

# TENTIVE



Sligro Food Group

## Projectplan

M.G. den Hollander  
Student number: 3803554  
Fontys Hogescholen  
ICT & Software Engineering  
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## Version

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# 1. Project Assignment

## 1.1 Context

Tentive is a consultancy company that focuses on data governance, data management, data quality, and data integration. The assignment is to research and apply Robotic Process Automation at the company Sligro, a customer of Tentive. Sligro Food Group is a Dutch company that includes wholesalers, but also production companies such as Culivers and SmitVis.

Robotic Process Automation, also known as RPA, is a technique with which scripts and/or applications are executed on the computer or server to perform repetitive manual actions that employees no longer have to perform themselves. At the same time, RPA guarantees data governance (agreements in an organization regarding tasks and responsibilities related to data) and increases the data quality of a company at a time when correct data is becoming increasingly important.

Sligro currently has several robots in operation, but for this project's scope, we will specifically target the "dagaansluiting" robot. This is a robot that is responsible for checking financial transactions, sending error messages, and collecting information such as open purchase orders and rejected purchase invoices for each branch. This information is collected by the robot and put into an excel document. Finally, the robot digitizes several lists which are converted from a spool file into .pdf files and can then be found on the disk of the relevant department.

## 1.2 Goal of the project

The aim of this project is to investigate whether the "dagaansluiting" robot can be optimized, or maybe even replaced for a better option. It is the first robot that Sligro created at the time, it has never received any further attention in terms of opportunities for improvement, and occasionally has to deal with malfunctions.

By definition, using a (legacy) robot is not always the ideal outcome for Sligro, as more modern techniques are now available. The desired situation for Sligro is a technique that does not require much manual work, and therefore also saves time and maintenance. This may mean that future research will conclude that it is wiser to switch to a different technique. In addition, several non-functional aspects concerning security must be taken into account. Think of setting up a secure connection between the various systems, and dealing with the "General Data Protection Regulation" (GDPR) legislation.

## 1.3 Scope and preconditions

The table down below shows what will be inside the scope of this project, and what won't be.

Inside of the scope:	Outside of the scope:
1 Recurring research	1 Changing the company's infrastructure.
2 Documentation	2 Helping out with client projects
3 Decision/advise regarding the current bot	3 Investigating other bots
4 Implementation of an MVP RPA solution	4
5 Data security	5



## 1.4 Strategy

The strategy of this project is based on scrum. That is used within the company, and I am already familiar with it. During the semester I will join the daily stand-ups that take place within the company. These stand-ups will take place via Teams since hybrid work is standard within the company. The daily stand-ups ensure that everyone is up to date on each other's work, and I can also share my progress with the rest of the team. This can also help with the exchange of ideas. At the end of each sprint there will be a meeting where I share my progress of the past sprint, and what will be delivered in the next sprint. This is also known as a sprint review. At the end of the meeting, I will give a personal retrospective to identify areas for improvement for the next sprint.

In addition to using this strategy, I will also keep a log of everything that has happened every week in the portfolio, as a kind of accountability at the end of the semester.

## 1.5 Research questions

Research is key in this graduation internship. In comparison to our first internship, this is a research-driven internship. This means that research will be done in every phase of the project, and not just at the start. I will be using the DOT research framework, as this is used by default every semester. The DOT research framework helps with giving structure to applied research regarding ICT projects.

For more information regarding this framework, please visit

[https://ictresearchmethods.nl/The\\_DOT\\_Framework](https://ictresearchmethods.nl/The_DOT_Framework).

This research will consist of 1 main question and several sub-questions. By answering these sub-questions, the main question can eventually be answered, and the research will be complete. The main question of this internship can be found below:

**“How does the implementation of a new robotic process automation technique ensure that automation is available as efficiently as possible?”**

The sub-questions are as followed:

### 1. “Which techniques are used by the company regarding automation?”

The question of which techniques a company uses for automation is an important one that requires a detailed analysis of their current practices. To answer this question, two main strategies will be used: **Field** and **Library**.

The most effective approach would be to use the interview method to better understand the specific techniques used by the company. By arranging an interview with the Product Owner (PO), it would be possible to gain insight into the company's current practices and map out the various techniques being used. This information would then be used to inform further research and analysis.

In addition to the interview method, the document analysis method will be used to gather more information on the company's existing practices. The PO has indicated that the company possesses its own documentation on automation, and is willing to share this. By examining this documentation, it would be possible to gain a more comprehensive understanding of the techniques being used by the company.

Last but not least, a task analysis could come in handy to better understand the flow of automation that needs to be improved. This will help collect information about the tasks the RPA solution will need to perform.

By using the interview, document & task analysis methods, it would be possible to gain a thorough understanding of the techniques currently being used by the company for automation.



## 2. “What are the advantages and disadvantages of these used techniques?”

Analyzing the advantages and disadvantages of the company's automation techniques is a crucial step in understanding the current state of automation and identifying potential areas for improvement. To answer this question, several strategies will be used, including **Field** and **Library** methods.

This sub-question can partially be answered by the interview of the previous sub-question. That interview can provide valuable insights into any problems or issues that the PO may have encountered with the current automation techniques.

Additionally, the best good and bad practices method can be used to evaluate the effectiveness of the company's current automation techniques. This method involves analyzing the company's existing practices and comparing them to industry best practices. By doing so, it is possible to identify areas where the company is excelling or struggling with its automation techniques.

Furthermore, the problem analysis method can be used to investigate why the company believes that its automation techniques are not currently optimal. By examining the underlying issues and challenges, it may be possible to identify specific solutions and strategies for improvement.

By combining these methods with the information gathered from the previous sub-question, it is possible to provide a comprehensive analysis of the advantages and disadvantages of the company's current automation techniques. This analysis can inform potential strategies for improvement and help the company to optimize its automation techniques to better meet its needs.

## 3. What are the key processes and activities that need to be decomposed and analyzed prior to implementing a new RPA technique?

It is important to map out all the processes and activities that the RPA solution must perform. To achieve this, two main strategies are used: **Library** and **Workshop**.

Specifically, document analysis is used to examine the documentation provided by the company to identify all the processes. Additionally, Decomposition is used to break down the complex system into smaller parts, ensuring its maintainability and robustness.

Lastly, it is important to conduct Requirements Prioritization to prioritize which requirements need to be implemented first, ensuring smooth execution of the final research question.

## 4. What steps can be taken to increase the effectiveness of RPA in optimizing the current process and improving efficiency?

The question of how automation can improve efficiency within the company is a complex one that requires a thorough analysis of the current state of automation and potential steps/strategies for improvement. This question can be approached with the answers to the previous sub-question, because of the disadvantages of the current way of automation. These disadvantages can be examined, and help identify areas where optimization is needed and the current process can be improved which helps as a preparation for the final research question. The strategies used for this question are **Field** and **Lab**.

In this case, one approach would be to conduct another interview with the PO to gain a better understanding of the company's specific requirements for improving automation. This would allow for a more targeted approach to optimization that addresses the specific needs of the company.

Additionally, document analysis could be used to gather more information on how automation is currently being utilized and where there may be room for improvement. By examining this, it may be possible to identify areas where automation could be optimized to improve efficiency and productivity.

Finally, it is important to conduct a system test on the current system so that any errors in the process can be identified, and a clearer picture can be formed of how improvements can be made with a new technology. The test can identify any issues or bugs that the current technique has, which could provide valuable insights into the areas that require improvement.



##### 5. “What is the most efficient and sustainable way to use automation within the company?”

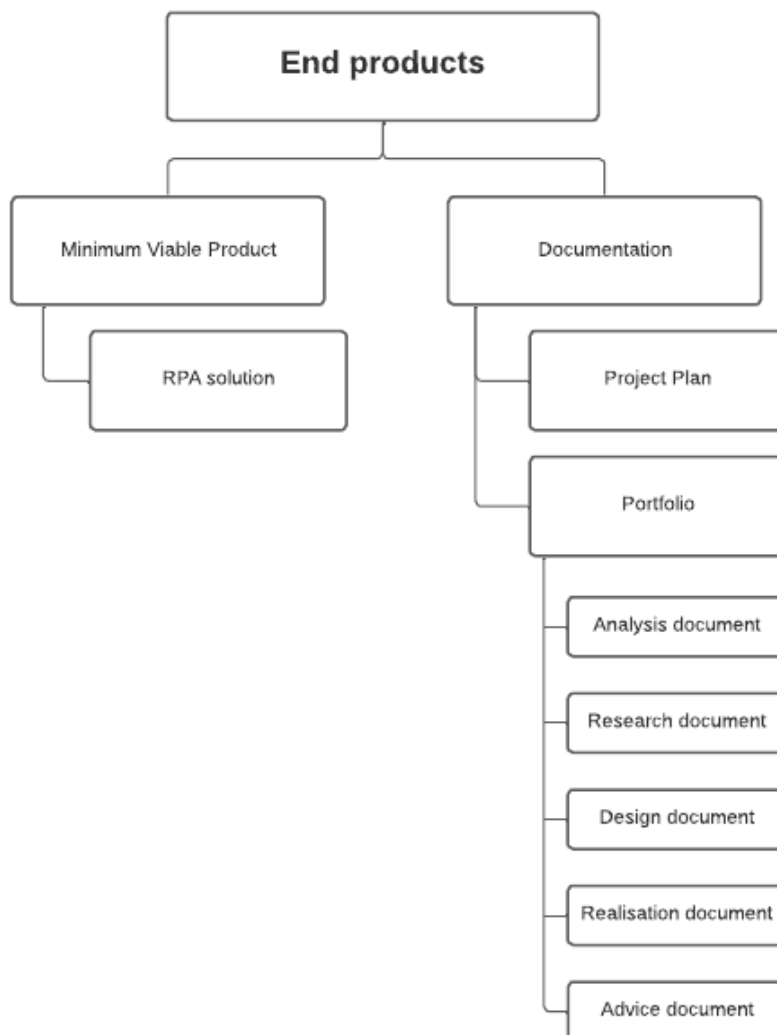
This last sub-question will determine the most efficient and sustainable way to use automation within the company, and combine the knowledge from all previous questions into an implementation of RPA in the process. Next to that, two main strategies will be used: Library and Workshop.

One way to approach this question is to use the business case exploration method, which involves analyzing the costs and revenues associated with various automation options to identify the most viable solutions for the company. This approach can help to identify the most cost-effective and efficient method(s) of implementing automation.

Another effective method is prototyping, which involves creating a minimum viable product (MVP) to demonstrate the best way of automation applicable to the company's operations. This approach allows for hands-on experimentation and testing to identify the most effective automation solutions.

In addition, it may be beneficial to hold an expert interview with the company's RPA specialist to gain valuable insights and support for this sub-question. This can help to ensure that the proposed solutions are aligned with the company's current automation capabilities.

## 1.6 End products



## 2. Project organization

### 2.1 Stakeholders and team members

In the table below all the stakeholders concerning this project are listed.

Name + tel + e-mail	Role/function
Marc den Hollander +31627538136 <a href="mailto:m.denhollander@student.fontys.nl">m.denhollander@student.fontys.nl</a> <a href="mailto:marc.den.hollander@tentive.nl">marc.den.hollander@tentive.nl</a>	Intern
Erkan Kopuz +31625341124 <a href="mailto:erkan.kopuz@tentive.nl">erkan.kopuz@tentive.nl</a>	Stakeholder / RPA specialist at Tentive
Johan Stolk +31622221065 <a href="mailto:johan.stolk@tentive.nl">johan.stolk@tentive.nl</a>	Stakeholder / CEO and director at Tentive
Dennis van Eijsden +31621385915 <a href="mailto:dvaneijsden@sligro.nl">dvaneijsden@sligro.nl</a>	Product Owner & Company supervisor / Application Owner - Back Office Document Management at Sligro
Geert Jan van Ouwendorp +31658718678 <a href="mailto:g.vanouwendorp@fontys.nl">g.vanouwendorp@fontys.nl</a>	First assessor / Fontys teacher
Leon Bronckers 0885084875 <a href="mailto:leon.bronckers@fontys.nl">leon.bronckers@fontys.nl</a>	Second assessor / Fontys teacher

### 2.2 Communication

It has been agreed that my company supervisor will be available all week for questions, both at the office and digitally. In addition, every week I can talk to the specialist within our company about RPA when I have questions or need guidance.

We work in a hybrid way, where at least 2 to 3 working days are spent at the office. When working on location, communication is a bit simpler by just walking to the desk of the person in question. When working digitally, communication will take place via Teams, and meetings will be scheduled. I can also consult with the PO when I have questions about the bot and other things concerning Sligro.

All communication will be in Dutch, as long as everyone involved understands this. Otherwise, we will switch over to English. All documentation will be delivered in English as well.

As I mentioned before, I will be joining daily stand-ups along with the rest of the IT department via Teams because not everyone is in the office.

I will be holding regular meetings with my school teacher to discuss my progress and feedback for the project. This will either be every week or every 2 weeks depending on the progress.





### 3. Activities and time plan

#### 3.1 Phases of the project

This graduation internship will be split into multiple sprints. Each sprint will consist of 2 weeks, excluding sprint 1. Sprint 1 is a little bit longer because it was originally planned as 4 weeks for each sprint. After adjustments from feedback, the next sprints were 2 weeks. Each sprint will contain a sprint review as well as a retrospective to reflect on my work during the sprint.

#### 3.2 Time plan and milestones

In the table below all of the sprints are listed, with the dates, context, and deliverables of each sprint can be found. Next to that, a horizontal time plan can be found on

<https://trello.com/invite/b/qBKjsLo/ATTI8bb8eb12a36031034fc7de35294df15bD2C54493/global-planning>

Sprint & duration	Date	Context	Deliverables
0 (1 week)	February 6 <sup>th</sup> – February 10 <sup>th</sup>	Start of internship	The first version of the project plan
1 (3 weeks)	February 13 <sup>th</sup> – March 3 <sup>rd</sup>	Finish the project plan and the start of researching. The research question of this sprint will be: “Which techniques are used by the company regarding automation?”	The final version of the project plan (delayed to sprint 2)
2 (2 weeks)	March 6 <sup>th</sup> – March 17 <sup>th</sup>	Start working on the portfolio and begin the implementation using the research done. The research question of this sprint will be: “What are the advantages and disadvantages of these used techniques?”	Portfolio (V1) The final version of the project plan
3 (2 weeks)	March 20 <sup>th</sup> - March 31 <sup>th</sup>	Continue working on portfolio, implementation, and research. The question of this sprint will be: “What are the key processes and activities that need to be decomposed and analyzed prior to implementing a new RPA technique?”	Portfolio (V2)
4 (2 weeks)	April 3 <sup>rd</sup> - April 14 <sup>th</sup>	Continue working on portfolio, implementation, and research. The question of this sprint will be: “What steps can be taken to increase the effectiveness of RPA in optimizing the current process and improving efficiency?”	Portfolio (V3)
5 (2 weeks)	April 17 <sup>th</sup> - April 28 <sup>th</sup>	Continue working on portfolio, implementation, and research. If the research question of the previous sprint is not finished, it will continue in this sprint. Otherwise, research on the last question will begin.	Portfolio (V4)
6 (2 weeks)	May 1 <sup>st</sup> - May 12 <sup>th</sup>	Continue working on portfolio, implementation, and research. The question of this sprint will be the last question: “What is the most efficient and sustainable way to use automation within the company?”	Portfolio (V5)



<b>Sprint &amp; duration</b>	<b>Date</b>	<b>Context</b>	<b>Deliverables</b>
<b>7</b> (2 weeks)	May 15 <sup>th</sup> - May 26 <sup>th</sup>	Continue working on the portfolio, implementation, and research on the last question.	Presentation (V1)
<b>8</b> (2 weeks)	May 29 <sup>th</sup> - June 9 <sup>th</sup>	Finishing up the portfolio.	Presentation (V2) The final version of the portfolio (deadline June 13 <sup>th</sup> )
<b>9</b> (2 weeks)	June 12 <sup>th</sup> - June 23 <sup>th</sup>	Preparation for the graduation sessions.	Presentation (V3)
<b>10</b> (2 weeks)	June 26 <sup>th</sup> - July 7 <sup>th</sup>	Assessment period and completion internship.	Final presentation

## 4. Testing strategy and Configuration management

### 4.1 Testing strategy

The company tests in different ways, but what I will be dealing with the most is running test scenarios. These test scenarios are created based on actions that need to be performed by the robot. Consider, for example, actions such as checking financial transactions. There are certain rules that the robot has to check whether certain records are empty before the next steps can be performed. In case of error messages, an email is sent to the people who have to solve this. We can compare these scenarios with the results of the RPA application that will be implemented as an MVP. The code of the RPA application will be checked via code reviews by the company supervisor.

### 4.2 Test environment and required resources

The robot is being tested in the company's AS400 test environment. In addition, the company uses Kofax RPA, which is a platform to apply RPA. On this platform, there is a design studio with which workflows can be created and all applications and data sources can be clicked through and tested. There are not many required resources for this project. Access will be needed to the test and acceptance servers of Sligro, as well as a laptop to run the RPA solution.

### 4.3 Configuration management

Sligro manages and configures its projects on various servers. Below are the configuration environments related to this project:

- **SLIGRO20** is Sligro's development environment on which the developers work
- **TSTGRO60** is Sligro's test environment on which System Integration Tests (SITs) are performed.
- **ACCGRO60** is sligro's acceptance environment, in which the User Acceptance Tests (UATs) are performed. This is what the MVP will be dealing with the most to handle the scenarios.



## 5. Risks

Risk	Chance	Impact	Solution
The company supervisor is suddenly unavailable	Low	Low	Another employee takes over the supervision
Expectations don't seem to match for each party	Low	Medium	Clear communication with both the school and company supervisor. Adjust expectations based on this.
Deviating planning	Medium	High	Adjusting the planning, and communicating with both the school and company supervisor
Receiving negative advice (go/no-go) for the continuation of the project	Medium	High	Communicating is crucial to fix this with both the school and the company supervisor. Adjusting the project's scope and planning will be needed.