

Joule Agent Discovery And Design Workshops

Prework Package

August 2025



Method Phases

To define your automation use case



1

Use Case Identification

Joule Agent Discovery
Workshop as prework
activity.



2

Use Case Definition

Joule Agent Design
Workshop as on-site
activity.



1

Use Case Identification

Joule Agent Discovery Workshop as prework activity.

Automation Scenario

Number:

We need to automate / streamline ...

Example: Resolution of customer complaints

(Activity / process to streamline)

WHAT

to help ...

Example: Customer service agents, escalation managers

(Area / Role(s))

WHO

to ...

Example: achieve faster resolution of customer issues, improve satisfaction and reduce churn.

(Objective(s)) 

WHY

Characteristics

How complex is this activity or process?
1 (very simple) - 5 (very complex)

1 2 3 4 5

Very Simple

Very complex

Why?

How variable and unpredictable are next steps?

1 (always fixed) - 5 (highly variable / unpredictable)

1 2 3 4 5

Always Fixed

Highly Variable

What changes?

How much human judgement is needed to decide next steps?
1 (none: only clear rules) - 5 (a lot: only human reasoning)

1 2 3 4 5

Clear Rules

Reasoning

What decision criteria are important?

How much time / effort could be saved if automated?

1 (not much) - 5 (a lot)

1 2 3 4 5

Not much

A lot

Why?

1.1

Ideate automation scenarios

 Variable  In Teams

What activities and processes in your company or area should be automated or streamlined?

- Check the **Agentic AI Use Case Ideation** cards for inspiration.



- Think about 1 automation scenario that fits to 1 or more of the questions in the cards and describe them in the provided template on page 4 (1 activity per sheet).

Automation Scenario

Number: 1

We need to automate / streamline ...

Example: Resolution of customer complaints
Resolution of customer complaints.

(Activity / process to streamline) 

WHAT

to help ...

Example: Customer service agents, escalation managers
Customer service employees, escalation managers.

(Area / Role(s)) 

WHO

to ...

Example: achieve faster resolution of customer issues, improve satisfaction and reduce churn.


Achieve faster resolution of customer issues, improve satisfaction and reduce churn.

(Objective(s)) 


WHY

Characteristics

How complex is this activity or process?

Very Simple  Very complex

How variable and unpredictable are the next steps?

Always Fixed  Highly Variable


Why?

involves multiple factors, such as issue severity, customer history, and policies.
Solutions require many steps and may need escalation

What changes?

The team handling the issue, the need for negotiation or escalation, additional steps for verification, time to process

How much human judgement is needed to decide next steps?

Clear Rules Exist  Reasoning needed

How much time or effort could be saved if automated?

Not much  A lot

What criteria are important?

Simple issues follow clear rules, but most of them are dependent on type of complaint, customer status, issue severity, customer responses and required approvals.

Why?

Moderate to complex cases (e.g., escalations, policy exceptions, disputes): can take a day to weeks, allowing customer service employees to focus on the conceptualization of new personalized services

Use Case Ideation Cards

to identify activities that could benefit from agentic technology

When do you need to manually **handle unpredictable situations and make smart adjustments** based on reasoning?



HANDLE UNPREDICTABLE SITUATIONS AND MAKE SMART ADJUSTMENTS

EXAMPLE SCENARIO

Resolving Invoice Processing Issues

You are a finance manager, and a **supplier invoice fails to process**, but **it's unclear why**. You must check payment details, verify discrepancies in contract terms, review approvals, and **decide whether to escalate or override the issue**—all while ensuring payments stay on track. Every step **requires judgment** to balance compliance, risk, and business continuity.

When do you need to manually **bridge gaps across different systems and domains?**



BRIDGE GAPS ACROSS DIFFERENT SYSTEMS AND DOMAINS

EXAMPLE SCENARIO

Managing Shipment Delays

You are a logistics manager, and a shipment is delayed. You must update the tracking system, e-mail the customer, adjust delivery schedules, and inform the warehouse—all by **switching between different platforms and sending manual updates**. The process is slow, and delays keep piling up.

Use Case Ideation Cards

to identify activities that could benefit from agentic technology

When do you need to manually **create, refine or execute code or content** based on changing situations?

CREATE, REFINE OR EXECUTE
CODE OR CONTENT

EXAMPLE SCENARIO

Personalizing on-boarding training

You are an HR manager onboarding new hires. You review employee profiles and training progress data daily. When you see differences in their learning needs, you **manually compile a request to adjust their personalized learning paths and content in your corporate learning system**. This multi-step process is slow and error-prone.

When do you need to manually **process and make sense of large amounts of unstructured data** to decide next steps?

PROCESS AND MAKE SENSE OF LARGE
AMOUNTS OF UNSTRUCTURED DATA

EXAMPLE SCENARIO

Processing Insurance Claims

You are an insurance claims manager handling **hundreds of claim emails daily**. Each contains unstructured details about accidents and damages. Your team reads through every email, extracts relevant details, and manually **converts that information into a structured claim format**. This manual process is slow, prone to errors, and delays the overall claims processing cycle.

Does your automation scenario need an agentic solution?

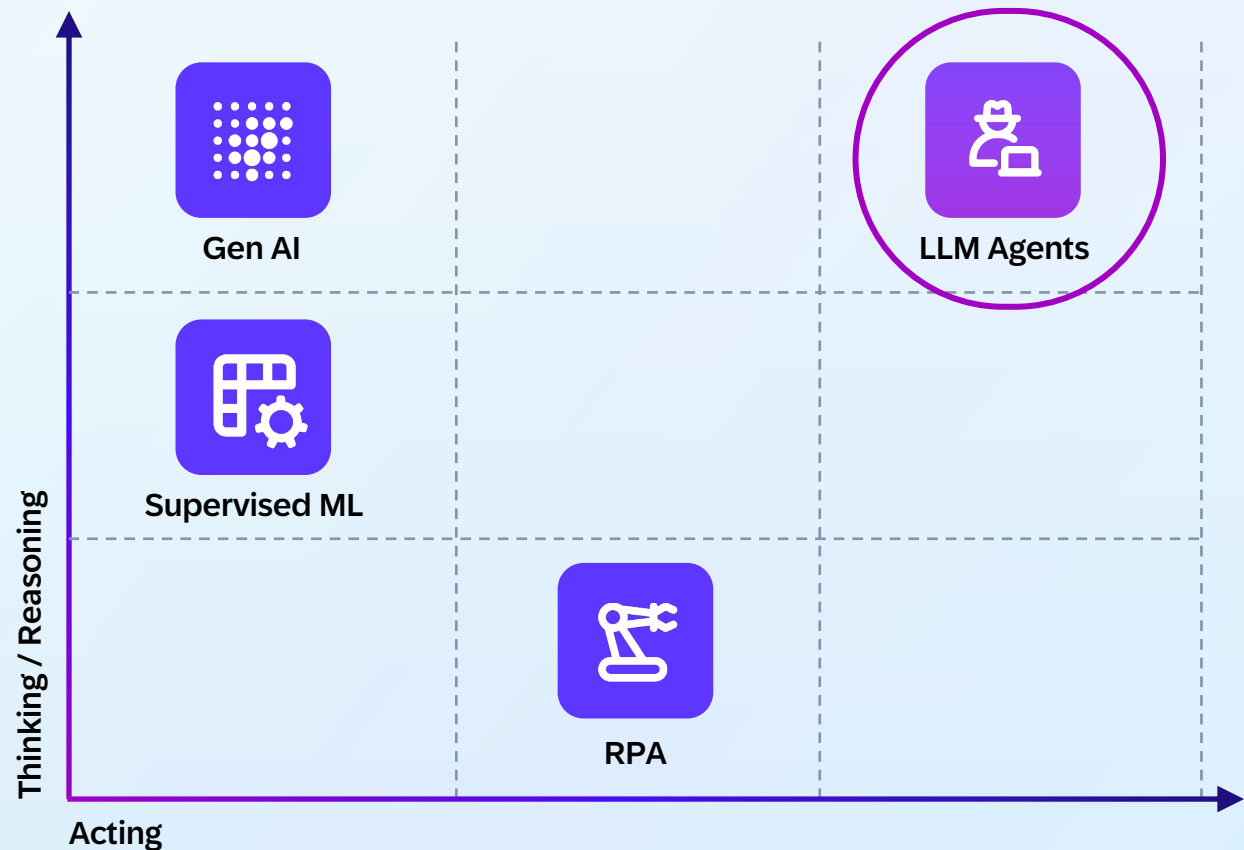
You can use different technologies to automate your scenario. It all depends on how intelligent and autonomous you want the solution to be.

Gen AI applications can use advanced reasoning capabilities to generate insights and suggestions based on analyzed data. However, these applications alone don't execute any action beyond content creation.

RPA systems, on the other hand, can execute repetitive, predefined tasks following fixed, preconfigured rules, but they can't adapt or reason if something unexpected happens.

AI agents combine both: they can **reason** and **act**, adapting to changing situations and allowing a more flexible experience. They can act autonomously rather than automatically, as they can make decisions based on their reasoning and choose what actions to take given the context and goals.

So, does your scenario truly need an agentic solution, or would something simpler do the job?



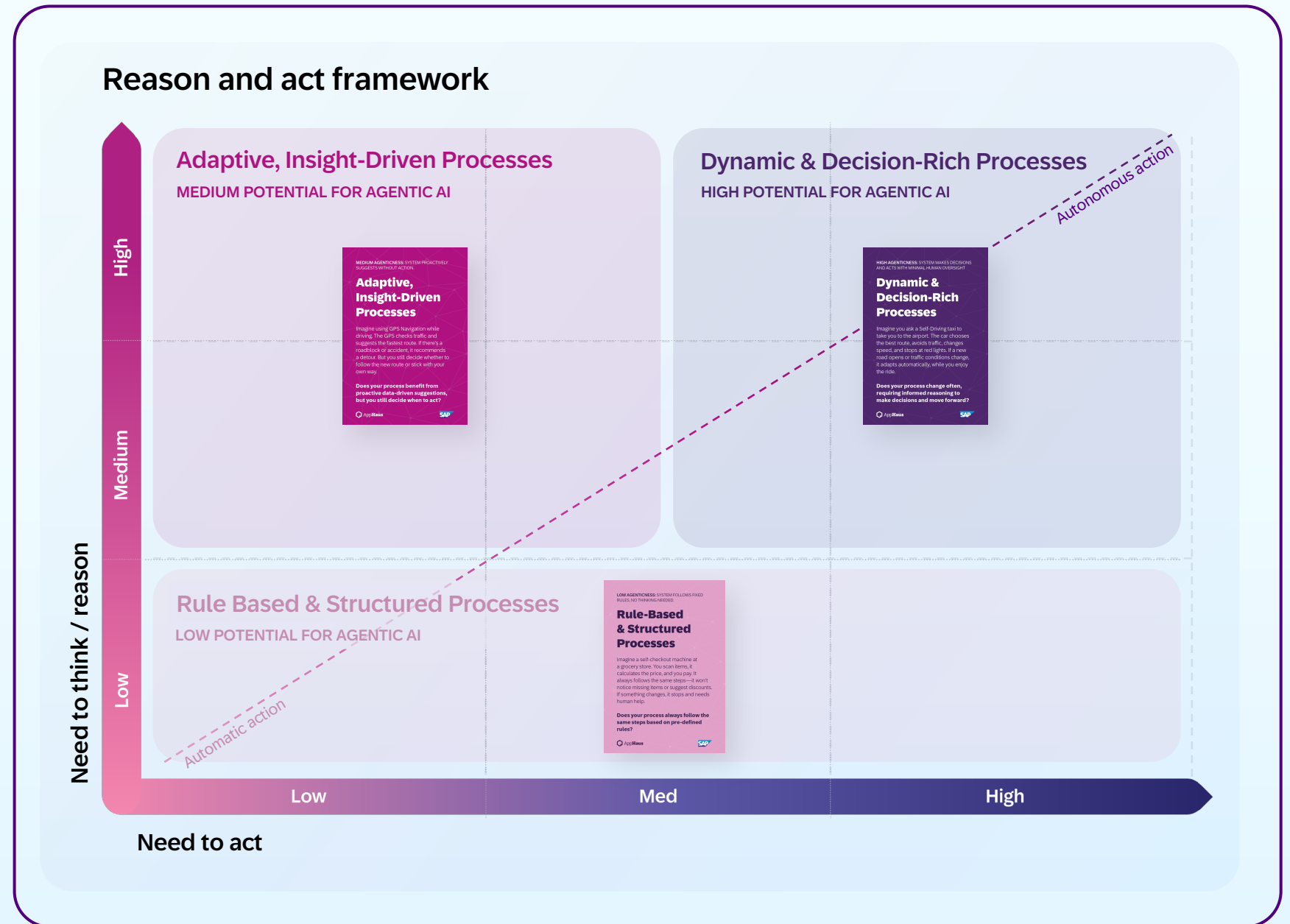
1.2

Evaluate the need for agentic technology

🕒 Variable 👤 In Teams

How much thinking and action does your automation scenario need?

- Check the “Characteristics” section of the template. Decide: **how much should a solution think and act to automate this activity?**
- Highly-complex, highly-variable activities that need human-like reasoning score higher in the Y axis. Activities that benefit from fully automated execution of next steps rank higher on the X axis.
- If your idea is in the bottom-left, think: what aspect of this activity could gain from more intelligence or autonomy? Check the Use Case Ideation Cards for inspiration.



Agentic Potential Decision Cards

Examples to determine how much reasoning and autonomous action your automation needs.

LOW AGENTICNESS: SYSTEM FOLLOWS FIXED RULES, NO THINKING NEEDED.

Rule-Based & Structured Processes

Imagine a self-checkout machine at a grocery store. You scan items, it calculates the price, and you pay. It always follows the same steps—it won't notice missing items or suggest discounts. If something changes, it stops and needs human help.

Does your process always follow the same steps based on pre-defined rules?



MEDIUM AGENTICNESS: SYSTEM PROACTIVELY SUGGESTS WITHOUT ACTION.

Adaptive, Insight-Driven Processes

Imagine using GPS Navigation while driving. The GPS checks traffic and suggests the fastest route. If there's a roadblock or accident, it recommends a detour. But you still decide whether to follow the new route or stick with your own way.

Does your process benefit from proactive data-driven suggestions, but you still decide when to act?



HIGH AGENTICNESS: SYSTEM MAKES DECISIONS AND ACTS WITH MINIMAL HUMAN OVERSIGHT

Dynamic & Decision-Rich Processes

Imagine you ask a Self-Driving taxi to take you to the airport. The car chooses the best route, avoids traffic, changes speed, and stops at red lights. If a new road opens or traffic conditions change, it adapts automatically, while you enjoy the ride.

Does your process change often, requiring informed reasoning to make decisions and move forward?



Agentic Potential Decision Cards

LOW AGENTICNESS: SYSTEM FOLLOWS FIXED RULES, NO THINKING NEEDED.

Rule-Based & Structured Processes

Imagine a self-checkout machine at a grocery store. You scan items, it calculates the price, and you pay. It always follows the same steps—it won't notice missing items or suggest discounts. If something changes, it stops and needs human help.

Does your process always follow the same steps based on pre-defined rules?



LOW AGENTICNESS
EXAMPLE ACTIVITIES AND PROCESSES

Invoice Processing: Matching invoices to payments based on set rules.

Simple Data Entry & Validation: Entering structured information into systems.

Customer Support Ticket Routing: Assigning inquiries based on fixed categories.

Low agenticness in a nutshell

- The **steps and rules don't change**—there's nothing to "think" about.
- **No complex decisions**—just follow instructions.
- **Accuracy and consistency** are more important than adaptability.

Agentic Potential Decision Cards

MEDIUM AGENTICNESS: SYSTEM PROACTIVELY SUGGESTS WITHOUT ACTION.

Adaptive, Insight-Driven Processes

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MEDIUM AGENTICNESS
EXAMPLE ACTIVITIES AND PROCESSES

Customer Feedback Analysis: AI detects sentiment and suggests improvements.

Prioritizing Sales Leads: AI ranks leads, but the salesperson picks who to contact.

Restocking Inventory: AI predicts items to run out, but a manager approves the order.

Medium agenticness in a nutshell

- AI thinks: it **analyzes data and suggests ideas**, but does not act on its own.
- A **human reviews AI's suggestions**, selects the best option, and takes action.
- The **process changes**, so AI adapts but remains a support tool.

Agentic Potential Decision Cards

HIGH AGENTICNESS: SYSTEM MAKES DECISIONS
AND ACTS WITH MINIMAL HUMAN OVERSIGHT

Dynamic & Decision-Rich Processes

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**Does your process change often,
requiring informed reasoning to
make decisions and move forward?**



HIGH AGENTICNESS
EXAMPLE ACTIVITIES AND PROCESSES

Personalized Shopping: AI learns what you like and automatically shows the best choices.

Marketing Optimization: AI refines campaigns in real-time based on evolving user behaviors.

Fraud detection: AI monitors transactions and blocks suspicious ones in real-time.

High agenticness in a nutshell

- The **process changes frequently** and is **unpredictable, requiring reasoning** to determine next steps.
- **AI analyzes, decides, and takes action** independently, but **with human supervision**.
- **AI learns** what works best and **adapts**

Example

How much should a solution think and act to automate this activity?

Automation Scenario

We need to automate / streamline ...

Example: Resolution of customer complaints

Resolution of customer complaints.

(Activity / process to streamline)

WHAT

to help ...

Example: Customer service agents, escalation managers

Customer service employees, escalation managers.

(Area / Role(s))

WHO

to ...

Example: achieve faster resolution of customer issues, improve satisfaction and reduce churn.

Achieve faster resolution of customer issues, improve satisfaction and reduce churn.


(Objective(s))


WHY

Characteristics

| | |
|---|--|
| <p>How complex is this activity or process?</p> <p>Very Simple ————— Very complex</p> | <p>How variable and unpredictable are the next steps?</p> <p>Always Fixed ————— Highly Variable</p> |
| <p>Why?</p> <p>involves multiple factors, such as issue severity, customer history, and policies. Solutions require many steps and may need escalation</p> | <p>What changes?</p> <p>The team handling the issue, the need for negotiation or escalation, additional steps for verification, time to process</p> |
| <p>How much human judgement is needed to decide next steps?</p> <p>Clear Rules Exist ————— Reasoning needed</p> | <p>How much time or effort could be saved if automated?</p> <p>Not much — Some — A lot</p> |
| <p>What criteria are important?</p> <p>Simple issues follow clear rules, but most of them are dependent on type of complaint, customer status, issue severity, customer responses and required approvals.</p> | <p>Why?</p> <p>Moderate to complex cases (e.g., escalations, policy exceptions, disputes); can take a day to weeks, allowing customer service employees to focus on the conceptualization of new personalized services</p> |

Number: 1

 AppHaus apphaus.sap.com/toolkit/methods



Need to think or reason = **High**

- Should **figure out** whom to forward the request or what to do next based on the content and context, which are always changing.

Need to act = **High**



- Should execute the corresponding action: re-booking or cancelling a flight or hotel, etc, based on the request.

HIGH AGENTICNESS: SYSTEM MAKES DECISIONS AND ACTS WITH MINIMAL HUMAN OVERSIGHT

Dynamic & Decision-Rich Processes

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Does your process change often, requiring informed reasoning to make decisions and move forward?

 AppHaus 

Example

How much should a solution think and act to automate this activity?

Automation Scenario

We need to automate / streamline ...

Example: Resolution of customer complaints

Root Cause Tagging for Known IT System Alerts

(Activity / process to streamline) ⚙️

WHAT

to help ...

Example: Customer service agents, escalation managers

IT support analysts or system admins who currently read alerts and manually log root causes in the incident management system.

(Area / Role(s)) 👤

WHO

to ...

Example: achieve faster resolution of customer issues, improve satisfaction and reduce churn.

Accelerate the initial issue review, improve consistency in tagging, and reduce manual effort for known, repeatable issues.

(Objective(s)) 🎯

WHY

Characteristics

How complex is this activity or process?

Very Simple ————— Very complex

Why?

The process involves detecting known system alerts and applying pre-defined tags for root causes. There's one step: match alert type assign root cause. No dependencies, no branching logic.

How much human judgement is needed to decide next steps?

Clear Rules Exist ————— Reasoning needed

What criteria are important?

No reasoning is required as long as the alert matches a pre-defined pattern. The automation simply follows rules: If Alert A, assign Root Cause X.

Number: 6

How variable and unpredictable are the next steps?

Always Fixed ————— Highly Variable

What changes?

For known alerts, the next steps are always the same. The alert type maps directly to a specific root cause. If the alert isn't recognized, the automation stops, and a human takes over.

How much time or effort could be saved if automated?

Not much ————— Some ————— A lot

Why?

Speeds up tagging of frequent alerts, reduces manual workload Improves: Response time, consistency, and focus on complex issues

Need to think or reason = **Low**

- There are clear rules to classify the system alerts with pre-defined tags (there are no “it depends”).

Need to act = **Med**

- The system should automatically execute the tagging step and update records, but when the alert doesn't match a rule, it's escalated to a human.

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Rule-Based & Structured Processes

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Does your process always follow the same steps based on pre-defined rules?

Example

How much should a solution think and act to automate this activity?

Automation Scenario

Number: 3

We need to automate / streamline ...

Example: Resolution of customer complaints

Creating monthly marketing performance reports

WHAT

(Activity / process to streamline) ⚙️

to help ...

Example: Customer service agents, escalation managers

Marketing analysts, marketing managers

WHO

(Area / Role(s)) 👤

to ...

Example: achieve faster resolution of customer issues, improve satisfaction and reduce churn.

Save time compiling data, increase accuracy, and enable faster decision-making

WHY

(Objective(s)) 🎯

Characteristics

How complex is this activity or process?

Very Simple ————— Very complex

How variable and unpredictable are the next steps?

Always Fixed ————— Highly Variable

Why?

The data comes from multiple channels (email, social, web), and metrics need to be normalized, analyzed, and presented with context.

What changes?

Campaigns and KPIs may change slightly each month, but the reporting structure is mostly consistent.

How much human judgement is needed to decide next steps?

Clear Rules Exist ————— Reasoning needed

How much time or effort could be saved if automated?

Not much ————— Some ————— A lot

What criteria are important?

Report insights depend on interpreting trends, comparing performance against goals, and deciding which metrics matter for stakeholders.

Why?

Automating data collection, cleaning, and baseline reporting allows marketers to spend time on analysis and recommendations instead of spreadsheet work.

Need to think or reason = **High**

- Multiple data sources needs to be analyzed and compared, and the system should **figure out** what metrics matter the most each time and what recommendations to give.

Need to act = **Low**

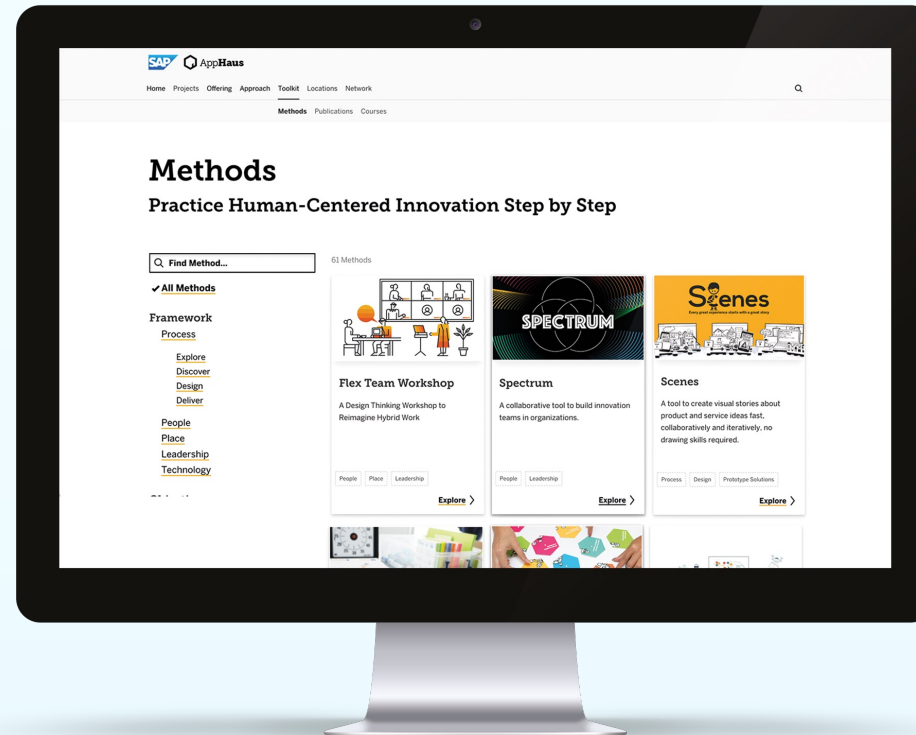
- No further action is executed besides the creation of the report.

MEDIUM AGENTICNESS: SYSTEM PROACTIVELY SUGGESTS WITHOUT ACTION.

Adaptive, Insight-Driven Processes

Imagine using GPS Navigation while driving. The GPS checks traffic and suggests the fastest route. If there's a roadblock or accident, it recommends a detour. But you still decide whether to follow the new route or stick with your own way.

Does your process benefit from proactive data-driven suggestions, but you still decide when to act?



Practice Human-Centered Innovation

<https://apphaus.sap.com/toolkit/methods>