

MANUFACTURING RESOURCE PLANNING-II (MRP-II) & ENTERPRISE RESOURCE PLANNING (ERP)

Manufacturing Resource Planning-II (MRP-II)

MRP-II is an advanced version of **Material Requirements Planning (MRP-I)** that integrates additional functions for comprehensive manufacturing management. It extends beyond material planning to include:

- **Capacity Planning** (ensuring resources like machines and labor are available)
- **Production Scheduling**
- **Inventory Control**
- **Cost Management**
- **Shop Floor Control**

MRP-II enables real-time data sharing across departments and integrates financial, operational, and engineering aspects of manufacturing. It provides better control over **production processes, supply chain, and demand forecasting**.

Enterprise Resource Planning (ERP)

ERP is an evolution of MRP-II that integrates **all business functions** into a unified system. It covers not just manufacturing but also:

- **Finance & Accounting**
- **Human Resources (HR)**
- **Sales & Marketing**
- **Supply Chain Management**
- **Customer Relationship Management (CRM)**

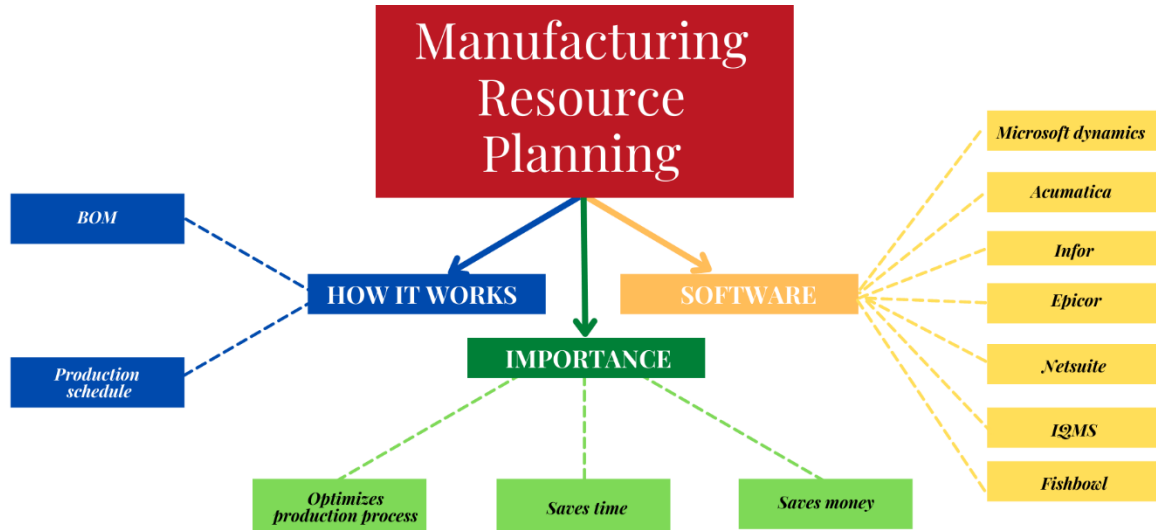
ERP systems use a **centralized database** to facilitate seamless communication and decision-making across an organization. It enhances **operational efficiency, cost reduction, and strategic planning** by providing real-time business insights.

Key Differences:

Feature	MRP-II	ERP
Scope	Manufacturing-focused	Organization-wide
Functions	Production, Inventory, Scheduling	Finance, HR, Sales, SCM, CRM, and more
Integration	Limited to manufacturing-related processes	Cross-functional integration

Feature	MRP-II	ERP
Database	May use separate databases for different modules	Centralized database for entire business

ERP is widely used in industries beyond manufacturing, such as **retail, healthcare, and finance**, making it a more comprehensive solution for business management.



What is Manufacturing Resource Planning?