

# ANNUAL PROCUREMENT PLANNING –

## AI-ENABLED INTELLIGENT AUTOMATION SOLUTION

*(on Microsoft SharePoint Online + Microsoft Power Automate + AI Builder + Excel Business Online)*

### 1. Document overview

Parameter	Value
Solution version	1.0.0.2
Solution	Annual Procurement Planning – AI-enabled Intelligent Automation
Platform	Microsoft 365: SharePoint Online, Power Automate, Excel Business Online and AI Builder
Primary audience	Procurement Leadership, Procurement Planning Teams, Category Managers, Sourcing Managers
Document purpose	Explain workflow logic, AI review logic, and reporting

The solution automates annual procurement planning along with its updates and AI-driven **Annual Procurement Plan (APP)** review using Microsoft SharePoint Online, Power Automate, Excel Business Online, and AI Builder. The solution imports procurement planning data from the Excel master file, creates online SharePoint master for further updates and analysis, calculates procurement process milestones based on cycle times and need-by dates, cycle time indicators, and generates AI-based operational planning reports.

### 2. Current state

- APP inputs exist in disjointed XLS files shared between multiple process actors
- Collection of inputs happens over email
- Data consolidation is manual, inputs come in various formats
- APP updates initiate over emails
- Procurement process timelines either not calculated or “gut feeling”- based
- Due to the complexity of managing the APP, its updates and sourcing status analysis happen only few times a year, if at all.

### 3. Solution Scope

- Import procurement planning data from the Excel master (100-line test sample) into SharePoint.
- Store the APP in a SharePoint master list.
- Define procurement planning indicators (**required start of the procurement cycle** for each item), using requestor-defined **need-by dates** and mean **cycle times** per each type of sourcing event (buying channels).
- Calculate Days Remaining to Procurement Start.
- Determine Mandatory Procurement Status (Planning, Action Required, Action Overdue) depending on Days Remaining to Procurement Start.

- Generate Excel versions of each edition of the APP.
- Update APP in SharePoint master either directly or via an online form. Recalculate all critical indicators and statuses, as required.
- Generate AI-driven APP review reports.
- Generate HTML operational planning reports for each edition of the APP.
- **Save key artefacts for audit trail purposes.**

## 4. Main Workflow Components

### 4.1.1. Flow 1 — APP Import

- Imports the original master procurement planning spreadsheet into SharePoint.
- Calculates procurement planning indicators and statuses in the SharePoint master list.
- Saves XLS version of the initial APP.

### 4.1.2. Flow 2 — APP Refresh

- Amends the APP via an online form, if the APP administrator doesn't have online access to the SharePoint master.
- Refreshes (updates, recalculates) planning indicators and statuses based on the user-selected Plan Date.
- Generates refreshed XLS version of the APP.

### 4.1.3. Flow 3 — APP AI Review

- Analyses the current version of the APP.
- Generates AI-driven operational procurement reports.
- Stores HTML version of the report for procurement and audit review.

## 5. SharePoint Data Model

- Annual Procurement Plan SharePoint list stores the live procurement planning master dataset.
- SharePoint document libraries store refreshed Excel planning files.
- SharePoint document libraries store generated HTML AI review reports.
- SharePoint library Procurement Plan Updates acts as the audit repository.

## 6. Procurement Planning Logic

- Required Procurement Start Date is calculated based on sourcing cycle times per each type of an event.
- Days Remaining to Procurement Start is dynamically refreshed.
- Mandatory Procurement Status is automatically determined.
- Statuses include: Action Overdue (past Required Procurement Start Date), Action Required (up to 90 days to the Required Procurement Start Date, i.e., PR to be raised, bidding documentation prepared, etc.), Planning (over 90 days).

## 7. APP Refresh Logic

- Flow 2 recalculates the entire procurement plan using the selected Plan Date.
- The refreshed master list becomes the live operational planning baseline.
- All calculations are updated dynamically during refresh cycles.
- The refreshed procurement plan is exported into Excel automatically.

## 8. AI Review Logic

- AI reviews procurement timing pressure points.
- AI identifies overdue procurement actions.
- AI generates 90-day procurement pipelines.
- AI identifies incumbent supplier concentration areas (opportunity for bundled negotiations).
- AI flags vague planning entries (overly generic descriptions) and data quality issues (e.g., zero-valued estimated value of procurement).
- AI generates appropriate operational input planning commentary.

## 9. Solution Architecture

- Microsoft SharePoint Online stores the master APP dataset.
- Microsoft Power Automate orchestrates imports, refreshes and AI reviews.
- Excel Online is used for APP templates.
- AI Builder generates AI analysis and commentary on the live version of the APP.
- HTML outputs provide tidy and visual executive-level reporting.

## 10. Future Enhancements (Product Roadmap)

- Historical procurement planning trend analysis.
- Power BI dashboard integration.
- Supplier market intelligence integration.
- AI-driven sourcing staff workload forecasting.
- Category-level procurement planning analytics.
- Automated procurement planning reminders and escalations.

## 11. Video Overview

[https://youtu.be/NXTvncaE\\_HA?si=SQK\\_mG-BSFTo8mC6](https://youtu.be/NXTvncaE_HA?si=SQK_mG-BSFTo8mC6)