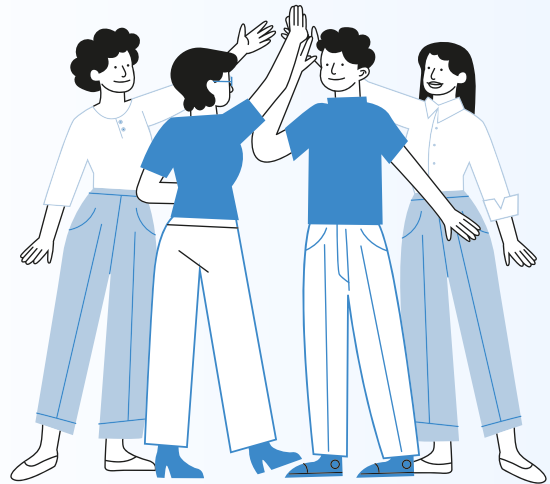# Global Catalog Registry

Transforming Online Shopping

No More Hassle – Just Seamless Shopping

Team Members -

[Ayush Thakur, Swapnil Gupta, Jatin Yadav, Harsh Jat]

DebugOn (ONDC X BECon'25 Hackathon)

TheNoobs

ONDC
Open Network for Digital Commerce
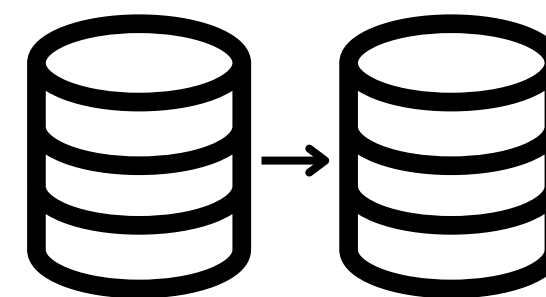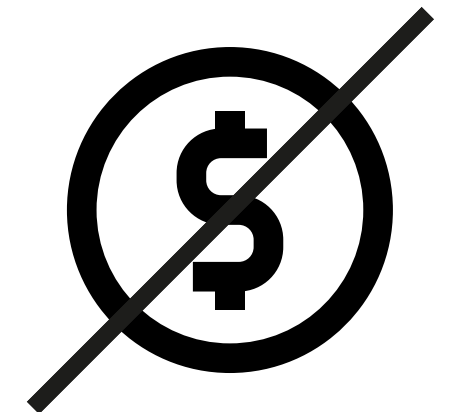
Problem Statement

The Current Challenges in Catalog Management

- **Inconsistent user experiences** on buyer apps due to fragmented catalogs.
- **High computational costs** in the NxN model.
- **Lack of centralized storage** leading to redundancy.
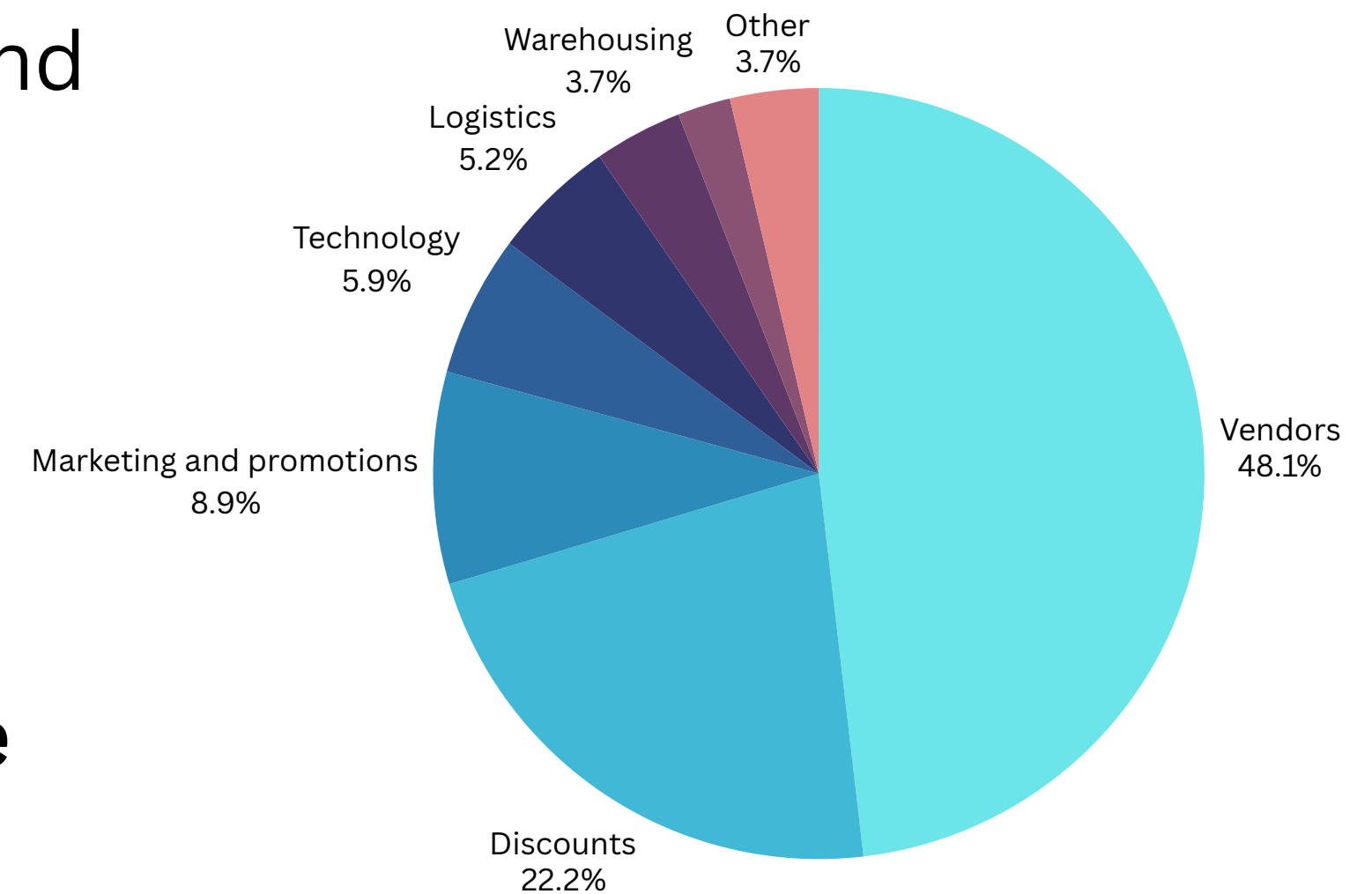- **Inefficient catalog** updates and integrations.

Data   Mirrored Data

NxN

Market Analysis

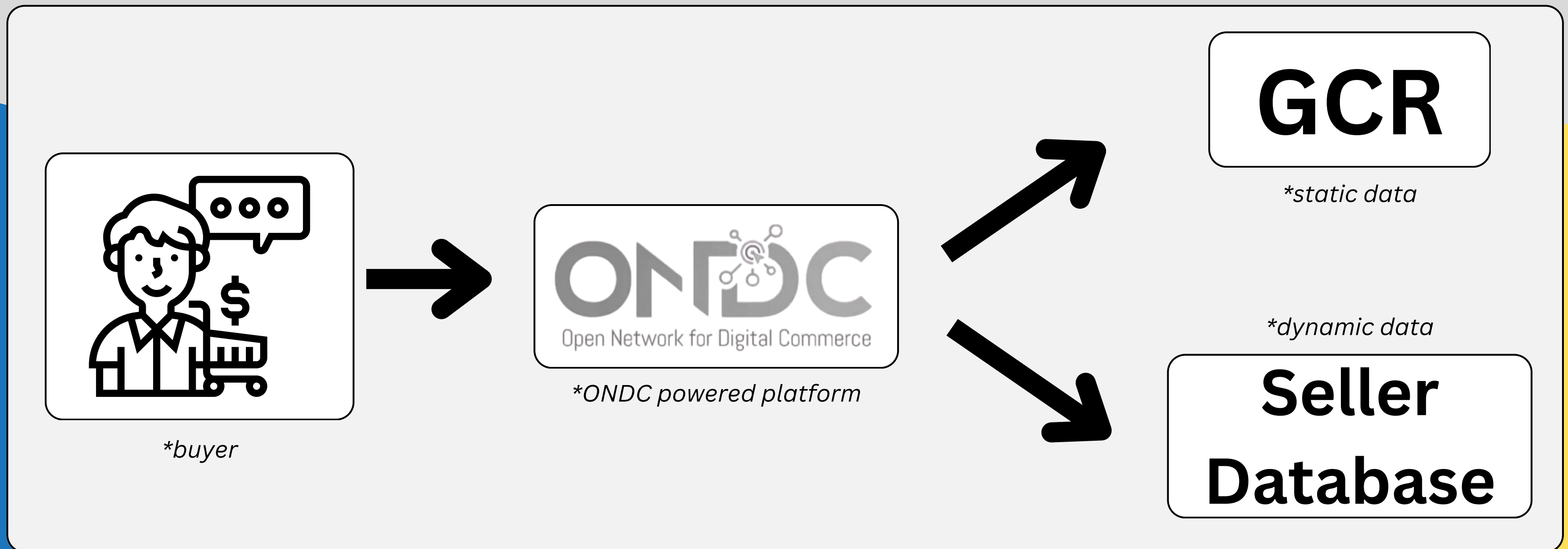*The Need for a Unified Solution*

- Growing e-commerce sector and demand for **seamless online shopping experiences.**
- Market size and opportunity: **Revolutionize 63 million MSMEs.**
- Need for cost-efficient catalog management to **benefit small and large sellers alike.**

Vendors 48.1%

Discounts 22.2%

Marketing and promotions 8.9%

Technology 5.9%

Logistics 5.2%

Warehousing 3.7%

Other 3.7%

E-commerce Expenses

Wireframes

Simplified architecture of GCR implementation

*buyer

*ONDC powered platform

GCR

*static data

*dynamic data

Seller Database

Solution Overview

Global Catalog Registry (GCR): Centralizing Product Data

- **Centralized repository** to eliminate inconsistencies and redundancies.
- **Dynamic Data Integration** which links to seller databases for real-time updates.
- **Unique Product-Seller Mapping** connects products using unique IDs to multiple sellers.

GCR

product 1   *product 2*   *product 3*
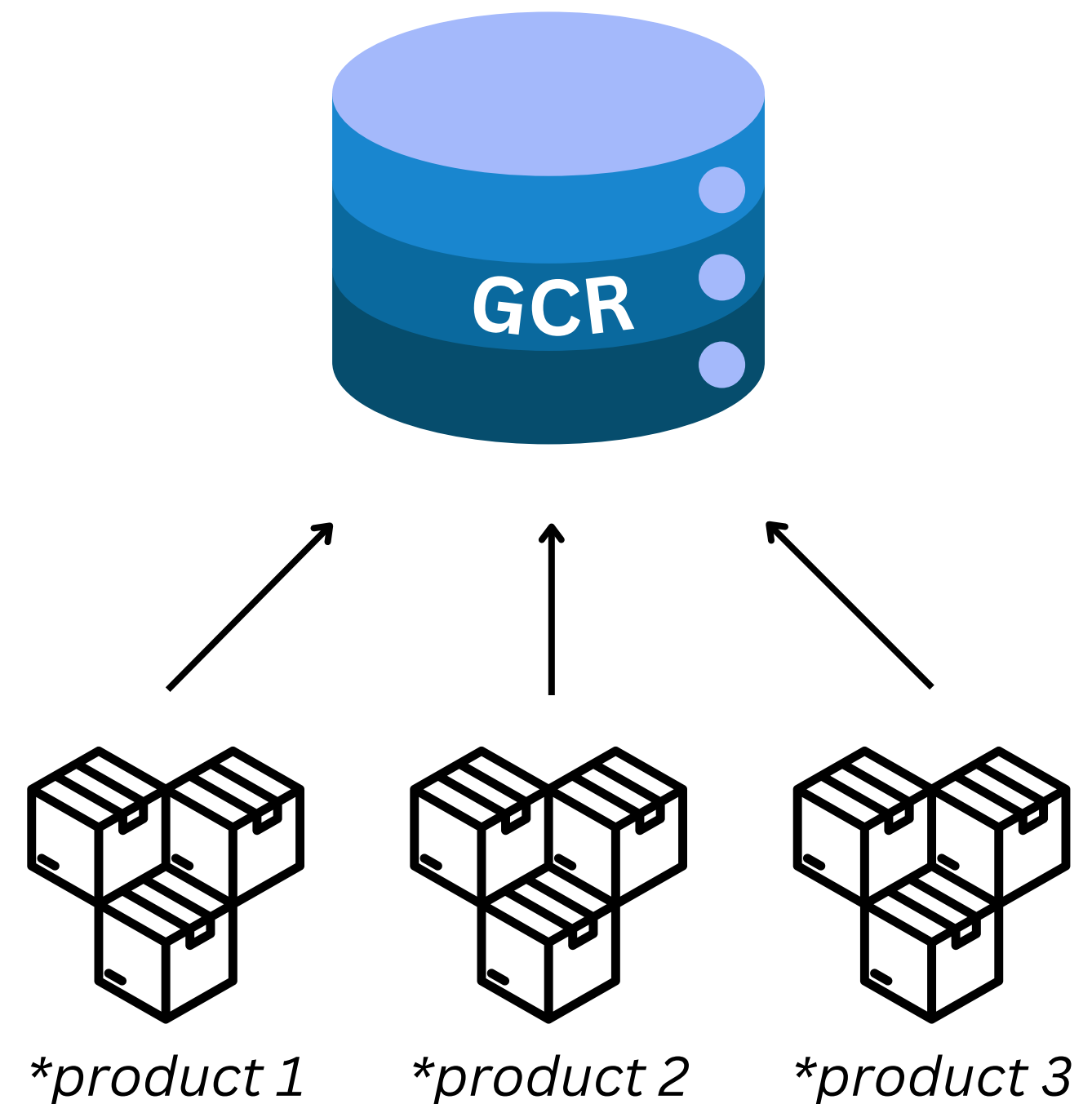
Technical Architecture & Feasibility

*Global Catalog Registry (GCR): Centralizing Product Data*

- **API-based integration** for buyer and seller apps.
- **AI module** for dynamic product descriptions and updates.
- **Scalable database** structure to handle large catalog volumes.
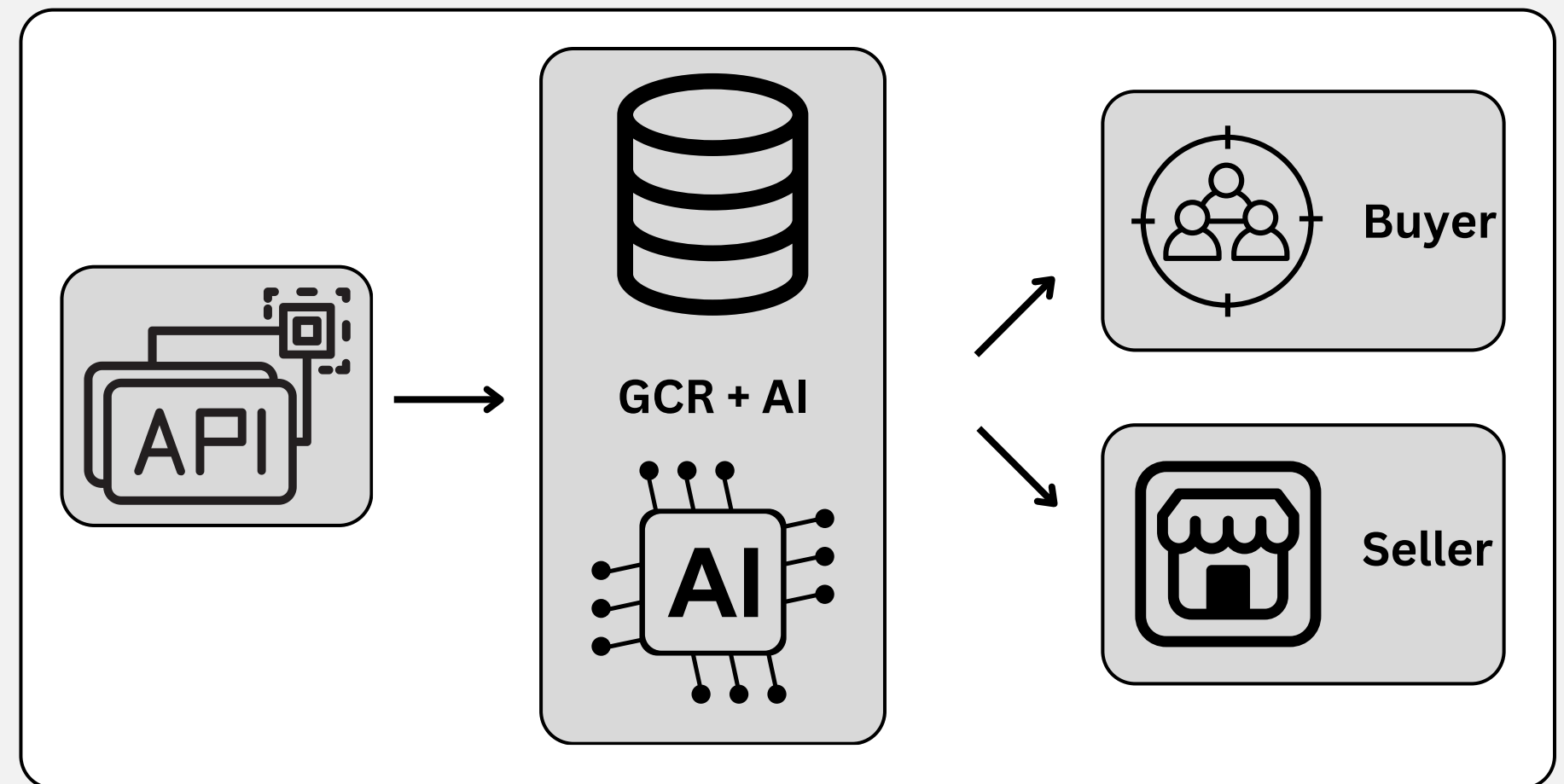
Scalability
Built to Grow with the Market

- **Modular architecture** supports integration with new platforms and apps.
- **Efficient Storage Model:** product data is stored centrally and dynamic seller data is fetched on demand.
- **Efficient Data Retrieval** as GCR uses API calls to fetch only necessary data from seller databases to minimize load and latency.
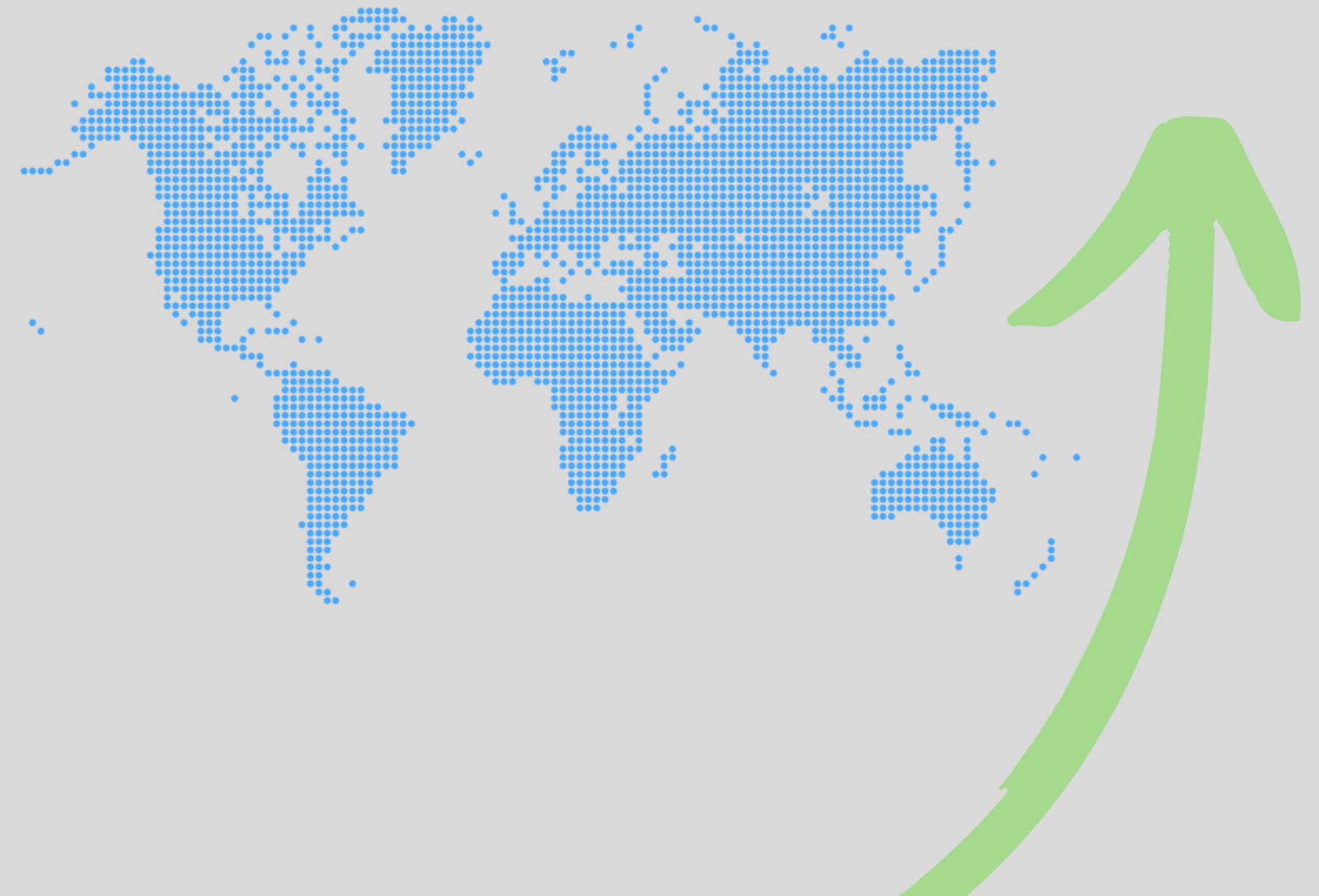
Alignment with ONDC's Goals

How GCR Supports ONDC's Vision

- ✅ **Interoperability:** Unified catalog accessible by all apps.
- ✅ **Cost Efficiency:** Reduces redundancy and storage overhead.
- ✅ **Inclusivity:** Enables small businesses to digitize catalogs effortlessly.
- ✅ **Customer Experience:** Improves accuracy and consistency across platforms.

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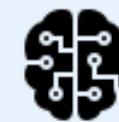
Impact of AI-Generated Descriptions

AI Enhancing User Experience and Operational Efficiency
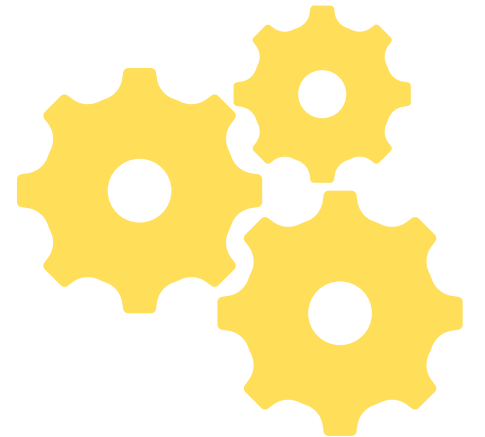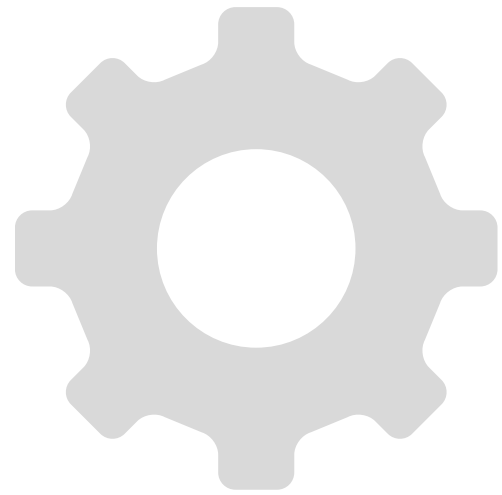
- Ensures **consistent, optimized descriptions** for all products.
- **Reduces manual effort** for sellers while improving buyer experience.
- **Adapts dynamically** to changing product attributes.

*instance of feature from prototype

AI-Generated Description

Experience the Pixel 8 Pro: stunning camera with magical photo editing, lightning-fast performance, and a sleek design. Its advanced AI smarts make everyday tasks easier, while a long-lasting battery keeps you going. Unleash ultimate smartphone power – simply brilliant.

Thank You

Let's build the future of shopping together.