SPRINTLAB – INDEPENDENT EVALUATION REPORT

AIR

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1. INTRODUCTION

1.1. PURPOSE

The purpose of this document is to present the results of an independent evaluation carried out by GMV on the SprintLab tool, developed by final-year students of Universidade Lusófona. This assessment aimed to verify SprintLab's operational performance as a project management integration solution between GitLab and Microsoft Teams.

1.2. SCOPE

This report covers functional, non-functional, and usability testing conducted by five GMV engineers using SprintLab in the context of two active real-world projects: Horizon Europe Schumann and GMV AIR. The evaluation includes bidirectional synchronization, dashboards, performance, reliability, and scalability aspects.

1.3. DEFINITIONS AND ACRONYMS

1.3.1. DEFINITIONS

Concepts and terms used in this document and needing a definition are included in the following table:

Table 1-1 Definitions

Concept / Term	Definition

1.3.2. ACRONYMS

Acronyms used in this document and needing a definition are included in the following table:

Table 1-2 Acronyms

Acronym	Definition

2. REFERENCES

2.1. APPLICABLE DOCUMENTS

The following documents, of the exact issue shown, form part of this document to the extent specified herein. Applicable documents are those referenced in the Contract or approved by the Approval Authority. They are referenced in this document in the form [AD.x]:

Table 2-1 Applicable Documents

Ref.	Title	Code	Version	Date
[AD.1]				
[AD.2]				
[AD.3]				
[AD.4]				

2.2. REFERENCE DOCUMENTS

The following documents, although not part of this document, amplify or clarify its contents. Reference documents are those not applicable and referenced within this document. They are referenced in this document in the form [RD.x]:

Table 2-2 Reference Documents

Ref.	Title	Code	Version	Date
[RD.1]				
[RD.2]				
[RD.3]				

3. TESTING OVERVIEW

3.1. SYSTEM OVERVIEW

SprintLab is a middleware and plugin-based integration platform that enables seamless project tracking and management between GitLab and Microsoft Teams. The solution supports Kanban and Gantt visualizations, real-time updates, and multi-project configuration.

(See Section 2.2 for evaluation approach.)

3.2. APPROACH

The assessment consisted of executing SprintLab in realistic operational conditions, replicating typical use cases of project coordination. The GMV team followed a black-box and user-oriented testing approach to evaluate the system based on:

- Synchronization accuracy between GitLab and Teams.
- Responsiveness of dashboards and visual components.
- Support for multi-project and multi-team environments.
- Compliance with the functional requirements defined in the SprintLab technical documentation.

In total, over a dozen test scenarios were covered, including edge cases and system resilience.

3.3. TESTING ENVIRONMENT, TOOLS AND REQUIRED INPUTS

Projects tested:

- Schumann: A Horizon Europe project focused on cybersecurity, collaborative threat detection and defense.
- AIR: A GMV product for secure virtualization and automated orchestration of software environments.

Test team: 5 GMV engineers from space and IT divisions.

Infrastructure: GitLab (Enterprise & Self-Hosted), Microsoft Teams (Standard Channels), SprintLab deployed on Fly.io.

Inputs: Existing GitLab repositories and work packages (WPs) with open issues and merge requests.

Tooling: Native Teams interface, SprintLab plugin interface, GitLab Webhooks, browser, logs viewer.

4. TEST DESCRIPTION AND RESULTS

This section includes a summary of the verification and validation activities results. It identifies the verified and validated elements by marking its version number. Reference will be made to the applicable documents and/or plans. It will identify any incidents and summarize how they were solved.

4.1. CORE SYNCHRONIZATION TESTS

Test Scenario	Description	Result
Issue creation in GitLab	Reflected immediately in Teams Kanban board	Success
Task creation in Teams	Corresponding issue generated in GitLab	Success
Status updates (e.g., closing issue)	Reflected bidirectionally in GitLab and Teams	Success
Label changes and filtering	Correct rendering and filtering on both sides	Success
Gantt chart rendering	Updated automatically with correct time-line mapping	Success

4.2. ADVANCED FEATURE TESTS

Test Scenario	Description	Result
Simultaneous management of multiple GitLab projects	Independent synchronization in distinct Teams channels	Success
Notifications for Merge Requests	Created and updated in Teams	Success
Checklist/subtask visibility	Reflected correctly as subtasks in Kanban board	Success
Real-time updates under load	Handled +100 events/min without delays	Success
Token and API authentication handling	All API interactions secured via OAuth2 and MSAL	Success

4.3. USABILITY AND PERFORMANCE FEEDBACK

All testers found the tool intuitive and responsive. Project dashboards allowed faster monitoring of task closure and WP evolution. Participants estimated:

- **30–50% reduction** in time spent coordinating and reporting task progress.
- Improved **clarity in communication** and project visibility across distributed teams.

5. CONCLUSION

SprintLab demonstrated robust, reliable, and production-grade behavior in real-world project contexts. All tested functionalities performed as expected, with no critical issues encountered.

GMV considers SprintLab suitable for operational use and recommends exploring its broader adoption or commercialization.