



Save the date!

Donderdag

9 juli 2020

Automatisch testen

Lean Coffee



ada



ada co-creating  
business  
software





# Low / No code Testen

 outsystems    Lean Coffee



Presentatie door: Bert Leibbrand



# Agenda

- 18.30 Opening
- 18.35 Presentatie Automatisch testen/OutSystem
- 19.35 Lean Coffee, the “Automatisch testen en aanverwante zaken” gefaciliteerd
- 20.15 Presenteren van take-aways van de Lean Coffees
- 20.30 Afsluiting
- 3 september– Vervolg Lean Coffee

# Even voorstellen

**Bert Leibbrand**

<><

Agilist & coach

Drone piloot (ROC Light)

Technisch projectmanager

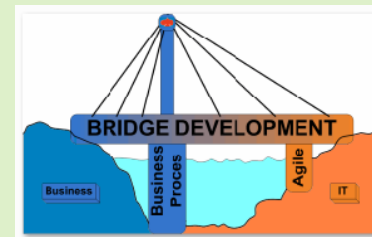
Associate Web Developer (OutSystems)

Leapwork – RPA & Test Professional

**+31 (0)6 27 74 60 88**

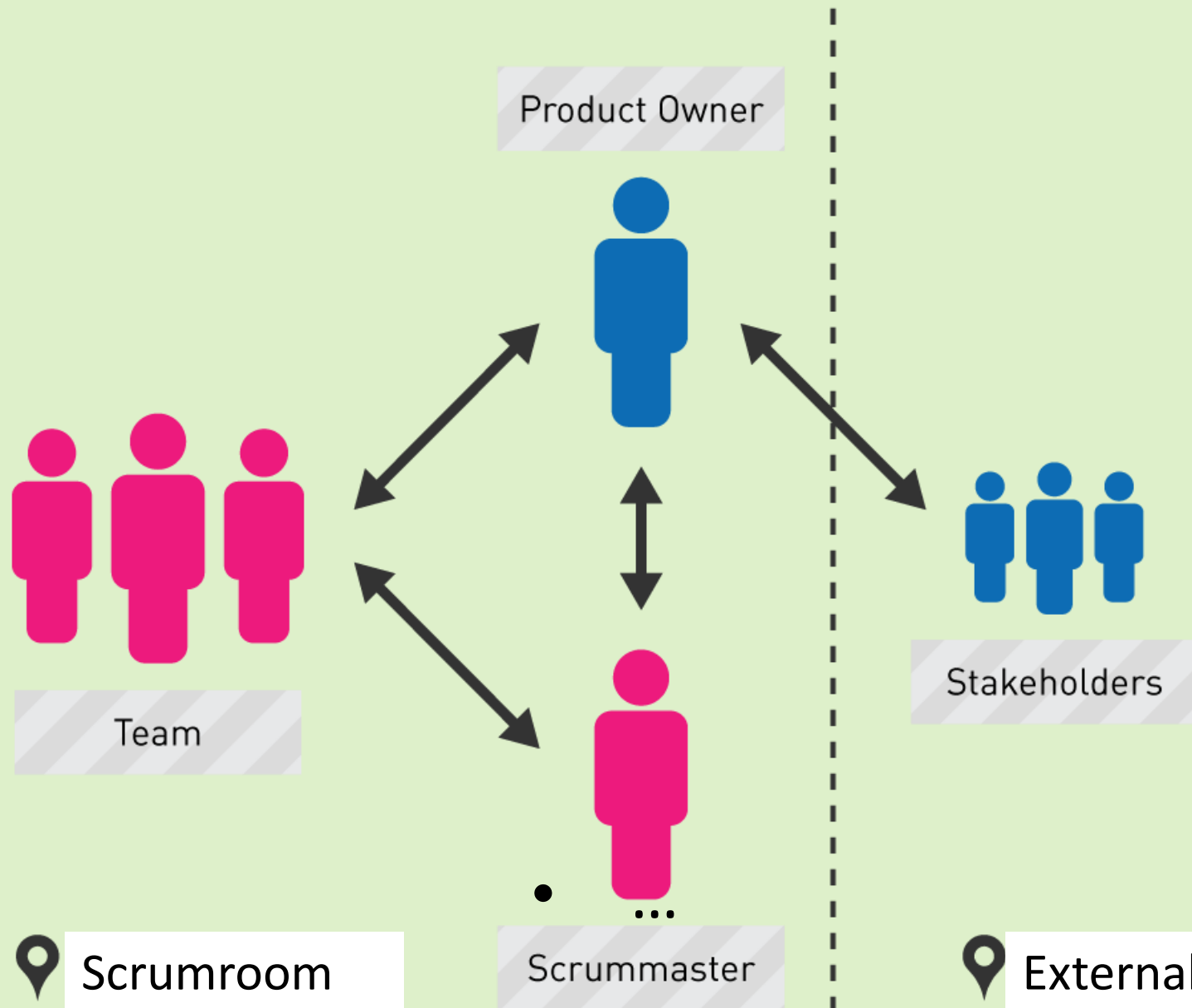
[bert.leibbrand@itri.nl](mailto:bert.leibbrand@itri.nl)

[www.itri.nl](http://www.itri.nl)

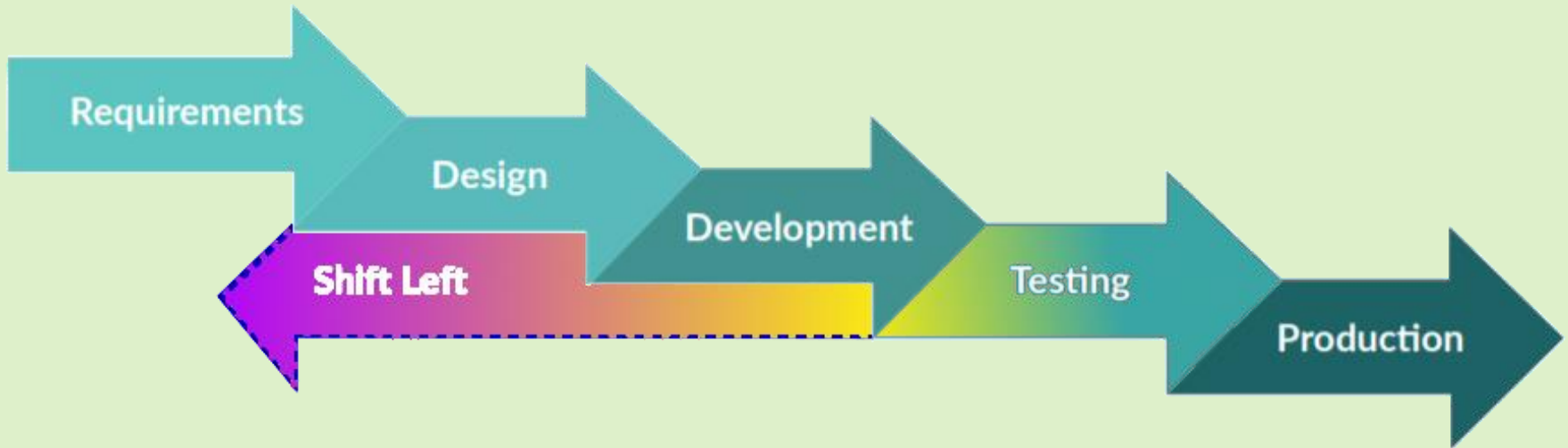


CERTIFICATION  
**LEAPWORK  
PROFESSIONAL**

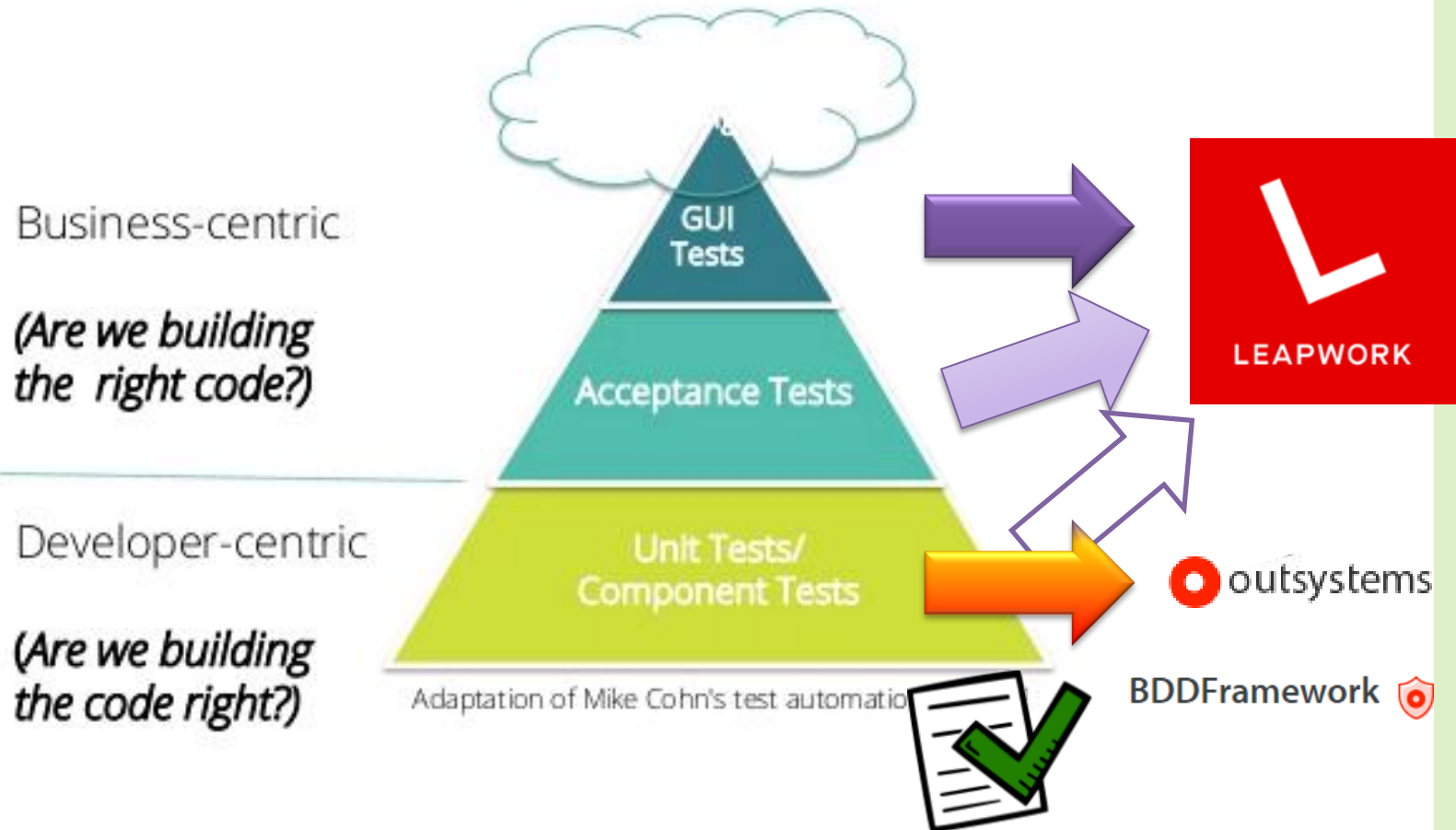




# Shift Left



# Test Automation Pyramid

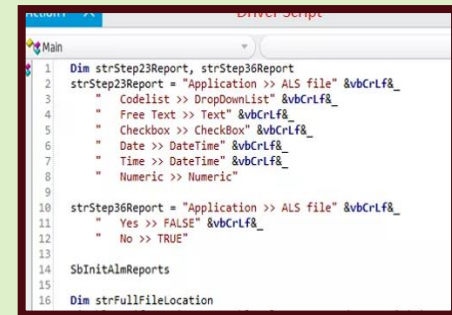
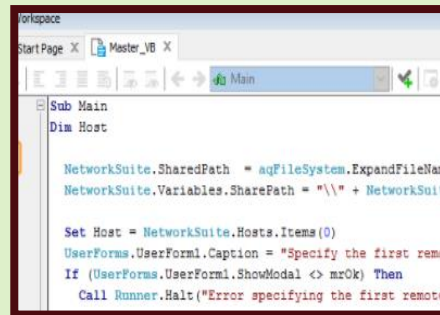
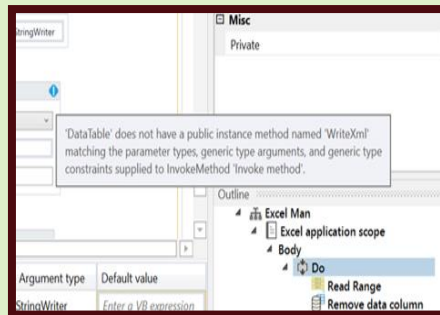


# ***There is a skills gap***

**The users understand business processes**



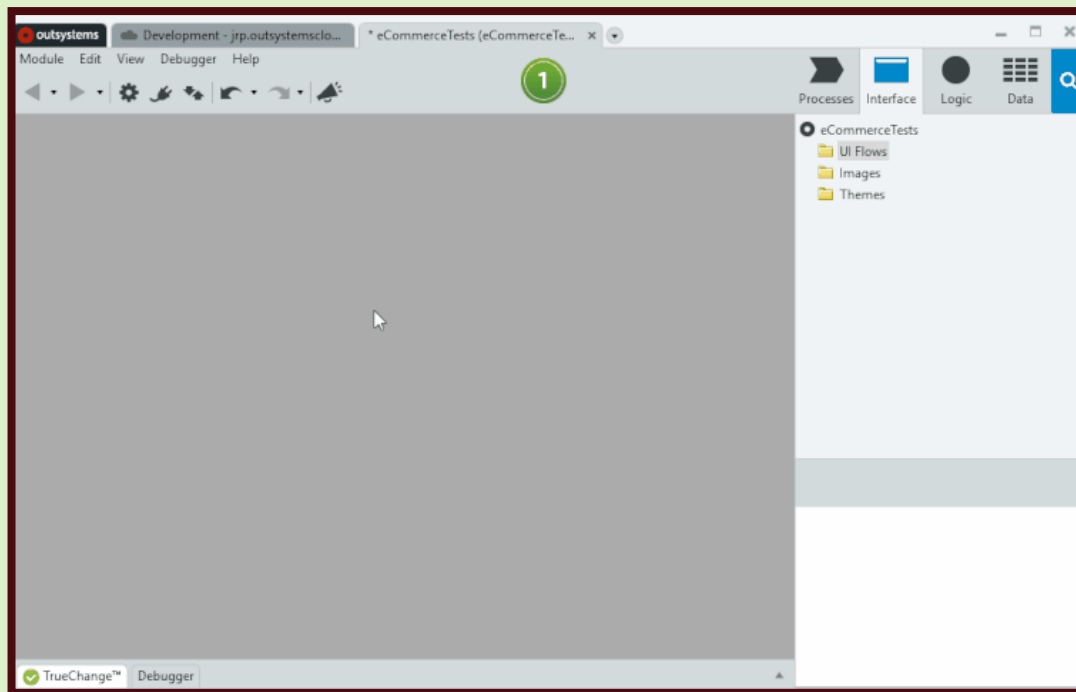
# But existing testing tools are tech-heavy, complicated and code- based



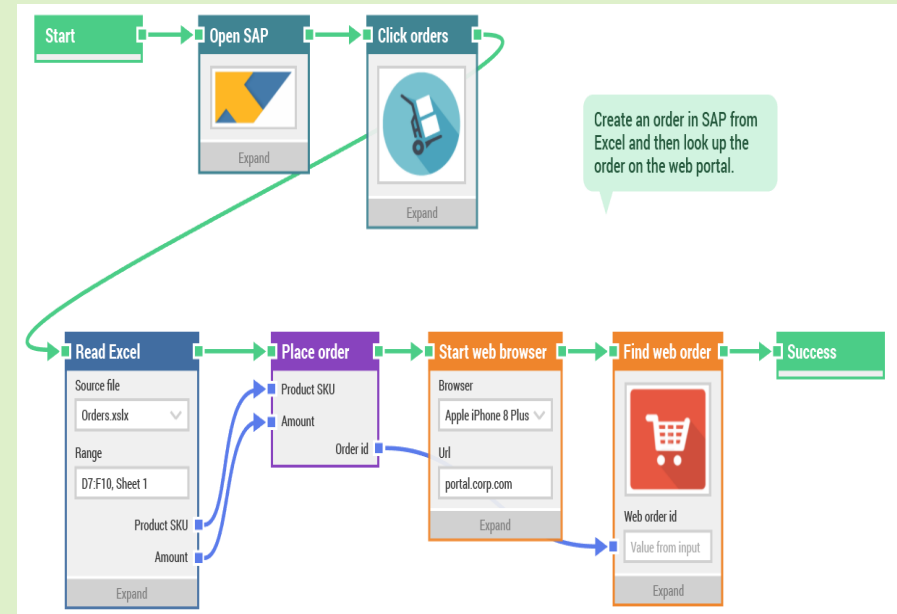
LEAPWORK



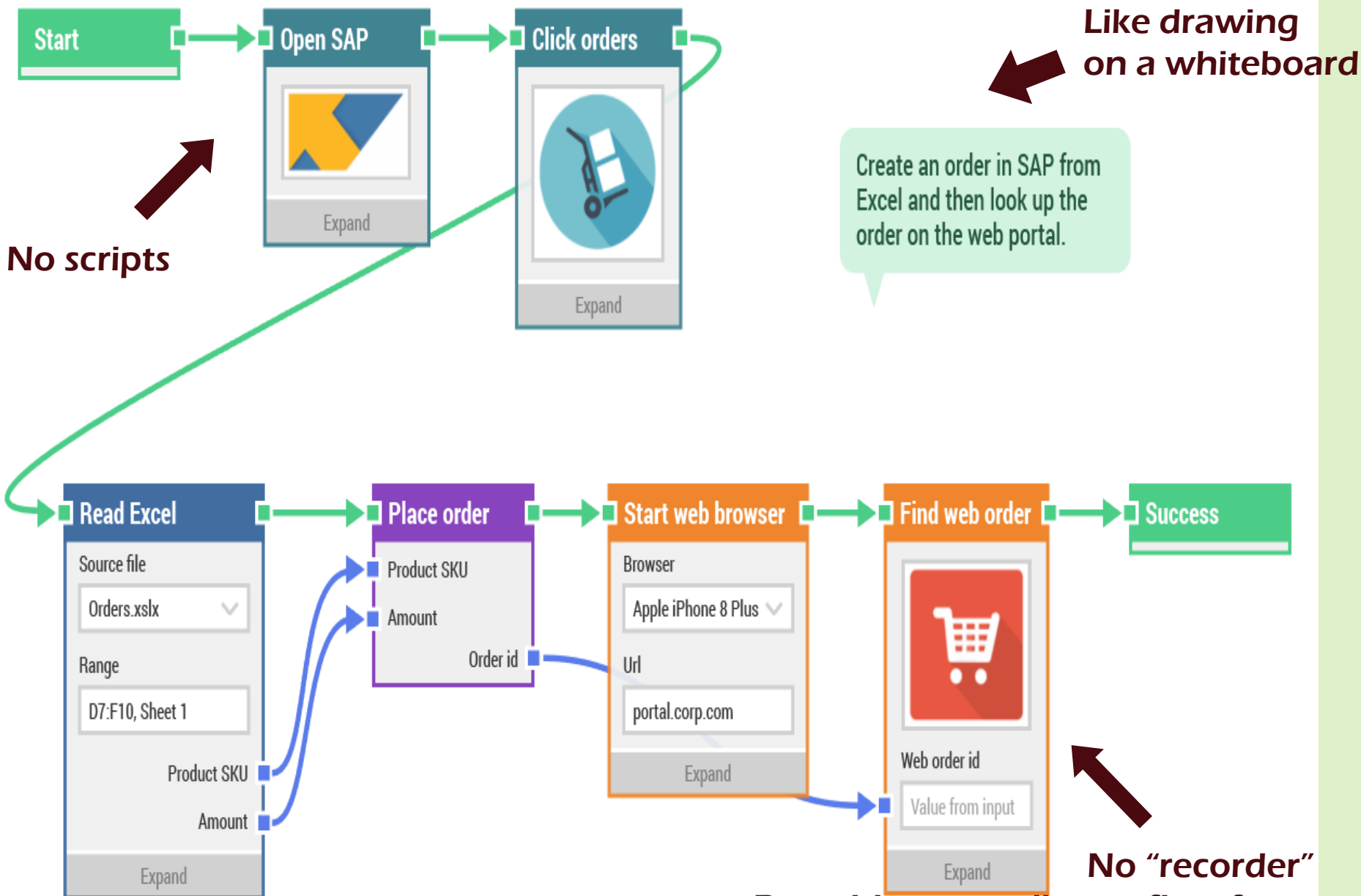
# BDD Framework



# LEAPWORK is a visual platform

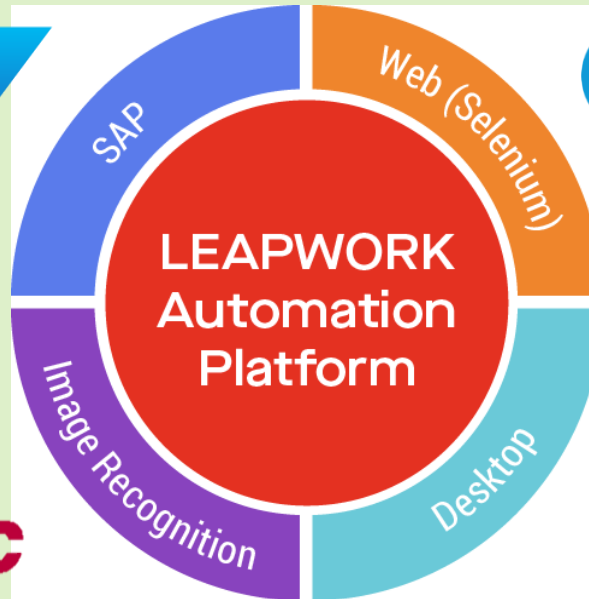


Non-technical users can create, maintain  
and *own* their automation

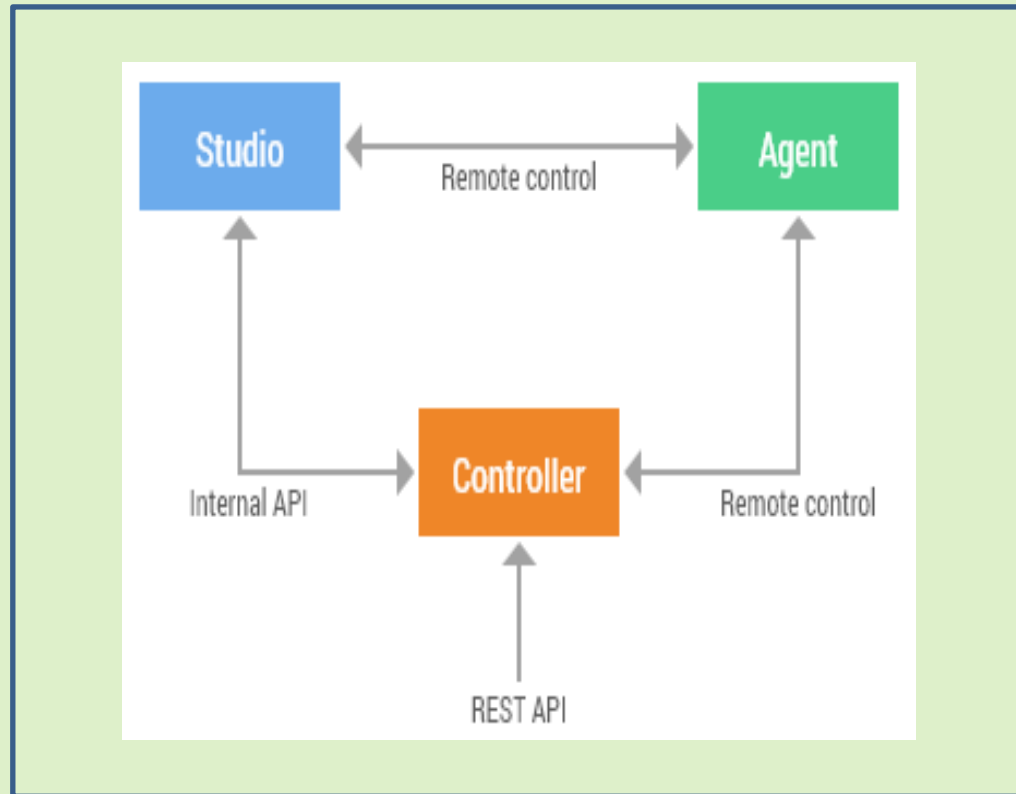




..and everything else

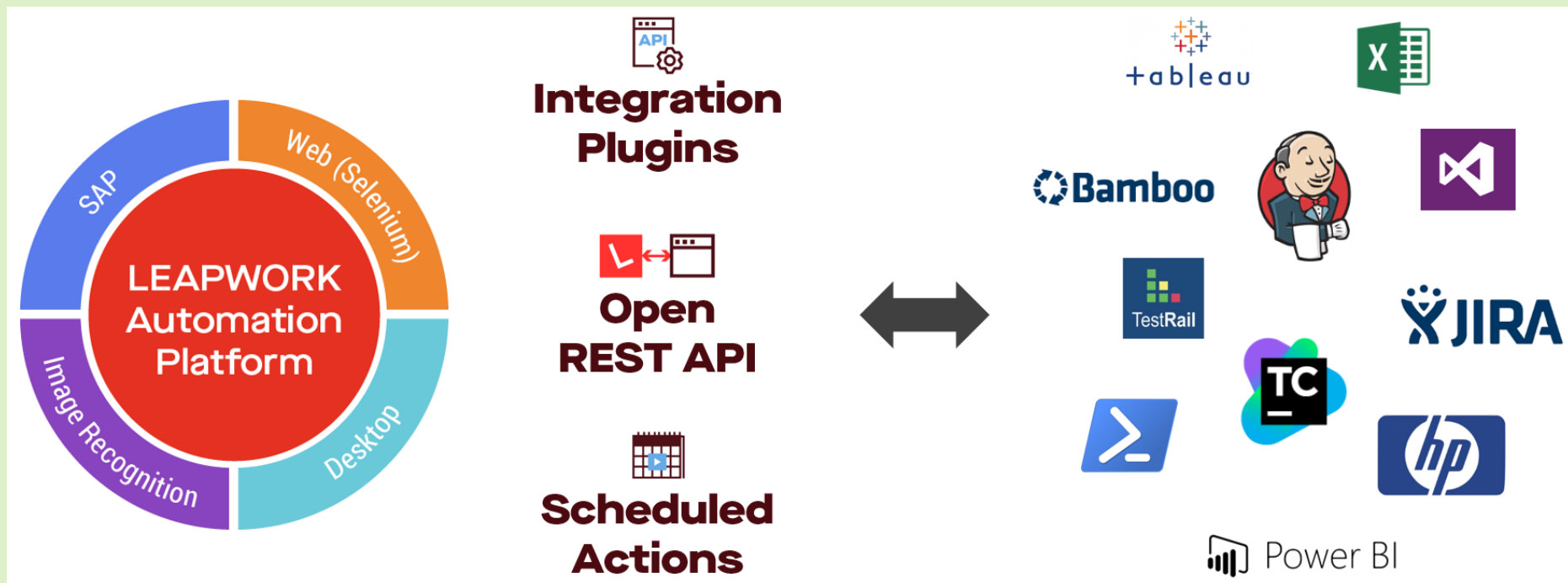


# Architecture

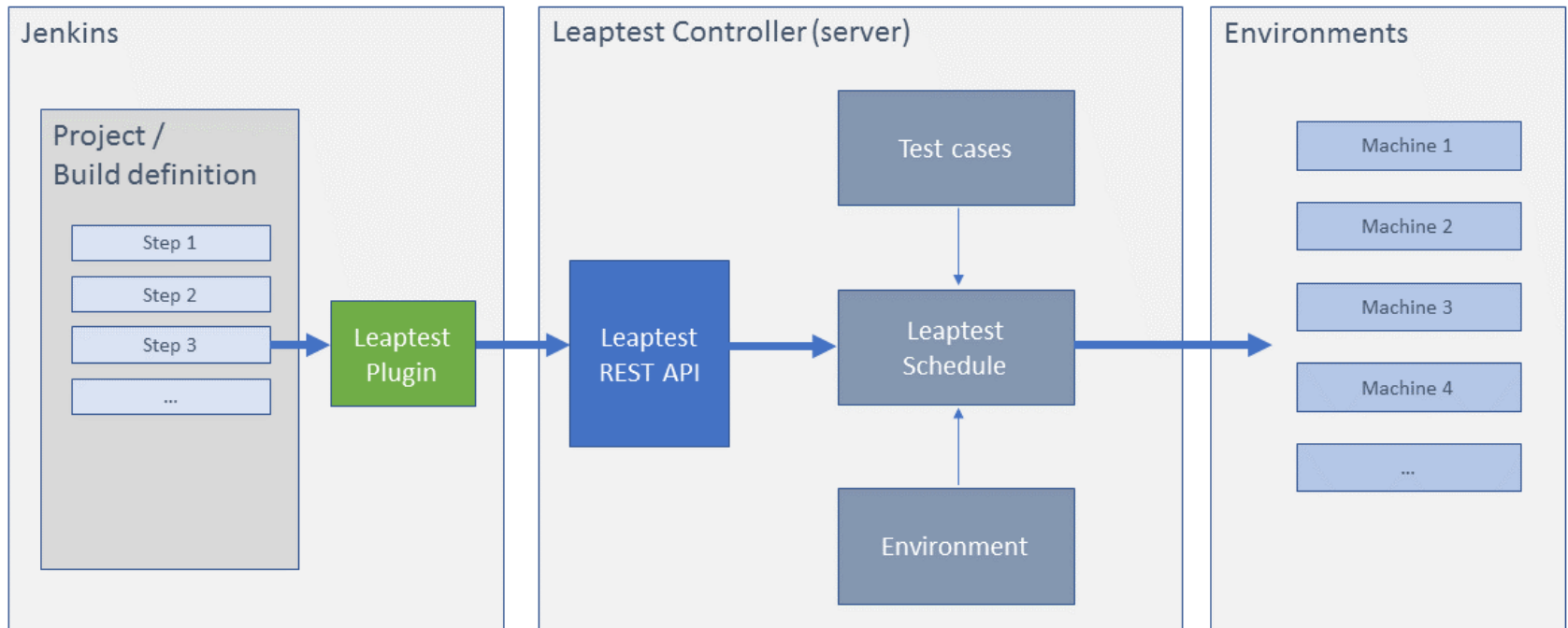


Leapwork Automation Platform

# Public REST API



# Public REST API





# Public REST API



## LEAPWORK API

### Integrations

[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/v3/schedules	Get All Schedules
GET	/api/v3/schedules/{scheduleId}	Get Schedule by Id
PUT	/api/v3/schedules/{scheduleId}/runNow	Run Schedule Now
PUT	/api/v3/schedules/{scheduleId}/stop	Stop Schedule by Schedule Id
GET	/api/v3/schedules/{scheduleId}/status	Get Schedule Run Status
GET	/api/v3/schedules/{scheduleId}/runIds	Get Run Ids by Schedule Id
GET	/api/v3/run/{runId}	Get Run by Id
PUT	/api/v3/run/{runId}/stop	Stop Schedule by Run Id
GET	/api/v3/run/{runId}/status	Get Run Status by Run Id
GET	/api/v3/run/{runId}/runItemIds	Get Run Item Ids by Run Id
GET	/api/v3/runItems/{runItemId}	Get Run Item by Id
GET	/api/v3/runItems/{runItemId}/keyframes/{offset}	Get Run Item Keyframes

### Variables

[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

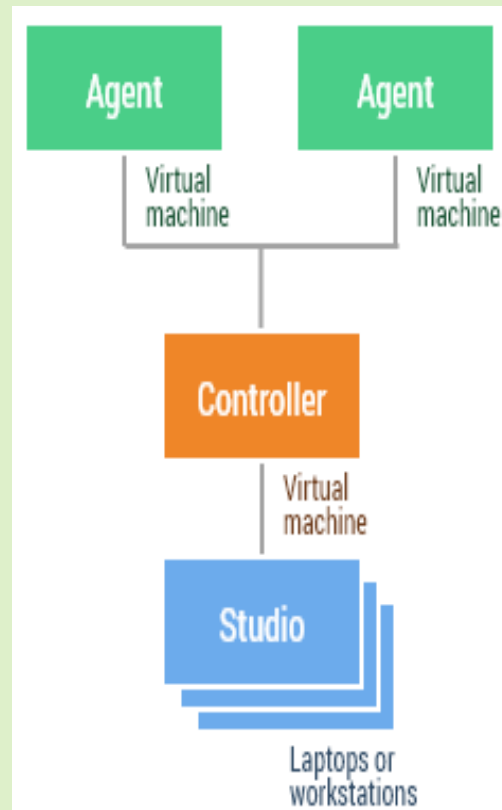
GET	/api/v3/variables	Get All Variables
PUT	/api/v3/variables	Edit Variable by Name
GET	/api/v3/variables/{name}	Get Variable by Name



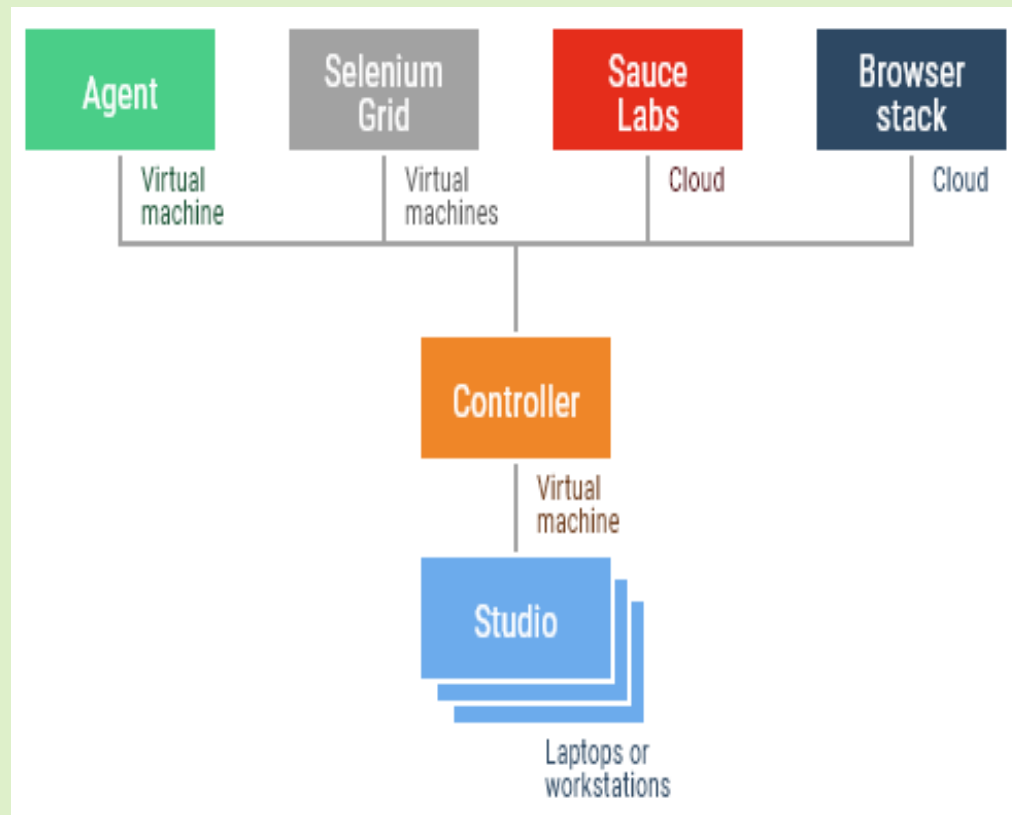
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# Supports *distribution*



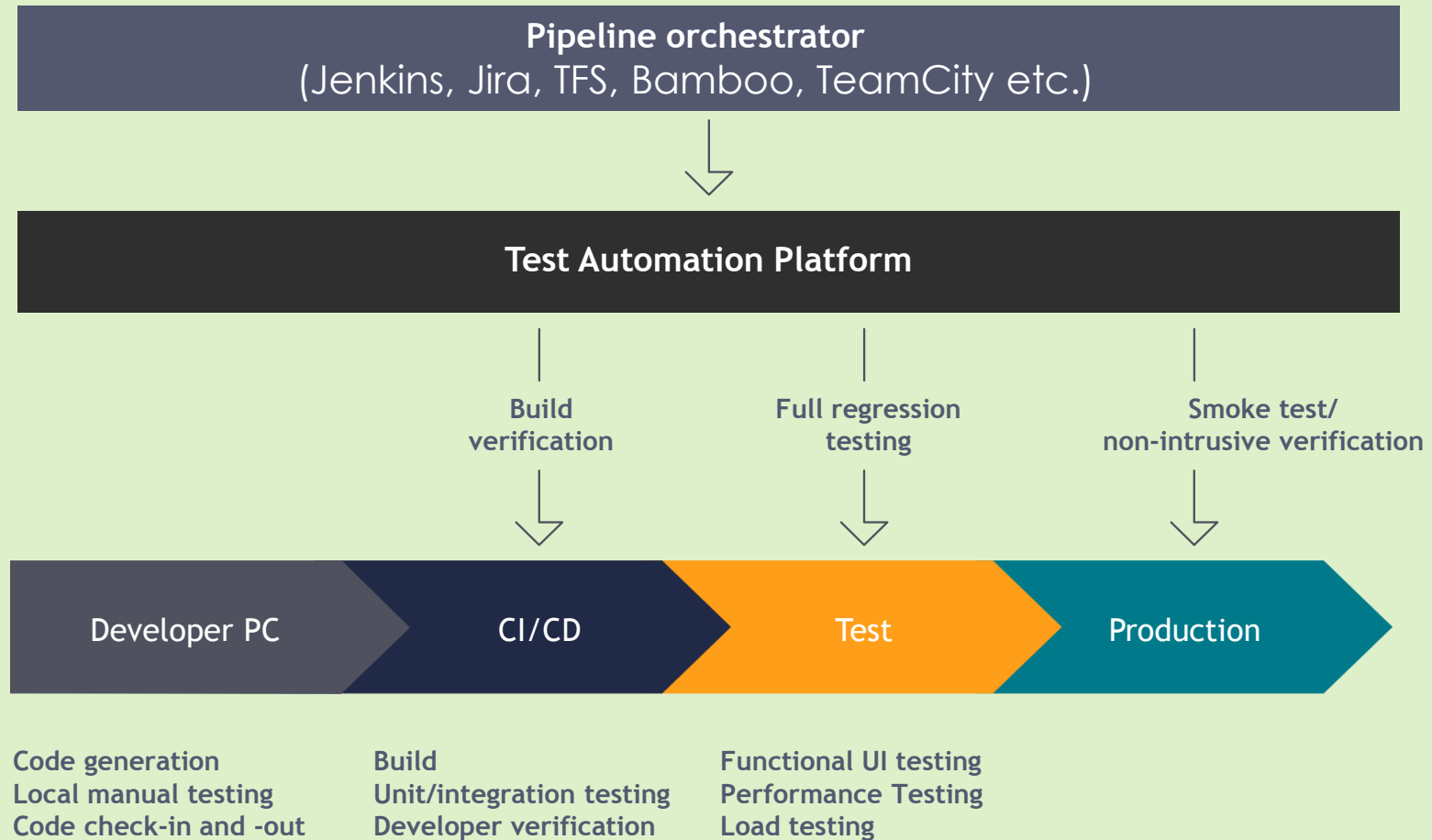
# Supports distribution



# Succeeding with DevOps requires swift feedback



# Automate as much of your pipeline as possible

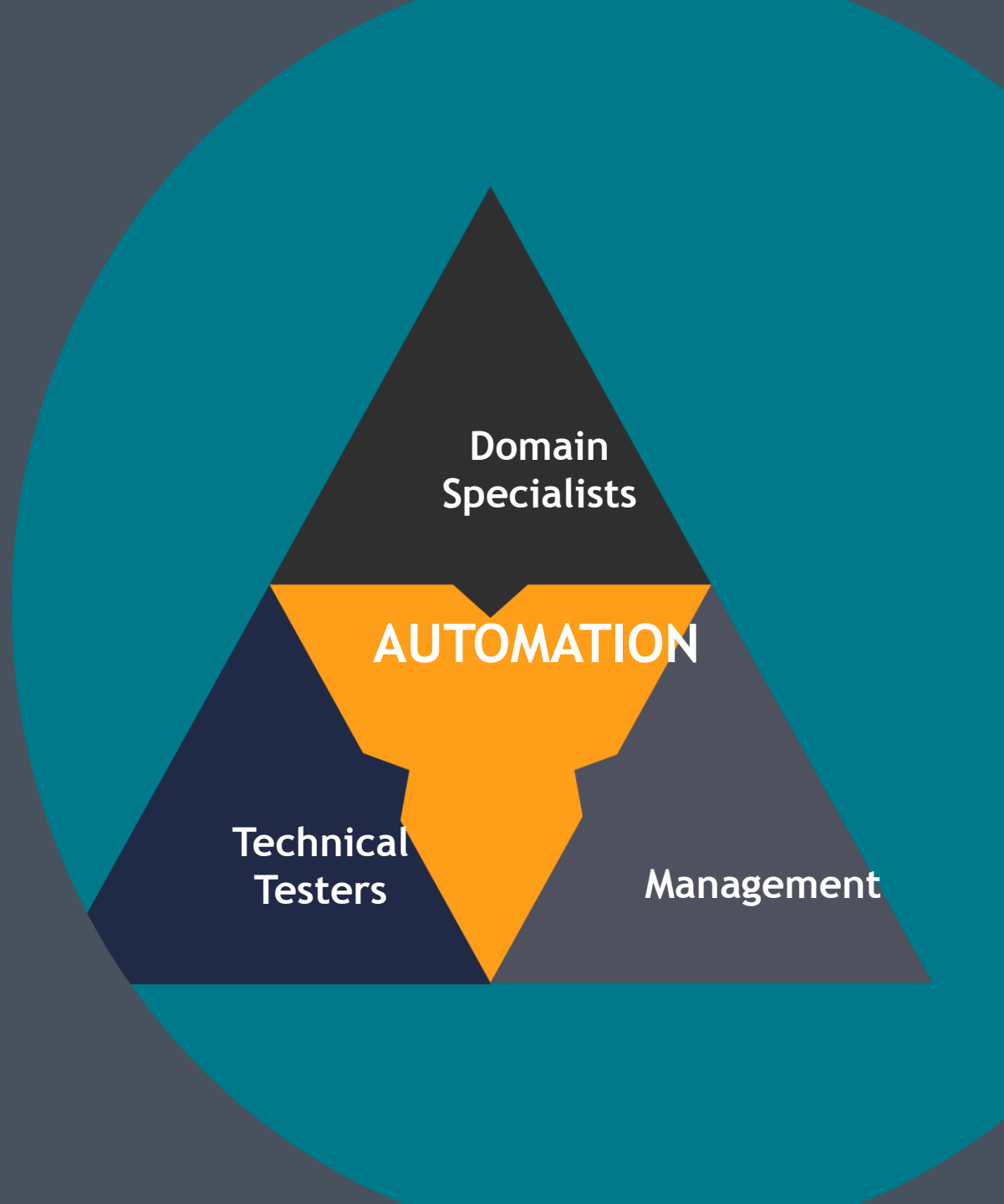


# Test automation often creates new challenges

1. The tool of choice does not adapt to the pipeline
2. Automation does not scale
3. Testers unable to assume ownership of automation



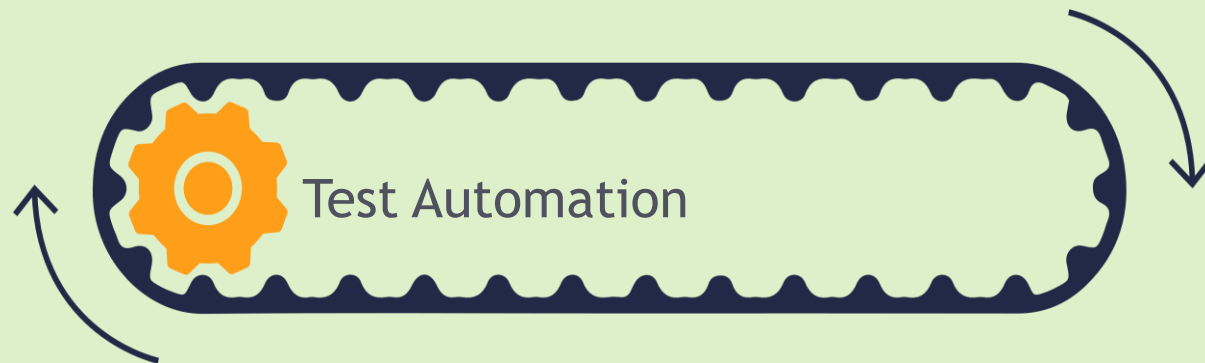
## Problem #3: (Lack of) ownership



# DevOps must provide the right tools for the teams

## The Software Delivery Process

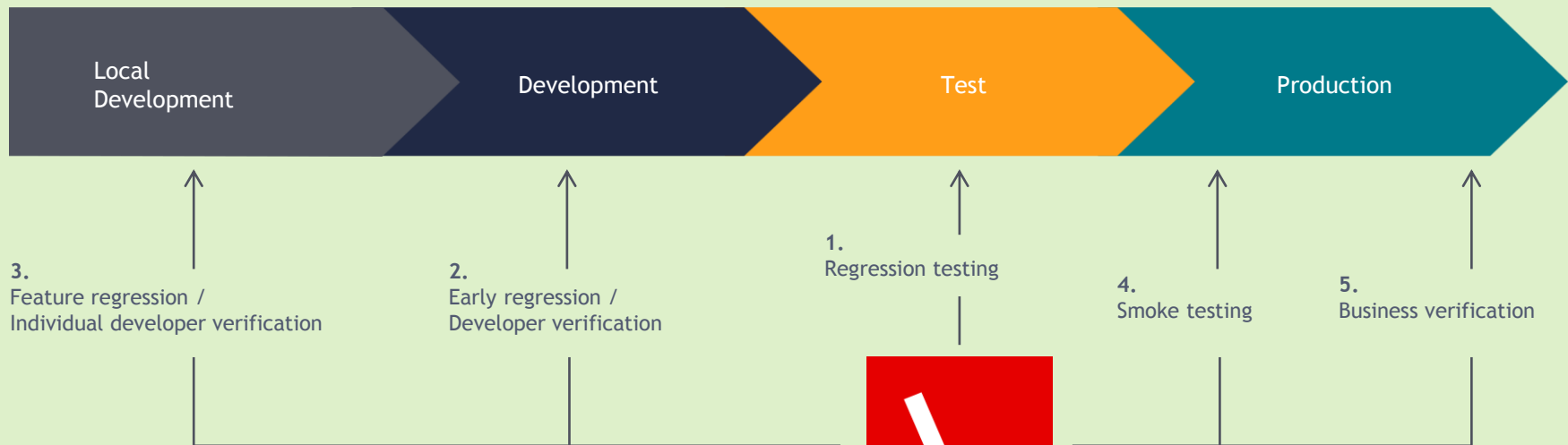
The DevOps Pipeline =  outsystems





# LEAPWORK is designed for DevOps-driven pipelines

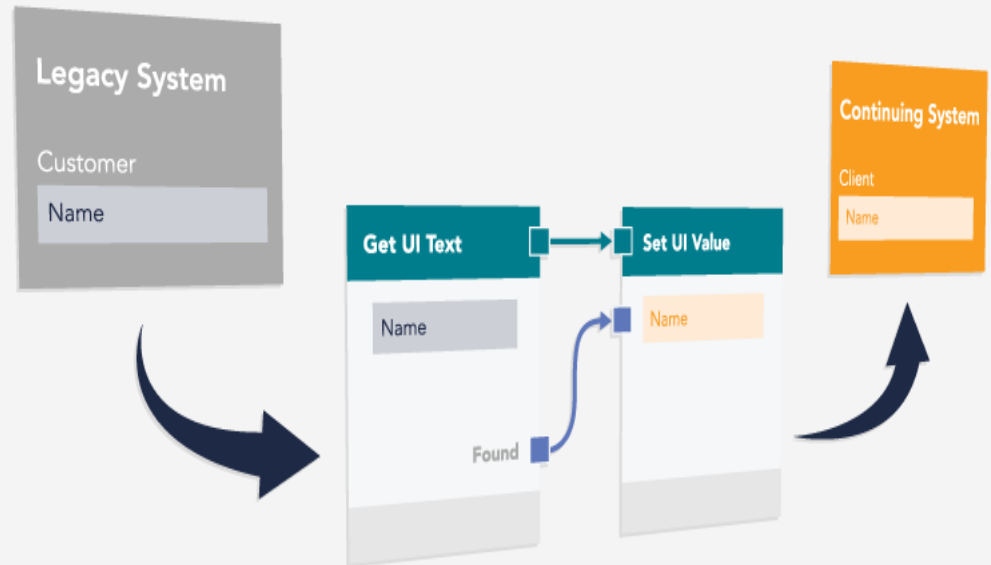
- LEAPWORK supports your existing IT infrastructure and investments
- QA teams across IT and business can collaborate on automation
- Design locally, execute remotely
- Run automated flows when and wherever



# It does not end with automated testing .....

## Automate other things on your DevOps wishlist

- Baselining test environments.
- Masking production data.
- Monitoring production environments.
- And more...



Half of all computer work  
is  
**repetitive,  
boring  
and error-prone**



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# Companies invest in **software robots to**



**Increase  
execution**



**Lower  
cost**



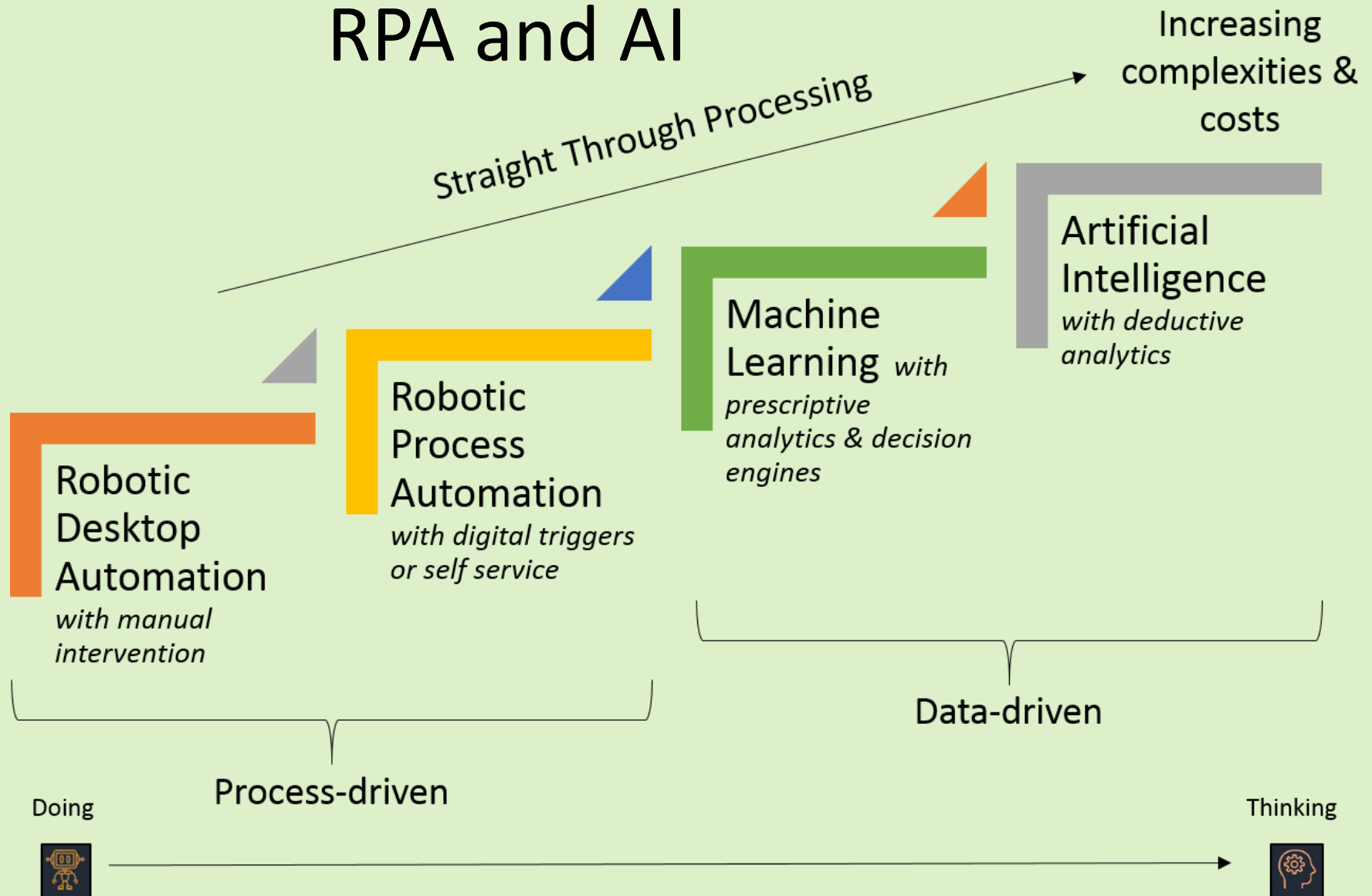
**Reduce  
risk**



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# RPA and AI



# A few sweet spots for RPA

- Enter data into multiple systems.
- Retrieve data from one system and enter it into another.
- Reconcile data across two or more systems.
- Run system reports and act on the results in a structured way (perhaps adding a report total into a separate system, for example).
- High (similar) workloads



# DEMO



# Help the tester (and yourself)

The screenshot displays a mobile application interface on the left and its test automation tool (Leapwork) on the right. The app shows a 'Product Gallery' with 'items found' and two light bulbs, each labeled 'in stock'. Below the bulbs, the text 'LIFX' and '150' are visible. The test automation tool shows a hierarchical tree of UI elements. The selected element is 'ITRI\_ArtikelPrijs', which is a 'Text' widget. The properties panel for this element shows the following values:

Property	Value
Name	ITRI_ArtikelPrijs
Value	GetProductByCategoryId.List.Current.Product.Price
Example	
Style Classes	"text-bold"

The UI hierarchy tree on the right shows the following structure:

- HeaderRight
- HeaderContent
- Content
  - Utilities\MarginContainer
    - MarginContainer
      - ITRI\_ArtikelGalerij
        - Content
          - ITRI\_Artikellijst
            - Link
              - Container
                - ITRI\_ArtikelAchtergrond
                  - Content
                    - BackgroundImage
                      - ITRI\_ArtikelAfbeelding
                    - ITRI\_ArtikelContainer
                      - ITRI\_ArtikelNaam
                      - Container
                        - ITRI\_ArtikelPrijs
  - Interaction\FloatingActions
  - Bottom
  - Navigation
    - Common\Menu



# The journey together

1



2



3

Begin

Expand

Scale

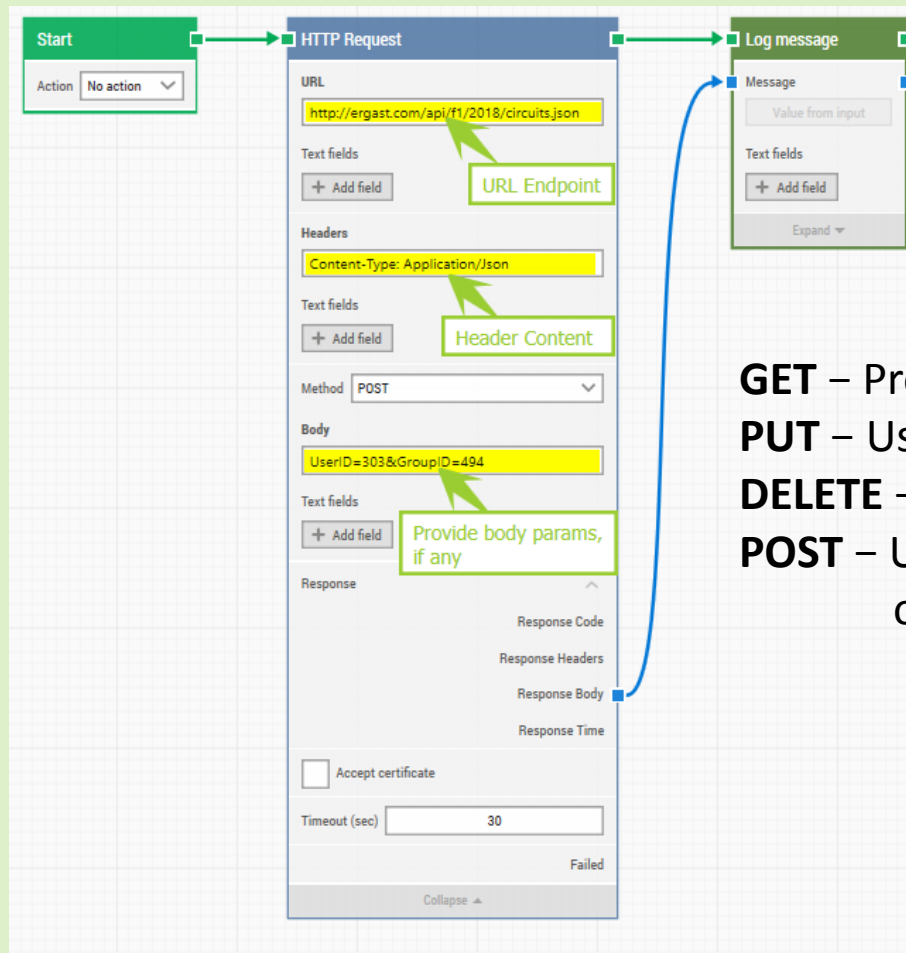


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# Appendix

# Call a REST API using HTTP block



**GET** – Provides a read only access to a resource.

**PUT** – Used to create a new resource.

**DELETE** – Used to remove a resource.

**POST** – Used to update an existing resource or create a new resource.

# C# block

The image shows a 'C# Code' block from a visual programming tool. The block has a teal header with the text 'C# Code'. Below the header is a large text area with a 'Click to edit' button. Underneath the text area are three input fields: 'JsonInput' with a 'Value f' placeholder and a close button, 'FirstName' with an empty text box and a close button, and 'LastName' with an empty text box and a close button. A pink bracket on the left side of the block groups these three input fields. Below the input fields is a '+ Add field' button. At the bottom of the block is a 'Collapse' button with an upward arrow. The block is connected to other parts of the workflow by green arrows at the top and blue arrows on the right side.