



Forest Grove  
Data-Driven Decision Making

Optimising technology to  
unlock insights that drive  
better business decisions

# Forest Grove Customer Conference 2023

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Data-Driven Decision Making

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# [D1S6] Building bespoke analytical business applications - fast, efficient, cost effective and at your fingertips

## Presented by:

Forest Grove Strategy & Growth Executive, Betsy Westphal; Senior Technical Consultant, Willem Lottering & Consultant, Rebecca Tung

## About the session:

KNIME allows data workers to create and deploy custom data applications that can service the full spectrum of end users. Basic to advanced analytical workflows, built within the KNIME Analytics Platform, can be deployed and shared as interactive, flexible data apps for frontline workers, business end users and stakeholders. From simple but sophisticated data input to interactive dashboards to guided visual analytics, this session gives a taste of the possibilities that data apps can offer across industries and disciplines.

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# What this session will cover

- ▶ **Introductions & Business Case: Why you need to know about KNIME data apps!**  
Presented by Betsy Westphal
- ▶ **KNIME Data Apps in Action – Use Case 1: Data Input & Exploration**  
Presented by Bec Tung
- ▶ **KNIME Data Apps in Action – Use Case 2: Deployment of reusable workflows**  
Presented by Willem Lottering

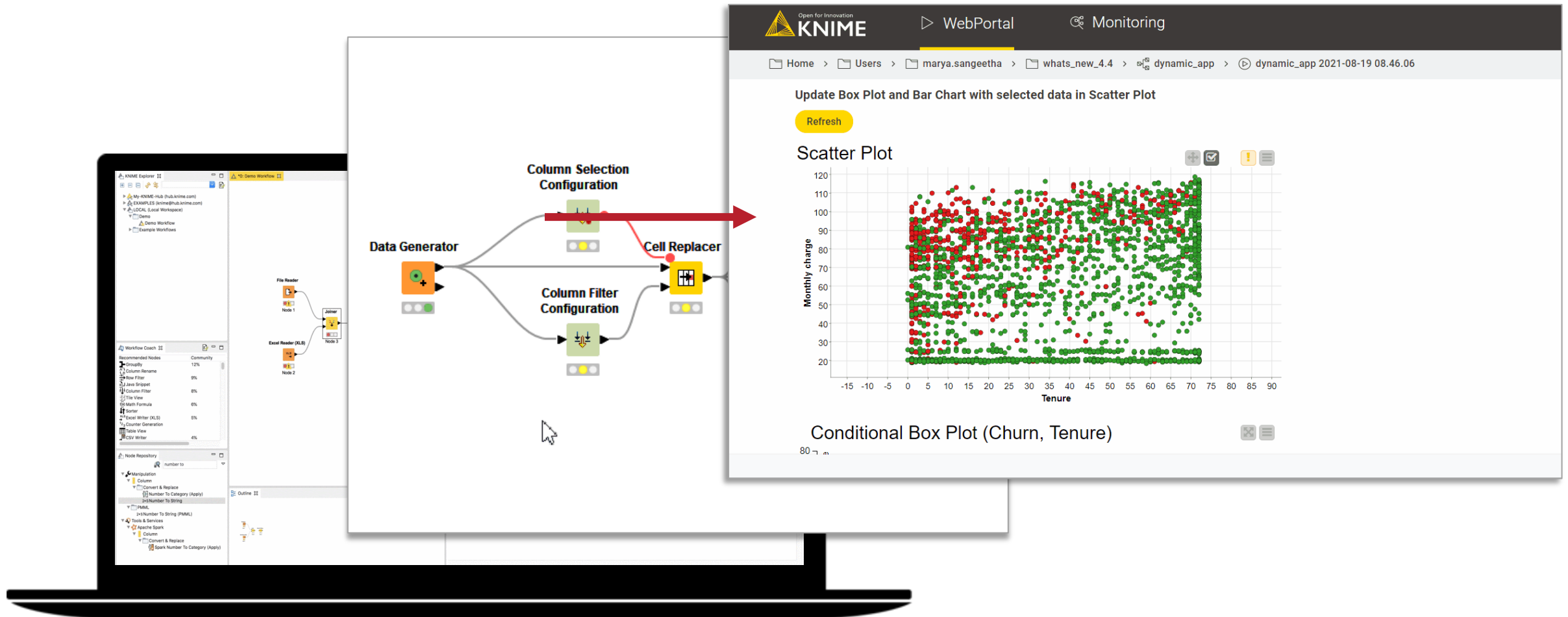
# Why do we love Data Apps?



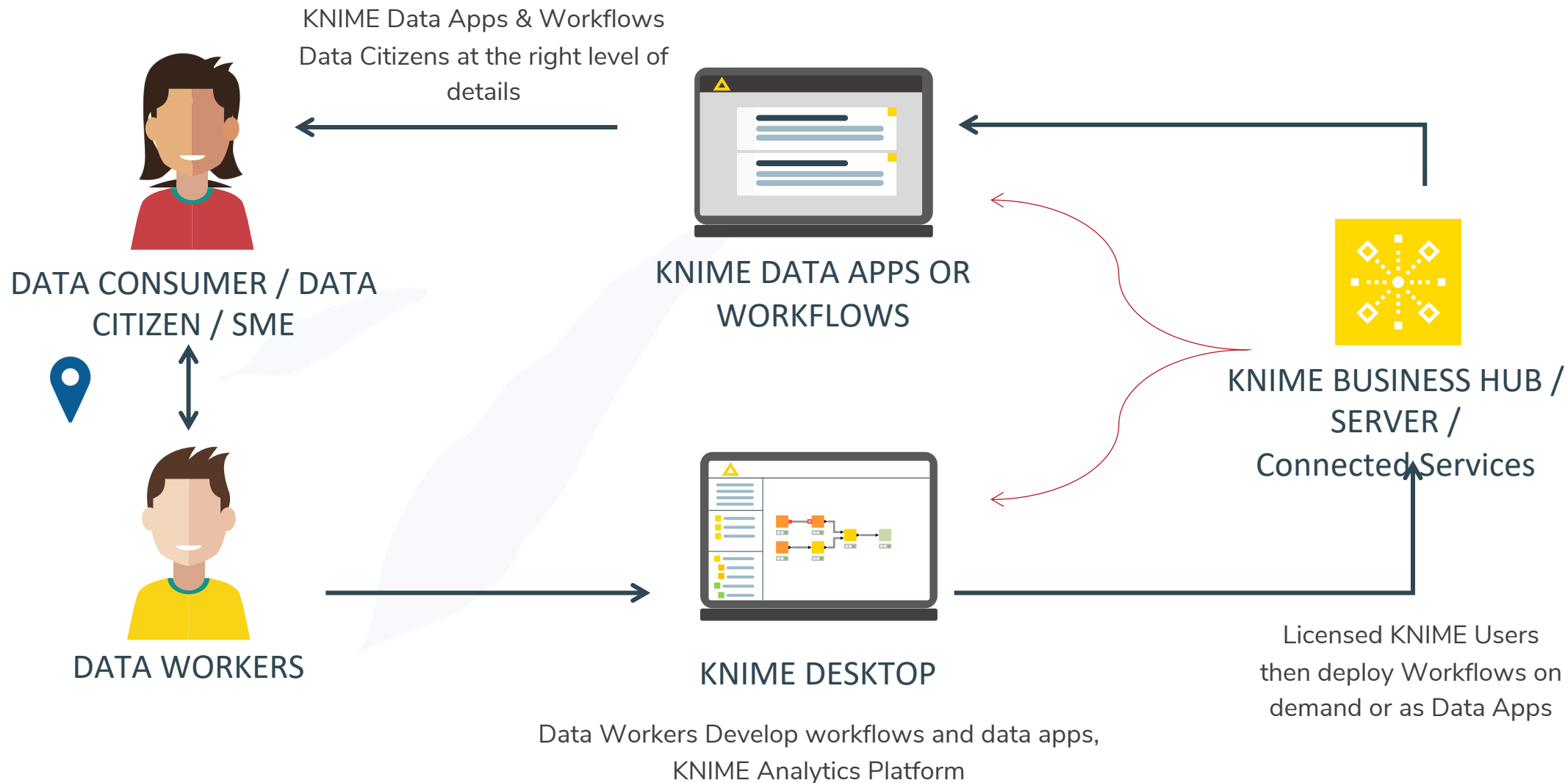
1. We have seen the value data applications are bringing to our customers
2. The opportunities and possibilities available
3. Bridges the gap for data citizens outside the data team (with the right level of detail)

# How does it work?

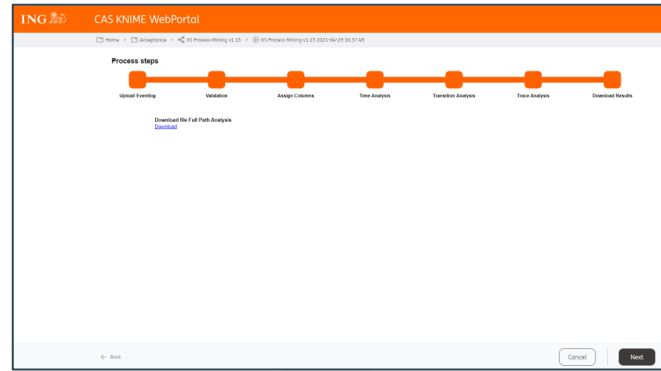
The same way workflows are built!  
Nodes, Components, Workflow > deploy!



# Data Consumers = Moving towards an organisation of Data Citizens



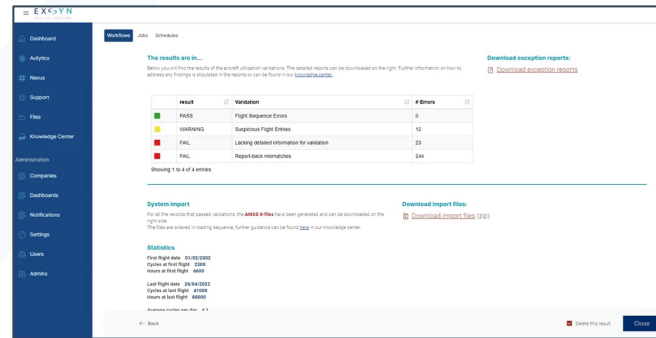
# Bespoke business apps for any business decision or process



**Team:** Audit

**Use-Case:** Process Mining Data

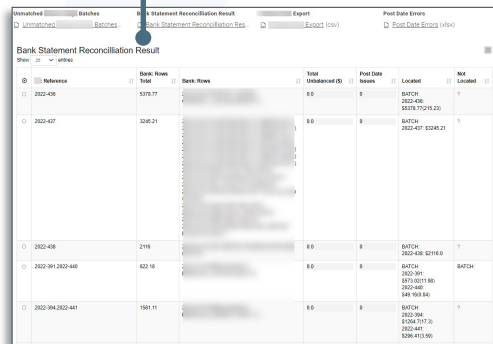
**Outcome:** enables auditors to identify non-compliance



**Team:** Engineering teams

**Use-Case:** Provider of aviation solutions, scaled data management to reduce aircraft phase-in processes

**Results:** 3+ weeks to a few days



**Team:** Fundraising

**Use-Case:** Automate process to transform Gift Records and upload to Finance System

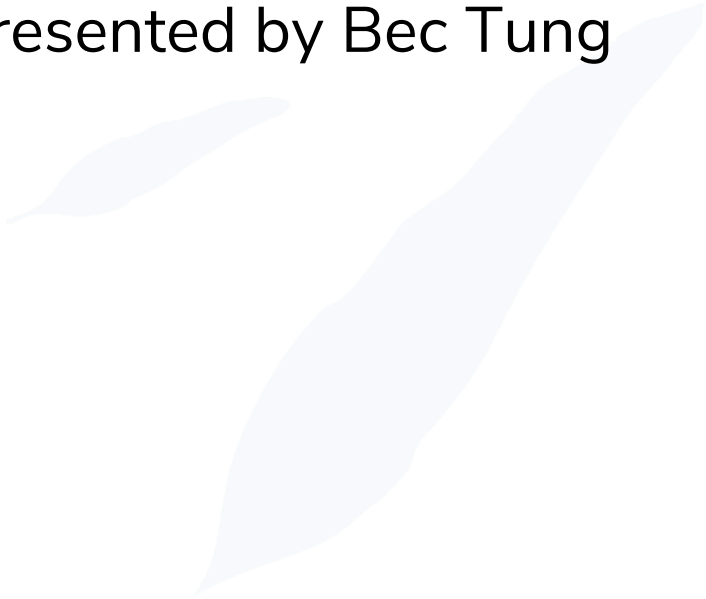
**Results:** digitization of manual, error prone processes. Greater data and self-service power for giving and finance teams.

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# KNIME Data Apps in Action

## Use Case 1: Data Input & Exploration

Presented by Bec Tung





# Data Apps??

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- Business seek to move towards data-driven planning and decision making

**“Digital transformation”**

**“Data citizen”**

- Standardize data entry process, tightly controlled pipeline so management has more control over the process from start to finish.
- De-risking: minimizes the opportunity for human error or inefficiency, and HOURS of time spent trying to correct an accident.
- Ease of use
- Built to accommodate complexity
- Highly customized for specific business needs.
- Contributes to agile, data-driven businesses who accommodate diverse data integration and have highly-accessible data.

# Webportal Demos

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## Live Demo1: Budget App

- Multiple sites, multiple managers
- Excel spreadsheets for data entry
- Challenging to collate data from separate sites
- Leverage KNIME Webportal as a single interface
- Streamline and control budgeting process

## Live Demo2: Credit Risk Assessment

- Assess risk of certain customers based on varying parameters
- Visual representations in data exploration to aid decision-making
- Showcase KNIME Webportal diversity for highly customizable business needs

# Data Apps!!

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- ✓ Standardize data entry process, tightly controlled pipeline so management has more control over the process from start to finish.
- ✓ De-risking: minimizes the opportunity for human error or inefficiency, and HOURS of time spent trying to correct an accident.
- ✓ Ease of use
- ✓ Built to accommodate complexity
- ✓ Highly customized for specific business needs.
- ✓ Readily-available data & diverse data integration
- ✓ Contributes to agile businesses, data-driven planning and decision-making

**“Data citizen”**  
**“Digital transformation”**

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# KNIME Data Apps in Action

## Use Case 2: Deployment of reusable KNIME workflows

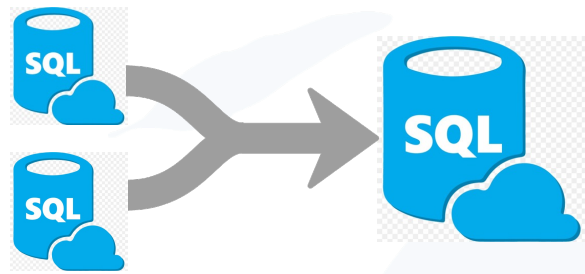
Presented by Willem Lottering



# Deployment of reusable workflows

## Use Case

- Repeating request to create workflows to extract data from SQL database into a data warehouse
- Requirements for database schema to match source system to reduce traffic to production database for reporting.
- Repeatabe and configurable solution
- Easy to use
- Web Apps



Source System

Host URL

Host Port

Database Name

User Name

Password

Is Source System  Is Active

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Connected Services

Monitoring Administration

Home > SQL\_Extract > Manage SQL Source Extraction(Conference) > Manage SQL Source Extraction(Conference) 2023-02-16 16.31.51

Config Selection

- New Source System
- New Source System**
- Edit Source System(s)
- New/Edit Configuration
- Create "Create Tables If Not Exists"
- Create Processing Workflow
- Exit

New Source System

# Deployment of reusable workflows

## Use Case

- Configure connection settings
  - SQL Source connection details
  - Table and columns
  - Incremental loads or Lift and Shift
- Deploy
- Repeat

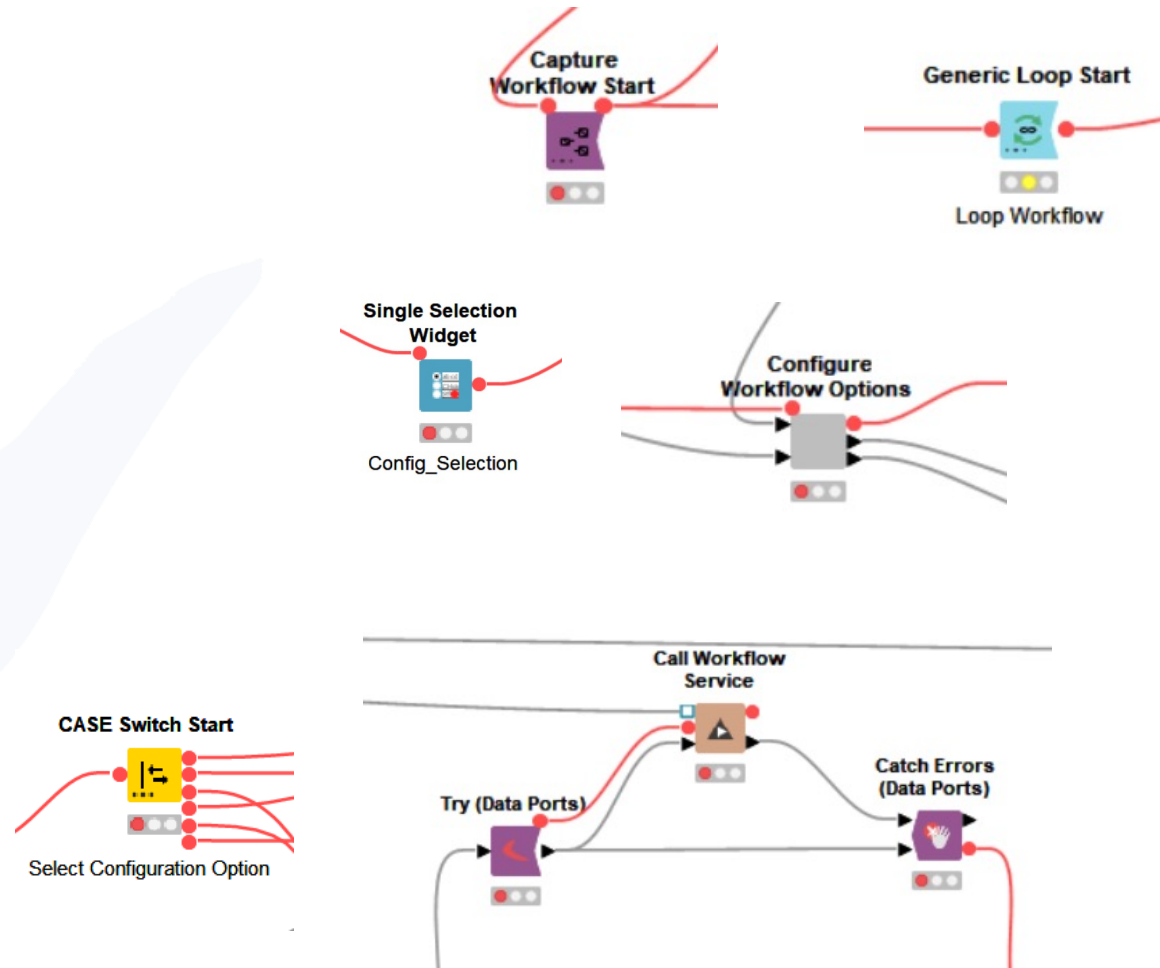
The screenshot displays a multi-step configuration interface for a data workflow. The interface is divided into several panels:

- Select Tables To Add:** A list of tables is shown, categorized into 'Excludes' and 'Includes'. The 'Includes' list contains 'Person.Address', 'Person.Person', and 'Production.Location'. The 'training' table is highlighted in red.
- Table Configuration (Person Address):**
  - Check for Deleted Records:** A section with a 'Duration' dropdown set to 'Weeks' and a 'Duration value' dropdown set to '-2'. Below it, a 'Where' clause is defined: 'WHERE ModifiedDate <= <<FROM\_DATE>> OR ModifiedDate IS NULL'.
  - Available Columns:** A list of columns for the 'Person Address' table, including 'AddressID', 'AddressLine1', 'AddressLine2', 'City', 'PostalCode', 'rowguid', and 'StateProvinceID'. 'ModifiedDate' is highlighted in blue.
  - Description:** A text area containing 'Person address table'.
- Table: Person.Address:** A section for selecting primary key columns. The 'Includes' list contains 'AddressID'. The 'Excludes' list contains 'AddressLine1', 'AddressLine2', 'City', 'ModifiedDate', 'PostalCode', 'rowguid', 'SpatialLocation', and 'StateProvinceID'.
- Target Schema:** A list of schemas including 'training', 'dwh', 'staging', 'work', 'metadata', 'config', 'demo', and 'training' (highlighted in red).

# Deployment of reusable workflows

## Functionality used

- Loops
- Widgets
- Variables
- Call Workflow Service
- Capture Workflow Start/End
- Workflow Write
- Database Connections
- Workflow Control nodes



# Deployment of reusable workflows

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Live Demo

