

# Digitale Transformation in der Laborpraxis

Vorstellung einer Referenzstandardmanagement-Software und eines  
SOP-Generators auf Grundlage der anyRM-Technologieplattform

# Fertiglösungen



# Insellösungen

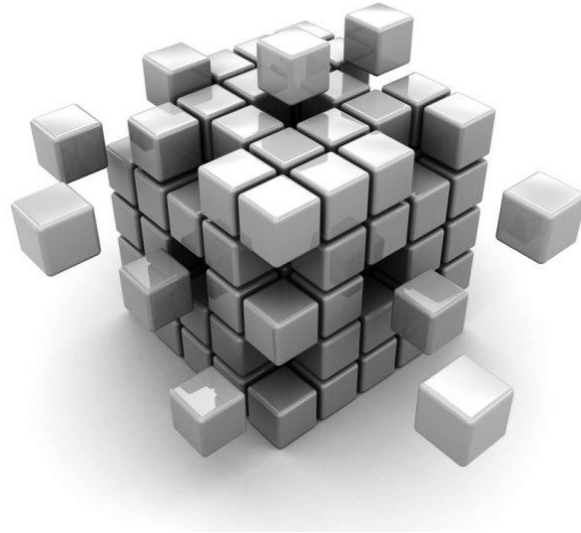


# Maßgeschneidert



# Extended-Relationship-Management-Lösungen

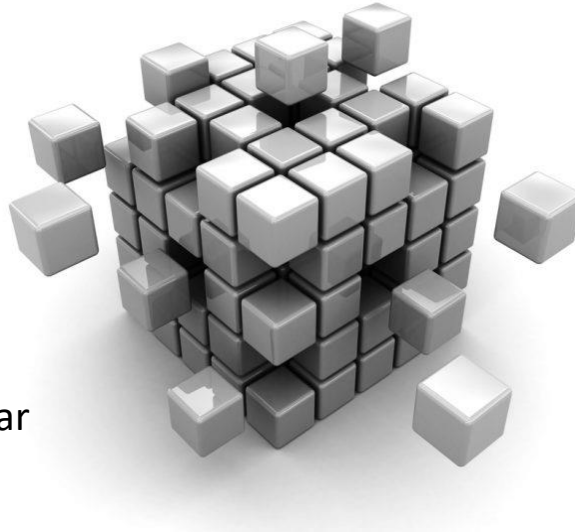
## - XRM -



# XRM-Systeme

## Vorteile

- Abbildung komplexer Prozess- und Berechtigungsstrukturen
- Transparenter Systemaufbau
- Modulare Struktur
- Mit Drittsystemen kombinierbar
- Einfache Anpassung

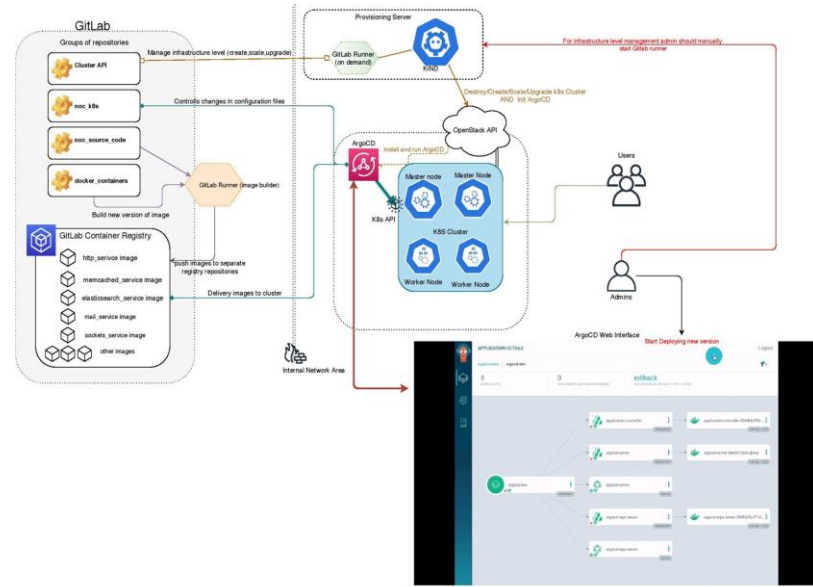


## Nachteil

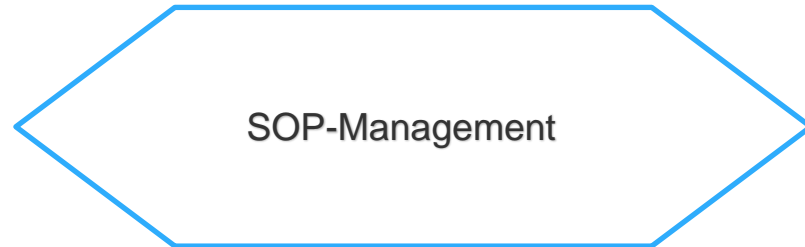
- Anfangs erhöhter Kommunikations- und Konfigurationsaufwand

# Technische Grundlagen & Sicherheit


- Cloud-Service oder On-Premise Installation
- Aktualisierungen & umfangreicher Support (inkl. on-premise Betrieb) durch unser Team in Berlin
- Aktuelle Sicherheitstechnologien & -konzepte wie
  - Zwei-Faktor-Authentifizierung (2FA)
  - Verschlüsselte Datenbank und Datenübertragung
- Individuelle Backup-Konzepte
- Ausfallsichere Bereitstellung auf Kubernetes-Basis
- Option zur Softwarevalidierung mit umfangreicher Dokumentation von Aktualisierungen



# 2 Referenzen für XRM-Lösung





**PiCA** 🔔  Admin Schumacher ▾

☰ Dashboard

### Pure substances flow

Description

Sunt cillum eu deserunt incididunt mollit culpa adipiscing enim eiusmod sunt labore

[Enter data](#) [Manufacture flow](#) [View existing records](#)

### Stock Solutions Flow

Description

Sunt cillum eu deserunt incididunt mollit culpa adipiscing enim eiusmod sunt labore

[Enter data](#) [Manufacture flow](#) [View existing records](#)

### Mixtures Flo

Description

Sunt cillum eu deserunt incididunt mollit culpa adipiscing enim eiusmod sunt labore

[Enter data](#) [Manufacture flow](#) [View existing records](#)

### Audit trail

[Notification name](#)  
Date

[Notification name](#)  
Date

[Notification name](#)  
Date

[Notification name](#)  
Date

[Notification name](#)  
Date

[more>>](#)

### Arhive Protocols Data

[Protocol name](#)  
Autor, date

[Protocol name](#)  
Autor, date

[Protocol name](#)  
Autor, date

[Protocol name](#)  
Autor, date

[Protocol name](#)  
Autor, date

[more>>](#)

**Stock solution manufactured flow**

Step 1: **Enter data**

Select pure substance \*      Target concentration in mixture (mg/ml) \*

enter      enter

Select solvent \*

enter


CAS number

enter

Order number

enter

Volume of the stock solution (g) \*      Durability \*      Volume of the empty tube (ml) \*

enter      enter       87

Storage conditions \*

select

Location \*

select

Room \*

select

Certification info

Substance has certificate

Select or drop attachment file here



Next

Flow steps ✕ Cancel

- 1 Enter data
- 2 Collect tubes
- 3 Verify the income amount of the pure substance
- 4 Weigh an empty tube
- 5 Select an order of components for mixing
- 6 Put and weight substance
- 7 Put a solvent amount into the tube.
- 8 Assign system data for the for the stock solution ID
- 9 Weight back the pure substance left amount
- 10 View protocol

Note

**PiCA**


 Admin Schumacher
 ⌵

☰ Stock solution manufactured flow

Stock solution manufactured flow

Step 2: **Collect tubes**

	Name	Location	Tube ID	Netto weight	Batch	Exp.date
<input checked="" type="checkbox"/>	Name here	Raum E465 im Kühlschrank 123 und/oder Tiefkühler 456	R-456675	27.8 g	AR45	15 Nov 2021
<input type="checkbox"/>	Name here	Raum E465 im Kühlschrank 123 und/oder Tiefkühler 456	R-456675	27.8 g	R56	09 Mar 2021
<input checked="" type="checkbox"/>	Name here	Raum E465 im Kühlschrank 123 und/oder Tiefkühler 456	R-456675	27.8 g	AR45	08 Nov 2021
<input type="checkbox"/>	Name here	Raum E465 im Kühlschrank 123 und/oder Tiefkühler 456	R-456675	27.8 g	H678	06 Oct 2021
<input type="checkbox"/>	Name here	Raum E465 im Kühlschrank 123 und/oder Tiefkühler 456	R-456675	27.8 g	R56	07 Nov 2021
<input type="checkbox"/>	Name here	Raum E465 im Kühlschrank 123 und/oder Tiefkühler 456	R-456675	27.8 g	Y678	15 Aug 2021

> Select

Flow steps
✕ Cancel

- 1
**Enter data**  
 stock solution : Name  
 Target, concentration. Value  
[see more](#)
- 2
**Collect tubes**
- 3
**Verify the income amount of the pure substance**
- 4
**Weigh an empty tube**
- 5
**Select an order of components for mixing**
- 6
**Put and weight substance**
- 7
**Put a solvent amount into the tube.**
- 8
**Assign system data for the for the stock solution ID**
- 9
**Weight back the pure substance left amount**
- 10
**View protocol**  
 Note

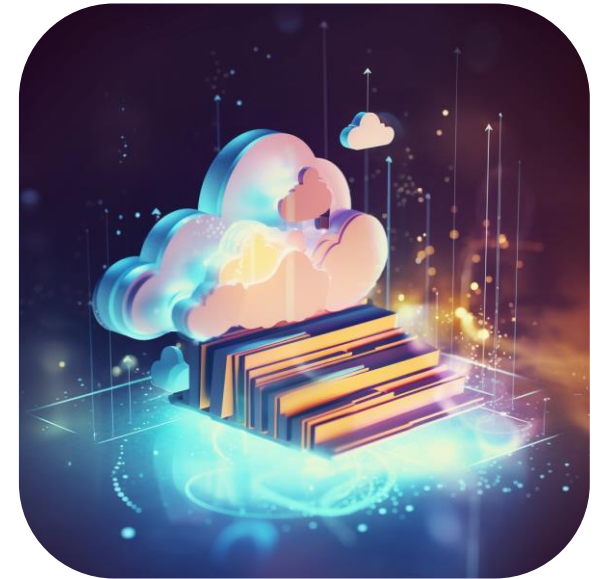
# CSMI – Vorteile 1/4



1. Volldigitalisierung der Verwaltung von Referenzstandards.
2. Skalierbares Dokumentenmanagement:
  - Zertifikate für Reinsubstanzen
  - alle Daten zu Stammlösungen oder Mischungen

# CSMI – Vorteile 2/4

3. Automatisierbare Einarbeitung von Mitarbeitenden und Kompetenzbestätigung.
4. Freigabe wird digital dokumentiert und entspricht den Qualitätsanforderungen (DAkkS, GMP etc.).
  - Option zur Softwarevalidierung
5. Monitoring verbleibender Substanzmengen



# CSMI – Vorteile 3/4

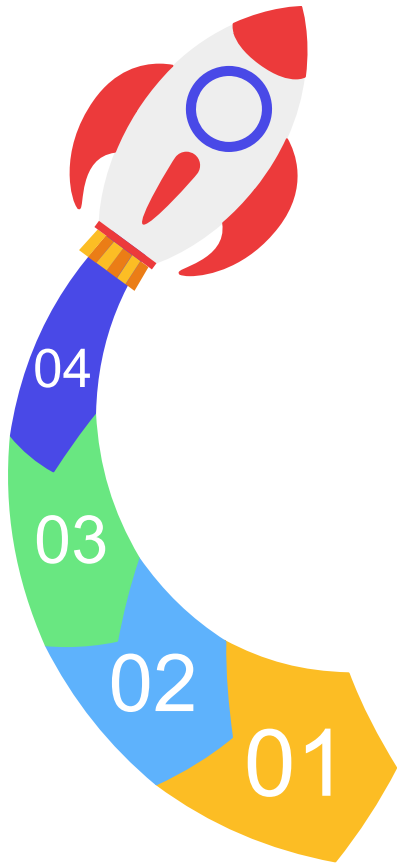


6. Volldigitalisiertes Management der Erstellung von Substanzmischungen in sämtlichen Konzentrationsbereichen.
7. Intelligenter Algorithmus der Prozessführung zur Vermeidung unzulässiger Substanzkombinationen oder ungeeigneter Volumina und Gefäße.

# CSMI – Vorteile 4/4

8. Automatische Erkennung und Warnung bei nicht miteinander mischbaren Lösungsmitteln und Alternativvorschläge.
9. Offene Schnittstellen zu diversen Geräten (Robotersystemen) sowie Software.





## Abnahme

Setup und Start des Systems

## Konfiguration

10 – 20 % Anpassungen und Konfiguration (1 - 3 Monate)

## Anforderung

Abgleich der Anforderungen mit Referenzsystem

## Referenzsystem

80 – 90 % Ready2Use  
(Optional) Prozess- und Digitalisierungsscheck

# Implementierung



# Kurze Fragen

# Cooperation between digital startup Kemialytics and Pfizer: The SOP generator as a solution to the problem with SOPs

The Berlin-based startup Kemialytics has developed an approach to optimize the creation and maintenance of standard operating procedures (SOPs), with the ambitious goal of generating SOPs in a fully automated

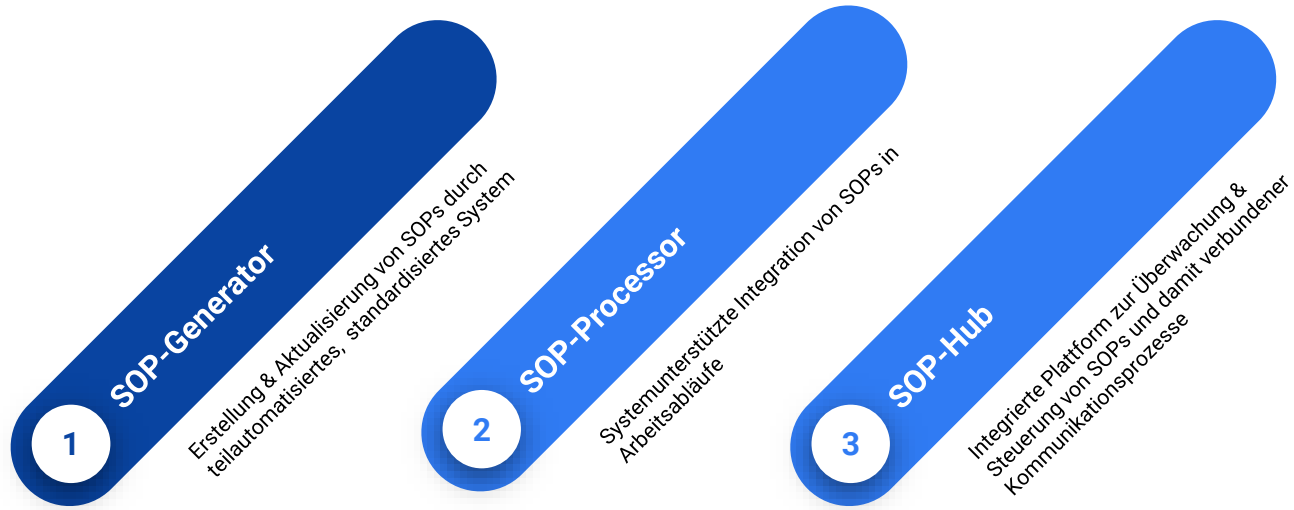
# SOP-Generator

The screenshot displays the SOP-Generator web application interface. At the top left, there is a placeholder for "Your Logo Here". The main navigation bar includes "Network", a search bar, a notification bell with a red "6", and a user profile for "Editor Admin". A left sidebar contains navigation options: Dashboard, Chat, Discussions (highlighted), Profiles, Tasks, Notes, Dates, Scheduling, Groups, News, Files, and Support. The main content area shows a document titled "SOP - 0987" with a status of "Editing in progress" by "Eric Thompson". Below this, a section titled "4. Workflow" is shown, with a sub-section "4.1 Method" that is also "Editing in progress" by "Editor name 2" and is set to "To be approved". The "Method" section contains a description with placeholder text, a bulleted list, and a paragraph. Below it is section "4.2 Result", also "Editing in progress" by "Editor name 2" and set to "To be approved". A right sidebar shows a "Comments" section with a search bar and a list of comments, including workflow and method-related entries with user names and timestamps.

# SOP-Generator

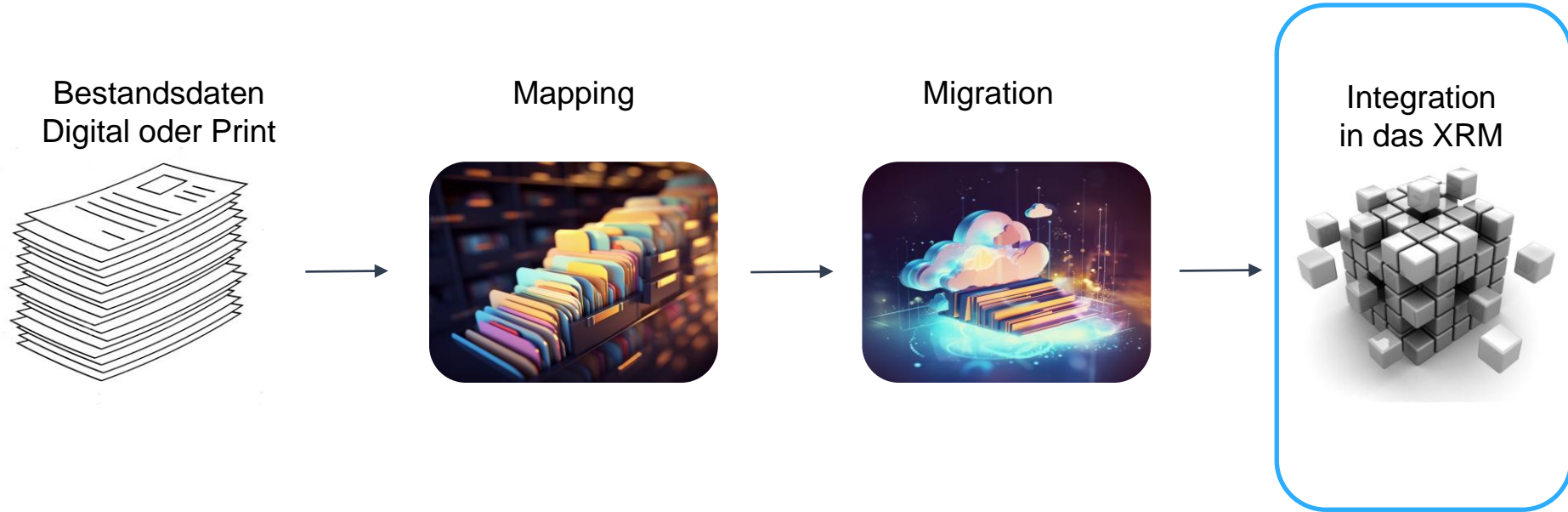
The screenshot displays the SOP-Generator web application interface. At the top left, there is a placeholder for a logo labeled "Your Logo Here". The navigation bar includes a "Network" tab, a search bar, a notification bell with a red "6", and a user profile for "Editor Admin". The main content area is titled "SOP - 0987" and shows the document's status as "Editing in progress" by "Eric Thompson". Below this, the "5. Attachments" section is visible, featuring three empty attachment slots with "Name" and "File type" fields. A note indicates that files can be attached in PDF, Word, or JPEG formats. At the bottom of the attachments section is a blue "Add" button. On the right side, an "Outline" panel lists the document's sections: 1. General, 3. Definitions & Abbreviations, 4. Workflow (with sub-items 4.1 Method 1 and 4.2 Result), 5. Attachments (highlighted), 6. Questions, and 7. Geltungsbereich. A dark sidebar on the left contains navigation icons for Dashboard, Chat, Discussions, Profiles, Tasks, Notes, Dates, Scheduling, Groups, News, Files, and Support.

# SOP-Generator & Managementsystem

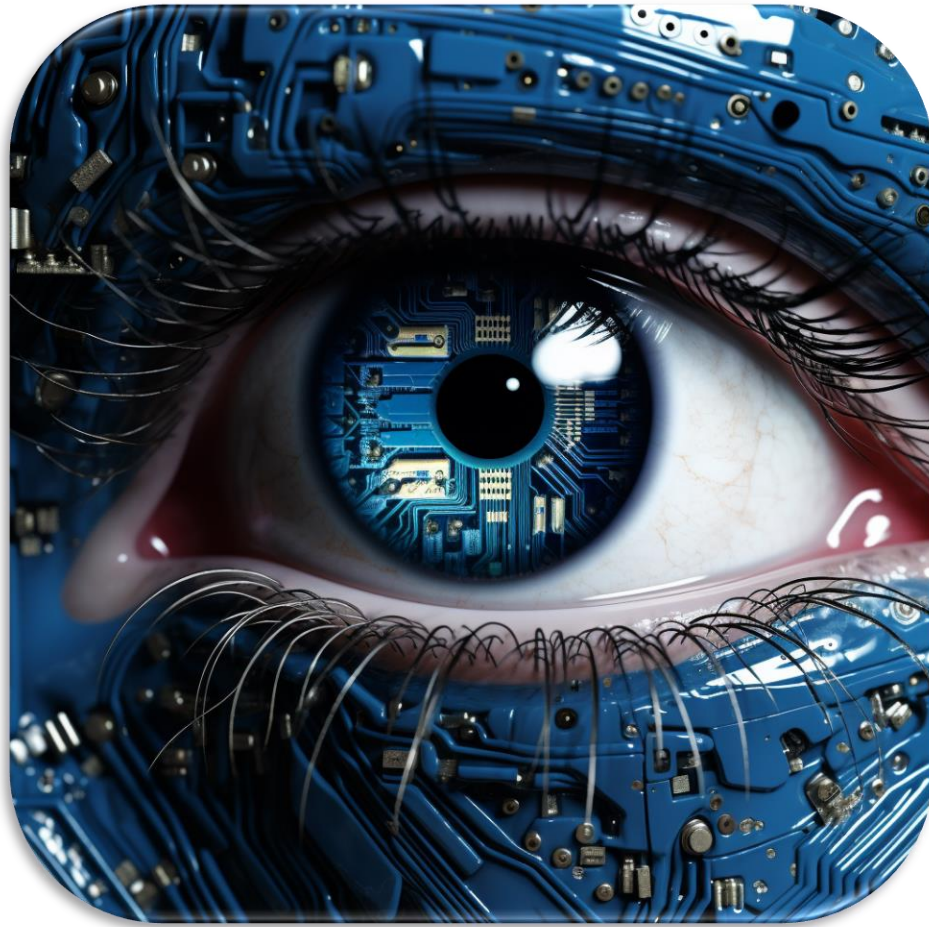


Die Module ergeben gemeinsam ein SOP-Management System mit Schnittstellenoptionen zu internen Systemen. Der Einsatz des SOP-Generators ist die Basis für eine effiziente Nutzung der Gesamtlösung.

# Intelligente Migration von Bestandsdaten



What's next?



# Software für regulatorisch anspruchsvolle Umgebungen



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# anyRM



Zertifiziert



Geplant für Q2/2024