

Open Source Process Automation

GETTING STARTED

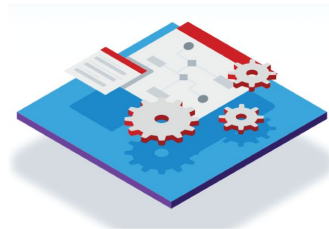
Mgr. Ivo Bek, Product Manager
Mgr. Marian Macik, Quality Engineer

Feb 2020

AGENDA

- ❑ BPM Intro
- ❑ Business automation
- ❑ Architecture
- ❑ New project in Business Central
- ❑ Business assets
 - ❑ Data objects
 - ❑ Business processes
 - ❑ Forms
- ❑ Process administration
- ❑ Team collaboration

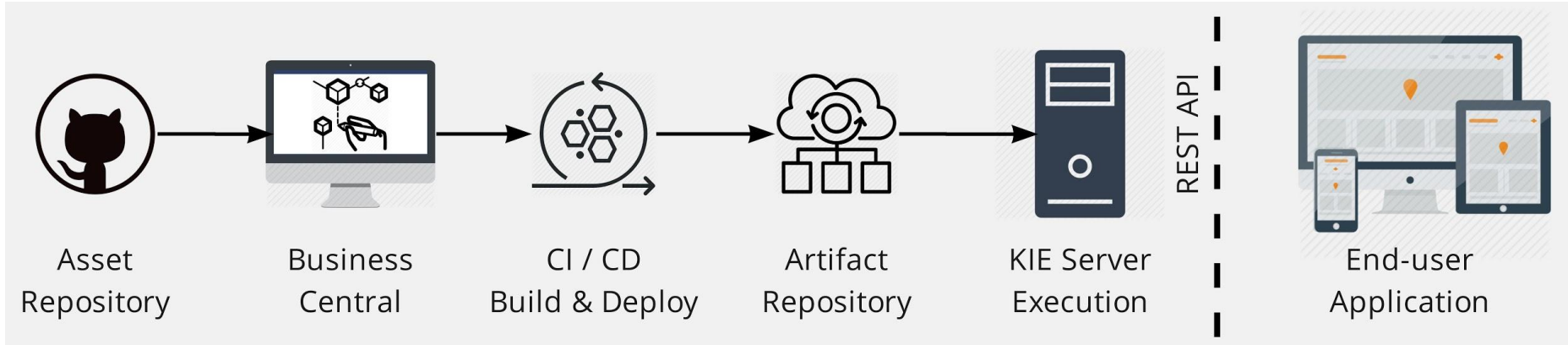
 **Process
Automation
Red Hat Manager**



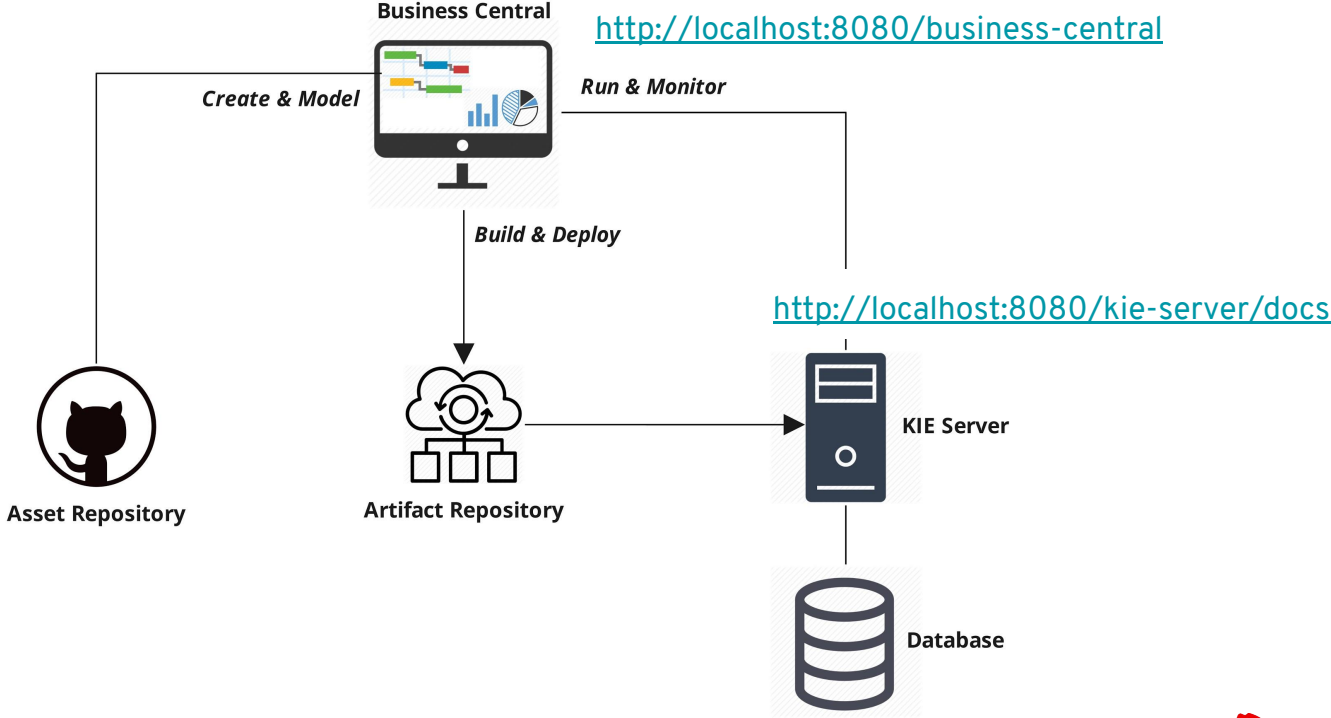
Business Central



FROM A MODEL TO PRODUCTION



MINIMAL VANILLA ARCHITECTURE



SETUP - THE FIRST STEPS

- ❑ Download and unzip the [single zip distribution](#)
- ❑ Run:

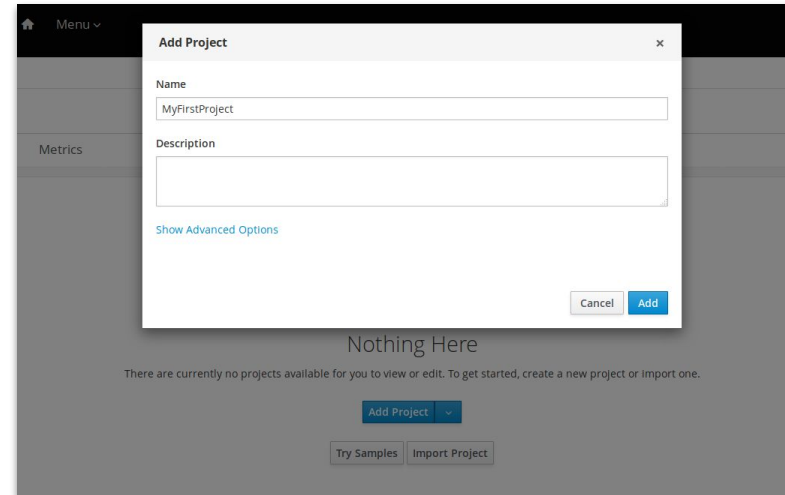
jbpm-server/bin/standalone.sh (Unix / Linux)

jbpm-server/bin/standalone.bat (Windows)

- ❑ Add users and groups
- ❑ Use H2/MySQL/PostgreSQL database (optional)
- ❑ More info in [Getting Started Guide](#)

NEW PROJECT IN BUSINESS CENTRAL

- ❑ Based on Maven and stored in Asset repository (GIT)
- ❑ Try Samples
- ❑ SNAPSHOT development version
- ❑ Add assets
 - ❑ Data Object
 - ❑ Business Process
 - ❑ Form
 - ❑ DMN Model
 - ❑ Test Scenarios
- ❑ Build and Deploy



DATA MODELING

Spaces » myteam » MyFirstProject » Person

> Person.java - Data Objects Save Delete Rename Copy Validate Latest Version ▾ View Alerts ↕ ✕

Model Overview Source

Person + add field

Identifier	Label	Type	
name	Name	String	Delete
age	Age	Integer	Delete

'age'- general properties

Identifier

Label

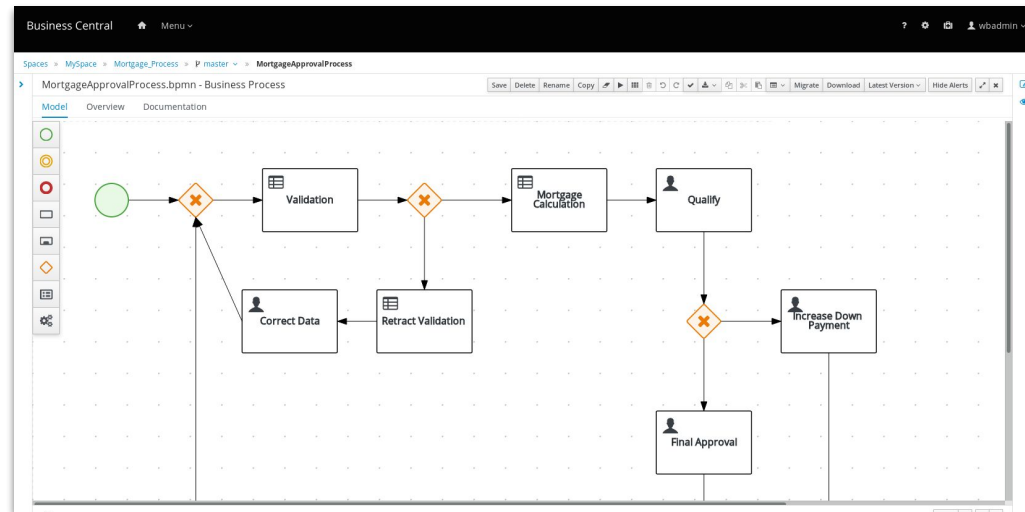
Description

Type

List

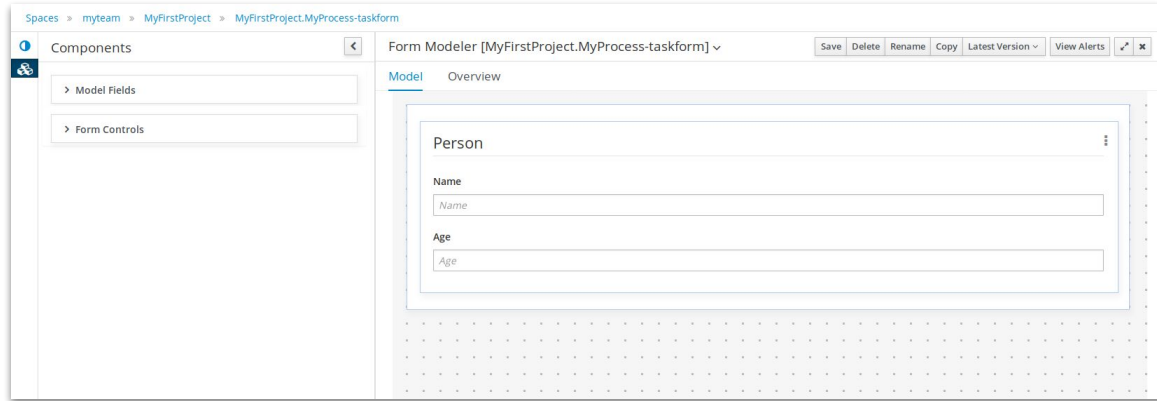
PROCESS MODELING

- ❑ Subset of BPMN2 elements
- ❑ Focus on execution semantics
- ❑ Form generating
- ❑ Export to PNG, PDF, SVG, BPMN2



FORM MODELING

- ❑ Generate forms for
 - ❑ Data Objects
 - ❑ Process start form
 - ❑ Task form
- ❑ Widget library able to bind different types of data (TextBox, DatePickers, Checkboxes, ListBox, Nested Forms...)



PROCESS ADMINISTRATION

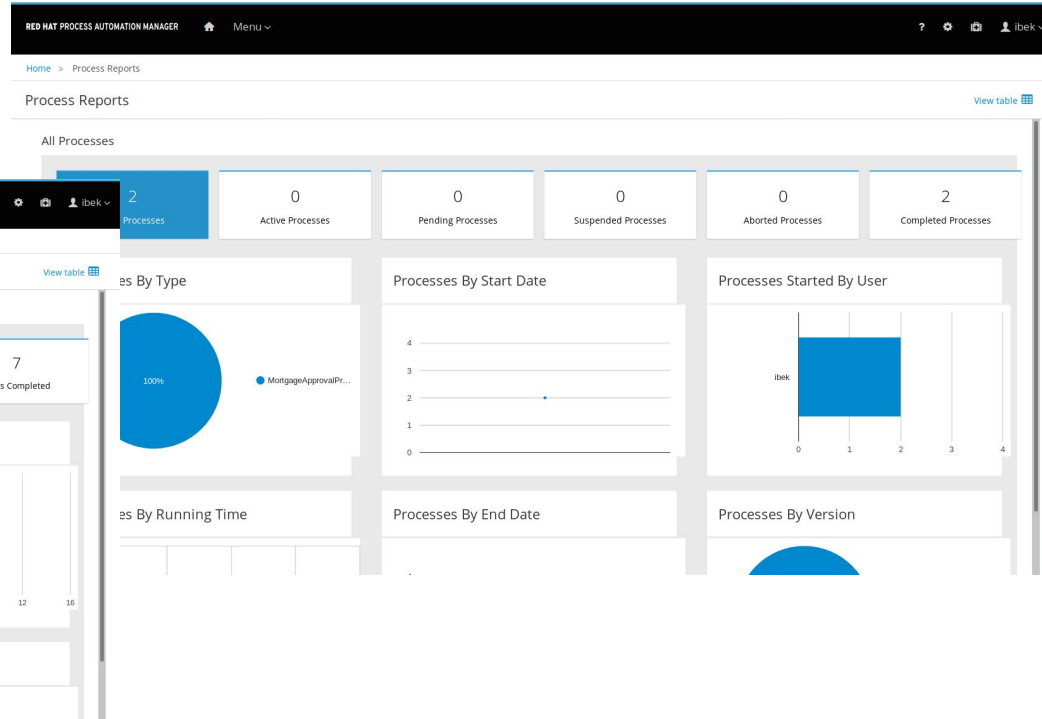
- Quick access to:
 - Process Definitions
 - Process Instances
 - Tasks
 - Execution errors
 - Jobs
- Filtering

The screenshot displays the 'Manage Process Instances' interface. On the left, a 'Filters' sidebar includes sections for 'State' (Active, Aborted, Completed, Pending, Suspended), 'Errors' (With errors, Without errors), and 'Filter By' (Id, Name, Start Date, Last update). The main area shows a table of process instances with columns: Id, Name, Description, Version, Last update, Errors, and Actions. Two instances are visible: Id 2 (Evaluation) and Id 1 (Order for IT hardware). The interface also includes a 'Bulk Actions' dropdown, a 'New Process Instance' button, and pagination controls showing '10 Items' and '1-2 of 2'.

Id	Name	Description	Version	Last update	Errors	Actions
2	Evaluation	Evaluation	1	29-Mar-2018 12:58:57	0	⋮
1	Order for IT hardware	Order for IT hardware	1.0	29-Mar-2018 12:52:46	0	⋮

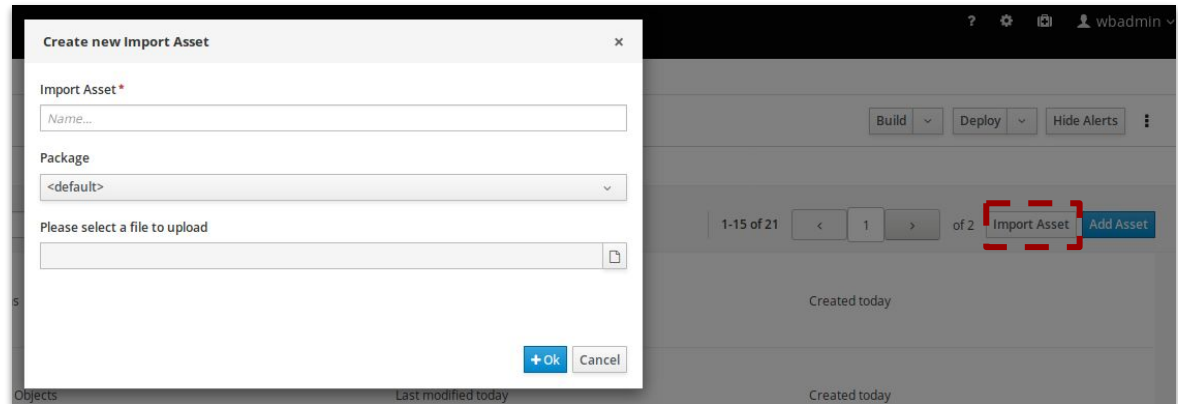
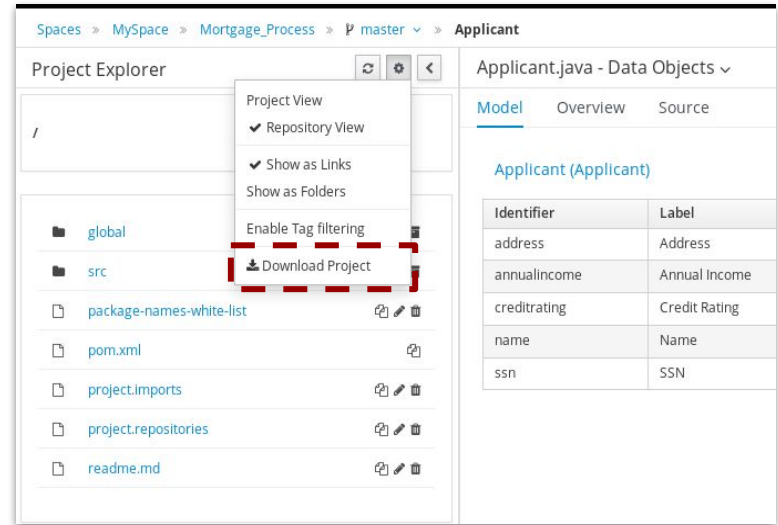
PROCESS MONITORING

- Process reports
- Task reports



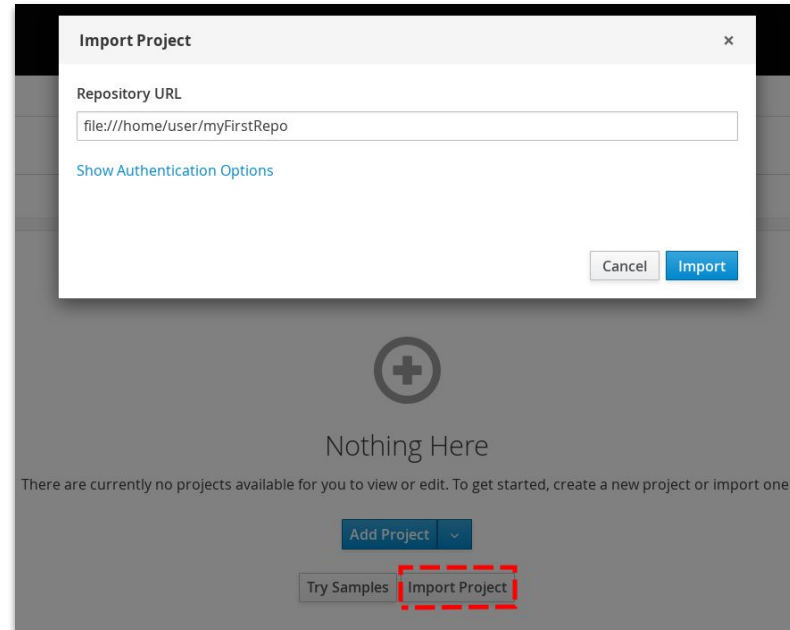
TEAM COLLABORATION

- How to work on a project as a team without any complex setup of the infrastructure (git hooks, central git repository, ...)
- 1. Split the work between the team members
- 2. Export project
- 3. Share your assets with your team
- 4. Import assets to your local instance



TEAM COLLABORATION VIA GIT

- ❑ Requires only basic Git skills
- ❑ Pull your business assets from Business Central
 1. `git remote add business-central ssh://wbadmin@localhost:8001/MySpace/<projectName>`
 2. `git pull business-central master`
 3. `password wbadmin`
- ❑ Push your business assets for example to GitHub
 1. `git push github master`
- ❑ Import your business assets to another Business Central either by pushing to it or by cloning whole repository from UI



THANK YOU



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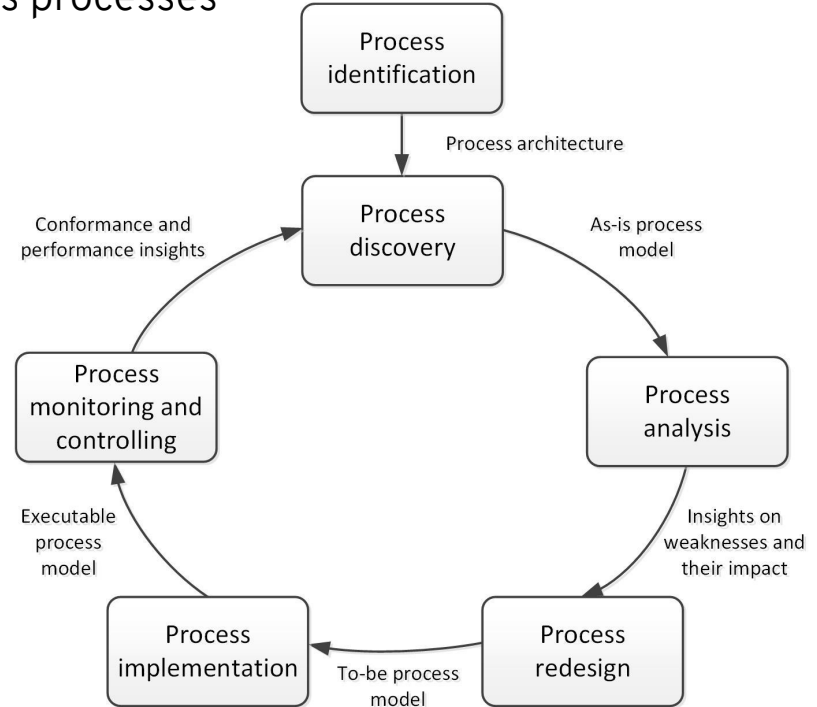
twitter.com/RedHat

BUSINESS PROCESS MANAGEMENT

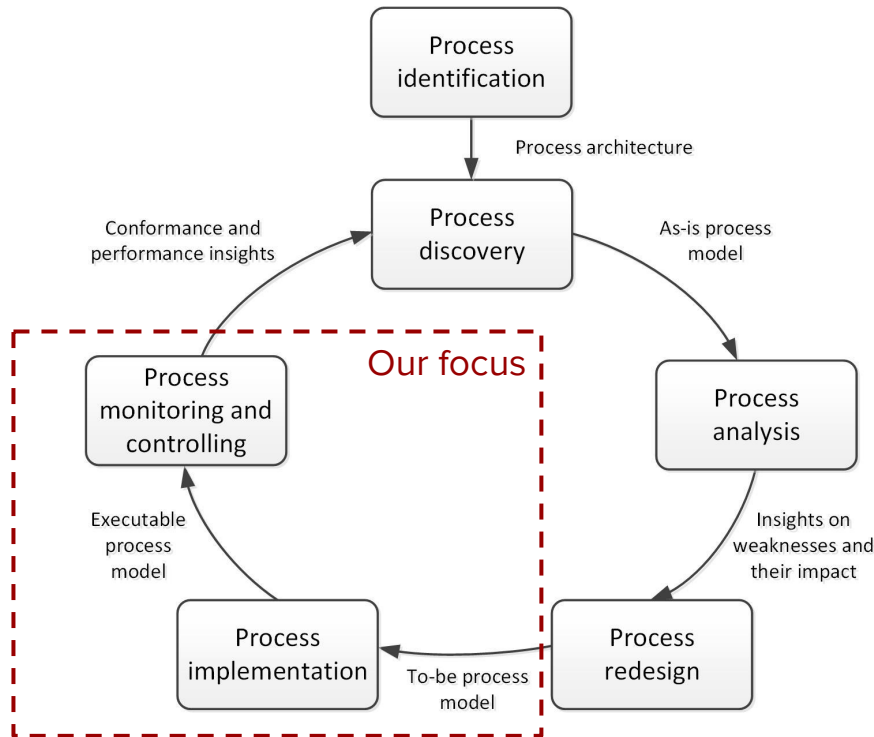
the way a company manages and improves business processes

“A business process is a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer. A business process has a goal and is affected by events occurring in the external world or in other processes.” Hammer, M. and Champy, J.

- approval process
- payment process
- employee onboarding
- loan/mortgage application
- Manufacturing / assembly line
- service requests
- rent car process
- vacation approval
- media publish process



RETURN ON INVESTMENTS (ROI)

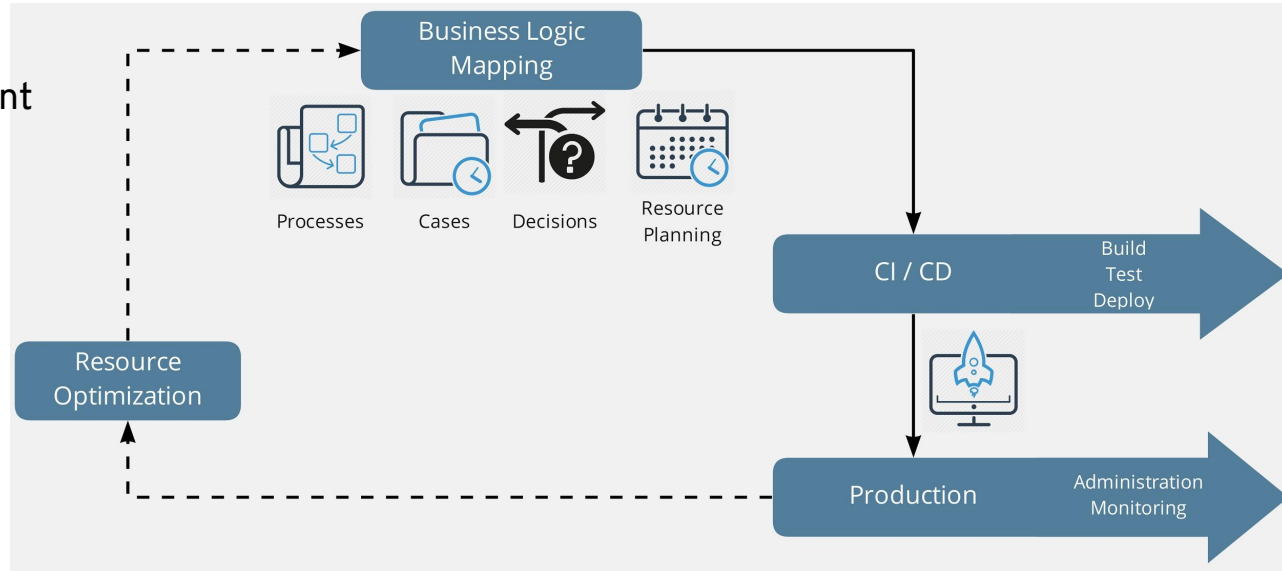


Frequency
Size and complexity
Diversity (actors, systems, rules)
Speed (SLAs)

Time (spent on a single manual task) x
Frequency (of performing a task per month) x
Cost (per hour) x 12 (months) = **Yearly Savings**

BUSINESS AUTOMATION

- ❑ BPM
- ❑ Decision Management
- ❑ Case Management
- ❑ Resource Planning
- ❑ Robotic Process Automation (RPA)
- ❑ AI, XAI, and Machine Learning



See BPM in context