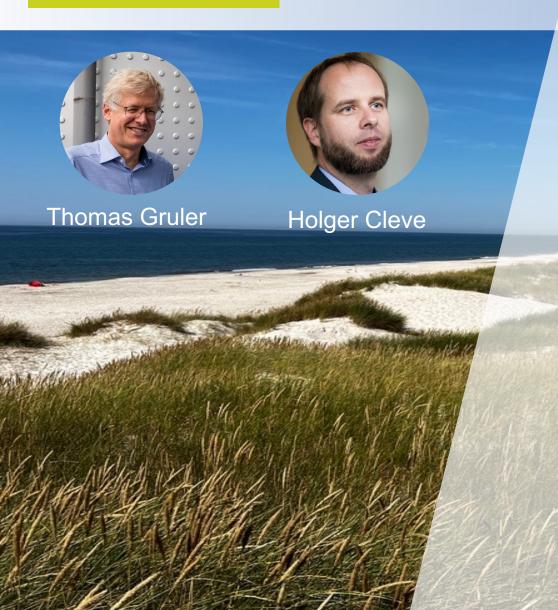
### We are Gruler & Cleve



- Founded in 2009 by Thomas Gruler & Holger Cleve
- More than 20 permanent Developers and Consultants
- Large network of freelance SAP specialists
- Fields of work: Waste Management, Urban Drainage,
   Public Administration, Real Estate Management
- Office locations: Munich, Kiel & Goettingen

### What defines us

- > Consulting, Customizing & Development <
- Over 15 years of SAP experience
- More than 350 projects in the SAP environment
- More than 250 projects in the waste disposal industry
- Quality assurance through continuous certification of our employees

SAP Modules and components, we are specialised in:

IS-WA FI SD MM
CS PM SRM CO
UI5 BTP SAP Build



#### Main Fokus Areas

- Utilities: Waste & Recycling
- SAP S/4HANA (brownfield and greenfield approach)
- Public Sector Collection and Disbursement (PSCD)
- Customer portals, customer management & interaction center
- Customer contact, request and complaint management
- Customer-vendor integration (CVI)
- CO2 levy on the basis of the BEHG using customer-specific SD characteristics
- Optimization and automation of commercial and logistical processes (e.g. automation of SAP container location management, fee assessment, warehouse management app)
- ABAP, ABAP OO, Web Dynpro
- Forms (migration from SAP Script and Smart Forms to Adobe Forms)



#### Main Fokus Areas

- Development and application of flexible data transfer tools for interfaces and migrations, including comprehensive monitoring
- SAP Fiori, SAP UI5, CDS-Views (Core Data Services)
- SAP Business Technology Platform (SAP BTP), Mobile Services, SAP Build Apps, SAP Robotic Process Automation (SAP RPA), SAP Build Work Zone
- DriverApps based on the BTP and the SAP BTP SDK for Android
- Interfaces between SAP and non-SAP systems using all common SAP formats (including SOAP, REST and ODATA)
- SAP S/4HANA Embedded Analytics for the provision of apps, tools and services for rapid data analysis in companies
- Sensor technology for asset tracking and fill levels
- Strategic AI consulting on use cases, implementation and rollout



# Additional qualifications in the SAP environment

- "SAP Certified Development Specialist ABAP for SAP HANA" certification exam E\_HANAAW\_17 (3 and more employees)
- Profound knowledge in the extension and development of FIORI or UI5 applications (5 and more employees)
- Consulting and development expertise in the area of SAP Waste & Recycling (10 and more employees)
- Introduction and development of SAP Business Technology Platform, SAP Mobile Services, SAP Build Work Zone, SAP Build Apps and SAP Robotic Process Automation (3 and more employees)
- Introduction and development of SAP S/4HANA in the brownfield and greenfield approach (7 and more employees)
- Introduction and further development of mobile applications with access to data from SAP systems (7 and more employees)
- In-depth knowledge of SAP Adobe Forms, PSCD, SAP Workflow, data migration, customer management, CIC, SAP Folders

  Management and SAP Embedded Analytics (5 and more employees)



### Reference Projects

### **S/4HANA Migration & Implementation**

#### **Urban Drainage Munich (MSE)**

- Project term: 05/2019 until 01/2021
- Tasks: Support with preliminary projects, migration of SAP Waste & Recycling from SAP R3 to S/4HANA

#### **Business Enterprises Duisburg (WBD)**

- o Project term: 06/2022 until 05/2024
- Tasks: Migration of SAP Waste & Recycling from SAP R3 to S/4HANA

#### **RSAG AöR (City of Siegburg)**

- Project term: 11/2021 until 12/2024
- Tasks: Implementation of SAP IS Waste & Recycling on SAP S/4HANA to replace the non-SAP industry solution TRASS

#### **Public Utilities Düsseldorf**

- Project term: 11/2021 until 07/2023
- Tasks: Support with the migration of waste processes to S/4HANA, support with master data migration to SAP C4U(Cloud for Utilities)

#### **State Capital München – Cash and tax office**

- o Project term: 09/2021 until 12/2024
- Tasks: Support with the migration of developments as part of a greenfield approach

## GRULER & CLEVE



### Reference Projects

#### **Customer Portals**

We have successfully implemented the following customer portal projects in the municipal waste disposal sector. The portals focus on connecting to the customer's SAP system in order to (partially) automate processes through the SAP system. The customer portals provide customers with the following functions:

- Garbage bin calculator
- Fee simulation
- Notifications and customer letters available online
- Complaints management
- SEPA mandate maintenance & account information

#### **AWISTA Düsseldorf**

- Introduction of a customer portal based on a Java framework.
- o Role: Design of the back-end and the interface to the front-end
- Integrating the customer portal into the existing waste processes and achieving a high degree of automation.

#### **Business Enterprises Duisburg (WBD)**

- o Introduction of a customer portal based on the SAP Commerce Cloud.
- o Role: Development of the back-end and the interface to the front-end
- SAP back-end and as a control instrument for the waste processes in the customer portal context.

## Reference Projects

#### **DriverApp**

The DriverApp is a mobile application for digitizing order processing on waste disposal vehicles.

Using BTP and the SAP BTP SDK for Android, a mobile application tailored to the customer was developed that offers the driver the opportunity to operate previous paper processes digitally via his tablet mounted in the vehicle (tablet can also be removed from the holder). In the app, the user has the option of viewing orders (as spots on a map or in list form) and editing/reporting them. All data processed in the app is temporarily stored offline and synchronized cyclically. Data is exchanged via a MobileServices instance in the BTP, which in turn is connected to the customer's on-premise SAP system via the CloudConnector. User administration is carried out via SAP Cloud Identiy Services.

Data is exchanged between the SAP system and the Android app via an oData interface provided by Gruler and Cleve Consulting.

The following processes can be mapped using the FahrerApp:

- Transfer containers
- Container services
- Bulky waste / uncontrolled dumping
- Container management
- Complaints management
- o General exchange of information (bidirectional)



### Reference Projects

#### **DriverApp** – part II

The app also fulfills the requirements for documentation obligations through a guided departure check, including confirmation of the roadworthiness of the driver and vehicle. It is also possible to document set-up, standing, waiting and processing times at order level.

A cockpit for controlling and monitoring the app is offered for dispatching, which the dispatcher can use to communicate with the driver, create orders, retrieve them or move them between tours. Die App ist in die bestehenden SAP Waste-Prozesse im Backend angebunden:

- Automated ELOC (container management)
- o Route optimization using existing route planning (SAP internal or external)
- Automated disposal order system and feedback
- Connection to the vehicle workshop
- Tracking of the vehicles and visualization on a map, incl. processing progress of the tour

We have rolled out a driver app for the following customers:

- AWISTA Düsseldorf
- Business Enterprises Duisburg (WBD)
- RSAG AöR (Siegburg)
- AVR AöR (Sinsheim)

### Reference Projects

### **Customer Management (CM)**

In the context of the S/4HANA migration, a realignment of the Customer Interaction Center (CIC) is unavoidable, as it is no longer available under S/4HANA. The existing profiles, functions in the Customer Interaction Center and the current processes in SAP (Core and IS-Waste) will be transferred to Customer Management as part of the S/4HANA migration. To this end, the current status in SAP R3 is analyzed, compared with the new possibilities in S/4HANA and a migration concept is developed. The search functionalities will be expanded to include customer-specific search criteria. The business partner overview was designed in a form that clearly presents all the information relevant to the various departments in the IS waste context.

We have developed customer management for the following customers as part of the S/4HANA conversion:

- Munich Municipal Drainage (MSE)
- Business Enterprises Duisburg (WBD)
- RSAG AöR (Siegburg)

### Reference Projects

#### miscellaneous



Gruler & Cleve Consulting provides three Fiori applications, which are integrated into the Fiori Launchpad, to support the extrapolation for the balance sheet accrual. These are the preparation of controlled and incorrect assets, the preparation of the posting document and the version comparison between two selectable extrapolation runs.

#### **PSCD-Support, City of Munich**

- Introduction and further development of PSCD
  - Introduction of the ancillary claim notice (NFLB)
  - Customer-specific checks for value adjustments
  - o Project term: 2015 until today

We carried out various projects in the existing PSCD system of the City of Munich as part of the maintenance and continuous improvements. When coordinating with the CCoE and the specialist departments, we discussed and defined the technical requirements and possible implementation in the system, including restrictions, options and alternatives.



## Reference Projects

#### miscellaneous

#### **Adjustment of billing & interfaces, AWISTA**

- Introduction and further development of PSCD
- Project term: 2022 until today

We are currently implementing the SAP core modules in SAP S/4HANA as well as setting up and implementing the interfaces to the ERP system with SAP Waste & Recycling in the S/4all project. In this project, we are responsible for implementing the interfaces to SAP Waste & Recycling and FI-CA. In addition to the transfer of SD invoices to FI-CA, this also includes the reconciliation and transfer of customer-specific or contract account-specific data, for example for SD orders and invoices, and the adaptation of the interfaces and processes of the Customer Interaction Center and customer portal. In the customer portal, it is also possible to completely customize the municipal location for owners and housing associations.

#### CO2 levy on the basis of the BEHG (Avea-Reloga)

o Project term: 12/2023 until 01/2024

At the beginning of 2024, the Fuel Emissions Trading Act (BEHG) will require a CO2 levy to be paid for waste quantities incinerated. Gruler und Cleve Consulting has created suitable customizing tables in the customer system to meet this requirement in a lean and efficient manner. These tables are filled with the current data via import. The CO2 levy to be paid is then calculated on the basis of this data and automatically entered in the conditions of the relevant sales document items and billing items in SAP-SD.

### **Customers & References**

### Waste & Recycling







































Water Management & Public Sector



Münchner Stadtentwässerung







Landeshauptstadt München