PRINCE2™ - Project Brief

Project Name:	AI-driven Assessment System		
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07/03/2025		Initial draft creation. Sections completed: Project details, Outline Business Case, Role Descriptions.	N/A		
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Approvals

This document requires the following approvals. A signed copy should be placed in the project files.

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Distribution

This document has been distributed to:

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Jessica Nguyen	Project Definition, Project Tolerances, Project Product Description	24/03/2025	1
Samuel [redacted]	Project Objectives, Project scope and exclusions	24/03/2025	1
Aaron [redacted]	Background, Project approach	24/03/2025	1
Timothy [redacted]	Desired Outcomes, User(s) and any other known interested parties	24/03/2025	1
Jason [redacted]	Assumptions and Constraints, Project Management Team Structure	24/03/2025	1
Nabil [redacted]	Outline Business Case	24/03/2025	1

Overview

Purpose

A Project Brief is used to provide a full and firm foundation for the initiation of the project and is created in the Starting up a Project process.

In the Initiating a Project process, the contents of the Project Brief are extended and refined in the Project Initiation Documentation, after which the Project Brief is no longer maintained.

Contents

The Project Brief should cover the following topics.

Advice

The Project Brief is derived from: A project mandate supplied at the start of the project; Programme management - if the project is part of a programme, the Project Brief is likely to be supplied by the programme, and therefore it will not have to be derived from a project mandate; Discussions with corporate management regarding corporate strategy and any policies and standards that apply; Discussions with the Project Board and users if the project mandate is incomplete or if no project mandate is provided; Discussions with the operations and maintenance organization (if applicable); Discussion with the (potential) suppliers regarding specialist development lifecycles that could be used; Lessons Log.

A Project Brief can take several formats, including Document or presentation slides; Entry in a project management tool.
The following quality criteria should be observed:

- It is brief because its purpose at this point is to provide a firm basis on which to initiate a project. It will later be refined and expanded as part of the Project Initiation Documentation
- The Project Brief accurately reflects the project mandate and the requirements of the business and the users
- The project approach considers a range of solutions, such as: bespoke or off-the-shelf; contracted out or developed in-house; designed from new or a modified existing product
- The project approach has been selected which maximizes the chance of achieving overall success for the project
- The project objectives, project approach and strategies are consistent with the organization’s corporate social responsibility directive
- The project objectives are Specific, Measurable, Achievable, Realistic and Time-bound (SMART).

Project Definition

This project undertakes the Scrum methodology to support local government officers to develop an AI-driven system to implement an eligibility assessment for housing allocations. In the following sections of this Project Brief documentation, this will cover the aspects to be considered during this starting process for this AI-driven system to be initiated.

The following sections include:

1. **Background**: A detailed description of the project, exploring the importance of this project to be completed and the major outcomes to be expected.
2. **Project Objectives**: Describes the key performance goals required after this project.
3. **Desired Outcomes**: Identifies the expected outcomes of this project to maintain an AI-driven assessment system for effective use before users and local government public officers.
4. **Project Scope and Exclusions**: Identifies the various in-scope and out-of-scope tasks, and exclusions of this project.
5. **Constraints & Assumptions**: Addresses various limitations and conditions that may be observed within the project.
6. **Project Tolerances**: Explores several factors or elements that can be tolerated within the project.
7. **The User(s) and Any Other Known Interested Parties**: Outlines the important stakeholders that are relevant to the project.
8. **Outline Business Case**: A brief description of the business case that discusses the proposed solution for this project
9. **Project Product Description**: Explores the various criteria for customer quality, user acceptance and, operations and maintenance required in this project
10. **Project Approach**: Briefly describes a stepwise procedure to undergo this project.
11. **Project Management Team Structure & Role Descriptions**: Both sections represent the important roles that are required for the completion of the entire project.

Background

Allocation of rental residences in the Netherlands is managed by the local government and is given only to those in need. To be recognised as such, individuals need to register online or in person. Once applicants have registered, they will be provided access to a database of listed available residencies which are managed by property managers. During the allocation process long-standing applicants have a greater chance of being allocated their selected residencies, and those looking for residencies are provided transparent key metrics, portraying their odds of a successful application, enabling them to secure a greater chance of housing.

- To qualify for any listed rental residence, all applicants must meet the four specified criteria, such that they're:
  1) Appropriate residential category
  2) Size of household
  3) Income stability/suitability
  4) Additional specific conditions tied to the specified residency

Currently, local government public officers are assigned to assess each application manually, this is time consuming which results in inefficiency and delays in allocating housing to potential successful applicants.

To combat these challenges, the government is proposing the implementation of an Artificial intelligence (AI) driven system that will streamline the current assessment of potential candidates. This system aims to automate evaluation by comparing the application to the eligibility criteria, enhancing the efficiency of decision-making, thereby enhancing the current model whilst maintaining system integrity.

Applicants can also appeal these decisions, which will then be reviewed by a public official to be manual assessed. Thus, by implementing an AI model, the government intends to leverage its efficiency in decision-making, minimising slow manual assessment, increasing the overall efficiency of resources to allocate residences resulting in faster allocation of housing for those in need whilst adhering to the established criteria.

Project Objectives

The project aims to develop an AI-driven system to automate social housing applications assessments in the Netherlands, ensuring fairness, reducing workload and streamlining the evaluation process.

Key Performance Goals:

1) Time:
   - The Project must be completed within 3 months with end stage testing and quality assurance completed before July 2025
   - The AI Model should significantly reduce application processing time by up to 70% compared to the current system
   - Processed applications should be reviewed, and outcomes will be provided no later than one hour of applicant submission

2) Cost:
   - The project must be completed within a $2,000,000 budget
   - The system should lead to lower operational costs in the human resource sector

3) Quality:
   - The system must maintain an 85%+ accuracy in eligibility assessments based on predefined government criteria
   - The system must have a 95% uptime including server maintenance and unplanned outages should be at a minimum
   - Error rates should be low with false positives/negatives kept to a minimum

4) Scope:
   - Accessible to all potential applicants without the need for specific device requirements
   - Available to be integrated with different databases were property managers list residences

5) Risk:
   - Budget overruns due to improper planning or unexpected costs
   - Delays in timeline due to unforeseen circumstances such as technical challenges or data issues
   - Technological failures within the system causes major disruption which ultimately leads to application processing bottlenecks

6) Benefits:
   - Increased efficiency by reducing manual assessments to ensure faster processing times
   - Unbiased application processing through automated processing

- Scalable to allow for high volume of applications and future applications within government sector

Desired Outcomes

The desired outcome of the project is to develop and successfully implement an AI-driven assessment system to improve the accuracy, efficiency and transparency of social housing allocation in the Netherlands.

- This project's expected outcomes are:
  1) **Efficiency Improvement:** The implementation of the AI system should reduce the time taken for residence application assessments by at least 70% in comparison to the current system, allowing for faster allocation of housing to eligible applicants.
  2) **Fair Processing:** The implementation of the AI model should ensure objective decision-making based on defined eligibility criteria, minimising any human biases and maintaining fairness in allocation.
  3) **Enhanced Transparency:** Applicants should have access to data pertaining to residence availability and their application status, bolstering trust in the system its process.
  4) **Cost Reduction:** Assessment automation should reduce the workload for government workers, requiring lower operation costs in human resources.
  5) **Seamless Appeal Process:** A system feature that provides a structured appeal process that should allow applicants to contest AI decisions, ensuring compliance with legal and ethical standards.
  6) **Scalability and integration:** The system should be designed such that it is able to handle high volumes of applications and be able to integrate with existing government databases without disruptions to current operations.
  7) **Data-Driven Policy Insights:** The system should provide data analytics to aid policymakers in optimizing resource allocation and to effectively address housing demand.

Project Scope and Exclusions

With the development of AI-based assessment system for evaluating residence applications, multiple in-scope and out of scope task are identified.

- ***In-Scope***
  1) *AI-Driven Assessment*
     a. Residency eligibility criteria
     b. Compatibility of household size
     c. Suitability of income
     d. Additional specific conditions
  2) *Database Integration*
     a. Stored database for all applications necessary for review
     b. Integration of applicant database with residence database for property availability
  3) *User Interface*
     a. Online website for application submission
     b. Ability to track status of application and to check if further action is necessary
     c. Government public officer back-end interface for approvals and appeals
  4) *Security and Compliance*
     a. Transparency between AI decisions
     b. Compliance with local government regulation and rules regarding data collection
     c. Encrypted and Access Control for applicant information

- ***Out of Scope***
  1) *Property Management and Residence Allocation*
     a. System only qualifies applicants for residential housing
     b. The system would not be able to manage property listing and allocate residences
  2) *Complaint Handling and Appeals Process*
     a. The system would not handle residency disputes between tenant and property managers
     b. The system advises government officials on applicants' eligibility of residences and cannot revisit denied applications

- ***Exclusions***
  1) *Manual Review of Application*
     a. Although the AI model will advise government officials if all eligible criteria are met, human review is still required for final decisions

Constraints and Assumptions

Assumptions:

1) *Automated Assessment Accuracy* – The AI system will correctly review applications based on applicant's predefined eligibility criteria without any sort of bias or errors
2) *Reliable Data Integration* – The AI system will provide a seamless connection between its own system and the databases of residences and applicants to ensure real-time access to up-to date information
3) *Consistent Application Process* – Applicants that were originally assessed by a 'Local Government Public Officer' will remain the same, allowing the AI system to also operate and follow the same clear and fixed process without introducing any sort of unexpected changes, bias or errors
4) *Human Oversight for Appeal* – If an applicant disagrees with the decision that the AI system makes in the criteria, a 'Local Government Public Officer' will take over and review the case to immediately correct any issues without any unnecessary delays in the application process
5) *Consistent Eligibility Rules* – The criteria for rental applications will remain stable and more consistent over time, preventing frequent changes that could disrupt the AI's decision-making process
6) *Automated Policy Updates* – Changes in eligibility rules or residence availability will be automatically integrated into the AI system to keep decisions up-to date and consistent with current policies

Constraints:

1) *Compliance with Housing and Residential Policies* – Any changes in national or local housing policies must be incorporated into the AI system, which could take a long time to update
2) *Data Quality Issues* – Errors in applicant or residence information could result in incorrect assessments, requiring manual intervention to correct discrepancies
3) *System Downtime Risks* – Technical error or maintenance periods might delay operations, leading to a longer wait time in processing applications
4) *Legal and Ethical Considerations* – The AI system must abide with legal frameworks and ethical guidelines to avoid unintended discrimination in the allocation of residence or applicants
5) *Limited Exception Handling* – The AI system may struggle to process unusual cases that does not fit with standard eligibility criteria, requiring manual review from a 'Local Government Public Officer'
6) *Internet and Server Dependency* – Applicants and staff will need a stable internet connection to use the AI system, which could introduce any server downtime and potentially pause the process of an application

Project Tolerances

Time

- Application processing time does not exceed for more than one hour
- Project delays should not exceed after 5 months from confirmed launch date

Cost

- System maintenance cost capped at $500,000 can be exceeded up to 10%.
- 15% renumeration is required for technical support services during the initial launch for system failures or assistance.

Quality

- Up to 15% inaccuracy in eligibility assessments based on housing regulations and government criteria.
- System maintenance should only delay processing applications in one day to reduce backlog.

Scope

- Out-of-scope housing requests are to be reviewed within 3 days after application processed.
- Declined out-of-scope requests are further reviewed by a ‘Local Government Officer’ within 3 days after rejection.
- It is expected that up to 30% of applicants will have difficulties applying online
- It is expected that up to 20% of landlords may have issues leasing their properties to local government services due to ineligible housing conditions or rental payment disagreements
- During the initial launch, there should be at least 5 technicians on standby for assisting users.

Risk

- During the initial launch, system processing delays are expected by 10%.
- Urgent applications are to be escalated for vulnerable applicants within a day during system maintenance

The User(s) and Any Other Known Interested Parties

Primary Users:

1. *Housing Applicants* – Residential individuals seeking government-subsidised rental housing. They will be interacting with the system to register, apply, track their application status and appeal decisions if necessary.
2. *Local Government Public Officers* – Officials responsible for overseeing the application process, reviewing appeals and ensuring the system operates within legal and policy guidelines.
3. *Property Management* – Entities managing rental properties on behalf of the government. They are responsible for updating residence availability and maintenance of property record accuracy within the system.

Other Interested Parties:

1. *Government Agencies* – Bodies responsible for regulations in ensuring the AI-driven allocation system aligns with national housing policies and legal requirements.
2. *Social Welfare Groups* – Organisations monitoring the fairness, accessibility and transparency of the housing allocation process.
3. *AI Ethics and Compliance Authorities* – Experts that ensure the AI system adheres to ethical standards, data privacy laws and fairness guidelines.
4. *IT Development and Maintenance Teams* – Specialists responsible for designing, implementing and maintaining the AI model, database integrations and user interfaces.
5. *Academic and Research Institutions* – Researchers and analysts who may study the system's efficacy, recommend improvements, or audit its impact on social housing policies.

Outline Business Case

1. ***Business Option Selected*** - Our proposed solution is the development of an intelligent, automated assessment system.
    - We've carefully considered the integration with existing databases and the priority algorithm. We believe this system will provide a robust, reliable, and transparent allocation process.
    - ***Key Feature Outline*:**
        1) *AI-Driven Automated Assessment System*:
            - Develop and implement AI-based assessment.
            - Integrate with residence, applicant databases, and priority algorithm.
            - Provide eligibility decisions with an appeal process.
        2) *Key Features*:
            - Automated criteria-based assessment.
            - Database and algorithm integration.
            - Applicant appeal process.
            - Web-based government user interface.
            - Data analysis reporting.

2. ***Project Managers' View on the Need*** - We, as project managers, recognise the critical need to modernise the social housing allocation process. The current manual system is simply unsustainable with growing need for housing. We've observed bottlenecks and delays, causing unnecessary hardship for applicants.
    - We also believe an AI-driven solution is the most suitable way forward, since it enables fairness, speed, and efficiency in a system that directly impacts people's lives.
    - ***Current Inefficiencies*:**
        1) Time-consuming, resource-heavy manual assessments.
        2) Application delays and backlogs.
        3) Significant public officer time spent on reviews.
        4) Need for Automation:
            - Improve efficiency and reduce processing times.
            - Faster, consistent AI-driven applicant assessments.
        5) Improved Service Delivery:
            - Quicker decisions, reduced applicant uncertainty.
            - Clarity on application process and eligibility.
        6) Data-Driven Decisions:
            - Enable government data collection for future planning.

3. ***Expected Benefits*** - From a management standpoint, this system will provide valuable data insights, enabling us to optimize resource allocation and make informed policy decisions.
    - To begin with, the following list is an outline of what we expect the new solution may provide as a direct solution to several problems:
        1) **Increased Efficiency:**

- Reduced application processing times.
- Optimized public officer resource allocation.

2) **Improved Accuracy:**
   - Consistent AI-driven criteria application.
   - Reduced human error.
3) **Enhanced Service Delivery:**
   - Faster applicant decisions, shorter wait times.
   - Increased transparency and clarity.
4) **Cost Savings:**
   - Reduced administrative costs.
   - Better housing resource allocation.

4. ***Potential Key Risks*** - We're acutely aware of the potential for AI bias and data security concerns. We're committed to implementing rigorous testing and security measures to mitigate these risks, however, it will never be a bulletproof process, hence the necessity to incorporate an appeal system that enables application revisions where necessary.
   - The change of process can be challenging for those that are not computer literate. However, with the use of AI, the system itself can aid the user in completing an application via conversational AI implementations rather than live chat agents or telephone operators, and a clear appeal process to ensure a smooth transition.
   - We are planning for the possibility of system integration issues and will be creating contingency plans to reduce the impact of these issues.
     - Below follows a key outline list of potential risks:
       1) **AI Accuracy and Bias:**
          - Potential AI algorithm bias.
          - Risk of inaccurate AI assessments.
       2) **Data Security and Privacy:**
          - Applicant data security and privacy concerns.
          - Risk of data breaches.
       3) **System Integration:**
          - Integration challenges with existing systems.
          - Risk of system failures.
       4) **User Acceptance:**
          - Potential resistance from users.
          - Need for training and support.

Project Product Description

Customer Quality Expectations

- The system should be user-friendly, secured and ease of access to ensure smooth application input process
- The system should have a fast-processing time
- The system should generate easy-to-understand questions, allowing to provide quick responses
- The system should be accessible via a range of devices
- The system should provide eligibility results to the applicant
- The system should be fair and unbiased in making decisions, regarding the applicant's eligibility for rental residences
- The system should comply with housing laws
- The system should store applicant's information securely when applications are processed already
- The system should only intended access to authorised personnel when asked to access secured data
- The system should update housing availabilities for applicants
- The system should send a notification update to the applicant (via mail or a digital device) to follow-up on the application progress

Users Acceptance Criteria

As a user (i.e. applicant) of this system, the application process should mainly be simple, secured and easily accessible and to quickly understand the outcomes for housing allocation. The fundamental aspect of this system should have a webpage that can initiate an application for the user and prompting a message to the user of successful application submission. Lastly, this system should also generate a clickable email with a link for the applicant to access of the outcomes, outlining alternative options if unsuccessful.

Operations & Maintenance Acceptance Criteria

- The system should process applications under 2mins
- The system should ultimately enable applications submitted during system maintenances
- Major system bug issues should be resolved within 24hrs
- Applications are to be encrypted and securely stored after submitted.
- The system should send a notification update to the applicant immediately after the application outcome has been determined
- The notification update should be sent under 30 seconds
- The initial application form should load under 15 seconds
- The system should detect fraudulent activity every hour

Project Approach

The project will implement an AI system to automate the process of assessing residential applications.

These processes include:

1) Solution Design (define everything to set expectation/goal at each stage)
   a. Identity clear goal
   b. Identify stakeholders
   c. Define roles/responsibilities
   d. Tolerance for key metrics (i.e. budget, timeline)
   e. Set clear deliverables
   f. Risk analysis

2) Integration of Existing Systems
   a. Ensure key functions of previous system has been integrated
   b. Check whether key functions are met through review with officials

3) User Experience/Interface/Regulation Check
   a. Ensure interface is seamless
   b. Data protection

4) Iteration Testing
   a. Unit testing
   b. System integration test
   c. User acceptance testing

5) Training (Officers to Understand AI Model)
   a. Training courses for officers
      I. How to understand the model
      II. How to use the model
      III. Managing appeal process

6) Monitoring/Evaluation
   a. Monitor system performance
   b. Gather user feedback
   c. Implementation of user/system feedback

7) Maintenance
   a. Routine checks of system performance
   b. Critical updates

Project Management Team Structure

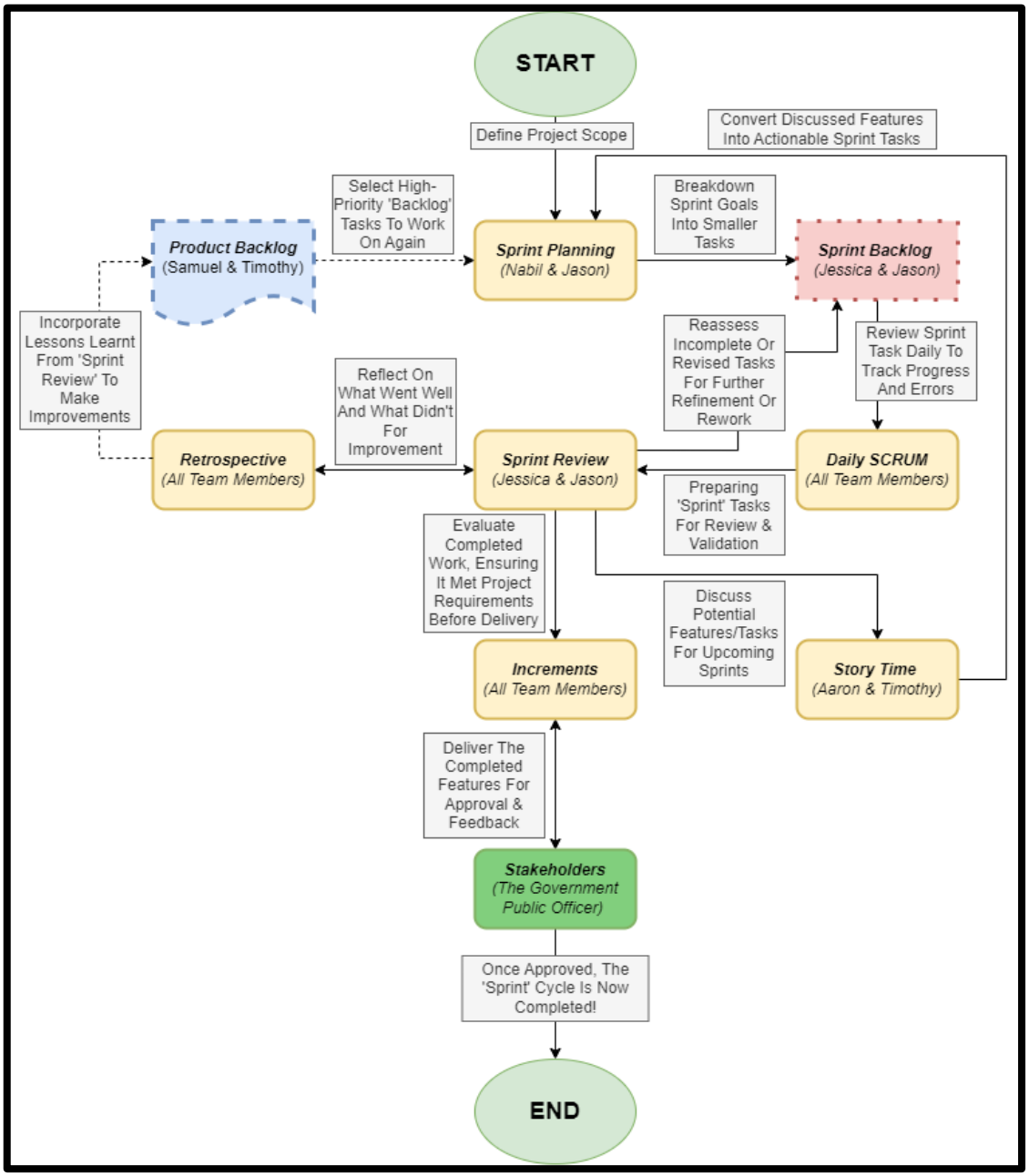

Figure 1 – Group 6 SCRUM Diagram

Role Descriptions

Project Manager (Jessica Nguyen)

- Overall project responsibility, manages team, ensures PRINCE2 adherence, monitors progress, manages risks, reports to Project Board, liaises with stakeholders.

Team Manager (Nabil Elwazze)

- Delivers assigned work packages, manages team members within those packages, ensures quality, reports to PM.

Team Manager (Jason Nguyen):

- Same responsibilities as 'Team Manager'

Project Assurance — Include:

1. **Technical (Aaron Chung):** Ensures technical feasibility and quality, monitors technical risks.
2. **User (Timothy Ng):** Ensures system meets user needs, conducts testing, gathers feedback.
3. **Business (Samuel Ho):** Ensures project aligns with business case, monitors business risks.

Project Support (Shared)

- Provides admin support, documentation, coordination, assists PM and Team Managers.