Module 2 Portfolio Milestone: Stakeholder Engagement Assessment

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A key component of a project's success is stakeholder engagement. This report provides a Stakeholder Engagement Assessment Matrix for the Omega.py Project Codebase, along with a quick use case study detailing current and desired engagement levels, and strategies to transition stakeholders to their desired engagement level.

The Project Management Institute (PMI) has identified five engagement levels of a stakeholder as follows:

- Unaware: These are stakeholders who are unaware that the project exists.
- Resistant: These stakeholders do not want the project to be a success and may take active steps to ensure its failure.
- Neutral: These stakeholders are indifferent to the success or failure of the project. It makes no difference to them whether the project is a success or failure.
- Supportive: This group of stakeholders is satisfied that the project will be a benefit and want the project to be a success.
- Leading: These stakeholders want the project to be a success and are actively engaged to ensure project success.

(Ucertify, n.d., p45)

Our Stakeholder Engagement Assessment Matrix used the PMI-identified levels to categorize the level of engagement of Omega.py stakeholders. Please see the next page for the matrix.

Figure 1

Stakeholder *Engagement Assessment Matrix*

Stakeholder	Unaware	Resistant	Neutral	Supportive	Leading
Fiona Chen (Legal Counsel)	C			D	
Marcus Thorne (Security Lead)		C		D	
Kevin Brooks (Network Admin)		C		D	
Sam Lopes (Lead Software Engineer/Dev.)				C	D
David Kim (Software Architect)				C	D
Priya Patel (Senior Software Developer)				C, D	
Mark O'Connor (Senior Software Engineer)			C	D	
Sarah Jenkins (Junior Software Developer)	C			D	
Linda Wu (Data Engineers)		C		D	
Elena Vance (Lead AI Engineer)				C	D
Jordan Lee (CEO)				C, D	
Linda Roberts (CFO)			C	D	
Alex Ricciardi (CPO, PM)					C, D

C: Current Engagement level
D: Desire Engagement level

Note: The matrix illustrates the current and desired engagement levels of stakeholders. Created with the LucidChart App.

Stakeholder Engagement Assessment Case Study

The main goal of the Program Manager (PM) is to try to have stakeholders at their desired level. Within the Stakeholder Engagement Assessment Matrix, this translates to having all the Cs and Ds in the same box (Ucertify, n.d). Thus, the primary purpose of this Engagement Assessment Matrix case study is not only to assess the stakeholders' current and desired engagement levels but also to formulate targeted strategies that will help stakeholders not currently at their desired level transition to their desired engagement level. Below, the study lists the stakeholders from the currently least engaged to the most engaged:

Currently Unaware

- Fiona Chen is Omega.py's Legal Counsel. She is currently unaware that the project exists, as legal counsel is rarely involved in the early planning and development phases of a software project. However, as the project plans to use external AI models (e.g., Gemini or ChatGPT), which introduces issues with licensing and a liability risk due to possibly leaking clients' sensitive data and Omega.py's sensitive data to AI providers, her desired engagement level must be Supportive to formulate contracts of use with AI providers that ensure that Omega.py has strict governance over the data shared with the Ai model, and has intellectual property rights over all the outputs generated by the AI model. To transition Fiona to a Supportive level, she needs to be aware of the project RAG system functionality and goals and briefed about the external AI model's current terms of service related to data confidentiality and security.

- Sarah Jenkins is a junior software developer. She is currently unaware that the project exists. As a junior developer, her main focus is not on planning projects or on helping develop or engineer high-level software structures, but on bug fixes and learning the Omega.py coding culture and software development practices. Nonetheless, her desired level of engagement needs to be supportive as she is expected to use Project Codebase extensively for coding tasks. To transition Sarah to the Supportive level, she needs to be aware of the project and train on DE-ML (Description Extractor Markup Language) is being developed, as well as how to test/use the Project Codebase during its various developing phases.

Currently Resistant

- Marcus Thorne is the security lead for Omega.py. He is currently resistant to the project. As a security lead, he is responsible for reducing risks and protecting Omega.py's

systems, sensitive information, data, intellectual property, and facilities. In consequence, he sees the introduction of an external system, such as an external AI model having access to client and internal data, as well as network devices, as a security risk that can potentially result in massive "Data Leakage," a security breach of Omega.py systems. His desired engagement level must be Supportive for the project to be viable. To transition Marcus to a Supportive level, he must be actively included in planning, implementing, and reviewing security protocols, safety features, and tools securing the Project Codebase functionality and surrounding infrastructure.

- Kevin Brooks is the Omega.py network administrator. He is currently resistant to the project. As a network administrator, he worries about the network infrastructure's performance, reliability, and security. Introducing a system like Project Codebase that integrates an RAG system, servers for databases, and external API calls to AI model providers will increase network traffic and latency risks, as well as authentication and security issues. His desired engagement level must be Supportive for the project to be effectively and safely integrated within Omega.py infrastructure. To transition Kevin to a Supportive level, he must be involved in the planning and implementation of local or cloud-based Neo4j databases, the API gateway configuration, and Project Codebase authentication protocols.

- Linda Wu is Omega.py data engineer. She is currently resistant to the project. She is responsible for maintaining Omega.py's data databases and the overall data pipeline. She is wondering why, in addition to existing SQL databases, which are a type of relational database, there is a need for Graph Databases, which are also a type of relational database. In other words, she views the implementation of new Neo4j Graph Databases to support Project Codebase alongside existing SQL databases as potentially unnecessary, increasing the complexity and overhead of the data pipeline. Her desired engagement level must be Supportive for the project to

be viable. To transition Linda to a Supportive level, she needs to be briefed about why Graph Databases are necessary for the efficient functioning of Project Codebase. For example, by demonstrating how an AI agent can autonomously perform schema mapping, data injection, and query a Graph database within an RAG system. She should also have ownership of the Knowledge Graph template schema that Project Codebase AI needs to follow; this will further her engagement with the project.

Currently Neutral

- Mark O'Connor is an Omega.py senior software engineer. He is currently neutral to resistant to the project. As an experienced developer, he has seen many utility tools come and go. His neutrality on Project Codebase is based on a wait-and-see approach. However, he is skeptical about the value of "visual mapping architecture" using a tool, when manually creating UML diagrams is sufficient in most cases. Additionally, he feels uncomfortable about using AI; however, he is impressed by how much AI coding agents have improved in recent months, making them useful tools in specific cases. His desired engagement level is Supportive, as he needs to be part of the Project Codebase developing team. To transition Mark to a Supportive level, he needs to be further exposed to AI coding agents and to the abilities of AI to understand and visually represent systems. By enrolling him in RAG training/bootcamp through Neo4j and by giving him ownership of a pilot Project Codebase RAG system.

- Linda Roberts is Omega.py Chief Financial Officer (CFO). She is currently neutral on the project. She is aware of the project's existence, but only from a financial perspective; she is only aware of the estimated cost of implementing the project, such as forecasted AI API tokens, cloud hosting/local hosting, and estimated development hours. She is waiting to see (further analysis) if the project yields real value in the long term for the organization. Her desired level is

Supportive. Presenting to her a cost-benefit analysis of the project will show how the implementation of an AI agent system can reduce the training time for new hires (like Sarah Jenkins) and decrease the time senior engineers spend on documentation and troubleshooting issues. Showing that implementing such a system is very valuable to the organization because it translates “employee workflow efficiency” into “dollar savings.”

Supportive Moving to Leading

- Sam Lopes is Omega.py lead software engineer, David Kim is Omega.py software architect, and Elena Vance is the Omega.py lead AI engineer. They are currently supportive of the project. They were all part of the initial exploratory team for the project. They see the value of the project. However, they have been assigned to lead the project and need to be informed of and empowered to assume their leading role.

Supportive and Lead Already Aligned

- Priya Patel is an Omega.py senior developer. He is currently aligned at a Supportive level. He is an AI enthusiast, seeing the value of the project.

- Jordan Lee is Omega.py CEO. The Project Codebase exploratory team presented him with a Project Codebase proposal. He is very supportive of the project, seeing the value in it. He is currently aligned at a Supportive level.

- Alex Ricciardi is Omega.py Chief Product Officer (CTO) and Program Manager (PM) of Project Codebase. He is the source of the Project Codebase idea and the main cheerleader. He is currently aligned at a Leading level.

References

Ucertify (n.d.). Lesson 5: Stakeholder Engagement. Project Manager Professional (PMP) Based on PMBOK7. Ucertify. ISBN: 978-1-64459-415-5