AI4Business - Use Case Life Cycle

This assignment is meant to assist you in finding, scoring, picking and executing AI use cases.

We encourage teamwork for this assignment. Start with reflecting about all these aspects by yourself and then discuss together with your teammates. This allows you to form opinions from your own perspective and afterwards multiple visions can be merged. Try to form diverse groups to allow for many different viewpoints during the discussion.

Use Case Life Cycle

In the course we discussed the use case life cycle consisting of the following four steps:

1. Identify: find relevant use cases consistent with AI strategy.
2. Assess: compare the expected value with implementation complexity.
3. Prioritize: rank use cases based on high value and low complexity.
4. Execute: start with the most valuable cases first.

Let's now go over these steps in more detail in a practical exercise.

Identify

Start to identify possible AI use cases by brainstorming together with your teammates.
Remember: no idea is too crazy, go for quantity at this point in time.

Strategy *What goals are driving the company?* *Which challenges keep you up at night?* *Which bottlenecks are preventing progress?*	**Processes** *What would you like to know about the future?* *Where are things done over and over again?* *Which tasks involve complex planning?*
Customers *What's hard and annoying for customers?* *Any friction points in the customer journey?* *What would you like to know about customers?*	**Data** *What things require manual input?* *Where do you have a lot of relevant data?* *Where do you already use data for decisions?*

Assess & Score

Now you should assess and score all identified use cases. For the sake of this exercise you can of course just choose a couple interesting use cases if you have found too big of a list.

Value

Assess the use case value and assign a score from 1 (little value) to 5 (much value).

What business value or strategic advantages does the use case bring to the company?		*Score*
Tangible value (revenue, efficiency, etc.)	*Intangible value (satisfaction, reputation, etc.)*	*1* *2* *3* *4* *5*

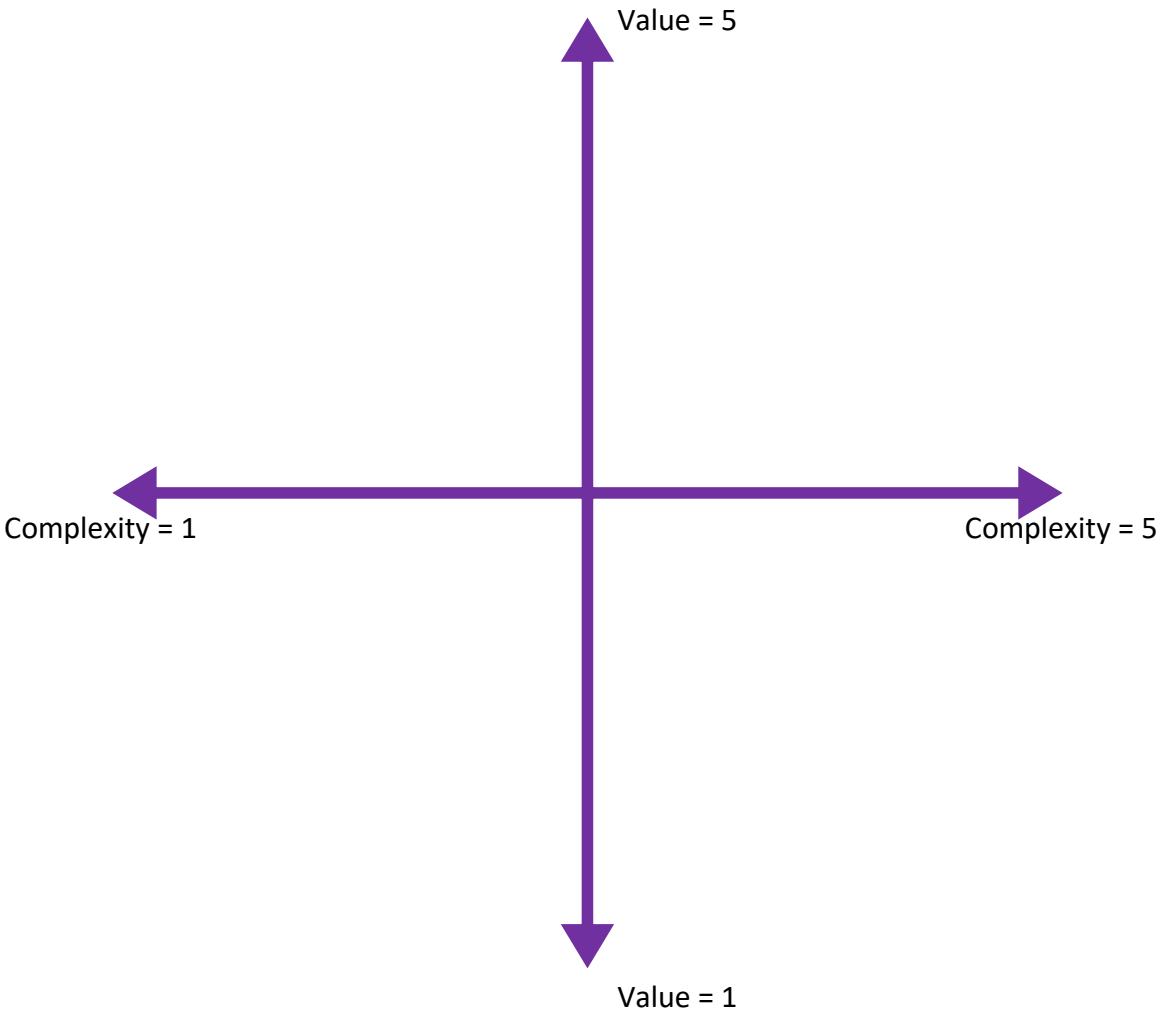
Implementation complexity

Assess the use case complexity and assign a score from 1 (not complex) to 5 (very complex).

Complexity component		*Score*
Data	*Is data available in our organization and easy to obtain? Score from 1 (we have all data) to 5 (need to collect a lot of data, possibly hard to get)*	*1* *2* *3* *4* *5*
AI skills	*Do you have the necessary skills? Score from 1 (easy to implement in-house) to 5 (requires research from the team or even external experts)*	*1* *2* *3* *4* *5*
Infrastructure	*Is the infrastructure ready or do we need to build one? Score from 1 (infrastructure is ready) to 5 (extensive infrastructure needs to be built)*	*1* *2* *3* *4* *5*
Average complexity score		

Prioritize

After scoring each use case you can rank and prioritize them based on value and complexity. You can place every use case on the 2-D complexity vs. value graph below.



Start with use cases in the top left with high value for a low implementation complexity. After those quick wins, you can gradually move towards the top right (high value but also high complexity) or bottom left (low value but also ow complexity). This choice depends a lot on how AI-ready you are to tackle complex projects. The use cases in the bottom right are not interesting due to high complexity but low value, so those can be left alone.

Now is a good time to make a timeline of AI projects that you which to pursue in the future.

Execute

It is good practice to conceptualize the project in a canvas before starting the execution.

	Business	**AI**
Need	*What business need are we solving?*	*Why do we need AI for this?*
Objective	*What is the goal of our solution?*	*Which prediction problem can we formulate?*
Action	*Which actions do we want to take?*	*How do we get actionable insights?*
Data	*Where is the data and can we use it?*	*Is the data of high quality and right format?*
Metric	*Which business KPI shall we track?*	*Which technical measure do we track?*
Accuracy	*What KPI threshold defines success?*	*Which value do we want our metric to reach?*

This canvas goes from the need to the objective to the desired action. Also think about the data to use, the metrics to track and the accuracy needed to define success or failure. Always align the business and AI components, not doing so tends to yield disappointment.