Gartner's Hype Cycle for Supply Chain Management, 2012

Gartner has published its Hype Cycle for Supply Chain Management (SCM) for 2012. The Hype Cycle outlines 61 SCM technologies at different stages of development. It also identifies nine SCM technologies that will have a transformational impact within the next 10 years.

If you would like to discuss the findings of this Hype Cycle in more detail ahead of the Gartner Supply Chain Executive Conference 2012 in London next month, please contact Laurence Goasduff on + 44 (0) 1784 267 735 or at laurence.goasduff@gartner.com.

In the next two to five years, Gartner predicts that **analytical in-memory database management system (IMDBMS)**, **price optimisation and RFID for logistics and transportation** will have a transformational business impact in this market.

IMDBMS) is a DBMS that stores the entire database structure in memory and accesses it without the use of input/output instructions. **Analytical IMDBMS**s focus on addressing analytical needs — leveraging the high speed of in-memory capabilities. Technologies include in-memory column-store DBMSs and in-memory massively parallel processing row-store-based technologies.

"Analytical use cases are the most immediate opportunity to leverage in-memory databases," said Tim Payne, research director at Gartner. "These enable radical changes in the ability of the organisation to analyse its information and to provide that in real time. Examples include targeted advertising at points of sale or real-time pricing."

Mr Payne said that the speed of IMDBMSs for analytics has the potential to simplify the data warehouse model and reduce maintenance by removing the need for aggregates, summaries and cubes. This will result in lower administration costs and offer greater agility in meeting analytical requirements. Some technologies, such as columnar IMDBMSs, have the opportunity to grow beyond analytical use cases into transactional processing and, as a result, enable new applications that were previously difficult to implement due to latency issues between the transactional and analytical environments. These applications could be transformational — by driving new business opportunities and processes.
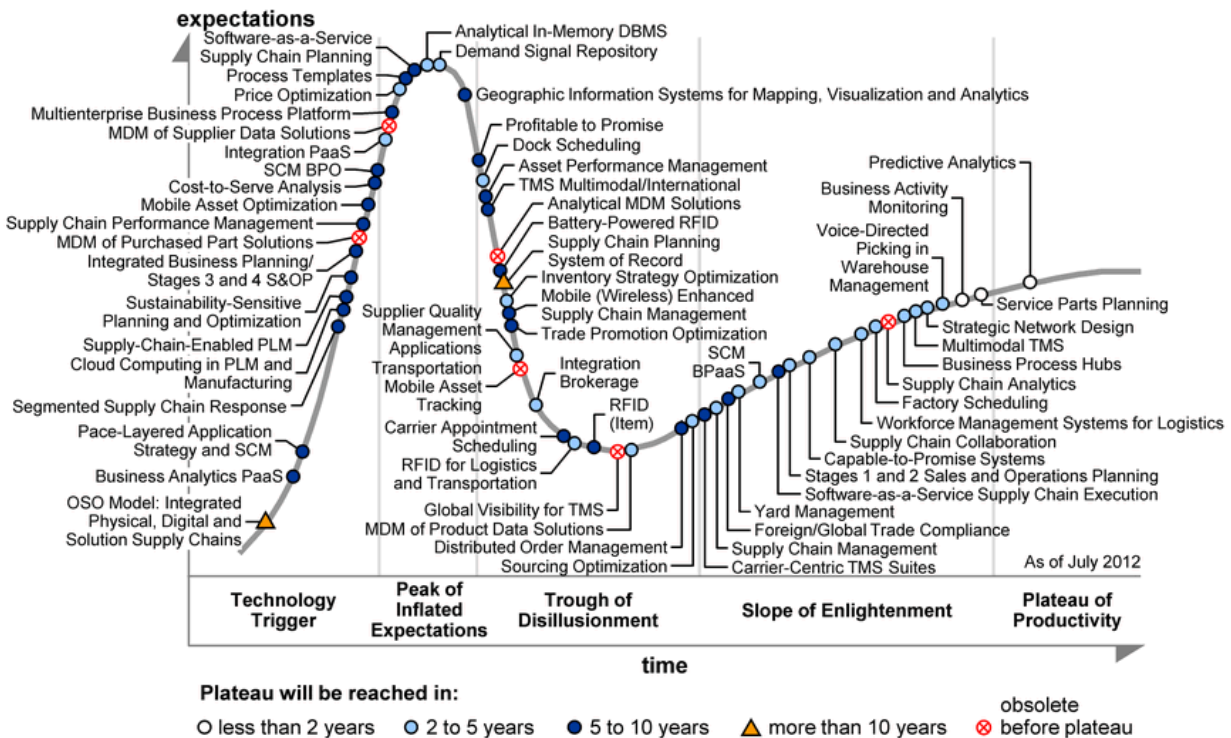
Price optimisation enables B2B companies to maximise profitability through the analysis, optimisation and implementation of the complex pricing processes and governance supporting sales activities. The three stages of price optimisation include price analysis, price optimisation and price execution.

"A price optimisation initiative can deliver business impact in three areas," said Mr Payne. "Firstly, it can improve margins and increase profitability by analysing costs, customer buying behaviours, competitive activity, demand signals and historic data. Secondly, aligned with sales operations, customer relationship management applications and internal change management, price optimisation can ensure a consistent customer experience both globally and across any buying channels that customers choose to utilise. Finally, price optimisation should ideally be able to identify new selling opportunities with existing or former customers by analysing historic and current buying patterns, order volumes and purchasing patterns."

RFID refers to an automated data collection technology that uses radio frequency waves to transfer data between a reader and a tag to identify, track and locate the tagged item. There are two basic categories of tags used for logistics and transportation: passive and battery-enabled.

"Major initiatives that use, or propose to use, this technology will include tracking of assets, loss prevention, inventory management, rail transportation, logistics, toll payment, management, and transportation asset tracking and control," said Mr Payne. "The impact and business value will vary across industry segments, proposed uses or business solutions and regions, and a cost-benefit analysis should always be used to compare the various identification technologies. RFID should only be chosen if the business case proves it to be the better approach."

Hype Cycle for Supply Chain Management, 2012

expectations

Analytical In-Memory DBMS
Demand Signal Repository
Software-as-a-Service
Supply Chain Planning
Process Templates
Price Optimization
Geographic Information Systems for Mapping, Visualization and Analytics
Multienterprise Business Process Platform
MDM of Supplier Data Solutions
Integration PaaS
Profitable to Promise
Dock Scheduling
SCM BPO
Asset Performance Management
Cost-to-Serve Analysis
TMS Multimodal/International
Mobile Asset Optimization
Analytical MDM Solutions
Supply Chain Performance Management
Battery-Powered RFID
MDM of Purchased Part Solutions
Supply Chain Planning
Integrated Business Planning/
System of Record
Stages 3 and 4 S&OP
Inventory Strategy Optimization
Sustainability-Sensitive
Mobile (Wireless) Enhanced
Planning and Optimization
Supply Chain Management
Supplier Quality
Trade Promotion Optimization
Supply-Chain-Enabled PLM
Management
Cloud Computing in PLM and
Applications
Manufacturing
Transportation
Integration
Mobile Asset
Brokerage
Segmented Supply Chain Response
Tracking
RFID
Pace-Layered Application
Carrier Appointment
(Item)
Strategy and SCM
Scheduling
Business Analytics PaaS
RFID for Logistics
and Transportation
OSO Model: Integrated
Physical, Digital and
Global Visibility for TMS
Solution Supply Chains
MDM of Product Data Solutions
Distributed Order Management
Sourcing Optimization

Predictive Analytics
Business Activity
Monitoring
Voice-Directed
Picking in
Warehouse
Management
Service Parts Planning
Strategic Network Design
Multimodal TMS
Business Process Hubs
SCM
Supply Chain Analytics
BPaaS
Factory Scheduling
Workforce Management Systems for Logistics
Supply Chain Collaboration
Capable-to-Promise Systems
Stages 1 and 2 Sales and Operations Planning
Software-as-a-Service Supply Chain Execution
Yard Management
Foreign/Global Trade Compliance
Supply Chain Management
Carrier-Centric TMS Suites

As of July 2012

| Technology Trigger | Peak of Inflated Expectations | Trough of Disillusionment | Slope of Enlightenment | Plateau of Productivity |

time

Plateau will be reached in:
O less than 2 years   ◉ 2 to 5 years   ● 5 to 10 years   △ more than 10 years
obsolete
⊗ before plateau

Source: Gartner (July 2012)

Supply chain management technologies and trends will be further examined at the Gartner Supply Chain Executive Conference 2012, to be held in London from 17 to 18 September. For further information please visit www.gartner.com/eu/supplychain.

The supply chain management Hype Cycle is part of "Gartner's Hype Cycle Special Report for 2012," which evaluates the maturity of 1,900 technologies and trends in 92 areas.

About Gartner Hype Cycles
Gartner's Hype Cycles offer a snapshot of the relative maturity of technologies, IT methodologies and management disciplines. They highlight overhyped areas, estimate how long technologies and trends will take to reach maturity, and help organisations decide when to adopt. Each Hype Cycle characterises the typical progression of an emerging technology, from over-enthusiasm through a period of disillusionment to an eventual understanding of the technology's relevance and its role in a market or domain. Each phase is characterized by distinct indicators of market, investment and adoption activities:

- **Technology Trigger:** The Hype Cycle starts when a breakthrough, public demonstration, product launch, or some other event generates press and industry interest in a technology innovation.
- **Peak of Inflated Expectations:** A wave of "buzz" builds and the expectations for this new technology rise above the current reality of its capabilities. In some cases an investment bubble forms, as happened with the web, social media and cloud computing.
- **Trough of Disillusionment:** Inevitably, impatience for results begins to replace the original excitement about potential value. Problems with performance, adoption that is slower than expected or a failure to deliver financial returns in the time anticipated all lead to missed expectations, so disillusionment sets in.
- **Slope of Enlightenment:** Some early adopters overcome the initial hurdles, begin to experience benefits and recommit efforts to move forward. Drawing on the experience of the early adopters, understanding grows about where and how the technology can be used to good effect and, just as importantly, where it brings little or no value.

- **Plateau of Productivity:** With the real-world benefits of the technology demonstrated and accepted, growing numbers of organisations feel comfortable with the now greatly reduced levels of risk. A sharp rise in adoption begins, and penetration accelerates rapidly as a result of productive and useful value.