**Pulse One:** Connects, orchestrates the Pulse modules and other company data warehouses; possibility for HR to query any information (Orchestration and HR Bot)

**Pulse 360:** Circular arrow with 360° (360 Feedback Cycle)

**Pulse Assess:** Generate any kind of questionnaire, configure the campaign to use it, send, collect the reply, analyze them, everything in few clicks with AI (metric analysis)

**Pulse Voice:** Engagement survey with AI providing questionnaires, analyzing and benchmarking aggregated answers, providing action plans.

**Pulse Learn:** A proactive chat boat that uses all available learning materials and through Pulse One integration layer provides learners with tip, suggestions plus reply to any question on what to learn, how to upgrade certain skills, points you to available course and extract key info.

**Pulse One - Development Specification**

**General Description**

Pulse One is the AI-powered orchestration layer that serves as the central intelligence hub for the entire Pulse Suite. It connects, analyzes, and provides insights across all Pulse modules (360, Voice, Learn, Assess) plus external company systems. Users interact primarily through conversational AI to query data, generate reports, and receive proactive insights. The system combines document knowledge management with real-time data orchestration, enabling HR teams to access unified intelligence across their entire people analytics ecosystem.

**Core Value Proposition:** Single AI interface that understands your entire HR data landscape and can answer questions, generate content, and provide insights by combining uploaded documents with live data from connected systems.

**Navigation Structure & Functionality**

**Dashboard *(standalone)***

**Purpose:** Operational overview and quick access to key functions

**Content:**

* **System Health Panel:** Connected modules status, sync indicators, processing queues
* **AI Usage Metrics:** Daily queries, popular topics, response accuracy rates
* **Recent Activity Feed:** Latest uploads, new insights, system alerts
* **Quick Actions:** Upload document, start chat, generate report buttons
* **Data Overview:** Total documents processed, connected data sources, knowledge base size

**Functionality:** Real-time monitoring dashboard with drill-down capabilities to specific modules for detailed investigation.

**INSIGHTSHUB *(Primary user interaction area)***

**Chat Assistant**

**Purpose:** Main conversational interface with AI **Content:**

* **Chat Interface:** Real-time conversation with Flux AI
* **Query Examples:** Suggested questions based on available data
* **Source Citations:** Transparent linking to data sources for all responses
* **Context Switching:** Ability to focus queries on specific modules or document types
* **Export Options:** Save conversations, share responses, create follow-up reports

**Functionality:** Advanced RAG-powered chat that can query across all connected data sources, with intelligent routing to appropriate information sources and natural language response generation.

**AI Reports**

**Purpose:** AI-powered content generation and analysis **Content:**

* **Insights & Analytics:** Cross-module trend analysis, predictive reports, anomaly detection
* **Policy & Procedure Generator:** Create/update company policies using AI with compliance checking
* **HR Templates & Documents:** Generate job descriptions, training materials, onboarding guides, performance templates

**Functionality:** Template-driven AI generation with user input prompts, multiple output formats (PDF, Word, HTML), version control, and approval workflows.

**Analytics**

**Purpose:** Unified analytics across all data sources **Content:**

* **Cross-Module Dashboards:** Combined metrics from 360, Voice, Learn, Assess
* **Custom Views:** User-built dashboards with drag-and-drop widgets
* **Trend Analysis:** Historical patterns, forecasting, correlation analysis
* **Comparative Analytics:** Benchmark against industry standards or historical performance

**Functionality:** Dynamic dashboard builder with real-time data refresh, export capabilities, automated report scheduling, and role-based view permissions.

**AI Recommendations**

**Purpose:** Proactive insights and suggestions **Content:**

* **Pattern Alerts:** Automated detection of significant trends or anomalies
* **Action Suggestions:** AI-recommended interventions based on data patterns
* **Optimization Opportunities:** Suggestions for improving processes or outcomes
* **Risk Indicators:** Early warning systems for potential issues

**Functionality:** Machine learning-driven recommendation engine with confidence scoring, implementation tracking, and feedback loops for continuous improvement.

**CONTEXTHUB *(Knowledge and content management)***

**Company Library**

**Purpose:** View and manage all uploaded documents and their processing status **Content:**

* **Document Browser:** Searchable list with filters by type, date, status, source
* **Processing Status:** AI analysis progress, embedding status, error reports
* **Document Details:** Metadata, tags, access permissions, usage analytics
* **Connection Mapping:** Simple visualization of how documents relate to other data sources
* **Bulk Operations:** Mass upload, reprocessing, archiving capabilities

**Functionality:** Enterprise document management with full-text search, version control, access logging, and integration status monitoring.

**Knowledge Feed**

**Purpose:** Upload and categorize new documents with AI assistance **Content:**

* **Upload Interface:** Drag-and-drop with support for PDF, DOCX, TXT, CSV, XLSX
* **Smart Categorization:** AI-suggested categories that expand based on content
  + **Base Categories:** Policies & Procedures, Job Frameworks, Training Materials, Compliance Documents, Legacy Assessment Data, Legacy Survey Data, Organizational Guidelines
  + **AI-Suggested Categories:** Dynamic expansion based on uploaded content
* **Data Classification:** Current vs. Legacy data flagging with impact explanations
* **Upload Guidance:** Rotating tips and best practices for optimal AI performance
* **Tag Management:** Custom and auto-generated tags for improved retrieval
* **Batch Processing:** Queue management for large uploads

**Functionality:** Intelligent document ingestion with automatic text extraction, chunking optimization, embedding generation, and metadata enrichment. Real-time processing feedback with error handling and retry mechanisms.

**ORCHESTRATIONHUB *(Technical management and optimization)***

**Data Connections**

**Purpose:** Manage all system integrations **Content:**

* **Pulse Module Connections:** 360, Voice, Learn, Assess integration status and configuration
* **External System Integration:** HCM, HRIS, data warehouse connections
* **API Management:** Authentication, rate limits, error handling, endpoint monitoring
* **Data Mapping:** Field mapping between systems, transformation rules, data validation
* **Connection Testing:** Health checks, connectivity diagnostics, troubleshooting tools

**Functionality:** Comprehensive integration management with automated testing, configuration versioning, and real-time monitoring of all data flows.

**RAG Management**

**Purpose:** Monitor and optimize AI retrieval and generation **Content:**

* **Document Processing Pipeline:** Chunking strategies, embedding quality, index optimization
* **Retrieval Analytics:** Query performance, relevance scoring, response accuracy metrics
* **Vector Database Management:** Index health, storage optimization, search performance
* **Prompt Engineering:** Template management, response quality tuning, model behavior configuration
* **Performance Optimization:** Response time analysis, caching strategies, load balancing

**Functionality:** Advanced RAG system management with A/B testing capabilities, performance profiling, and continuous optimization based on user feedback and system metrics.

**Sync Monitoring**

**Purpose:** Track all data synchronization processes **Content:**

* **Real-time Sync Status:** Active syncs, queue status, completion rates
* **Historical Sync Logs:** Past synchronizations, errors, resolution tracking
* **Data Freshness Indicators:** Last update times, sync frequency, staleness alerts
* **Conflict Resolution:** Data mismatch handling, merge strategies, manual override options
* **Automated Scheduling:** Sync frequency configuration, dependency management, failure retry logic

**Functionality:** Comprehensive data pipeline monitoring with automated alerting, conflict resolution workflows, and detailed audit trails for compliance and troubleshooting.

**SYSTEM *(Administration and configuration)***

**AI Configuration**

**Purpose:** Configure Flux AI behavior and performance **Content:**

* **Model Selection:** Choose between available Flux AI models for different tasks
* **Response Parameters:** Temperature, creativity, formality, length preferences
* **Safety Settings:** Content filtering, bias detection, hallucination prevention
* **Performance Tuning:** Response time optimization, accuracy thresholds, fallback behaviors
* **Custom Instructions:** System prompts, role definitions, response formatting rules

**Functionality:** Advanced AI configuration interface with testing environments, rollback capabilities, and performance impact analysis.

**User Management**

**Purpose:** Control access and permissions across the system **Content:**

* **Role-Based Access:** HR Admin, HR Manager, Employee, Executive role templates
* **Permission Matrix:** Granular control over features, data access, and AI capabilities
* **User Provisioning:** Account creation, deactivation, bulk operations
* **Access Logging:** User activity tracking, compliance reporting, security monitoring
* **Multi-Factor Authentication:** Security configuration, device management, session control

**Functionality:** Enterprise-grade user management with SSO integration, audit trails, and compliance reporting capabilities.

**Settings**

**Purpose:** General system configuration and preferences **Content:**

* **General Settings:** Language, timezone, date formats, notification preferences
* **Security & Privacy:** Data retention policies, encryption settings, compliance configurations
* **Integration Settings:** API keys, webhook configurations, external service connections
* **Backup & Recovery:** Data backup scheduling, restore procedures, disaster recovery planning
* **System Maintenance:** Update scheduling, performance monitoring, resource allocation

**Functionality:** Comprehensive system administration with automated maintenance, security monitoring, and configuration backup/restore capabilities.

**This specification provides the complete functional blueprint for Pulse One development, ensuring each section has clear purpose, defined content, and specific functionality requirements.**

-------------------------

**Pulse One**

**Dahboard**

**INSIGHTSHUB**

* **Chat Assistant** - *Conversational AI interface for querying and generating content*
* **AI Reports** - *Generate custom reports and analysis using AI across all data sources, here we should have two main options: 1) insights; 2) policy and procedure generator.. anything else?*
* **Analytics** - *Unified analytics dashboard combining manual data from connected Pulse modules plus c*ustom Dashboards - *Build personalized views and metrics from available data sources*
* **AI Recommendations** - *Proactive insights and suggestions based on data patterns*

**CONTEXTHUB**

* **Company Library** – *See and manage uploaded documents (policies, procedures, legacy data). and see what it is connected (in a simple way, details will be in ORCHESTRATIONHUB.*
* **Knowledge Feed:** *Upload documents) Here we must have a set of potential documents categories like mentioned: policies, procedures, but also ai should be able to expand this list (assuring we do not end with +20 categories; the user must flag if this is actual or legacy data). Also it is important here to give clear instructions here, maybe with an area with suggestions that are alternating over time..) . Maybe you can manage alsothe tag structure and other meaningful aspects to assure proper documentation feeding.*

**ORCHESTRATIONHUB**

* **Data Connections** - *Manage integrations with Pulse modules and external systems*
* **RAG Management** - *Monitor and optimize document processing, embeddings, and AI retrieval*
* **Sync Monitoring** - *Track data flows and synchronization status across all connections*

**SYSTEM**

* **AI Configuration** - *Configure Flux AI models, behavior settings, and response parameters*
* **User Management** - *Manage user roles, permissions, and access controls*
* **Settings** - *General application settings, security, and system preferences*

**Dashboard**

**AI HUB (maybe a better name?)**

* **Chat Assistant** - Main conversational interface with the AI
* **Query Builder** - Advanced search across all connected data (what would be the difference with Chat Assitant?, it is important to simplify and streamline)
* **Conversation History** - Past interactions and saved queries (why do we need it?)
* **What about Generate Reports, Analysis and Policies with AI**? Not such names obviously but can be good to have, besides information querying also information generation.

**KNOWLEDGE HUB**

* **Document Library** - Manual uploads (policies, procedures, handbooks)
* **Company Policies** - Structured policy management (it is a duplication, maybe a Company Library is enough, where simply you define the kind of material, important to explain what to load and what not to load considering certain info should come from other Pulse modules UNLESS they are LEGACY information, exemple past assessment, survey, etc..).See the attached picture of how Company Knowledge works.
* **Training Materials** - Learning resources and documentation (we will have a learning dedicated module..) (as said earlier.. I see duplication with previous parts, plus there is a dedicated module for learning)
* **Knowledge Templates** - Reusable content frameworks (what is it?)

**ORCHESTRATION HUB**

* **Data Connections** - Manage integrations (Pulse modules + external systems)
* **Sync Management** - Monitor data flows and synchronization (maybe better in dashboard, so it is more meaningful??)
* **Pulse Modules** - Status and configuration of 360, Voice, Learn, Assess (maybe better in dashboard, so it is more meaningful??)
* **External Systems** - HCM, HRIS, and other company data warehouses (if we have • Data Connections why also here as separated block..?)
* **Maybe something useful about visibility on RAG architecture, something where the user can do some djustment, re run certain pieces of the orchestration**.. to avoid this becomes a purely observational area.

**INSIGHTS HUB (I would put it berofore orchestration, so we go from what people will use most to the most technical part/less use)**

* **Cross-Module Analytics** - Unified insights across all Pulse products
* **Custom Reports** - Build reports combining multiple data sources
* **AI Recommendations** - Proactive suggestions and alerts
* **Trend Analysis** - Historical patterns and predictions

I am not so sure about these parts.. they can be ok but we need to consider data contrains, what if you have just policies uploaded and the only other Pulse module connected is the 360?)

**SYSTEM (attached what I have now in Pulse 360, review it considering 360 configuration but also that some parts here probably are in the above modules)**

* **User Management** - Access control and permissions
* **AI Configuration** - Model settings and behavior tuning
* **Security & Privacy** - Data governance and compliance
* **Settings** - General system configuration

Other ideas: