

# LIFE SCIENCES

There are a number of trends that are of long-term strategic significance for almost every player in life sciences manufacturing.

## 01 THE PATENT CLIFF

Global pharma players have seen growth driven by a limited number of "blockbuster" drugs, and when these come out of patent, that element of their revenues can decline by up to 90%.

↓ **90%**  
Revenue decline

## 02 PERSONALIZED MEDICINE

Drug development is taking a more targeted approach which will require manufacturers to adopt "batch of one" techniques.



## 03 KEEPING THE PIPELINE FULL

The cost of bringing a medicine from invention to pharmacy shelves has grown to about \$2.6bn. How to bring down the cost?

**\$2.6bn**

## 04 DATA PROTECTION AND SECURITY

Cybersecurity and ePedigree systems have become big issues for pharma companies, and more so as they outsource R&D and/or manufacturing.



**90%**  
Of new drug candidates

fail to pass clinical trials and regulatory approval

## KEY AREAS FOR INVESTMENT

### DIGITIZATION

Life Sciences companies need to transform mission-critical processes, such as R&D, production, distribution and quality. For this journey to be successful, the business core of the company must be digitalized.



### ANALYTICS

Big Data analytical capabilities, increasingly supported by AI and Machine Learning, can help accelerate the discovery and development of new drugs and the clinical trials process.

### BREAK DOWN SILOS

Manufacturing companies in life sciences need to connect and then break down operational siloes within production, enabling end-to-end, fully integrated manufacture, which will drive quality up and costs down.



### AGILITY AND INNOVATION

The divide between Operational technology (OT) and Information Technology (IT) is disappearing, and IoT is becoming the key concept for the future. Integrated OT and IT is becoming the norm, so systems of record must also be capable of open interfacing or being able to be replicated in a data lake.

### CMO CRO CDMO

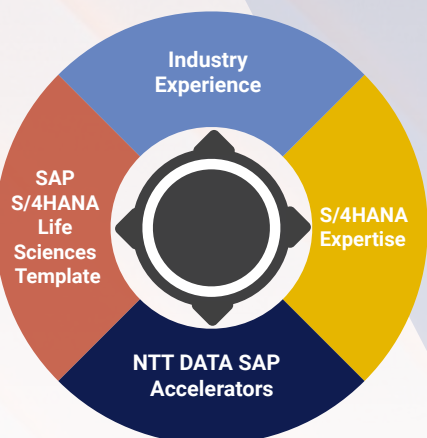
The disaggregation of the traditional pharma business model heightens the need for open innovation ecosystems.



## WHY CHOOSE NTT DATA FOR YOUR SAP LIFE SCIENCES PROJECT

- Fully customized SAP S/4HANA system including all core areas such as finance, logistics, maintenance, quality control, quality management or manufacturing.
- Improved pharma-specific functionalities like batch management, incident management or dispensing.

- Internal Cold Chain Solution.
- CMO Cockpit & Integration Framework.
- Analytics Framework for Operational Excellence.



- NTT DATA has been serving the life sciences industry for more than 25 years.
- We offer proven experience and an end-to-end approach to integration that is particularly important in a disaggregated life sciences value chain.

- 29-year partnership with SAP.
- Over 5,000 active SAP clients.
- Leading SAP partner with over 300 S/4HANA projects.
- S/4HANA CoE.
- Resource coverage in over 58 countries.

## NTT DATA SAP S/4HANA TEMPLATE FOR LIFE SCIENCES

### MANUFACTURING

Regulated process manufacturing  
Active ingredient management  
Campaign production  
Batch management – cockpit and traceability  
Capacity overview and scheduling

### QUALITY MANAGEMENT

Sample management  
Quarantine system  
Test specification management  
Shelf life management  
Certificate of analysis

### QUALITY CONTROL

Incident management  
Statistical quality control  
Digital signature  
Stability study  
Change management  
Document standard process

### LOGISTICS

Demand and supply planning  
Inventory management  
Material requirement planning  
Dispensing details  
Sales order management  
Contract manufacturing  
Product returns and product recall

### STANDARD S/4HANA

SAP Fiori  
S/4HANA analytics

### MAINTENANCE

Operational and preventive maintenance  
Equipment calibration

### FINANCE

Accounts payable and receivable  
Product cost accounting  
Accounting and financial close  
Asset accounting