

# A NEW FRONTIER

*Few companies can claim to have invented and then led industries, let alone help put a man on the moon. **Stephen Leonard**, Chief Executive of IBM UK & Ireland, tells Criticaleye about the special ethos of innovation that continues to drive the business since it was founded 100 years ago*

In the span of a century, IBM has evolved from a business that made scales, time clocks and tabulating machines to a globally integrated enterprise with more than 400,000 employees spread across 170 countries.

“To be in business for 100 years is a remarkable milestone. There is certainly nobody that even comes close in our industry to a century in business,” says Stephen Leonard, Chief Executive of IBM UK & Ireland.

From the company’s very first patent in 1911 for punched cards, to today’s patents for analytics and scientific advances in core computing technologies, Stephen argues that IBM inventors have always been pioneers, pushing the limits of technology at any given time. They worked on computer memory, personal computers, barcodes, floppy disks, hard disk drives, re-writable CDs, magnetic strips on credit cards and the technology that operates ATM machines. This credo of innovation is reflected in the \$6 billion-a-year that is invested in research and development.

“It’s not about R&D for its own sake,” states Stephen. “It’s about generating innovative technology that really matters because it has an impact on the world. I believe we leverage our innovation and investment to create markets and then we try to lead them.”

Investment in R&D (IBM has invested \$60 billion in R&D in the past decade), will

assume an even greater role in the years ahead. In July this year, IBM unveiled its Services Innovation Lab (SIL), a new type of global research lab and the latest example of investment in research innovation and software capabilities. The SIL brings together 200 hand-picked scientists and services experts from around the company to focus on creating new solutions and solve some of the hardest sets of problems in the area of the Cloud, Mobility and Analytics.

Along with increased software content in services offerings, Stephen suggests that services research investment is important. It provides a key way for firms to ensure that they remain ahead of problems that clients face, together with seizing upon exciting market opportunities. There is a greater demand to show clients an improved return on their invested capital and an increased focus on measurable results and a shared stake in the outcome/payment. Consultants around the world will continue to leave behind a period in which clients were willing to invest in journeys of transformation, and will increasingly find clients demanding committed business outcomes. That is a fundamental shift in the relationship between the client and the services provider. It means a higher degree of standard, repeatable elements of a solution will be imperative in enabling such business outcomes.

THE NETWORK  
OF LEADERS

CRITICALEYE

## THE SECRETS TO SUCCESS

### Current and past IBMers on ‘Big Blue’s’ longevity:

It reinvents itself and develops new technologies yet remains a dependable partner to thousands of businesses

**Jonathan Ferrar**  
VP HR, Workforce Analytics  
IBM North America

IBM respects its past but focuses on the future, making big bets to lead a market

**David Heath**  
Director, People Capital & Global Client Services  
Alexander Mann Solutions

As an organisation, it recruits wonderfully talented, passionate people and its leadership is formidable

**Gary Kildare**  
VP HR, Americas, Europe & Asia Pacific, IBM

It works hard to hire the very best and then invests in them throughout their careers

**Andy McFarlane**  
Head of Marketing  
Vodafone Global Enterprise

IBM has tremendous self belief and is proud to achieve amazing things

**Phil Smith**  
Chief Executive  
UK & Ireland, Cisco

There are three systemic factors to its success: 1) A commitment to R&D and innovation; 2) It’s prepared to re-invent itself; 3) It has a culture that connects the company and keeps it agile

**Steve Thomas**  
Managing Director,  
Strategic Development UK & Ireland, Experian

It understands long-term relationships and knows better than most how to solve complex problems globally

**Bernie Waldron**  
Associate, Criticaleye



We leverage our  
innovation and  
investment to  
create markets  
and then we try  
to lead them

1911



IBM was formed as the Computing Tabulating and Recording Company, or C-T-R, specializing in punch cards, commercial scales and clocks.

1936

IBM worked with the U.S. government to start Social Security – the largest accounting project of its time.

1956

RAMAC (Random Access Method of Accounting and Control), the first magnetic hard disk drive, created the data storage industry.

1969

IBM technology guided the Apollo mission to the moon – the company has played a part in the U.S. space program since the 1950s.

1971

IBM created the floppy disk, which made storage powerful and affordable – and the PC revolution possible.

1980

IBM was granted the first patent for LASIK surgery technology – and continues to hold more U.S. patents than any company.

1984

By the mid-'80s, IBM computers understood 5,000 spoken words at 95% accuracy; today, speech recognition is pervasive at home and on the road.

2008

Smarter Planet launched to improve how the world works – now smart buoys in Ireland's Galway Bay detect pollution, protect fish stock.

IBM  
1900 - 2011

1923

IBM's punched card technology helped tackle large-scale projects like the U.S. Census.

1944

IBM's five-ton Automatic Sequence Controlled Calculator was the first machine to handle long calculations automatically.

1964

The company made a big bet with the System/360 – this early mainframe ushered in the era of computer compatibility.

1969

IBM labs developed the magnetic strips on credit cards – still ubiquitous on ID cards, drivers' licenses and ATM bank cards.

1973

Supermarkets started scanning UPC bar codes, invented by IBM. Today, they track everything from clothing to dairy cows.

1981

The IBM Personal Computer revolution, helping computers go mainstream beyond hobbyists and geeks.

1997

IBM launched "eBusiness," turning the Internet into a tool for business and ushering in the future of electronic commerce.

2011

Watson supercomputer can detect nuances in words, irony and riddles – and inspire new realms of search queries and artificial intelligence.

## LEADING THE PACK

Allied to this is a commitment to remaining agile despite the company's size and scale. "We would contend that part of IBM's success comes from never defining our purpose to a single technology or product. Actually, we do the opposite by investing heavily in developing and bringing to market a wide array of products and technologies."

Back in the early 90s, that way of thinking was lost somewhat as the company defined its purpose around Mainframe systems. "If you think about it, we didn't apply that philosophy of not applying yourself to a single technology or product," says Stephen. "The market moved and we were caught out; internally, we refer to that period as a near-death experience."

Those kinds of battle scars ultimately stand the organisation in good stead. "As a business today, we couldn't be further from that position we found ourselves in back in 1993. For a lot of people in the organisation it's something of a surreal tale. But for us it's important to learn from both the things you have done well and also the things you could have done better. I believe that what we have achieved over the 100 years gives us a very unique vantage point to view the future; others don't have that experience and perspective."

Traditionally, IBM has been viewed as a hardware company but it is now pushing the boundaries as a provider of IT and consulting services. Twenty years ago the proportion of IBM's business categorised as 'services' as opposed to products was an estimated 5 percent. Ten years later, it rose to roughly 15 percent. Now services account for over 57 percent of total revenue and IBM Global Services is the world's largest technology services business. The consulting services arm, IBM Global Business Services, was borne from IBM's acquisition of PwC Consulting in 2002. For its most recent Year-End, the organisation saw group revenue rise by 4 percent to \$99.9 billion.

## GLOBALLY INTEGRATED

Today's biggest challenges, whether it's climate change or dwindling natural resources or new markets, are now taking place on a global scale and business leaders must factor this in if they want to be successful. "Think of the world, not in terms of individual countries, but as a whole," says Stephen. "Don't look at it as China, Russia, Brazil, India – the Western world and everything else. Think of it as a whole and how you can achieve economies of scale."

THE NETWORK  
OF LEADERS

CRITICALEYE

It comes back to the question of agility and embracing fresh ideas. "The impact of technology will continue to change the way in which industries work for the foreseeable future – the world is not going to become less instrumented and less digitised," explains Stephen. "Therefore, industries will change and supply-chain thinking will alter because you'll be able to manage things in a much more efficient way."

Clearly, these shifts in market trends present a fantastic opportunity. Stephen is upbeat about the future, provided the company sticks to the principles that have served it well up to now. He quotes IBM's second president, Thomas Watson Jr, who in the 1960s made the comment: "I firmly believe that any organisation, in order to survive and achieve success, must have a sound set of beliefs on which it premises all its policies and actions. Next, I believe that the most important single factor in corporate success is faithful adherence to those beliefs. And finally, I believe that if an organisation is to meet the challenges of a changing world, it must be prepared to change everything about itself... except those beliefs... as it moves through corporate life."

It goes back to a commitment to innovation and a total aversion to complacency. Stephen says: "That is the philosophy which I've seen throughout all of the different leaders that I've worked with throughout the 20 years I've been here at IBM. People are prepared to make changes but they will retain what I see as the essence of the organisation."

So far, it seems to be working.

© Criticaleye 2011



**Stephen Leonard**  
Chief Executive  
IBM, UK and Ireland

Stephen leads IBM's overall business and is responsible for a workforce of around 20,000 people. Previously, based in the USA, he served as Vice President Sales, North America IBM Systems and Technology Group.

Contact Stephen through [www.criticaleye.net](http://www.criticaleye.net)