# Breakout Instructions

Your team is focused on the **manufacturing** industry. You’ve been provided with a resource document sharing many possible AI use cases for this industry.

Steps to complete this challenge:

1. Carefully read through the list of key business metrics your customer has shared. **5 min.**
2. Carefully read through the customer testimonials. **5 min.**
3. Brainstorm as a team to come up with **as many AI use cases as possible** that could positively impact this customer’s business metrics. Use ‘unconstrained thinking’ (we have unlimited budget and time!). Especially focus on use cases that address challenges the customer raises, but feel free to come up with use-cases that may improve their general business. **20 min.**
4. As a team, vote to reduce your list of ideas down to the top 10. **10 min.**
5. Have a team vote and place those ideas along the X axis (Impact Axis) in order of perceived business impact (Only 1 ‘lane’ along the bottom). **10 min.**
6. Now based on team vote, move each idea vertically along the Y Axis (Effort Axis) based on perception of difficulty to implement. ***Use the AI Use Case document to help***. **10 min.**
7. Draw lines to divide the matrix into 4 equal quadrants.
   1. Bottom right quadrant = High impact, low effort (**Low Hanging Fruit**)
   2. Top right quadrant = High impact, high effort (**Strategic Projects**)
   3. Bottom left quadrant = Low impact, low effort (**Quick Wins**)
   4. Top left quadrant = Low impact, high effort (**Non-Starters**)
8. Assign a spokesperson and be ready to share:
   1. Customer/Industry
   2. Business metrics needing improvement
   3. AI use-cases your team arrived at and why

## Customer Information

Company Name: **Contoso Tile Company**

Industry: **Manufacturing**

Annual Revenue: **$120 million**

## Key Business metrics

|  |  |  |
| --- | --- | --- |
| **Business Unit** | **Business Metric** | **Business Metric Description** |
| Production | Yield Rate | The percentage of products meeting quality standards out of the total produced. |
| Production | Downtime Percentage | The percentage of time production equipment is not operational. |
| Quality | Yield Rate | The percentage of products meeting quality standards out of the total produced. |
| Quality | Defect Rate | The percentage of defective products out of the total produced. |
| Quality | First Pass Yield (FPY) | The percentage of products passing inspection the first time without rework. |
| Quality | Defect Escape Rate | The percentage of defects that escape detection and reach the customer. |
| Sales | Sales Growth Rate | The percentage increase in sales over a specific period. |
| Sales | Customer Acquisition Cost (CAC) | The cost incurred to acquire a new customer. |
| Sales | Customer Lifetime Value (CLV) | The total revenue expected from a customer over their entire relationship with the company. |
| Customer Service | Customer Satisfaction Score (CSAT) | A measure of customer satisfaction based on feedback and surveys. |
| Customer Service | Average Resolution Time | The average time taken to resolve customer issues or inquiries. |
| Customer Service | Net Promoter Score (NPS) | A measure of customer loyalty based on their likelihood to recommend the company. |

## VP of Production Narrative

"As the VP of Production at Contoso Tile, our kiln operations' temperature variability leads to frequent batches of tiles not meeting quality standards. This causes a 5% scrap rate and a 10% reduction in production capacity. Additionally, the increased rework and scrap drive up our labor and energy costs. This issue significantly impacts our profitability and operational efficiency."

**Impact Summary:**

* Defective Products: 5% of batches scrapped or reworked, costing $300,000 per quarter.
* Lost Production Capacity: 10% reduction resulting in $800,000 in lost revenue per quarter.
* Increased Costs: Additional $100,000 per quarter in labor and energy costs.
* Total Financial Impact: $1.2 million per quarter, or $4.8 million annually.

## VP of Quality Assurance Narrative

"As the VP of Quality Assurance, despite our stringent QA processes, approximately 1% of our tile batches are shipped with defects. This results in significant costs for handling returns and replacements, and negatively impacts our brand reputation and customer satisfaction."

**Impact Summary:**

* Direct Costs of Defective Shipments: $50,000 per month or $600,000 annually.
* Lost Future Sales Due to Reputation Damage: $50,000 per month or $600,000 annually.
* Total Financial Impact: $100,000 per month or $1.2 million annually.

## VP of Customer Service Narrative

"As the VP of Customer Service, we are seeing a 15% increase in complaints due to production inefficiencies. The inconsistency in our tile curing process leads to more defects reaching customers, which increases our complaint handling costs and results in lost revenue from dissatisfied customers."

**Impact Summary:**

* Increased Complaint Handling Costs: $3,000 per month or $36,000 annually.
* Lost Revenue from Dissatisfied Customers: $300,000 per month or $3.6 million annually.
* Total Financial Impact: $303,000 per month or $3.84 million annually.