ChatGPT

Product Requirements Document (v5) – Mimica Analytics Platform

1. Overview

This document defines the requirements for building an analytics platform that helps multinational organisations **standardise business processes across regions**. It draws from an in-depth analysis of Mimica's existing Mapper module and our synthetic dataset. The platform will be delivered in two phases:

1. **Platform Clone** – Recreate the core features of Mimica's Mapper using synthetic data: process list and summary, ease of deployment gauge, action/decision counts, application & website charts, interactive process map with step details and screenshot placeholders.
2. **Process-Standardisation Analytics (MVP)** – Extend the clone with cross-region dashboards, variant analysis, bottleneck detection and process overlay to compare workflow variants across regions and recommend a global best practice.

2. Problem & First-Customer Fit

- **Customer**: A Fortune-500 enterprise running finance operations in five regions (Americas, EMEA, APAC, LATAM, North America) uses SAP for invoice-to-pay processes. Each region has developed slightly different steps, creating inconsistency, inefficiency and compliance risk.
- **Primary Persona**: **Process Analyst / Continuous Improvement Manager** – Analyses how work is performed, identifies inefficiencies and leads standardisation projects.
- **Secondary Personas**: **Operations Manager**, **Transformation Lead**, **Compliance Officer** and **SMEs** (data contributors).
- **Problem Statement**: Leaders lack objective, task-level data to compare how a process is executed across regions and to define a single global best practice. Variation leads to delays, errors and non-compliance. Analysts currently piece together system logs and manual interviews, which is slow and inaccurate.

3. Goals & Success Metrics

Goals: 1. Provide a comprehensive view of how each region executes the process, highlighting differences in cycle time, step counts, variant frequency and bottlenecks. 2. Enable users to drill down into process maps and individual steps to understand why variation occurs. 3. Recommend a standard process based on high-performing variants and quantify the potential benefits of adoption (time saved, reduced errors).

North-Star Metric: **Process Variation Reduction Index (PVRI)** – A composite score quantifying the alignment of each region's process to the defined standard (0 = identical; 1 = maximal variation). The goal is to reduce PVRI over time.

Supporting KPIs: 1. **Average Cycle Time per Region** – Mean total duration from start to finish; aim to reduce. 2. **Number of Variants per Region** – Count of distinct execution paths; aim to converge on a single standard variant. 3. **Time Saved & Cost Savings Identified** – Estimated reduction in hours and labour cost from eliminating bottlenecks and standardising steps. 4. **Adoption Rate** – Percentage of transactions adhering to the standard process after implementation.

4. Scope & Constraints

- **Time Horizon**: 6 months to deliver an MVP with 4 engineers and 1 designer.
- **Data Availability**: Use synthetic dataset to simulate real Mimica data; lack of screenshot data means we will use placeholders or omit screenshot features in v1.
- **Security & Privacy**: All data must be anonymised; no sensitive or PII included. Must follow enterprise security best practices.
- **Technology**: Build with Next.js 13+ (App Router), TypeScript, Tailwind CSS, 21st.dev components (primary) and shadcn/ui (fallback).
- **Design**: Emulate the minimalistic, pastel aesthetic of Mimica's UI; ensure accessibility (WCAG 2.1 AA) and responsive design.

5. MVP Feature Prioritisation

Candidate Features

Feature	Description	Value (1–10)	Effort (1–10)	Include in MVP?
Platform Clone	Recreate process list, summary metrics, charts, process map and step details with synthetic data.	10	6	– essential foundation
Cross-Region Comparison	Compare cycle time, step counts and application usage across regions; interactive filters.	9	5	
Variant Analysis	Group transactions by step sequence; display frequency and duration of each variant per region.	8	6	
Bottleneck Detection	Identify and rank slow steps; highlight them on process map and summarise in a table.	9	6	
Process Overlay	Overlay process maps for multiple regions to visualise divergences; colour-code flows.	8	7	
Standard Recommendation	Suggest a global best-practice variant and quantify benefits.	7	8	☐ – backlog (phase 2)

Feature	Description	Value (1–10)	Effort (1–10)	Include in MVP?
Training Material Generator	Generate step-by-step guides and micro-learning content from the standard process.	6	7	☐ – backlog
Real-Time Monitoring & Alerts	Track conformance to the standard and alert on deviations.	6	8	☐ – backlog

Trade-Off Analysis (Feature: Process Overlay)

Value: 8/10 – Visualising multiple regional paths on one map reveals divergences at a glance and aids in standardisation discussions. It directly addresses the challenge of comparing processes.

Effort: 7/10 – Requires building a graph overlay algorithm and dynamic colouring. More complex than basic charts but manageable within the timeframe.

Risks & Mitigations: * *Risk*: Overcrowded visuals when multiple regions are overlaid. *Mitigation*: Allow users to toggle regions on/off and highlight only divergences. * *Risk*: Graph layout complexity. *Mitigation*: Use hierarchical layout algorithms and caching results. * *Risk*: Performance issues on large datasets. *Mitigation*: Pre-compute simplified maps and edge weights; enable progressive loading.

Given its high value and moderate effort, the process overlay feature should be included in v1, with careful attention to usability.

6. User Journey & Wireframe (Summary)

1. **Select a Process** – User lands on the process list and searches for a process (e.g., “Invoice Approval”). Columns show ease and automatability ratings and time spent. They click the row to open the summary.
2. **Review Summary Metrics** – The summary panel shows high-level metrics (time saved, automatability, ease of deployment gauge, counts, application & website charts). A “View Map” button takes them to the process map.
3. **Explore Map & Variants** – The map page displays an aggregated flowchart. A side panel lists variants by frequency. Users click a variant to highlight its path and compare with others. Hovering over nodes shows step details. Filtering by region updates the overlay.
4. **Identify Bottlenecks** – The analyst clicks the “Bottlenecks” tab to view a table of slow steps (action name, average duration, occurrences) and selects one to highlight corresponding nodes on the map.
5. **Standard Recommendation** (phase 2) – The platform suggests a recommended variant and quantifies potential savings.

The wireframe includes a sidebar for process selection, a header with navigation tabs (“Summary”, “Map”, “Variants”, “Bottlenecks”), and a main content area with charts, tables and the flowchart. A detailed flowchart and user journey are documented in the wireframe design file (see design_system_v5.md).

7. Milestones & Timeline (6 Months)

1. **Month 1 – Discovery & Data Enrichment**
2. Finalise requirements and personas with stakeholders.
3. Enhance synthetic dataset to include step types, decision paths, baseline durations and SME counts.
4. Align with design team on brand guidelines.
5. **Month 2 – Platform Clone**
6. Implement process list and summary using synthetic data.
7. Build process map component with interactive step details (placeholder screenshots).
8. Recreate charts (ease gauge, counts, applications & websites) using 21st.dev components.
9. **Month 3 – Cross-Region Dashboard**
10. Implement region comparison charts (cycle time, step counts, application usage). Add filtering interactions.
11. Compute and display per-region variant distributions.
12. **Month 4 – Variant & Bottleneck Analysis**
13. Implement clustering or exact sequence grouping; visualise variant frequencies and durations.
14. Build bottleneck detection table and integrate with map to highlight slow steps.
15. **Month 5 – Process Overlay & Recommendations**
16. Develop overlay algorithm for displaying multiple region flows; allow toggling of regions.
17. Prototype standard recommendation logic (for phase 2) and evaluate feasibility.
18. **Month 6 – Testing, Iteration & Launch**
19. Conduct usability testing with target users and refine UI/UX.
20. Optimise performance and ensure accessibility compliance.
21. Prepare documentation and training materials; deploy MVP to pilot users.

8. Risks & Unknowns

- **Data Quality** – Real Mimica data may have noise, missing steps or long idle times. Require collaboration with data engineering to validate our assumptions.
- **User Adoption** – Analysts may struggle with new analytics concepts (e.g., clustering). Mitigate by providing guided tutorials and contextual tooltips.
- **Integration Complexity** – Integrating the analytics module with existing Mimica infrastructure may pose security and performance challenges. Work closely with engineering to define APIs.
- **Regulatory Requirements** – Variants may be driven by local regulations; changes may not be feasible. Involve compliance early to identify non-negotiable steps.

9. Out-of-Scope & Future Work

- Real-time monitoring and alerting on process deviations.
- Full automation recommendation engine combining automata scores and cost savings.
- Integration with external workflow systems (e.g., BPMN export). These can be considered in post-MVP phases.

This PRD sets a clear foundation for building a scalable analytics platform that first replicates the Mimica experience and then extends it to enable process standardisation across regions.
