**DSBL Capstone**

# Step 0 - Introduction. 100-day Data Science Plan: Build a Data Science Strategy

Upon assuming a new leadership role within a company (whether from an internal move or joining the company anew), it is common for an executive to be asked to prepare a plan for their first 100 days in the job.

As part of this project, you will build/create the following:

1. Identification of six data science opportunities for the organization
   1. Opportunities must be spread across three different functional areas
   2. Detail the risks, challenges, and key factors for success for each of these opportunities
2. Prepare a roadmap for executing these six data science opportunities.
   1. Rack and stack evaluation of these opportunities
3. Prepare a Human Capital plan for your data science organization
4. Prepare a Technical plan for your data science organization
   1. Data and Data Architecture Strategy
   2. Machine Learning Architecture

The work product for this Capstone project will be a detailed presentation to the CEO, detailing your plan and the rationale behind your decisions.

This project asks you to prepare that 100-day data science plan for a company of your choosing; this could be your current company or some other existing company.

**Name of Company Chosen:** Confidential

**Brief Company Description:** It is regarded as one of the leading business group in the GCC region that is concerned with products, plants and innovative construction. The company is based in Dammam, and operates across the kingdom of Saudi Arabia in various sectors including trading construction, supporting services, hospitality and tourism, real state, product manufacturing, and production. The main goal of the company is to engage in sustainable business projects and continuous developments to sustain their market position.

# **Step 1 - Identify Data Science Opportunities in the Business**

Throughout the course, you have been exposed to multiple examples of data science projects implemented in a business setting. Now, based on your knowledge of your specific business context, you will generate six potential projects to be considered by the executive leadership team. These projects must span three unique functional areas of the business, with any one functional area representing no more than 3 projects:

**Please identify your six projects here:**

**Project 1:** [Employee Retention] Human resources department

**Project 2:** [Supply Chain: Supplier Performance] Supply Chain department

**Project 3:** [Price optimization] Finance Department

**Project 4:** [Lead Scoring] Marketing Department

**Project 5:** [Chatbot customer service] Customer service

**Project 6:** [Sentiment Analysis] Marketing department

**Note: You may choose to represent this information on slide 5 of the CEO Presentation Template**

**For each candidate project, please provide the following detail:**

**Project 1 Name:** [Employee Retention]

**Business Functional Area:** [Human recourses department]

**1. Description of the project (including business problem to be addressed, how data science will address that business problem, and the targeted business objective (revenue? customer acquisition? cost reduction?**

- **Business Problem Addressed:** Business owners find it difficult to hire and retain top talent, this process is required capital, time, and skills. Recently, the company is facing high demand of Saudi employees’ retention.

**- Role of data science in addressing the business problem:**

- The company would like to implement the data science techniques to improve the human recourses department strategies.

- **Targeted business objective(s):**

The main objective of implementing the data science strategies is to answer the following questions:

1. Why do employees want to leave?
2. Why do employees want to stay?
3. How we make the employees motivated?

Also, reduce the employees cost by retaining the good employees.

**2. Data Science Classification**

**- Approach:**

By using data and analytics, the company will be able to improve employee retention by understanding the trends that are happening in organization, and then looking for suggestions on how to evolve the company HR strategy in the future? Using a machine learning such as Python will help the company identify the key reasons of employee’s retention, and why they are stay by analyzing each employee data, and then help the human resources to improve a new strategies.

- **Type of Model:** Machine learning and predictive analytics using python

**3. Data needed for project and sources for that data**

Employees data from HR department including for example:

1-Personal Information

2- Payroll

3-Medical Information

4-Demografic Information

5-Government forms…etc.

**4. Magnitude of opportunity (with justification)**

Magnitude= 4 High

Justification: Besides affecting an employee’s attitude toward their job and how well they will perform their job, employee engagement can also have a profound effect on a company’s financial performance.

**5. Cost and complexity of development and implementation**

Cost: 3 Medium

Complexity: 3 Medium

Employees data: Available and easy

Justification: The employee’s data is available in the HR department, but the cost of may increase due to the software used to run the analysis.

**6. Likelihood of value capture (Low/Medium/High) with justification**

Likelihood of value capture: 5 High

Sustain the talented employees correlates with the values of the business

**7. Key Business Stakeholders**

Chief human resources officer, CEO, CFO

**Project 2 Name:** [Supply Chain: Supplier Performance]

**Business Functional Area:** [Supply Chain department]

**1. Description of the project (including business problem to be addressed, how data science will address that business problem, and the targeted business objective (revenue? customer acquisition? cost reduction?):**

- **Business Problem Addressed:**

The company face some problems with current suppliers such as unexpected delays, the price of the raw materials provided and the sudden changed in the quality of the raw materials provided especially if it is a small supplier.

**- Role of data science in addressing the business problem:**

Data science will help the business in assessing supplier performance, monitoring, and measuring supplier progress, it may help in developing contingency plans in case of disruption, such as if a key supplier were to go out of business, the key factors the company should considers are, quality, delivery time, pricing/cost, capability, ethical sourcing, and define expectation about each supplier

**- Targeted business objective(s):**

The main objective of the supplier evaluation process is to reduce purchase risk and maximize the overall value of the business and improve the quality of the products.

**2. Data Science Classification**

**- Approach:**

The company aims to use a balanced scorecard approach. This approach considers quantitative and qualitative data points to get a well-rounded view of supplier performance, with the metrics provided, the scorecard capture and report information about vendors' performance. Also, improve the products in order to generate high quality products by choosing the good supplier, which increase customers satisfaction.

**- Type of Model:** Machine learning using supplier scorecard system that tracks and monitors supplier performance.

**3. Data needed for project and sources for that data**

**The data required is related to supplier which is readily available in the**

The supplier’s data is readily available in the supply chain department.

**4. Magnitude of opportunity (with justification)**

Magnitude= 5 High

Justification:

When you investigate the supplier’s performance and find out the good suppliers that provide the good quality materials, it will reduce the production cost, and that in turn maximize the company profitability.

**5. Cost and complexity of development and implementation**

Cost: 3 Medium

Complexity: 4 Low

Employees data: Available and easy

Justification: The suppliers’ data is available in the supply chain department, but the cost may increase due to the system that is developed to run the analysis.

**6. Likelihood of value capture (Low/Medium/High) with justification**

Likelihood of value capture: 5 High

Measuring supplier performance is essential to maintaining a good relationship and ensuring that they continue to meet the company standards.

**7. Key Business Stakeholders**

Chief operations officer, CEO, CFO, purchasing manager, Deputy CEO

**Project 3 Name:** [Price optimization]

**Business Functional Area:** [Sales Department]

**1. Description of the project (including business problem to be addressed, how data science will address that business problem, and the targeted business objective (revenue? customer acquisition? cost reduction?):**

**- Business Problem Addressed:**

The company is seeking to protect the exist market and thinking to access a new market in the nearly future. As the Price optimization typically starts with customer segmentation, the company is interested to estimates how customers in different segments will respond to different prices offered through different channels.

**- Role of data science in addressing the business problem:**

The use of data science will help the company to identify how customers will respond to different prices for its products and services through different channels, as a result finding the optimal product price.

**- Targeted business objective(s):**

Pricing Optimization Software saves a business time analysing the market and using algorithms to get the optimal return on the products offered. It is a crucial investment in maximizing overall revenue goals and profit in today's competitive market. This type of software is suitable to meet the requirements of all types and sizes of businesses.

**2. Data Science Classification**

**- Approach:** The company will use a pricing optimization software which is used by merchants selling products through eCommerce channels and websites and provides a means of managing the pricing of product listings to gain a competitive edge.

### **- Type of Model:** Machine learning using Glew.io software.

*“Glew is the leading ecommerce analytics solution for Founders, Marketing Leaders, and Ecommerce Leaders. With over 180 integrations, Glew brings all of your data under one roof and serves it up in 200+ KPIs that are ready to roll and unlimited possibilities for custom reporting to meet your brand's specific needs. Glew makes your data talk. Get the answers you need to drive revenue”*

**3. Data needed for project and sources for that data**

All products prices and sales data

**4. Magnitude of opportunity (with justification)**

Magnitude of opportunity: 5 High

The process of identifying the optimal price point for any given product at any given location that will yield the highest profit which is directly related to the business strategy.

**5. Cost and complexity of development and implementation**

Cost: 3 Medium

Complexity: 3 Medium

Employees data: Available and easy

Justification: The customers and products data are available in the sales department, but the cost of may increase a little bit due to the software used to run the analysis.

**6. Likelihood of value capture (Low/Medium/High) with justification**

Likelihood of value capture: 5 High  
Price optimization allows businesses to make informed decisions based on customer and market data to find the most effective price point. Using data, instead of guesses, businesses can price their product or service to attract customers, therefore maximizing sales or profitability which correlates with the value of the business.

**7. Key Business Stakeholders**

Chief sales officer, CEO, Chief financial officer, deputy CEO, COO

**Project 4 Name:** [Lead Scoring]

**Business Functional Area:** [Marketing Department]

**1. Description of the project (including business problem to be addressed, how data science will address that business problem, and the targeted business objective (revenue? customer acquisition? cost reduction?):**

**- Business Problem Addressed:**

The team sometimes is failing to follow up and nurture the leads.

**- Role of data science in addressing the business problem:**

Data science will help in determining the worthiness of leads, or potential customers, by attaching values to them based on their behaviour relating to their interest in products or services.

**- Targeted business objective(s):**

Increase sales productivity by knowing which leads to contact first and which ones to keep nurturing. Also, increase our sales by identifying the potential leads that improve the company profits.

**2. Data Science Classification**

**- Approach:**

Predictive lead scoring takes the traditional lead scoring approach to the next level by applying big data and machine learning algorithms to evaluate the key behaviours of existing customers and prospects and rank them against a scale that can distinguish customers and prospects who are more likely to convert, retain.

**- Type of Model:** Machine learning lead scoring using graphite.

*“Leads Scoring Model is merely a methodology where we train machine learning models to learn from historical data”*

**3. Data needed for project and sources for that data**

Lead Scoring based on all the sales and marketing data such as:

* [Customer Profile Data](https://graphite-note.com/machine-learning-lead-scoring#customer-profile-data)
* [Account Profile Data](https://graphite-note.com/machine-learning-lead-scoring#account-profile-data)
* [Customer Intent Data](https://graphite-note.com/machine-learning-lead-scoring#customer-intent-data)
* [Customer Engagement Data](https://graphite-note.com/machine-learning-lead-scoring#customer-engagement-data)
* [Customer Purchase Data](https://graphite-note.com/machine-learning-lead-scoring#customer-purchase-data)
* [Marketing and Sales Performance Data](https://graphite-note.com/machine-learning-lead-scoring#marketing-and-sales-performance-data)

**4. Magnitude of opportunity (with justification)**

**Magnitude of opportunity:** 5 High

Lead generation is the process of attracting prospects to the business and increasing their interest through nurturing, all with the end goal of converting them into a customer, which is highly link with the business strategy, and lead the company to profit by providing customers the products and services they demand.

**5. Cost and complexity of development and implementation**

Cost: 3 Medium

Complexity: 3 Medium

Employees data: Available and easy

Justification: The customers and products data are available in the finance, and sales department, but the cost of may increase a little bit due to the software or system is used to run the analysis.

**6. Likelihood of value capture (Low/Medium/High) with justification**

Likelihood of value capture:High

Knowing the leads better can convert more of them into regular customers, resulting in more sales and a higher return on investment (ROI). Also, it helps the company recognize the type of products the customers get attract to, and not attract to so the company will improve it, which lead to increase sales as well.

**7. Key Business Stakeholders**

Chief sales officer, CEO, COO, CFO, deputy CEO

**Project 5 Name:** [Chatbot customer service]

**Business Functional Area:** [Customer Service Department]

**1. Description of the project (including business problem to be addressed, how data science will address that business problem, and the targeted business objective (revenue? customer acquisition? cost reduction?):**

**- Business Problem Addressed:**

The customers sometimes wait long time to receive a reply for their common questions through email, phone especially in peak periods.

**- Role of data science in addressing the business problem:**

The data science will be used to improve the quality of the customer experience in a company. If a business can serve customers at any time with the help of a chatbot, then customers will be more satisfied because they get the service they want.

**- Targeted business objective(s):**

The aims are listed as follows:

1. Automate frequently asked questions to better use agent time.
2. Provide cost-effective 24/7 support to improve customer engagement.
3. Handle high support volumes during peak periods.
4. Reduce waits and resolution times to improve customer experience.
5. Improve the customer satisfaction which lead to increase sales and improve the company profits.

**2. Data Science Classification**

**- Approach:**

The use of artificial intelligence that simulates human conversation through a [live chat](https://blog.hubspot.com/service/live-chat?_ga=2.88094043.1354676710.1559054333-933118289.1529345498) interface. It's programmed with pre-written responses that are displayed based on the customer's previous message. Chatbots analyses the user's text for keywords and phrases that relate to common customer roadblocks. Then, the bot provides [self-service](https://blog.hubspot.com/service/customer-self-service?_ga=2.166730110.1354676710.1559054333-933118289.1529345498) solutions based on the information it receives.

### - Type of Model: Artificial intelligence using Chatbot such as [Zowie](https://getzowie.com/)

**3. Data needed for project and sources for that data**

The chatbot needs a rough idea of the type of questions people are going to ask it, and then it needs to know what the answers to those questions should be. It takes data from previous questions, perhaps from email chains or live-chat transcripts, along with data from previous correct answers, maybe from website FAQs or email replies.

**4. Magnitude of opportunity (with justification)**

Magnitude of opportunity:3High

Providing good customer service can create satisfied customers, who are then more likely to recommend the business to others, which increases the company profits.

**5. Cost and complexity of development and implementation**

Cost: 3 Medium

Complexity: 2 High

Coding a chatbot that utilizes machine learning technology can be a challenge. Especially if you are doing it in-house and start from scratch. Natural language processing (NLP) and artificial intelligence algorithms are the hardest part of advanced chatbot development.

**6. Likelihood of value capture (Low/Medium/High) with justification**

Likelihood of value capture: 3 Medium

Ultimately, investing in customer service can decrease the [churn rate](https://blog.hubspot.com/service/what-is-churn-rate#:~:text=Monthly%20churn%20rate%20refers%20to,the%20course%20of%20a%20month.). Decreasing churn rate reduces the amount the company must spend on acquiring new customers and decreases the overall customer acquisition cost.

**7. Key Business Stakeholders**

Chief customer officer, CEO, Chief finance officer, IT manager

**Project 6 Name:** [Sentiment Analysis]

**Business Functional Area:** [Marketing Department]

**1. Description of the project (including business problem to be addressed, how data science will address that business problem, and the targeted business objective (revenue? customer acquisition? cost reduction?):**

- **Business Problem Addressed:**

Analysing products feedback manually would take too long

**- Role of data science in addressing the business problem:**

The use of data science will help in analysing product feedback quickly. It makes the business understand the sentiment and opinion of a given product, which helps in the products development that is based on the customer needs, rather than with what businesses think they need.

**- Targeted business objective(s):**

* Understand what the customers like and dislike about your product.
* Compare the product reviews with those of the company competitors.
* Get the latest product insights in real-time, 24/7.
* Save hundreds of hours of manual data processing.
* Increase the quality of our products by understanding the customers’ needs
* Improve our sales and generate more profits

**2. Data Science Classification**

**- Approach:**

Analysing the product reviews for sentiment right away with [Monkey Learn](https://monkeylearn.com/), a no-code platform that’s simple and quick to use, that gather products reviews and run a sentiment analysis on product reviews.

**- Type of Model:** Machine learning using [Monkey Learn](https://monkeylearn.com/) or Google Business Profile

**3. Data needed for project and sources for that data**

Customers products reviews

**4. Magnitude of opportunity (with justification)**

**Magnitude of opportunity**: 4 High

Online reviews are important because they help showcase the company's reputation, as a result it is increase sales and improve search rankings for the company website

**5. Cost and complexity of development and implementation**

Cost: 4 Low

Complexity: 5 Low

Google review may be a quick and simple process

**6. Likelihood of value capture (Low/Medium/High) with justification**

Likelihood of value capture: 3 Medium

If there are good products with good reviews, that will lead to high sales. Bad reviews will help us make corrective action to increase sales in the future. All the above advantages will directly link to the value of the company.

**7. Key Business Stakeholders**

Chief marketing officer, Chief operations officers, CEO, Quality manager, development manager

# **Step 2 - Developing a Roadmap: Prioritizing Data Science Opportunities in the Business**

A strategic approach to data science requires the business to consider the relative opportunities, costs, and risks of potential projects to identify the best order to carry out the projects. What should be tackled first? What is best pushed off until later? Completing the Data Science Roadmap requires stepping through key considerations to determine which project(s) should be considered ‘top priority’ and at what pace these and subsequent projects should be initiated.

**1. Complete this “Rack and Stack Exercise” worksheet to determine the relative strategic alignment, cost, complexity of implementation, certainty of value capture, and magnitude of benefit for each of the six projects**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Direct Alignment with Strategic Goals?** | **Cost** | **Complexity of Implementation** | **Certainty of Value Capture** | **Magnitude of Benefit** |
|  | 1=Low; 5=High | 1=High; 5=Low | 1=High; 5=Low | 1=Low; 5=High | 1=Small; 5=Large |
| **Project 1:**  [Employee Retention] | 5 | 3 | 3 | 5 | 4 |
| **Project 2:**  [Supplier Performance] | 5 | 3 | 4 | 5 | 5 |
| **Project 3:**  [Price optimization] | 5 | 3 | 3 | 5 | 5 |
| **Project 4:**  [Lead Scoring] | 4 | 3 | 3 | 4 | 5 |
| **Project 5:**  [Chatbot customer service] | 3 | 3 | 2 | 3 | 3 |
| **Project 6:**  [Sentiment Analysis] | 2 | 4 | 5 | 3 | 4 |

**Note: You may choose to represent this information on slide 8 of the CEO Presentation Template**

**Please complete Step 2, Part 2, the Data Science Opportunity Matrix, using slide 1 of the CEO Presentation Template (You may or may not decide to include this slide as part of your CEO presentation)**

**Chart

Description automatically generated with medium confidence**

**Step 2, Part 3: Complete the table below by referencing the first four data science projects chosen for implementation. Include your justification for each project's order of implementation (e.g., how will the third project benefit from being implemented after the completion of the first two projects?)**

|  |  |  |
| --- | --- | --- |
| **Project Order** | **Project Title** | **Order Justification** |
| 1 | [Supplier Performance] | Supplier performance that’s rely on timely delivery, price reduction and service quality impact the firm profitability directly. It is very aligned with strategic goal, so we can get buy-in from executives easily. Technology used is not complex as it is available as software as service so it’s a mature technology and it can develop in house as well. This project as has high certainty of value capture. Having a successful supplier performance management improve the quality of the whole supply chain which is directly related to the organisation primary activities, Therefore, the order is number 1. |
| 2 | [Price optimization] | It’s come directly after the supplier performance, having an optimal price point for any given product at any given location lead to an increase in the business revenues, and impact the company profitability. |
| 3 | [Employee Retention] | It comes number three because it does not have a direct impact on the business, so the only impact will be on the human resources cost and this cost is not big, compared to the supplier performance and the price optimization |
| 4 | [Lead Scoring] | Volume and quality of the lead, and divided them into categories will help the company to deal with potential customers and improve the sale strategies, reduce the time and cost of searching about potential clients. However, it will take less priority compared to Supplier Performance, Price optimization, and Employee Retention while developing the strategic goals of the company |

**Note: You may choose to represent this information on slides 6 and 7 of the CEO Presentation Template**

# **Step 3 - Establishing a Data Science Human Capital Strategy for your Data-driven Business**

Now that we have established a roadmap for carrying out data science projects, our attention must turn to building and configuring the organization we will leverage to carry out this roadmap. The Data Science Human Capital Plan completed in this step will cover the organizational structure and talent configuration best suited to carry out the business’s roadmap, as well as the activities that the organization in particular -- and business more broadly -- must complete in order to promote a data-driven culture throughout the business.

**1. Identify the organizational model best suited for the data science organization that your business will need to deliver on the roadmap completed in Step 2. Provide justification for your selection based on the needs, scope, and timing of projects to be implemented in the Data Science Roadmap. If your organization should start with one model and evolve toward a different model, you may provide that detail and justification in your response.**

**Organizational Model:** Decentralized business unit model

It allows business unit to develop their own data science functions.

**Justification:**

* **Responsiveness and Agility:** Dedicated teams can respond to business needs with minimal administrative burden because they are dedicated to their respective business functions.
* **Business Unit Prioritization:** Each business unit can prioritize their own data science efforts more directly with a decentralized structure.
* **Domain Knowledge:** Sitting along the business operations and analysts, the data scientists can more quickly and deeply learn their domain space.

**2. Complete the “Human Capital Plan” Worksheet for your data science organization.**

**- Identify the first ten professional roles for which you would recruit. How would you organize these roles into teams within the organization?**

Identify your roles and teams below:

|  |  |  |
| --- | --- | --- |
|  | **Position** | **Team** |
| 1 | Data Hacker | 1 |
| 2 | Software Engineer | 1 |
| 3 | Data scientist | 1 |
| 4 | Machine learning Engineer | 1 |
| 5 | Data Analysts | 2 |
| 6 | Machine learning Engineer | 2 |
| 7 | Business analyst | 2 |
| 8 | Senior data Engineer | 3 |
| 9 | Business intelligence Engineer | 3 |
| 10 | Data visualization Engineer | 3 |

**Note: You may choose to represent this information on slide 9 of the CEO Presentation Template**

**Assume that leadership will allocate four new FTE’s for your data science organization during the current fiscal year. How would you prioritize your organizational buildout? https://www.techtarget.com/searchbusinessanalytics/feature/How-to-structure-and-manage-a-data-science-team?amp=1**

|  |  |  |
| --- | --- | --- |
| **Order of Hire** | **Position** | **Justification** |
| 1 | Data scientist | The main responsibility is to use statistical methods, machine learning, logarithms, and other tool to analyse data and create predictive models |
| 2 | Machine learning engineer | It is very important to have, he/she will work closely with the data scientist, to create, deploy and maintain a logarithms and models needed for machine learning and Al initiatives. |
| 3 | Data engineer | He/she work also closely with the data scientist on data quality, data preparation, and model deployment and maintenance tasks, and they have background in software engineering and computer science, that suits their focus on technology infrastructure, and data collection, management and storage. |
| 4 | Data Analyst | Data analyst can support data scientist efforts, he/she can collect and maintain data from operational systems and databases, use statistical methods, and analytical tools to interpret data, and prepare reports for the business users. |

**Craft a “Data-Driven Transformation Strategy” by identifying six specific initiatives that you would recommend the data science organization and/or the business undertake in order to promote a data-driven culture across the business.**

|  |  |
| --- | --- |
|  | **Strategy** |
| 1 | Increasing data literacy by developing training courses and workshops in data literacy for employees at all levels |
| 2 | Eliminate basic data access issues by expanding data access for all employees |
| 3 | Identify the company silos and eliminate them and encourage employees to share knowledge with each other that shape the future decisions of the company and increase the collaboration efforts |
| 4 | Make an insight newsletter that reflect the key insights found in the data, and that would allow all employees to get engaged in the data driven approach journey |
| 5 | Increasing employee’s awareness of the data regulation policies and the company code of ethics and make sure the employees understand them. |
| 6 | Encourage employees to engage in nano degree the beginner level (Excel for business) |

**Note: You may choose to represent this information on slide 10 of the CEO Presentation Template**

# **Step 4 - Establishing the Technical Infrastructure to Support the Data Science Organization**

With a completed Data Science Roadmap and a Human Capital Plan for executing the data science strategy, we turn our attention to the technological capabilities that must be built to support the new Data Science organization.

Complete the table on the next page by entering strategic aspects your business might consider to meet its Data and Data Architecture needs.

**Data and Data Architecture Strategy for the business**

|  |  |
| --- | --- |
| **Component** | **Strategy** |
| Data Requirements | What data should be included in the Data Strategy? | 1. Customers data 2. Leads data 3. Suppliers’ data 4. Products data |
| Data Governance | How will we promote data availability? (provide at least two ideas) | 1-Ensure Automatic Failover  2-Eliminate single points of failure  3- Embrace redundancy. |
| How will we promote usability? (provide at least two ideas) | 1-Improve the quality of the existing data  2-Ease of Analysis  3-Coverage and Granularity  4-Accessibility and Documentation  5-Relevance |
| How will we guarantee integrity? (provide at least two ideas) | 1-Perform Risk-Based Validation  2- Select Appropriate System and Service Providers  3-Be Accurate  4-Archive Regularly. |
| How will we guarantee security? (provide at least two ideas) | 1-Limit data access  2- Protect the IT Infrastructure  3-Pay attention to insider threat  4-Establish strong password  5-Keep our wireless network secure |
| Technology | Identify the components of your Data Architecture | 1-Data pipelines  2-Cloud storage  3-Data streaming |
| Skills and Capacity | How will we promote development of data literacy skills and capacity throughout the organization (provide at least three ideas) | 1. Developing training courses and workshops 2. Make an insight newsletter 3. Expanding data access for all employees |
| Support for Machine Learning | Give a brief description of the machine learning architecture and how it will interface with the data architecture | Cloud-based infrastructures provide organizations with a flexible platform for data storage, management, and processing. |

**Note: You may choose to represent this information on slide 11 of the CEO Presentation Template**