um das Wissen mit Intelligenz zu bereichern.

Wissenszugriff mit KI und atomischem Wissen

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2. GUIDELINES AND REQUIREMENTS / 2-GUIDELINES-AND-REQUIREMENTS / B. SCOPE, OBLIGATIONS, RESPONSIBILITIES, AND RISKS / 03 SERVICES / 4.3 CRITICAL ISSUES WHILE STRUCTURING OR DRAFTING / 4.3.2 SCHEDULE OBLIGATIONS AND SPECIFIC TYPES OF GUARANTEES / 4.3.2.2 CLEARLY DEFINE ANY PERFORMANCE GUARANTEES OF THE PLANT/SYSTEM

- the performance parameter is worded as an "obligation" or "warranty"
- the obligation accepted by Contractor is clearly defined (e.g. content, prerequisites, conditions)
- only circumstances under the control of Contractor shall be relevant for the achievement of the performance guarantees (e.g. customer's failure to perform its contractual obligations should not count as any non-availability for which Contractor bears responsibility)
- the performance guarantee ceases in case the Customer performs services by himself or disregards Customer's obligations under the contract (e.g. OEM recommendations) and
- the underlying performance formulas are mathematically correct and avoid double penalization of a single event (e.g. liquidated damages payable under non-achieving of availability and under delay at the same time).

2. GUIDELINES AND REQUIREMENTS / 2-GUIDELINES-AND-REQUIREMENTS / B. SCOPE, OBLIGATIONS, RESPONSIBILITIES, AND RISKS / 03 SERVICES / 4.2 ASSESSING THE RISK / 4.2.2 WHAT DO WE WANT TO ACHIEVE? / 4.2.2.4 PERFORMANCE GUARANTEES FOR THE PLANT/SYSTEM (E.G. AVAILABILITY OBLIGATION) ONLY WITHIN A LONG TERM SERVICE CONTRACT

Aim for	Avoid
<ul style="list-style-type: none"> • clear definition of any performance guarantees (including conditions, limitations and consequences) • only circumstances under Customer's control are relevant for the achievement of performance guarantees • the same conditions, limitations and Customer obligations as in the service scope apply • ceasing of performance guarantees in case the Customer performs services by himself or disregards Customer's obligations under the contract (e.g. OEM recommendations) • liquidated damages as sole and exclusive (financial) remedy for failing to meet a performance guarantee • Contractor has the right to performance related bonuses if Contractor exceeds its performance guarantees. 	<ul style="list-style-type: none"> • Availability / reliability guarantees without a concurrent long term service contract • "make good" or "must fix" performance obligations • Liability in case of alteration of the service object • Liability for failure to achieve guaranteed performance values when the failure was not caused by the fault (negligence / intentional act) of Contractor • double penalties for one single event on different grounds (e.g. availability and delay) • the term "guarantee", esp. in contracts subject to German law

Zukunftsführende Technologien

Wissenserfassung

- Gut
 - Microsoft Office
 - Wikis via SharePoint-Teams und Confluence
- Schlecht
 - XML
 - SGML

Wissenszugriff

- Gut
 - Für Akte/Dokumente
 - Dokumentorientierte Technologien (Suchmaschinen)
 - Für Wissen
 - Wissensorientierte Technologien **Disruption!**
 - Datenbanken (strukturiert)
- Warning Signs – Unskalierbare Lösungen
 - Endbenutzern werden Authoringformate geliefert
 - Endbenutzer müssen immer wieder Anwendungen starten
 - Endbenutzer müssen Authoringumgebungen (CMS, DMS, usw) betreten
 - Endbenutzer schwimmen in PDFs
 - Endbenutzer schwimmen in PDFs auf mobilen Geräten

Wie man sich zukunftssicher ausrüstet: Strategische Tipps

- Authoring Umgebungen dürfen heterogen sein
 - Benutzerskills, kein Training, Legacy Wissen
 - Es geht um Agilität!
- Authoring Umgebungen sollten easy sein
 - Keine komplizierte Anwendungen oder Prozesse
 - Kein Training, der mehr als eine "Story" benötigt
- Den Aufbau erforderlicher Expertise vermeiden
 - Zugriff muss extrem einfach sein
 - Verwaltung
 - Unterstützung
- Wählen Sie nur Systeme aus, die interne Prozesse reduzieren – und keine Arbeit auf Endbenutzer überträgt
- Stellen Sie sicher, dass Authoring-Prozesse von Consumer-Prozessen getrennt sind
 - Authoringformate sollten transformierbar sein
- Verbraucher sollten nicht auf Quelldokumente zugreifen, sondern auf Wissen
 - Nur Dokumente liefern, wenn Dokumente gewollt sind
- Fokus nicht auf Technologie, sondern auf Qualität und Vollständigkeit von „Geschichten“
- Und zuletzt...

- PROJECT CONSULT
- REPORTS AND WHITE PAPERS
- SALES
- SALES UND MARKETING TECHNIKEN
- SIEMENS
- SIEMENS
- SLIDES
- SOCIAL NETWORKS
- TELEKOM KRL
- TEMPLATES
- THEMEN
- THEUM
- THEUM AG CONTRACTS HANDBOOK**
 - 1. BASICS
 - 2. GUIDELINES AND REQUIREMENTS
 - 3. RISK MANAGEMENT
 - 4. CONTRACT EXECUTION
 - 5. CONTRACT COMPLETION AND CLOSURE
- THEUM AG CONTRACTS HANDBOOK +
- THEUM INTERESSENTEN BUCH
- THEUM QUICKSTART
- THEUM SALES SUPPORT MATERIALS
- THEUM TRAININGS
- THEUM UNTERNEHMEN
- THEUM VIDEOS
- US CDC
- V-MODELL
- WACKER
- WEBSITE CONTENT AND MATERIALS
- WINKLER
- +

Wissen liefern.
 Heute!

performance guarantees Availability and Reliability

2. GUIDELINES AND REQUIREMENTS / 2-GUIDELINES-AND-REQUIREMENTS / B. SCOPE, OBLIGATIONS, RESPONSIBILITIES, AND RISKS / 03 SERVICES / 4.3 CRITICAL ISSUES WHILE STRUCTURING OR DRAFTING / 4.3.2 SCHEDULE OBLIGATIONS AND SPECIFIC TYPES OF GUARANTEES / 4.3.2.2 CLEARLY DEFINE ANY PERFORMANCE GUARANTEES OF THE PLANT/SYSTEM

Any performance guarantees (e.g. availability / reliability obligations) should further be drafted in a way that

2. GUIDELINES AND REQUIREMENTS / 2-GUIDELINES-AND-REQUIREMENTS / C. MINIMUM PERFORMANCE GUARANTEES / 01 PERFORMANCE STANDARDS / 1.1 INTRODUCTION/DEFINITION/CONCEPT / 1.1.3 PERFORMANCE PARAMETERS

Other technical performance parameters such as availability of a plant (taking account any planned maintenance outages which automatically reduce availability) and reliability (which is by definition not affected by planned maintenance outages) have to be measured over a defined period of time after Provisional Acceptance and may become relevant for final acceptance. For availability and reliability guarantees there is usually a regime of performance liquidated damages to be paid for any shortfall in the guaranteed availability/reliability values. It may be advisable to grant availability and/or reliability guarantees only in connection with a service or maintenance contract.

2. GUIDELINES AND REQUIREMENTS / 2-GUIDELINES-AND-REQUIREMENTS / B. SCOPE, OBLIGATIONS, RESPONSIBILITIES, AND RISKS / 03 SERVICES / 4.2 ASSESSING THE RISK / 4.2.2 WHAT DO WE WANT TO ACHIEVE? / 4.2.2.4 PERFORMANCE GUARANTEES FOR THE PLANT/SYSTEM (E.G. AVAILABILITY OBLIGATION) ONLY WITHIN A LONG TERM SERVICE CONTRACT

Our principle aim is to avoid performance guarantees (e.g. availability / reliability obligations). In any case, performance warranties shall not be agreed without a concurrent long term service contract.

2. GUIDELINES AND REQUIREMENTS / 2-GUIDELINES-AND-REQUIREMENTS / B. SCOPE, OBLIGATIONS, RESPONSIBILITIES, AND RISKS / 03 SERVICES / 4.3 CRITICAL ISSUES WHILE STRUCTURING OR DRAFTING / 4.3.1 CLEARLY DEFINE SCOPE AND ITS LIMITS / 4.3.1.6 CONDITIONS TO WARRANTY/SCOPE OBLIGATIONS

If the Contractor is to bear the costs associated with repair or replacement of wear-and-tear-parts such obligation should only be agreed if based on certain assumptions or conditions. This also applies for taking on performance guarantees, such as availability or reliability guarantees, when Contractor is liable in case of under-performance of the plant or equipment.

2. GUIDELINES AND REQUIREMENTS / 2-GUIDELINES-AND-REQUIREMENTS / B. SCOPE, OBLIGATIONS, RESPONSIBILITIES, AND RISKS / 02 GUARANTIES / 2.2 ASSESSING THE RISK

Aim for	Avoid
<ul style="list-style-type: none"> Low technical risk. Sufficient tolerances for technical parameters. A sufficient grace or cure period so that Contractor has some additional time to achieve the performance guarantee before any LDs are assessed. An aggregate sub cap for liquidated damages/penalties ("LDs") with regard to performance guarantees. Capped liquidated damages as the sole and exclusive [financial] remedy for failing to meet a performance guarantee. 	<ul style="list-style-type: none"> Guarantees regarding availability or reliability (other than short-term demonstration runs) without a long term contract that runs concurrently. Guarantees regarding availability/reliability/maintainability/life cycle costs ("LCC") also for instances of damage/losses caused by the Customer or third parties. Guarantees containing unfounded or vague promises. Liability for failure to achieve guaranteed performance values when the failure was not caused by the fault (negligence/intentional act) of Contractor.

