

# Pharmaceutical Manufacturing

Why more businesses are **choosing Microsoft  
Dynamics 365 Finance and Supply Chain  
Management**



# Introduction 1/2

Every day, businesses in the pharmaceutical industry must be ready to manage any number of different challenges where any resulting equipment downtime can severely affect drug production and quality.



**Constantly-changing regulations**

**Severe production environment difficulties**

**Complex, difficult to maintain equipment**

# Introduction 2/2

When it comes to pharmaceutical manufacturing, sticking to **production schedules can be incredibly demanding** on equipment and machinery that needs to be constantly in operation.

Around the clock, organizations are hard at work to ensure maximum availability of their assets in order to achieve a certain level of **production efficiency**. This competitive production environment requires equipment to perform at full capacity with no downtime.

## Organizations looking to maximize efficiency should be aware of key points that present a clear picture of the current state of plant equipment and manufacturing in general.

**20** yrs

Around three-quarters of all the plant equipment in manufacturing is more than **20 years old**, which says a lot about the quantum of obsolete equipment and highlights a significant cause of production downtime.

**50** bn

Unplanned downtime is costing industrial manufacturers an estimated **\$50 billion** each year.

**5-20** %

Poor equipment maintenance strategies can reduce a plant's overall productive capacity by **5 to 20 percent**.

# Understanding equipment downtime, reliability and availability

For manufacturers in the pharmaceutical industry, having **fully functional equipment is of utmost importance** and means their business can operate normally.

Understanding things like **downtime, reliability and availability** can be just as important if not more.

**Scheduled Downtime** is important for changeovers, cleaning, tool changes, early shutdowns, personal breaks, or any unplanned events that may occur, such as breakdowns or any repairs that can affect the core business.

**Equipment reliability** is the health of equipment and how optimally it performs a task, taking into consideration attributes like quality and performance.

**Equipment availability** is the actual time that a machine or system is available for production as a percent of total planned production time.



# Downtime, reliability and availability aren't the only things these businesses deal with

## Spiking maintenance costs

This usually results in businesses reducing maintenance which can lead to complete failures, severely impacting revenue and operations.

## Equipment repair

Without a preventative maintenance plan, businesses are required to perform repairs as needed. This leads to uncertainty when it comes to the status of equipment and prolonged downtimes.

## Equipment replacement

Upkeep is always cheaper than replacement. When equipment isn't properly maintained replacement costs can easily end up exceeding the total costs of having a basic maintenance plan on board.

## Drug safety risks

As equipment ages it becomes easier for contamination to occur, which could lead to additional damages.

## Low quality drugs

Unreliable or under-maintained equipment can unknowingly produce lower quality products leading to fines, penalties and costly recalls.

## Production dips

Usually caused by gaps in asset or equipment availability, this can halt production and affect the company's revenue.

## Increased downtime

This can lead to Supply chain disconnects, lower production, missed deadlines and increased penalties.

## Loss of reputation

Missed deadlines, poor quality and unsafe products can have a severe impact on revenue and brand recognition.

# Understanding equipment downtime, reliability and availability

A big reason this all matters stems from the U.S. Food and Drug Administration's (FDA's) decision to **include equipment maintenance as a risk-based preventive measure** in Current Good Manufacturing Practices (cGMP).

With the USDA considering equipment maintenance as a key function of cGMP, it easily becomes one of the most critical factors for pharmaceutical manufacturers' compliance and will be subject to even greater scrutiny.



# Microsoft Dynamics 365

A **game-changer** in the pharmaceutical industry

More and more organizations are finding it easier to control their machinery and **minimize “time-to-insight” with Microsoft Dynamics 365** capabilities designed to help businesses gain total control of their data, offering **integrated analytics and workflows**.

**Microsoft Dynamics for pharmaceutical** companies lets businesses speed up the movement of goods, eliminate waste due to costly shelf-life expirations and returns, and **improve production efficiency** across their entire line.



# Microsoft Dynamics 365

A **game-changer** in the pharmaceutical industry

**Microsoft Dynamics** for pharmaceutical gives companies the ability to achieve the following:

## Ensuring centralized Quality Control (QC) and regulatory support

1 Organizations can use integrated quality controls and lot traceability to link raw materials through each operation of the production process. This helps **accelerate and simplify compliance** with regulatory agencies such as the U.S. Federal Drug Administration (FDA).

## Managing inventory more effectively

2 Pull inventory in sequence, **utilizing “best before” management**, and enabling customer service to ship lots that arrive with the correct amount of shelf life remaining. Employ either first expiry/first-out (FEFO) or first-in/first-out (FIFO) calculations for inventory reservations, picking, reducing inventory and eliminating waste.

# Microsoft Dynamics 365

A **game-changer** in the pharmaceutical industry

**Microsoft Dynamics** for pharmaceutical gives companies the ability to achieve the following:

## Conducting extensive audit trails

**3** Incorporate electronic signature functionality into existing business processes, **providing complete visibility into batch production** and audit trails.

## Meeting GMP requirements

**4** Manage electronic quarantines, quarantine release by user & material type, printed material/ obsolete component controls, lot control/ segregation, lot tracking, drug and hazardous material reconciliation, and more.

# Microsoft Dynamics 365

A **game-changer** in the pharmaceutical industry

**Microsoft Dynamics** for pharmaceutical gives companies the ability to achieve the following:

## Improving production planning

# 5

Accurately model the processing of costly ingredients to help **minimize overruns and underruns**. Shelf-life planning helps account for expiration dates during production and distribution.

## Protecting recipes and formulas

# 6

Dynamics 365 helps document various ingredients, storage requirements, manufacturing processes, pH values, particle size, and much more – all with the **ability to review at any given moment**. D365 lets you set security restrictions to ensure that only approved users are able to make changes, further protecting your critical assets.

# Final Thoughts

As the pharmaceutical industry continues to evolve and grow, the need to understand and adopt **intelligent technologies like Dynamics 365 becomes more and more apparent**. Implementing solutions like Microsoft Dynamics 365 for pharmaceutical and other.

Pharmaceutical manufacturing ERP softwares is the best way for companies to **maximize their asset availability and track machine reliability**, letting them drive towards increased productivity, higher quality products and enhanced safety assurance.

# About Xcelpros

**XcelPros** is a Microsoft Direct Cloud Solutions Provider (CSP), Systems Integrator (SI) and Microsoft Gold Certified Partner for Microsoft Dynamics offering software licensing and services in the Microsoft line of products.

**We** specialize in the deployment of on-premise, cloud and mobility solutions in industry leading technologies such as Microsoft Dynamics 365, AX, NAV, Microsoft Dynamics CRM, Business Intelligence, intelligent Business Process Management (iBPM), SharePoint and Azure.

**Our** team is comprised of forward-thinking, experienced Subject Matter Experts (SMEs) and Technology Consultants with decades of business, industry, and regulatory experience.

Original Article

<https://xcelpros.com/why-pharmaceutical-manufacturers-should-choose-microsoft-dynamics-365-finance-and-a-whip-chain/>

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