

# Waste and Recycling Management with SAP

Raik Kulinna, Solution Owner Waste  Environmental Services, SAP

October, 2015

Public





# Agenda

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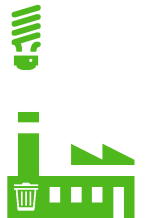
## Introduction

## Waste and Recycling Management with SAP

- Customer Engagement and Commerce
- Fleet Planning, Waste Collection, Truck Scale Application
- Recycling and Raw Material Trading
- Treatment and Disposal

## Solution Variants for Waste and Recycling Management with SAP

## Summary: Waste and Recycling Management with SAP





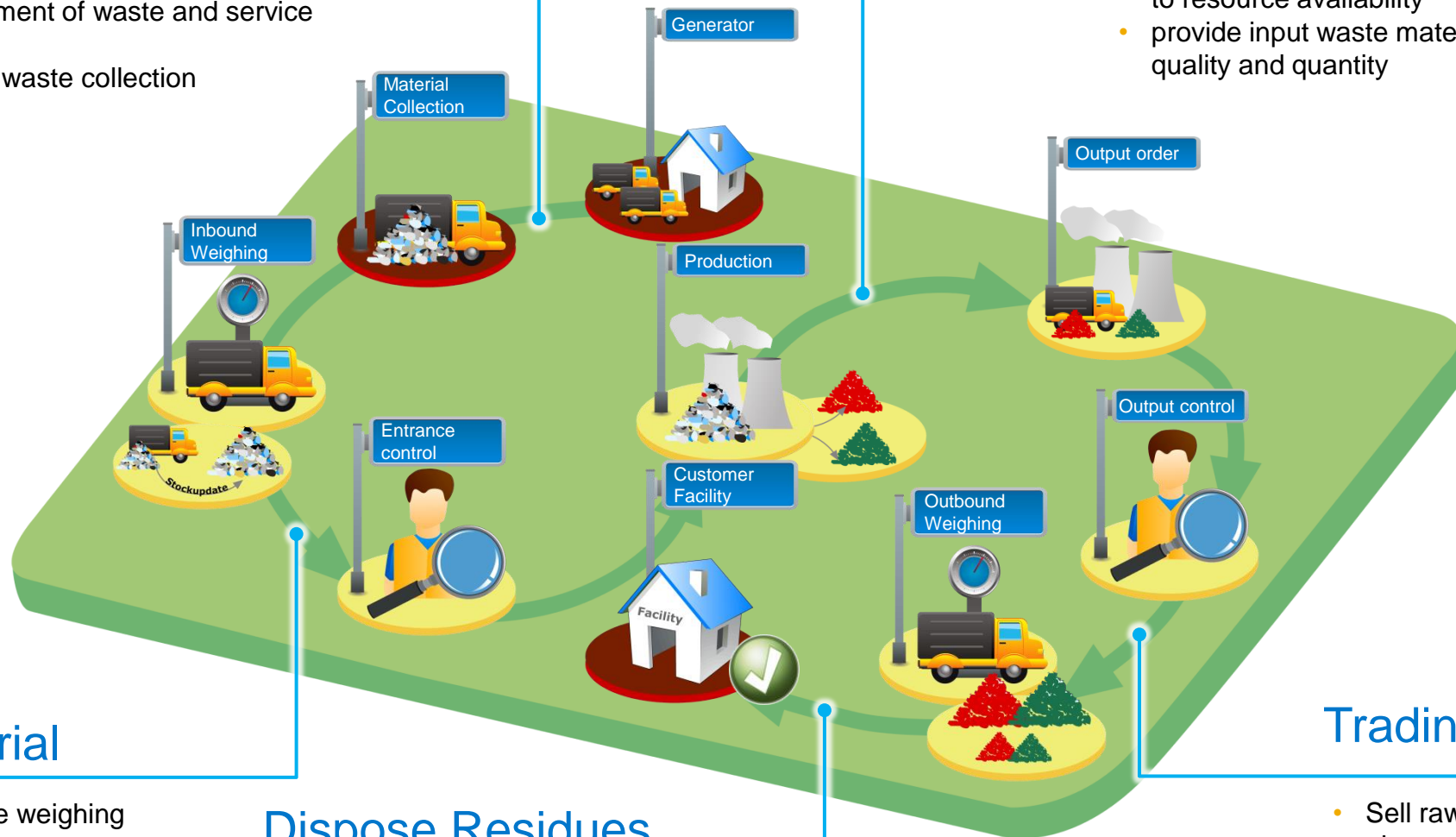
# Introduction

# Sales, Waste Collection

- acquire customers with the required services and equipment (containers)
- calculate cost for treatment of waste and service execution
- Run field services and waste collection

# Processing/Recycling

- create recycling (production) plan according to resource availability
- provide input waste material in required quality and quantity



## Inbound Material

- execute and automate weighing
- monitor inbound quantities
- identify inbound qualities
- assign storage locations

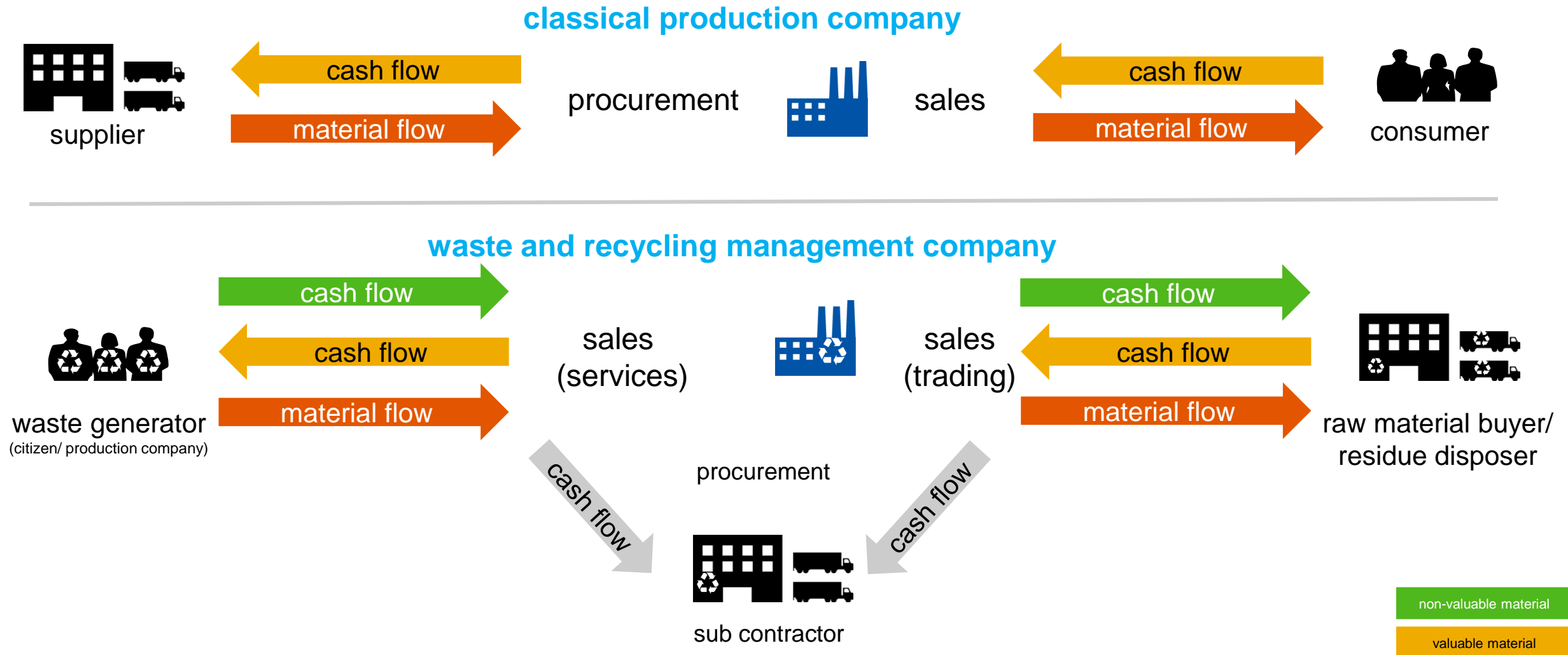
## Dispose Residues

- find and manage best recycling/disposal possibilities for residues
- Manage energy-from-waste and landfills

## Trading

- Sell raw material from stock
- plan your output schedule
- monitor outbound deliveries

# Cash Flow and Material Flow in Waste and Recycling Management

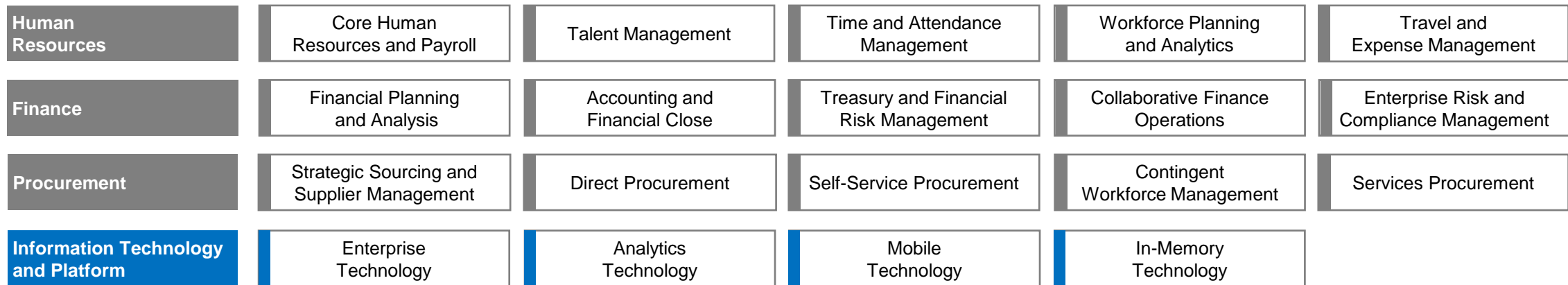




# Waste and Recycling Management with SAP

# Industry Value Map for Waste and Environmental Services

Prevent - Reuse - Recycle - Recover - Dispose



[Solution Explorer](#) 



# Sales, Waste Collection

**Customer Engagement and Commerce**

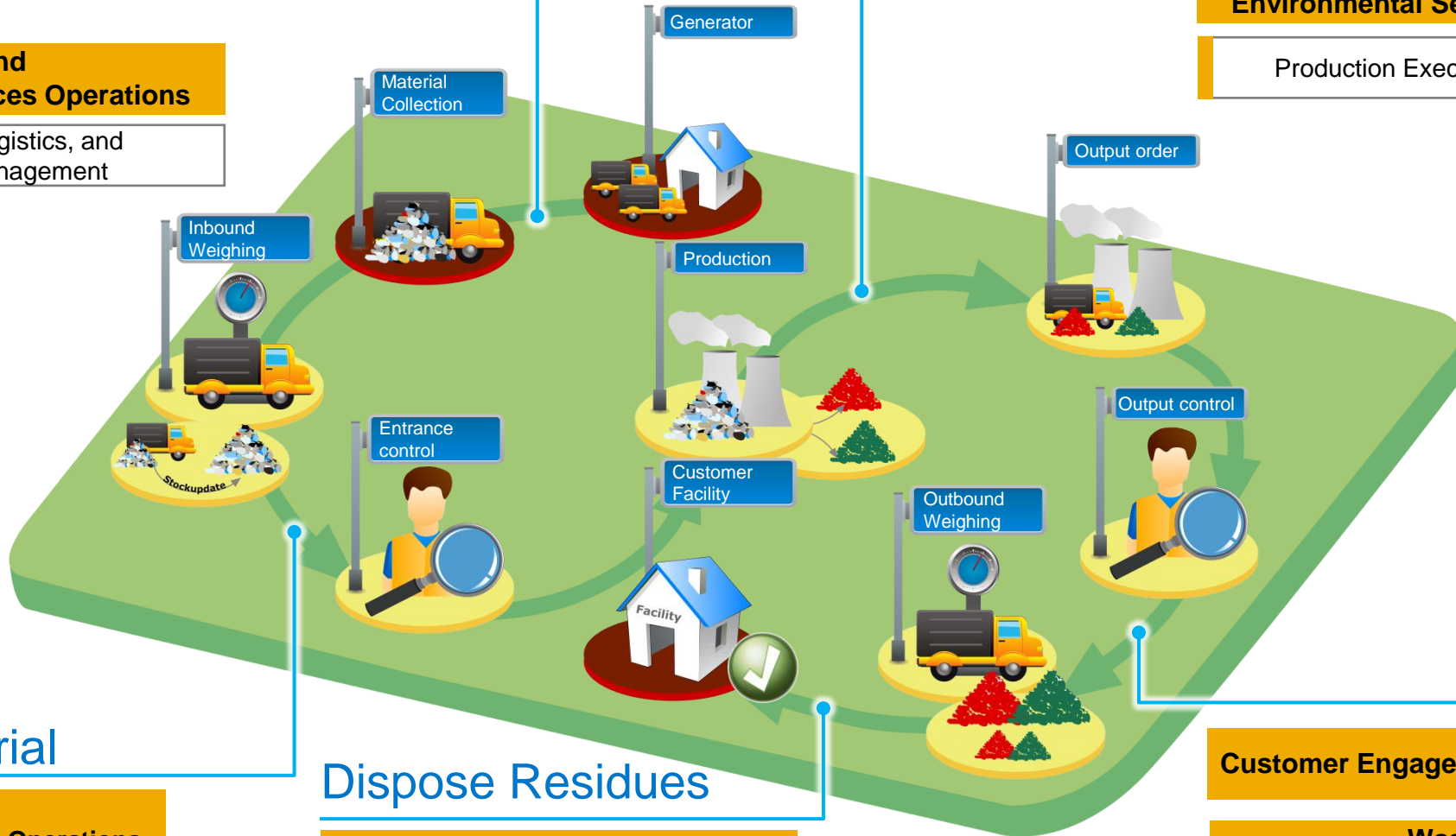
**Waste and Environmental Services Operations**

Fleet Planning, Logistics, and Mobile Order Management

# Processing/Recycling

**Waste and Environmental Services Operations**

Production Execution and Trading



# Inbound Material

**Waste and Environmental Services Operations**

Weighing, Treatment and Disposal

# Dispose Residues

**Waste and Environmental Services Operations**

Weighing, Treatment and Disposal

# Trading

**Customer Engagement and Commerce**

**Waste and Environmental Services Operations**

Production Execution and Trading



# Sales, Waste Collection

Customer Engagement and Commerce



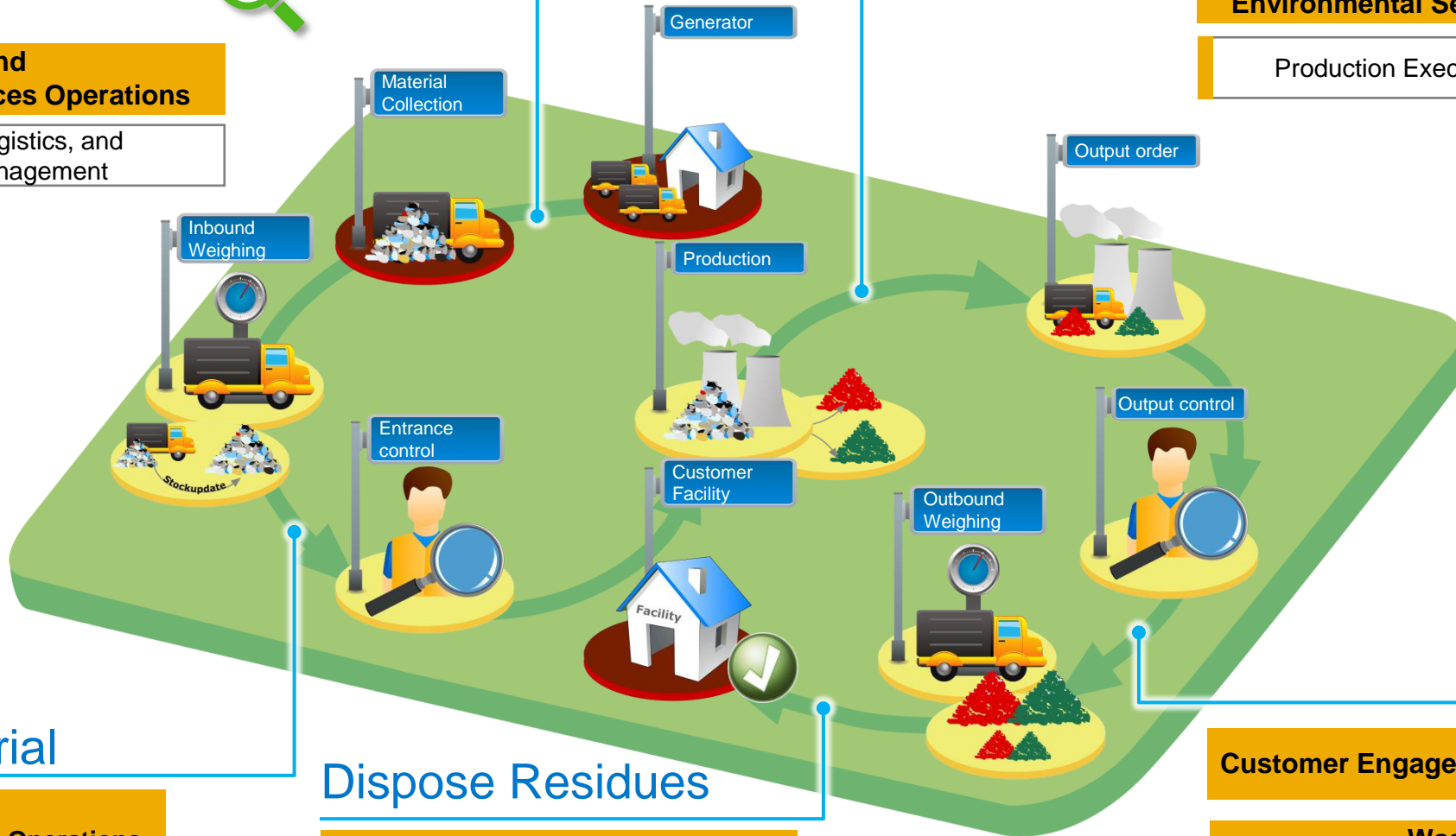
Waste and Environmental Services Operations

Fleet Planning, Logistics, and Mobile Order Management

# Processing/Recycling

Waste and Environmental Services Operations

Production Execution and Trading



# Inbound Material

Waste and Environmental Services Operations

Weighing, Treatment and Disposal

# Dispose Residues

Waste and Environmental Services Operations

Weighing, Treatment and Disposal

# Trading

Customer Engagement and Commerce



Waste and Environmental Services Operations

Production Execution and Trading



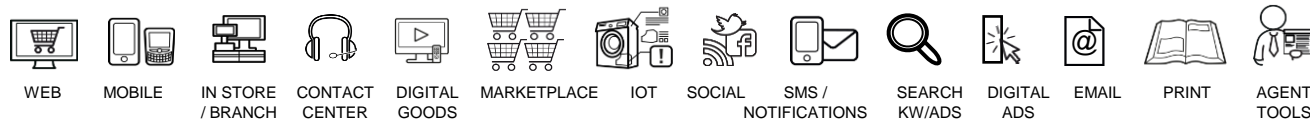
# Customer Engagement and Commerce

# Digital Customer Experience Drives Everything

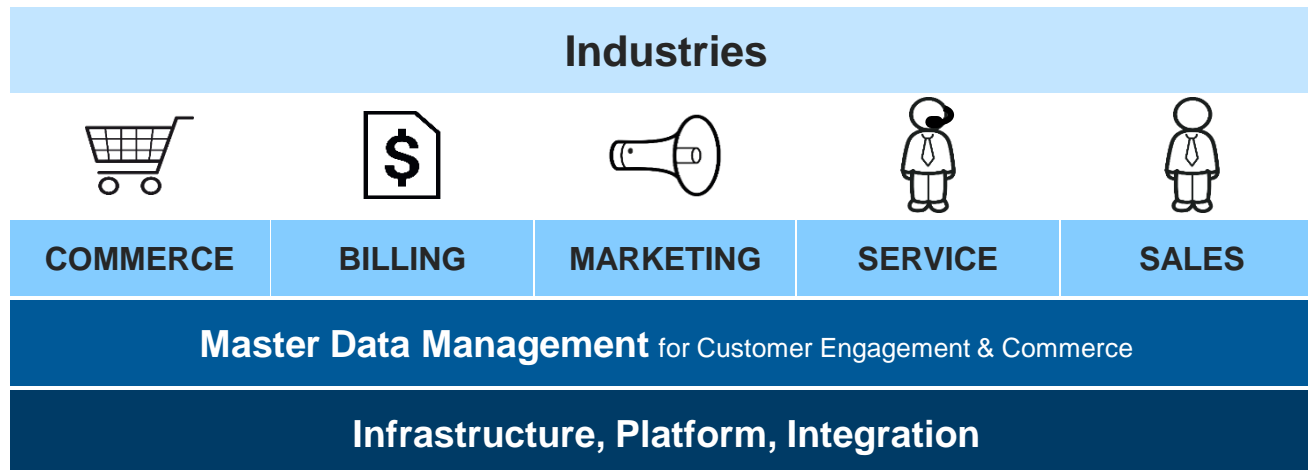
Technology has changed the game but customers have changed the rules



Customers demand simple, seamless, personalized experiences across any channel – anytime and anywhere. With the **SAP Customer Engagement and Commerce** platform, you now can ensure seamless digitization of the customer experience.



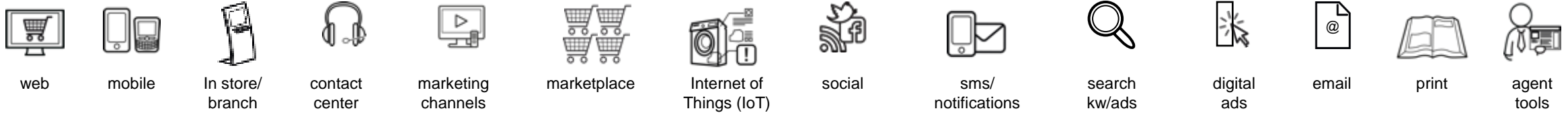
- **Orchestrate business processes** across marketing, commerce, sales, service
- **Deliver personalized experiences**
- **Create a single, harmonized experience**
- Be prepared to **engage your customers on the channels they choose**





# Digital Customer Experience Drives Everything

Technology has changed the game but customers have changed the rules



## Industries

### Commerce

- SAP hybris Commerce
- SAP hybris Web Content Management (WCMS)
- SAP hybris Product Content Management (PCM)/Customer Experience
- SAP hybris Order Management System (OMS)

### Billing

- SAP hybris Billing (fka SAP Billing and Revenue Innovation Management/BRIM)
- SAP ERP Order Management (SD)
- SAP hybris Configure, Price, and Quote (CPQ)
- Resells e.g. Vistex, Vendavo

### Marketing

- SAP hybris Marketing (fka CEI, SeeWhy)
- SAP CRM Marketing
- SAP hybris Profile
- Resell e.g. Adobe Marketing Cloud

### Service

- SAP Cloud for Customer (Service)
- SAP CRM (Service & IC)
- SAP Contact Center (fka Business Communication Management)
- SAP ERP (CS)
- SAP Multi Resource Scheduling (MRS)
- Resells e.g. PROLOGA, ...

### Sales

- SAP Cloud for Customer (Sales)
- SAP CRM (Sales)
- SAP ERP (SD)

Master Data Management  
for Customer Engagement & Commerce

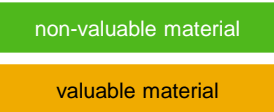
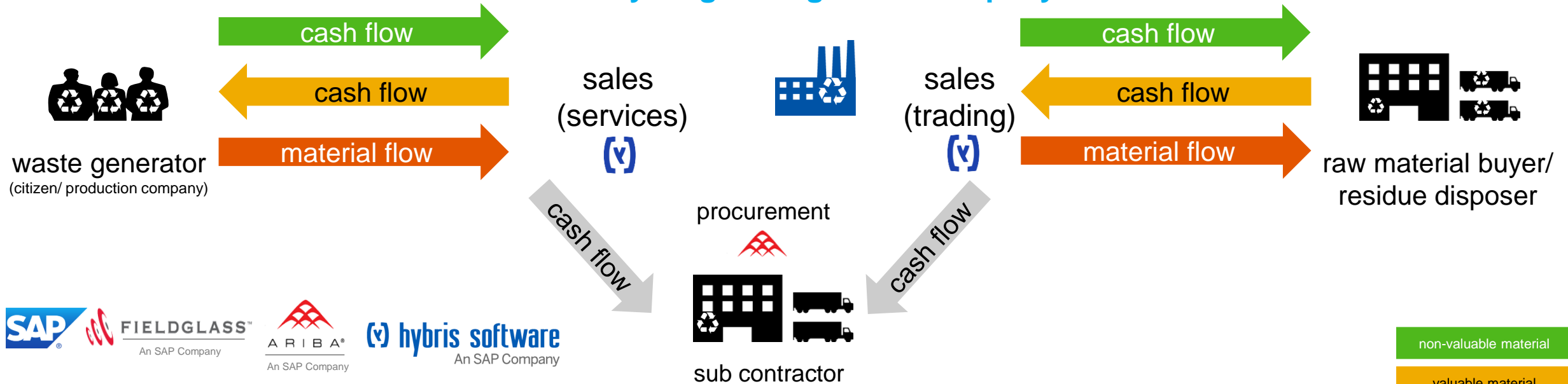
Infrastructure, Platform, Integration

# Cash Flow and Material Flow in Waste and Recycling Management

## classical production company

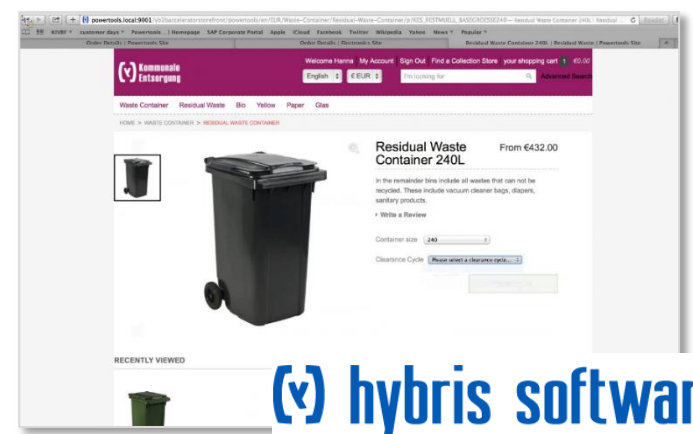
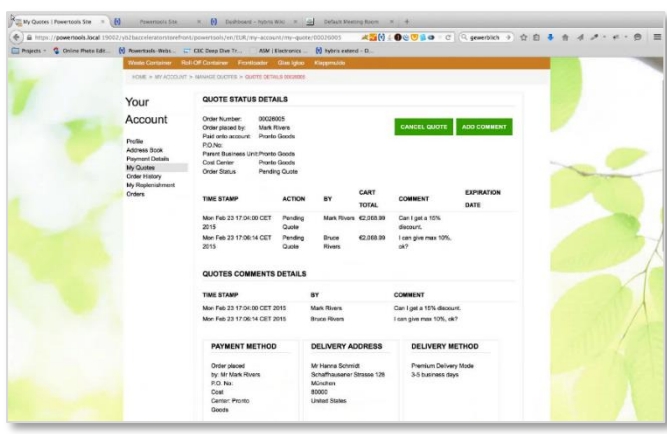
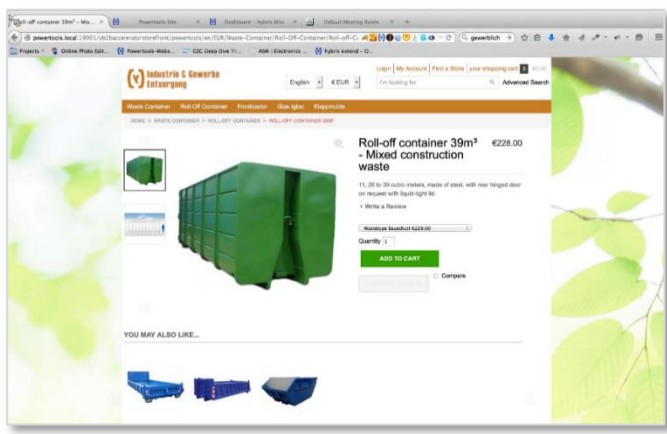
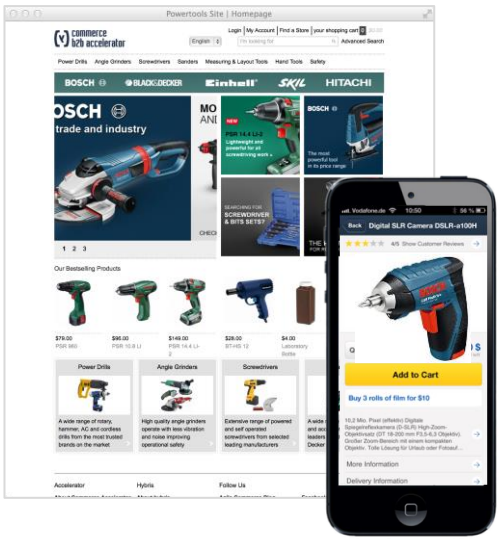


## waste and recycling management company



# SAP hybris Commerce: Best practices for Customer Portal

Shop Accelerators, Mobile Apps, Assistant Service Module, Industry-Specific Demos





# SAP Cloud for Customer: SAP's Cloud-based CRM

## Sales, Services, Customer Interaction Center



demo configuration



# Sales, Waste Collection

**Customer Engagement and Commerce**

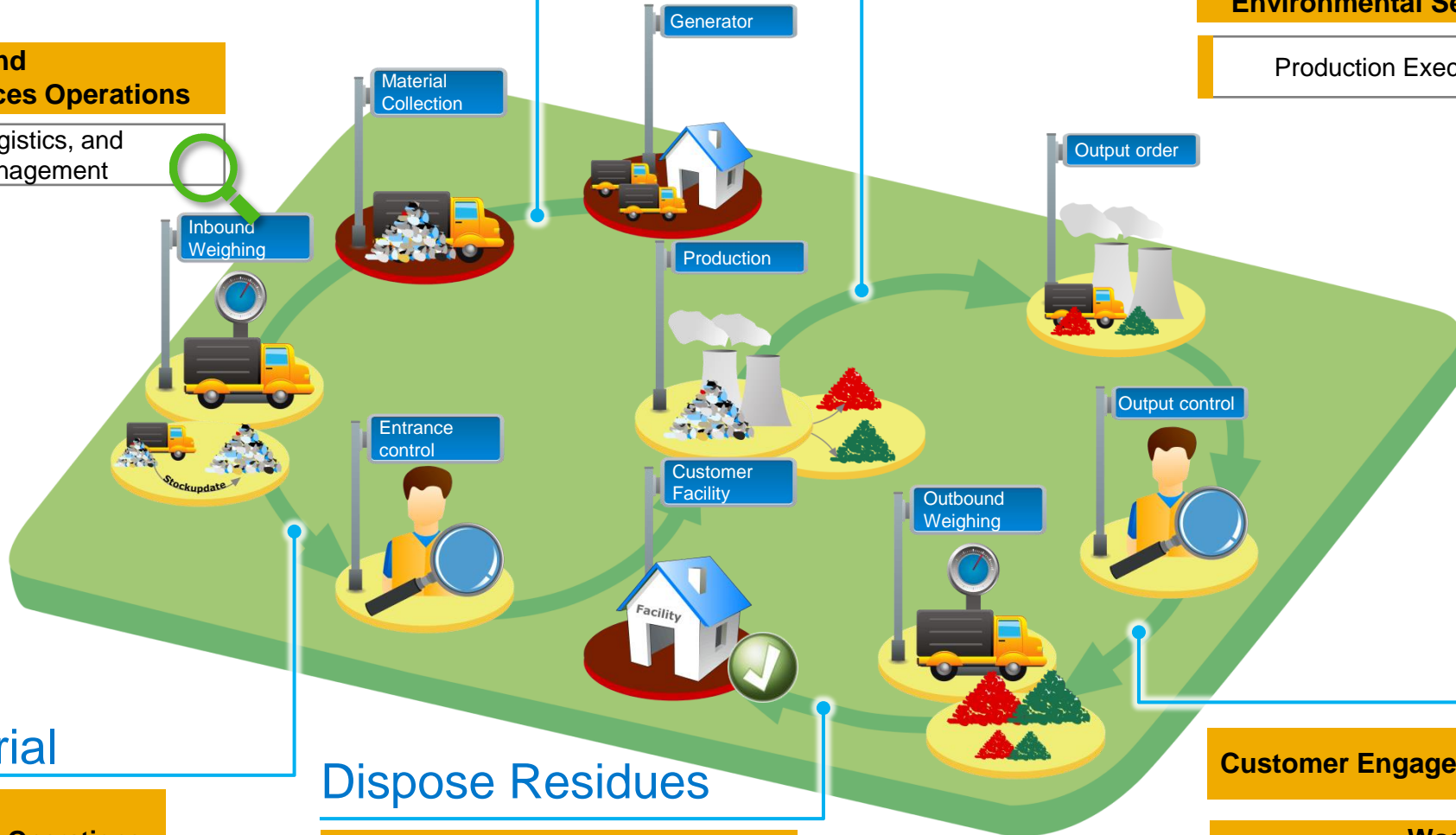
**Waste and Environmental Services Operations**

Fleet Planning, Logistics, and Mobile Order Management

# Processing/Recycling

**Waste and Environmental Services Operations**

Production Execution and Trading



# Inbound Material

**Waste and Environmental Services Operations**

Weighing, Treatment and Disposal

# Dispose Residues

**Waste and Environmental Services Operations**

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**Customer Engagement and Commerce**

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# **Fleet Planning, Waste Collection, Truck Scale Application**



# Operational Excellence with SAP Waste and Recycling

## Detailed solution description

### SAP Logistics for Waste and Recycling

This component enables industrial waste collection, including field services like street cleaning or the management of waste-to-energy and recycling facilities.

#### Key Capabilities:

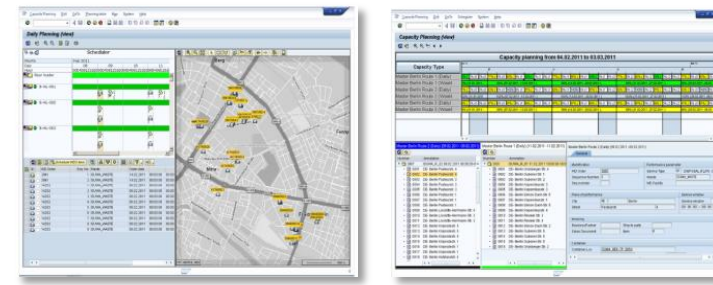
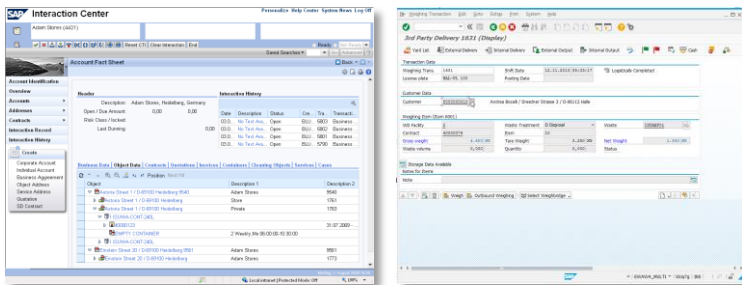
- Order management – transparent, fast, and precise
- Waste-specific and field-service-specific master data including master data for additional planning software
- Container management – knowing the inventory, using it efficiently
- Customer services, such as street cleaning, snow removal service, rodent service
- Simple transactions for waste facilities, including weighing, operations log, material movement

### SAP Planning and Dispatching for Waste and Recycling by PROLOGA (Solution Extension)

The dispatching and planning solution supports the planning and monitoring of orders and routes. It enables the planning and control of resource use and service delivery, assignment of resources to orders, and comparison of different utilizations, all closely integrated into the enterprise's core processes.

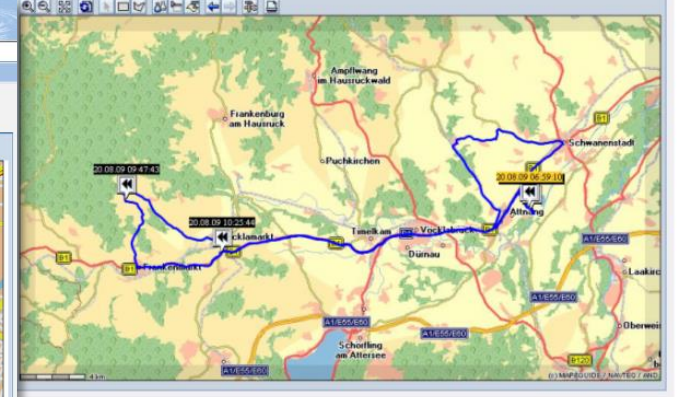
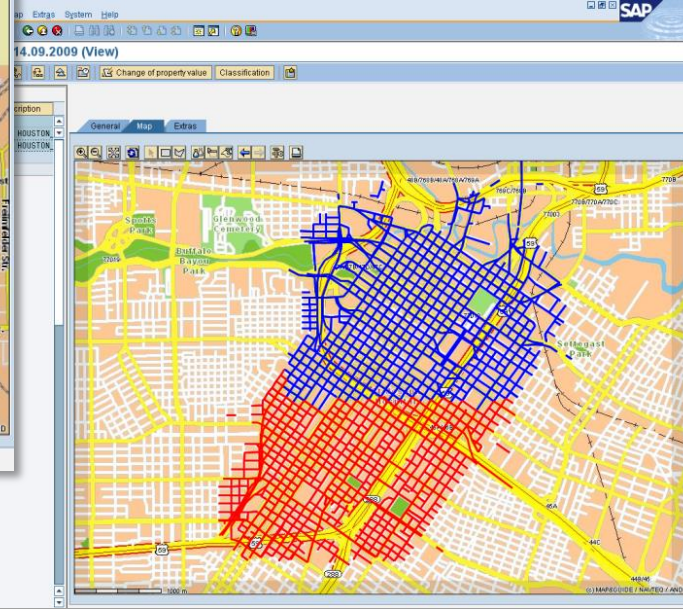
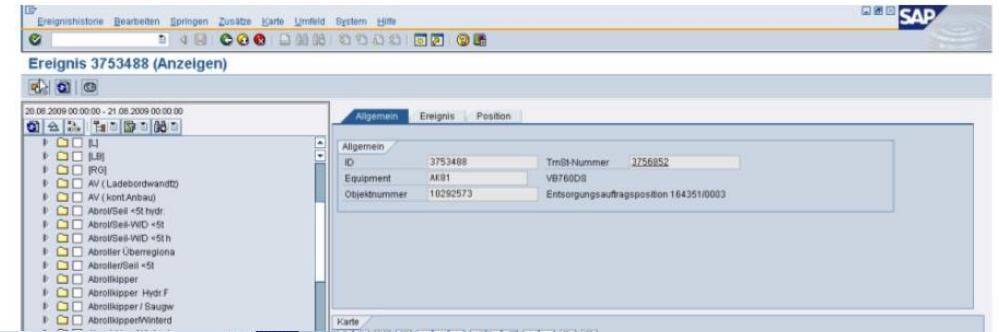
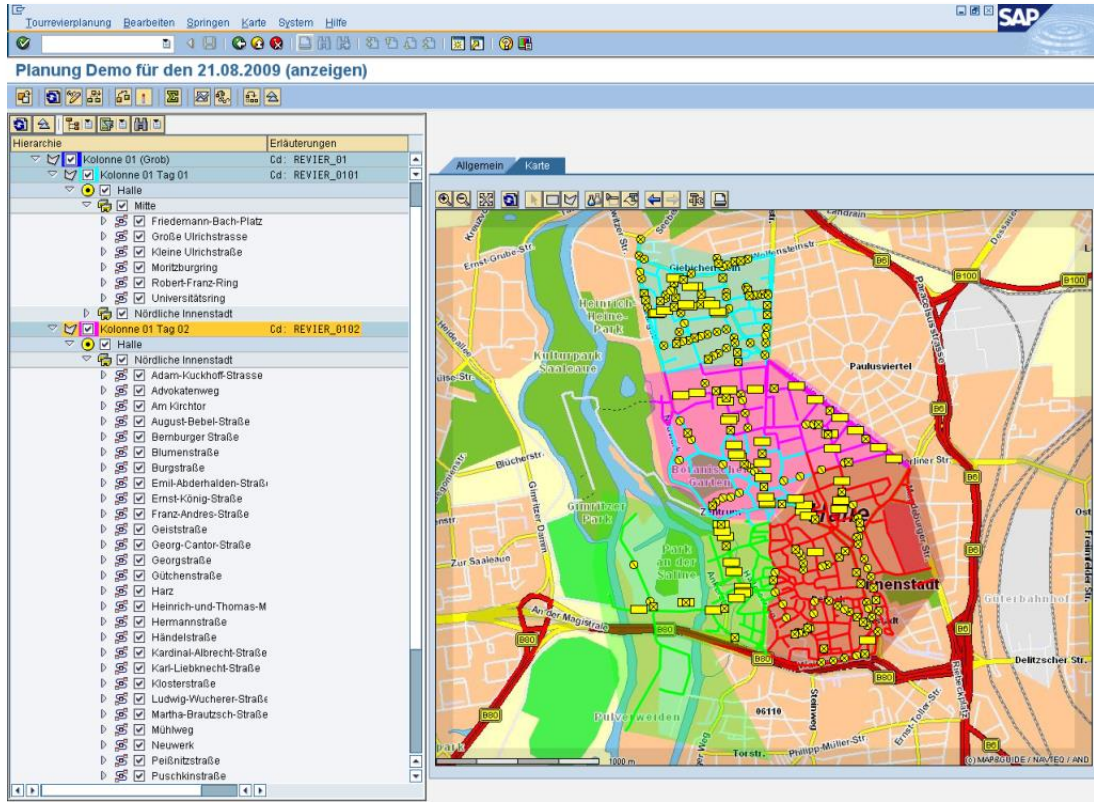
#### Key Capabilities:

- Create route districts and assign planning sections
- Create and compare planning scenarios for long-term planning
- Enable short-term operational planning, including the calculation of optimal routes and printing of route sheets
- Route planning and management using efficient digital mapping technologies
- Display labor times graphically
- Resource management – Enable optimal resource utilization
- Fleet management – Record all relevant work processes, as well as route and service data from the fleet, in conjunction with SAP Mobile Order Management for Waste and Recycling by PROLOGA (on-board units)



# SAP Dispatching and Planning and SAP Mobile Order Management for Waste and Recycling by Prologa (Solution Extension)

demo configuration



# Sales, Waste Collection

**Customer Engagement and Commerce**

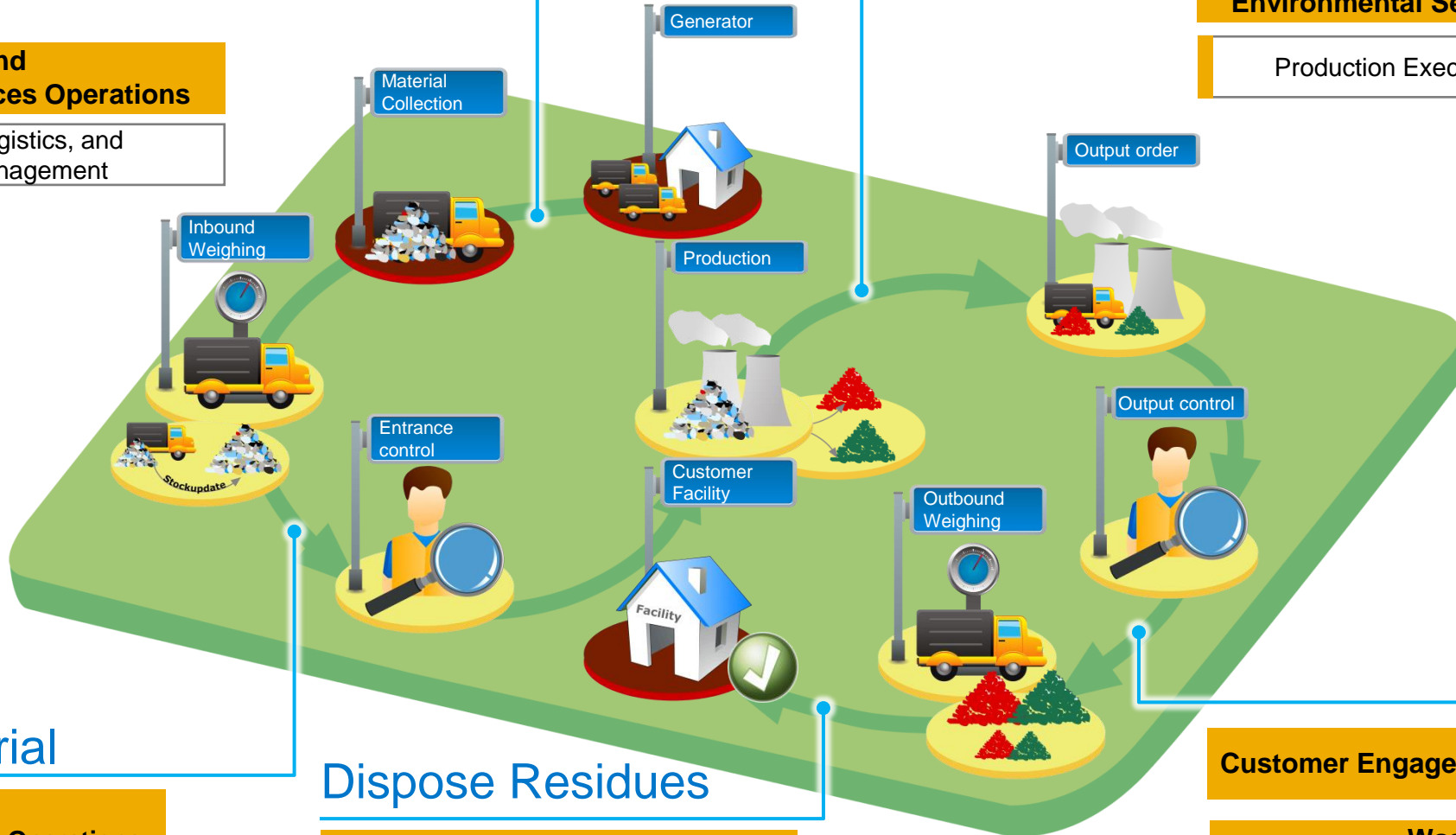
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# SAP's Integrated Weighing System – Data Consistency Ensured!

IT (security, data privacy and archiving, usw.)

yard list, operations log

truck, driver, equipment

customer, one time customer, bad payer status

facility data

storage data

contract, pricing, order, order line item, invoice

sales unit e.g.. bales

samples, QM, entrance control

Barrier/traffic light

cash journal

reverse document

check weigh man, shift date

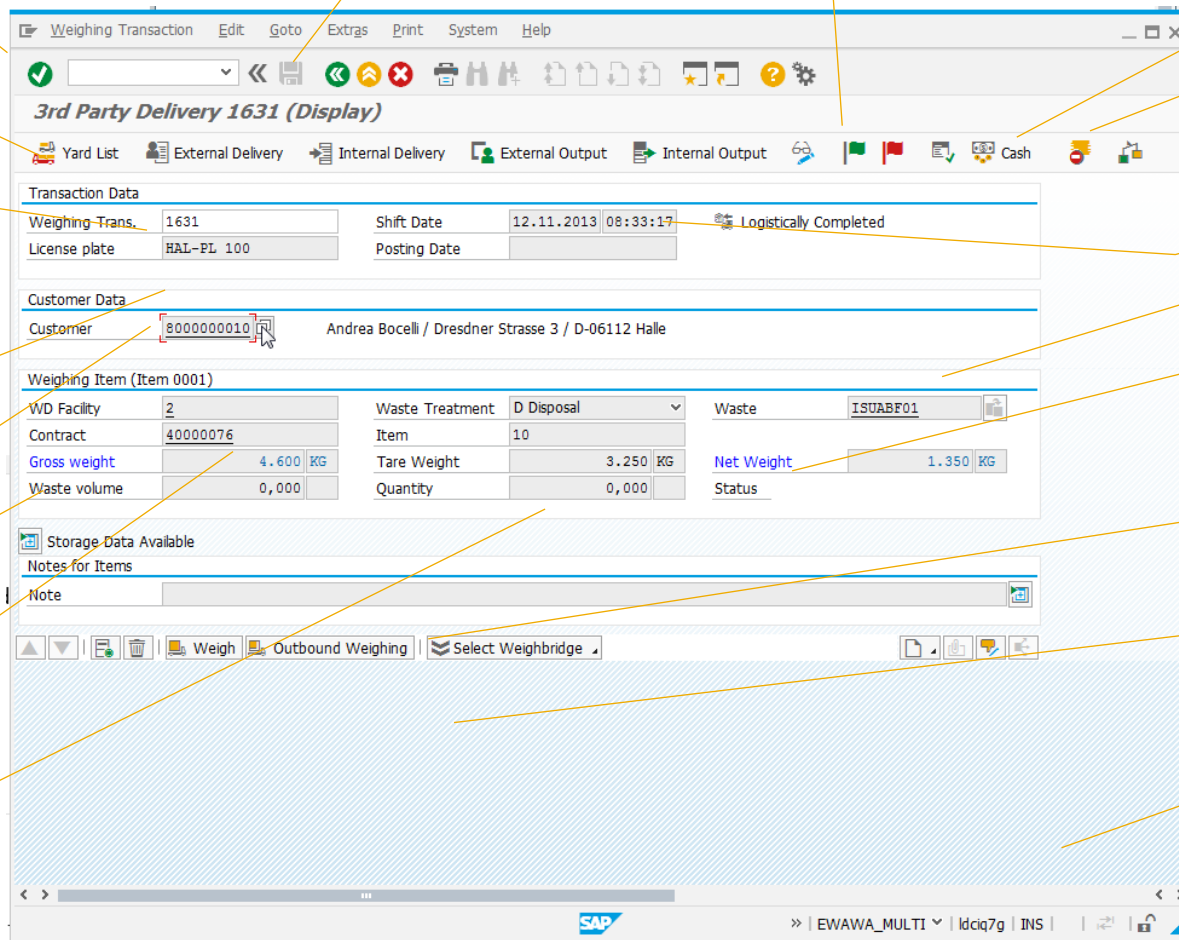
waste material

weighing, calibration borders, scale load management

physical weighbridge

multiple weighing positions

waste manifest, waste code, dangerous goods/ADR







# Recycling and Raw Material Trading

# Sales, Waste Collection

Customer Engagement and Commerce

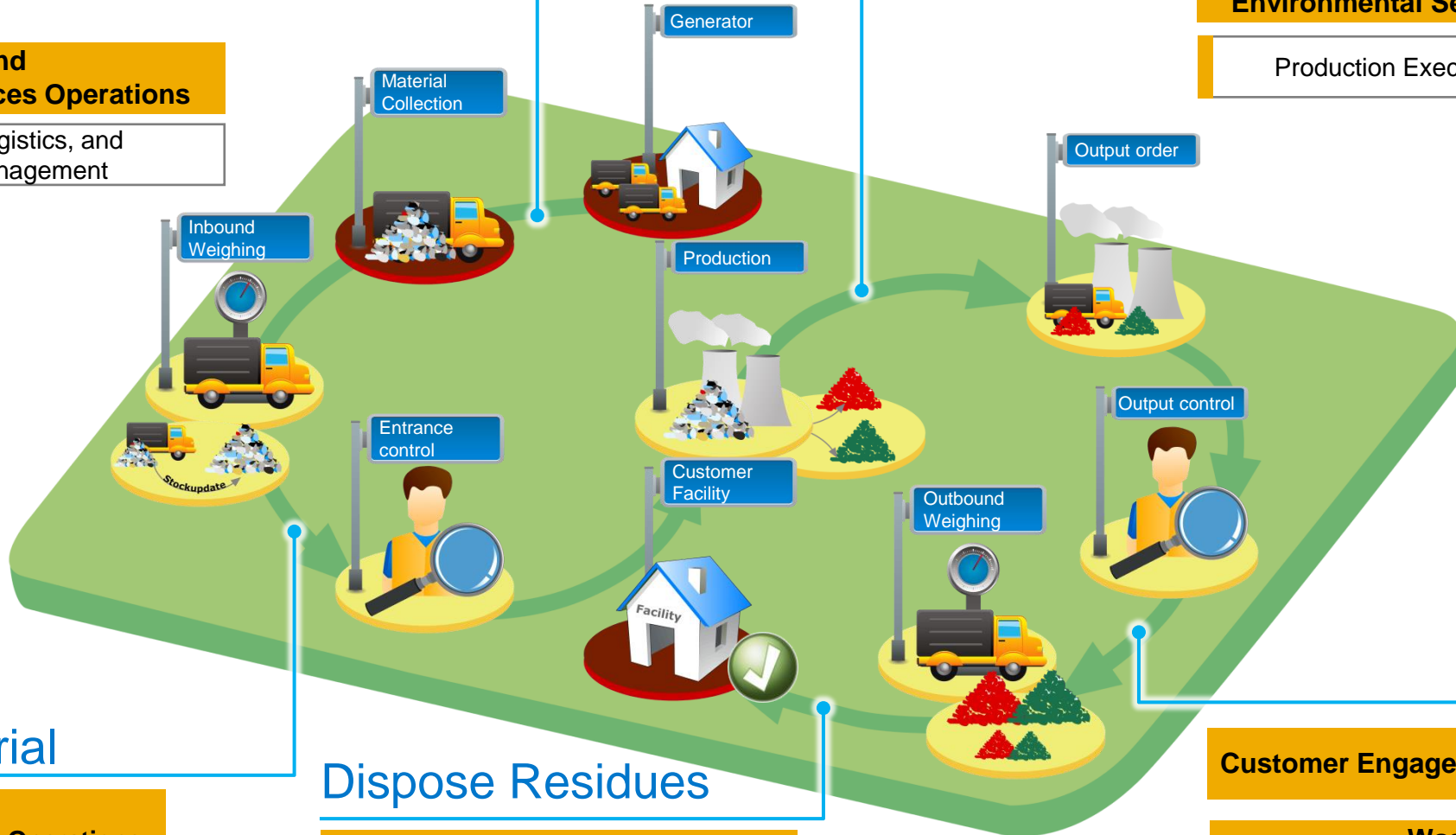
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Customer Engagement and Commerce

Waste and Environmental Services Operations

Production Execution and Trading

# Recycling and Raw Material Trading with SAP





# Treatment and Disposal



# Sales, Waste Collection

Customer Engagement and Commerce

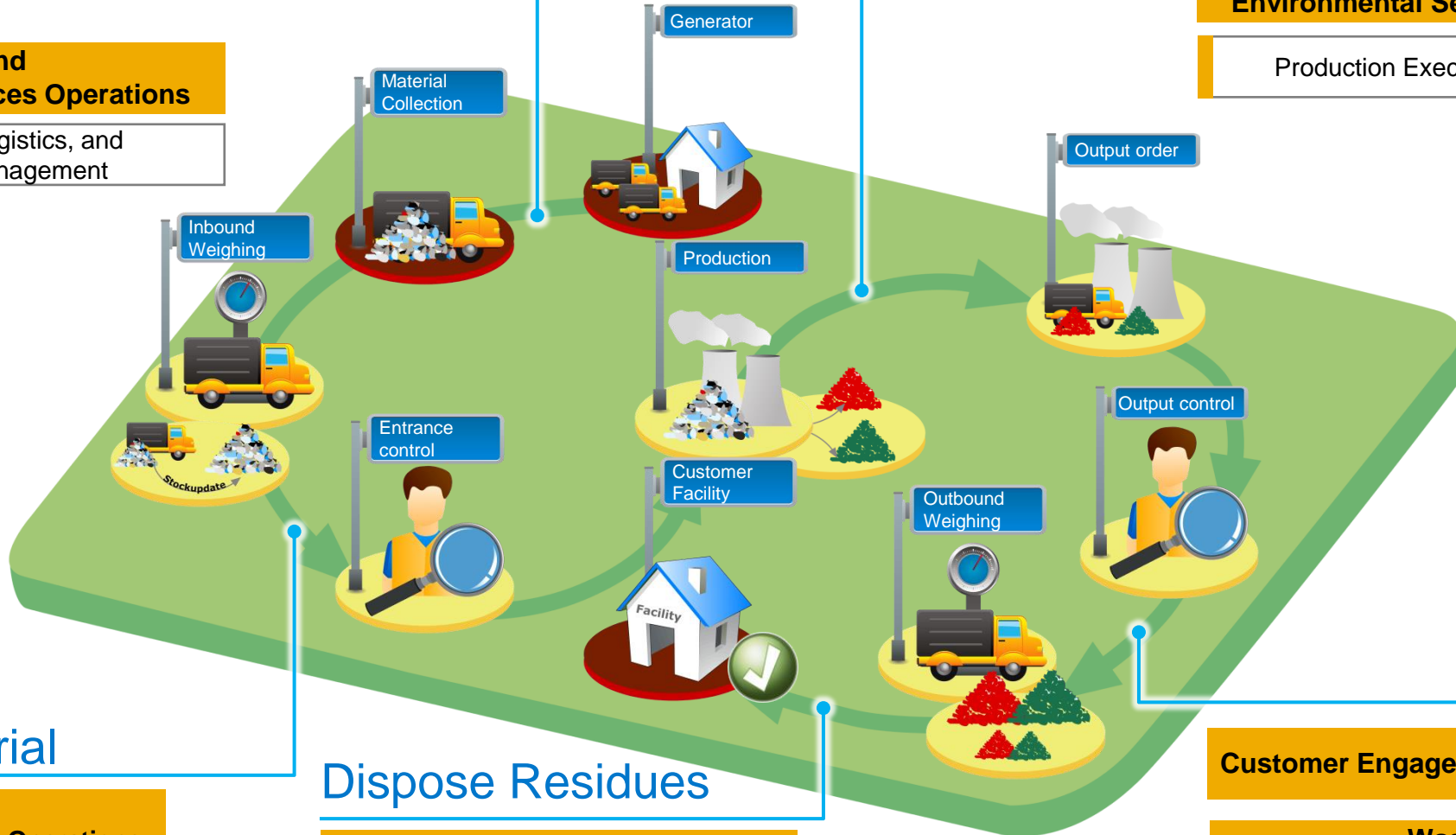
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# Treatment and Disposal: Waste-to-Energy

## SAP supports Waste-to-Energy processes – customer references:



Waste To Energy in Netherlands



Refuse-Derived Fuel Power Plant in Bernburg/Germany



Biogas Power Plant in Berlin/Germany



Waste To Energy and other Power Plants in Bremen/Germany





# **Solution Variants for Waste and Recycling Management with SAP**

# Waste and Recycling Management with SAP

Other Solution Variants: One Size Doesn't Fit All



Product Line	Industry Solution SAP Waste & Recycling (W&R)	Supply Chain Management	SAP Business One "for subsidiaries" ISB Waste Recycling One	SAP ByDesign "for subsidiaries"
	SAP Value Map for Waste & Environmental Services	SAP Value Map for Trucking		
Core: Waste and Recycling Management Operations	<ul style="list-style-type: none"> <li>SAP ERP</li> <li>SAP Waste &amp; Recycling (W&amp;R)</li> <li>PROLOGA W&amp;R Solution Extension (optional)</li> </ul>	<ul style="list-style-type: none"> <li>SAP ERP</li> <li>SAP Transportation Management (TM)</li> </ul>	<ul style="list-style-type: none"> <li>SAP Business One (B1)</li> <li>ISB Waste Recycling One</li> <li>ISB Smart1World</li> </ul>	<ul style="list-style-type: none"> <li>SAP ByDesign</li> </ul>
Core: Headquarters	<ul style="list-style-type: none"> <li>SAP Business Suite (optional)</li> </ul>	<ul style="list-style-type: none"> <li>SAP Business Suite (optional)</li> </ul>	<ul style="list-style-type: none"> <li>SAP Business One (optional)</li> <li>SAP Business Suite (optional)</li> </ul>	<ul style="list-style-type: none"> <li>SAP ByDesign (optional)</li> <li>SAP Business Suite (optional)</li> </ul>
Digital Ecosystem	Workforce   Supplier   Assets (Maintenance, IoT)   Customer (Sales, Services, Billing, Portals)			
Rounds Planning	<ul style="list-style-type: none"> <li>SAP W&amp;R (Master Data, Table UI)</li> <li>PROLOGA (Map)</li> </ul>	<ul style="list-style-type: none"> <li>3<sup>rd</sup> party (at the moment)</li> </ul>	<ul style="list-style-type: none"> <li>ISB Waste Recycling One</li> </ul>	<ul style="list-style-type: none"> <li>3<sup>rd</sup> party</li> </ul>
Workforce and Vehicle Planning	<ul style="list-style-type: none"> <li>SAP W&amp;R (Master Data, Table UI)</li> <li>PROLOGA (Map)</li> </ul>	<ul style="list-style-type: none"> <li>SAP Transportation Management</li> </ul>	<ul style="list-style-type: none"> <li>ISB Waste Recycling One</li> </ul>	<ul style="list-style-type: none"> <li>3<sup>rd</sup> party</li> </ul>
On-Board Unit App	<ul style="list-style-type: none"> <li>PROLOGA</li> </ul>	<ul style="list-style-type: none"> <li>SAP HCP Mobile Services, ...</li> </ul>	<ul style="list-style-type: none"> <li>ISB Smart1World</li> </ul>	<ul style="list-style-type: none"> <li>SAP HCP Mobile Services, ...</li> </ul>
Truck Scale Application	<ul style="list-style-type: none"> <li>SAP W&amp;R</li> </ul>	<ul style="list-style-type: none"> <li>SAP Yard Logistics</li> </ul>	<ul style="list-style-type: none"> <li>ISB Waste Recycling One</li> </ul>	<ul style="list-style-type: none"> <li>3<sup>rd</sup> party</li> </ul>
Smart Bins, Telemetry	SAP HANA Cloud Platform (HCP): Internet of Things (IoT) Services , SAP Vehicle insides			
Recycling	<ul style="list-style-type: none"> <li>SAP MM/WM/W&amp;R (lightweight)</li> <li>SAP Manufacturing (advanced)</li> </ul>	<ul style="list-style-type: none"> <li>SAP MM/WM/EWM (lightweight)</li> <li>SAP Manufacturing (advanced)</li> </ul>	<ul style="list-style-type: none"> <li>SAP Business One (B1)</li> </ul>	<ul style="list-style-type: none"> <li>SAP ByDesign</li> </ul>
Completion Confirmation	<ul style="list-style-type: none"> <li>SAP W&amp;R / SAP W&amp;R</li> </ul>	<ul style="list-style-type: none"> <li>SAP TM</li> </ul>	<ul style="list-style-type: none"> <li>SAP Business One (B1), ISB Waste Recycling One</li> </ul>	<ul style="list-style-type: none"> <li>3<sup>rd</sup> party</li> </ul>
Waste Law	<ul style="list-style-type: none"> <li>PROLOGA</li> </ul>	<ul style="list-style-type: none"> <li>SAP TM (SAP Environment, Health and Safety)</li> </ul>	<ul style="list-style-type: none"> <li>ISB</li> </ul>	<ul style="list-style-type: none"> <li>3<sup>rd</sup> party</li> </ul>



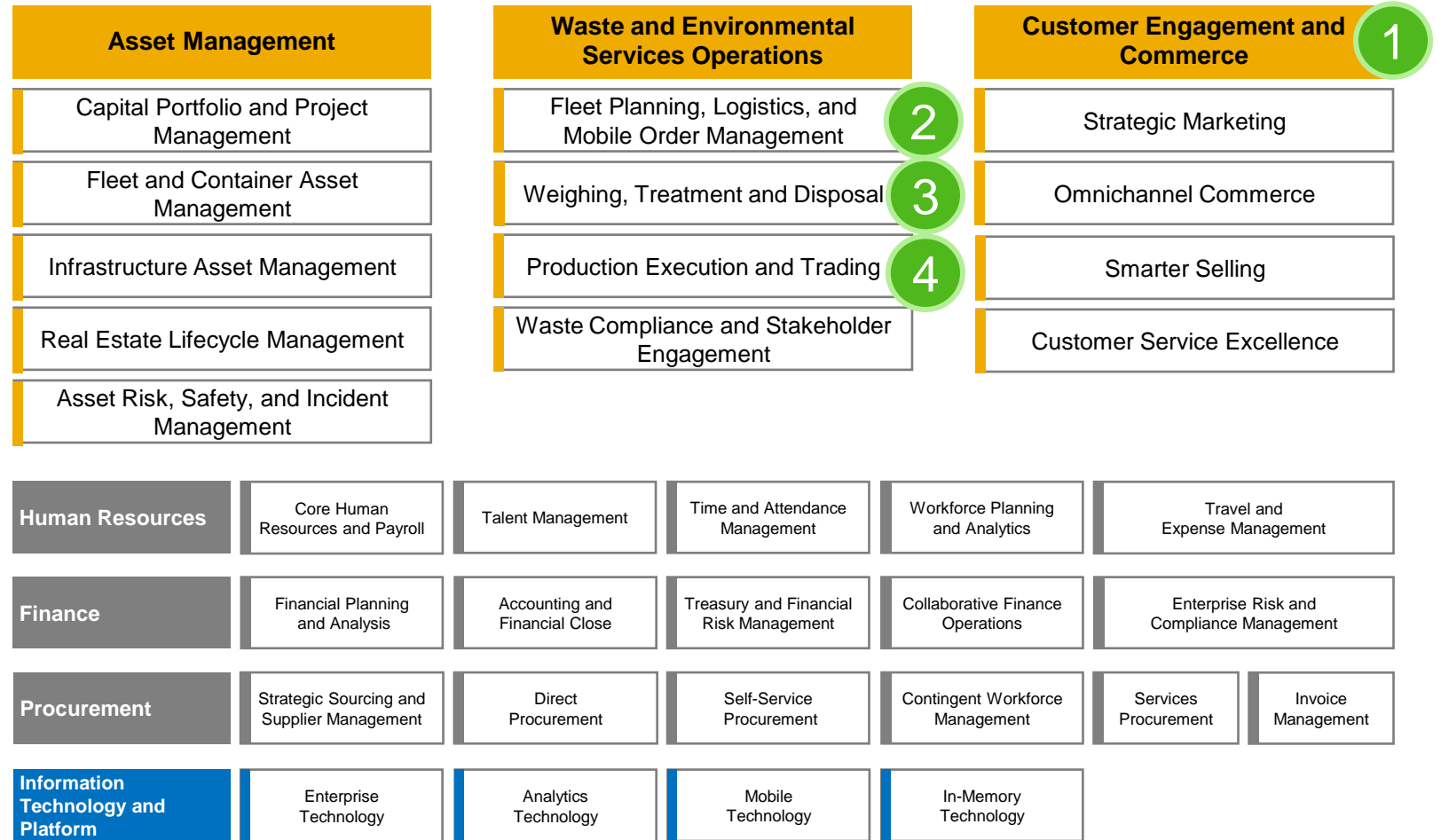


# Summary

# Summary: Waste and Recycling Management with SAP



- SAP and its partners offers a strong à la carte portfolio for **Waste and Recycling Management**
- All options leverages **SAP's best of breed solution portfolio** and integrates into existing SAP landscape. Recommendations about cross-industry business processes are valid also in this segment
- SAP industry solution **SAP Waste and Recycling** contains the processes for specialized waste collection companies and energy-from-waste industry segment




[Solution Explorer](#)



# Thank you

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Waage und Anlage  
regio IT



# waage.anlage

auf Basis  Waste & Recycling

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[https://www.youtube.com/embed/xA277kTeKtA?hd=1&autoplay=1&modestbranding=1&rel=0&showsearch=0&cc\\_load\\_policy=1](https://www.youtube.com/embed/xA277kTeKtA?hd=1&autoplay=1&modestbranding=1&rel=0&showsearch=0&cc_load_policy=1)



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