

You would use this approach to coordinate the efficient ordering of products and services from suppliers.

## Projected performance gains

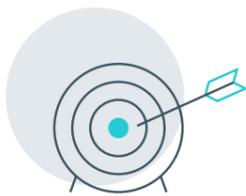


### Improved

- Cashflow by ordering products and services to come in at the required time and not before
- Stock accuracy and availability
- Procurement processes
- Management of Bills of Materials
- Procurement, Supply Chain and Logistics employees able to focus on more strategic activities

## What investment is needed to understand the concept?

### DIFFICULTY



#### Difficult

Requires the purchase and integration of an MRP system (software and hardware). Usually also requires support from specialist consultants to help specify and introduce the system.

### ACTIVITY



#### Team

Best results come from a team of Procurement, Supply Chain, Finance, Logistics and Production employees.

### EQUIPMENT



#### Yes

Software and hardware IT systems.

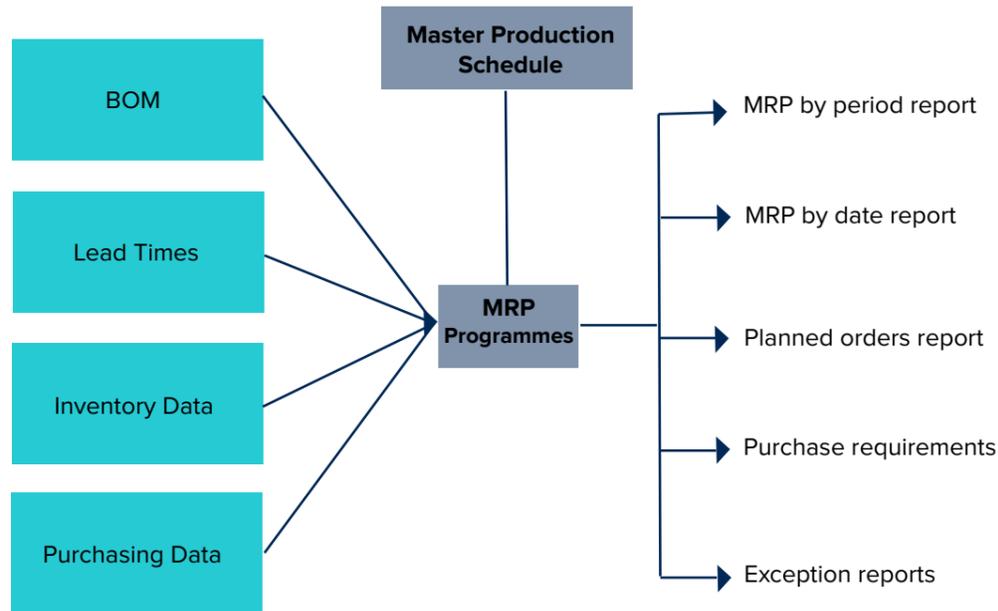
## Explanation of the concept

Cost effective MRP systems became available in the late 1970s as computers became cheaper and widely available. They were first adopted by larger, more complex organisations but are now available to companies of any size.

The idea behind MRP is to take in forecast and orders from customers which are loaded as the Master Production Schedule (MPS), and convert these into orders and forecast for suppliers. MRP aims to bring in materials slightly in advance of the date when they are planned to be consumed.

MRP looks at the product Bill of Materials, supplier leadtimes, current stocks of materials, and outputs a list of proposed orders to be placed on the suppliers. The Buyer can then either release the orders as they are, or make adjustments based on additional knowledge.

## Structure of the MRP System



MRP relies on the accuracy of the data that it holds or that is entered into the system. As such, it has no real intelligence but can be considered as a system to manage complexity.

## What action should I take?



1

Gather together a team of Procurement, Supply Chain, Logistics and Production employees



2

Explain the concepts behind MRP



3

Develop a User Requirements Specification (URS)



4

Identify potential MRP systems that meet the URS



5

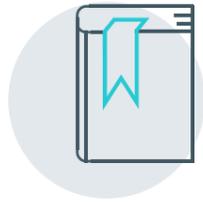
Visit users of short listed MRP systems to understand their experiences



3

Develop a User Requirements Specification (URS)

## Recommended reading



Ptak, C. A. & Smith, C. (2011). *Orlicky's Materials Requirements Planning*. McGraw Hill.

ISBN: 978-0071755634

Bicheno, J. (2004). *The New Lean Toolbox*. Picsie Books.

ISBN: 0-9541-2441-3

## Glossary of references

**MPS** – Master Production Schedule, the name for the data input that contains orders and forecast

**BOM** – Bill of Materials, the full parts/quantity list for a product

**URS** – User Requirement Specification, the documented requirements that the MRP system must meet

For more advice, case studies and additional factsheets visit:  
[www.businessgrowthhub.com/manufacturing](http://www.businessgrowthhub.com/manufacturing)