

# *BAT / DHL LLP*

- *Management Day* -

# Welcome

## *Future of Logistics*

- *Bryn Parry* -



# Limbering Up

What are your quickfire responses about the *LLP Team's* responses to:

- intelligent 36ft-reach fork-lift trucks ?
- *US Military* research into:

- 'Green fuel': <http://www.newscientist.com/article/mg21628894400-ecowarriors-us-military-pushes-for-green-energy.html> and [http://www.bbc.co.uk/iplayer/episode/b00yqv66/Costing\\_the\\_Earth\\_The\\_Real\\_Eco\\_Warriors/](http://www.bbc.co.uk/iplayer/episode/b00yqv66/Costing_the_Earth_The_Real_Eco_Warriors/)
- Big Dog robot: <http://www.youtube.com/watch?v=BhelzCIPGXg>
- Exoskeletons: <http://www.youtube.com/watch?v=xbCgDccNi9c>

- *HGV* speeds: <http://www.bbc.co.uk/news/uk-20268743>
- *LLP Team's* response(s) to *Katla* eruption: <http://www.bbc.co.uk/news/world-europe-15995845> and <http://www.telegraph.co.uk/science/9195178/Iceland-volcano-and-you-thought-the-last-eruption-was-bad....html>

- self-parking `phone apps: <http://www.youtube.com/watch?v=MXDOuiFDYo4>
- using petrol station walls for logistics:

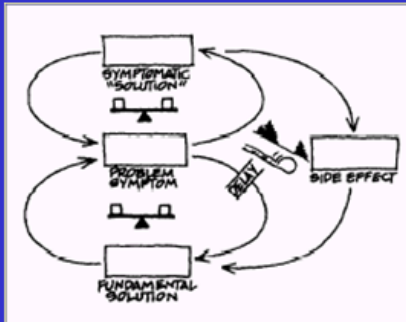
<http://www.bybox.com/Archive/PDF/glaxosmithkline.pdf> [ByBox system] ?

- hotels on supermarket roofs ?

<http://www.managementtoday.co.uk/news/1106668/>

## Systems Thinking & Innovation

- *Shifting the Burden* -  
Senge (1992: 27 - 54)



Use this template to track 'shifting the burden' issues in any discussions  
To compare *Operations Management* and *Innovation* issues with *People's Express*, see Senge (1992: 128-135)


# From the *DHL 2050*

**Forbes**

LEADERSHIP | 3/22/2012 @ 9:05AM | 1,888 views

## DHL Envisions 2050: A Supreme Waste of Time And Money. Or Maybe Not...

[+ Comment now](#)



Picture: DHL

The logistics firm [DHL](#) (Deutsche Post) has just completed and publicized five future scenarios called “[Delivering Tomorrow: Logistics 2050](#).”

In the never-ending mountain of corporate waffle, surely this is the summit? Why spend time and resources on thinking about what might happen 38 years from now when even the 5-year-future is effectively unpredictable?

**The Deutsche Post DHL 2050 scenarios are:**

1. **Untamed Economy:** untamed growth and unchecked materialism cause a mounting number of natural disasters, putting the world on the brink of a collapse.
2. **Mega-efficient Cities:** cities emerge as the world’s power centers, with radically altered consumer needs, while an urban low-wage class is entrenched and rural areas stagnate.
3. **Customized Lifestyles:** individualization and customization shapes people people’s everyday lives, requiring decentralized and regional production structures.
4. **Paralyzing Protectionism:** the world is hobbled by economic hardship, excessive nationalism and trade protectionism.
5. **Global Resilience:** resilient production and logistics structures gain a higher higher priority than continued efficiency maximization, after repeated natura

- *Rapid Prototyping / 3D Printing and Augmented Reality*
- *Natural Disasters*
- *Knowledge Management*

*DHL 2050:* [http://www.dp-dhl.com/en/media\\_relations/press\\_releases/2012/the\\_world\\_in\\_2050.html](http://www.dp-dhl.com/en/media_relations/press_releases/2012/the_world_in_2050.html)

*DHL 2050 downloads & videos:* [http://www.dp-dhl.com/en/logistics\\_around\\_us/delivering\\_tomorrow\\_logistics\\_2050.html](http://www.dp-dhl.com/en/logistics_around_us/delivering_tomorrow_logistics_2050.html)

*DHL – Delivering Tomorrow:* <http://www.delivering-tomorrow.com/>

*Kuehne & Nagel – Capital Markets Day [2012]:*

[http://www.kn-portal.com/fileadmin/user\\_upload/documents/about\\_us/Investor\\_Relations/documents/2012/Capital\\_Markets\\_Day\\_2012\\_Strategic\\_Outlook.pdf](http://www.kn-portal.com/fileadmin/user_upload/documents/about_us/Investor_Relations/documents/2012/Capital_Markets_Day_2012_Strategic_Outlook.pdf)

# *US Military: Mobile Parts Hospital vs Mobile Technology Complexes*

## *- application of 3D Printing / Rapid Prototyping -*

- [1] <http://www.newscientist.com/article/mg21628875.100-us-military-gets-into-the-3d-printing-business.html> [2012 [New Scientist, October 2012]  
High-security handcuffs unlocked by 3D-printed key: <http://www.newscientist.com/blogs/onepercent/2012/07/high-security-handcuffs-unlock.html>  
3D-printed gun fired successfully: <http://www.newscientist.com/blogs/onepercent/2012/07/3d-printed-gun.html>  
[main-focus, though is on military logistics on asymmetric battlefields – mirroring modern retail / manufacturing]

*BMW and Augmented Reality Training* [2007]: <http://www.youtube.com/watch?v=P9KPJIA5yds>

*CSL sofa advert:* <http://www.youtube.com/watch?v=gBGGufGkE2w>

[2] <http://www.defenseindustrydaily.com/Alion-to-Supply-Army-with-Mobile-Parts-Hospital-05489/> [2010 update]

[3] <http://www.psfk.com/2010/08/hyperlocal-manufacturing-unit-fits-in-a-shipping-container.html> [2010 update - MTC]

[4] <http://www.bbc.co.uk/programmes/b00vcnbg#synopsis> [R4 Click On 18<sup>th</sup> October 2010]

*BBC Click* [29/07/11] – various RPT / 3D-Printing video clips: [http://news.bbc.co.uk/1/hi/programmes/click\\_online/9550469.stm](http://news.bbc.co.uk/1/hi/programmes/click_online/9550469.stm)

*BBC Digital Planet* [23/11/10]: downloading home furniture: <http://www.bbc.co.uk/programmes/p00bybnk#p00c9w2j>

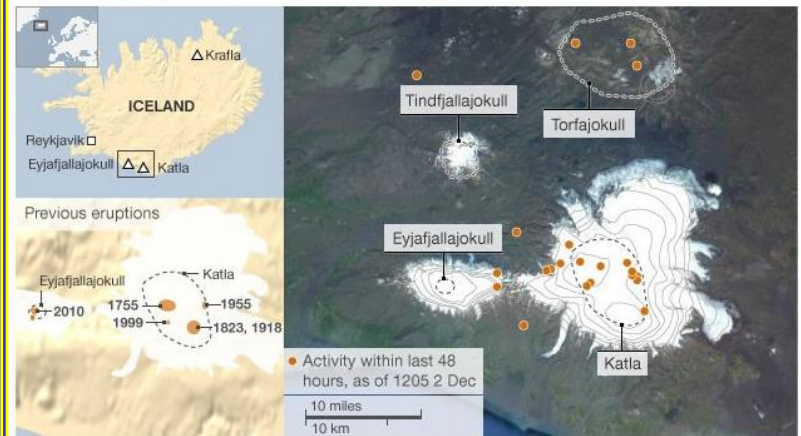
# Katla Eruption & Flooding

## WARNINGS FROM HISTORY

amended from Davies & Teasdale (1994: 6-7)



## Seismic activity at Katla



Source: Icelandic Met Office, Icelandic Institute of Earth Sciences

## Eruption 'long overdue'?

- <http://www.bbc.co.uk/news/world-europe-15995845> -

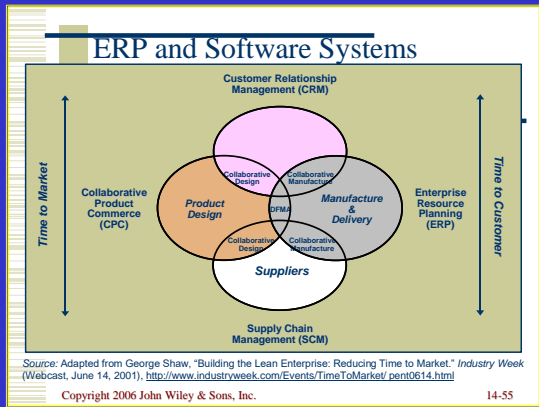
## Flooding:

- when to pre-flood ?
- *Augmented Reality* helps you navigate a *Distribution Centre* site:
  - when filled with smoke
  - when half-submerged

# KM & Forecasting

- [http://news.bbc.co.uk/player/nol/newsid\\_5390000/newsid\\_5394200/5394202.stm?bw=nb&mp=wm](http://news.bbc.co.uk/player/nol/newsid_5390000/newsid_5394200/5394202.stm?bw=nb&mp=wm) 0:00-02:30 for key elements [0:00-06:00 for full clip] -

## Russell & Taylor (2006)



Source: Adapted from George Shaw, "Building the Lean Enterprise: Reducing Time to Market," *Industry Week* (Webcast, June 14, 2001), <http://www.industryweek.com/Events/TimeToMarket/pent0614.html>

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14-55

DFMA – 'design for manufacture & assembly'



2006: McLaren and SmithBayes launch their Strategy software

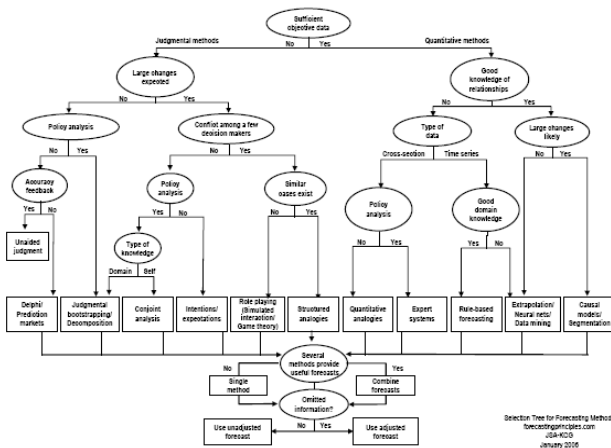
Now McLaren Applied Technologies: <http://www.mclarenappliedtechnologies.com/>

In this [2006] *Newsnight* clip, the demonstrator explains that, in a race, there might be:

*"... eight million scenarios, maybe 3,000 variables, of which we maybe only know about 400 ... recalibrating that strategy every two seconds ..."*

If you understood your business environment and your company better, do you think that such an approach would give you a *Competitive Advantage* ?

Would the advantage come from the software, or from an understanding of the business environment ?



Selection Tree for Forecasting Methods  
 www.mclarenappliedtechnologies.com  
 JBA-KCS  
 January 2006

Innovation

# As You Saw In The *Olympics / Paralympics* – it is all about implementation

British Cycling team case [00:00 – 01:00]



0:00 – 01:00

[http://news.bbc.co.uk/media/avdb/sport/cycling/video/161000/bb/161782\\_16x9\\_bb.asx](http://news.bbc.co.uk/media/avdb/sport/cycling/video/161000/bb/161782_16x9_bb.asx)

## R4 Profile – Dave Brailsford:

[http://www.bbc.co.uk/iplayer/episode/b011sqkq/Profile\\_Dave\\_Brailsford/](http://www.bbc.co.uk/iplayer/episode/b011sqkq/Profile_Dave_Brailsford/)

## Dr Steve Peters moves to UK Athletics:

<http://www.telegraph.co.uk/sport/othersports/athletics/9631652/Dr-Steve-Peters-given-role-of-improving-British-athletes-mindset-especially-our-poor-relay-teams.html>

- Dave Brailsford [*British Cycling's performance director*] has a mantra of “*performance by the aggregation of marginal gains*”:

<http://www.telegraph.co.uk/sport/othersports/olympics/2604410/Chris-Hoy-proves-cyclists-can-be-clean-of-drugs-and-still-be-mean-Olympics.html>

- *British Cycling* used to be a laughing stock, but other *Olympic* teams copied this approach and won Gold medals:

[1] <http://www.timesonline.co.uk/tol/sport/olympics/article7035624.ece>

[2a] [http://www.soton.ac.uk/promotion/excellence\\_action\\_uk\\_sport\\_interview.shtml](http://www.soton.ac.uk/promotion/excellence_action_uk_sport_interview.shtml)

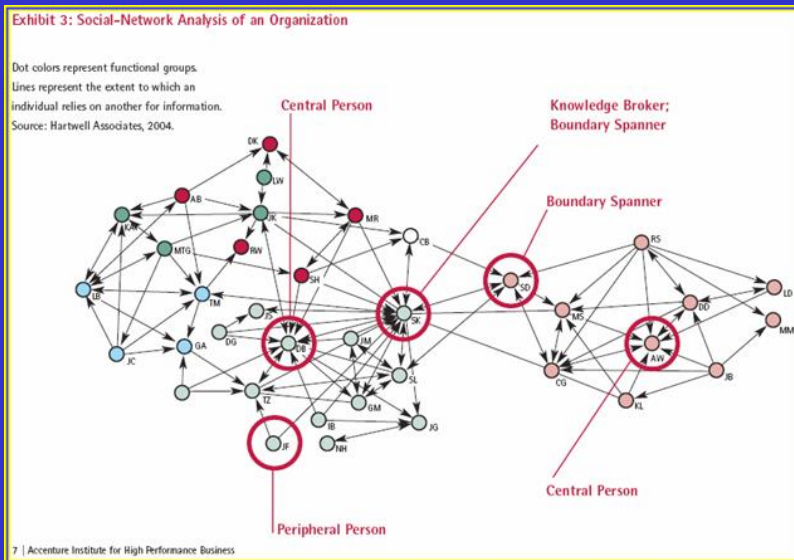
[2b] <http://www.soton.ac.uk/performanceports/>

[3] [http://www.soton.ac.uk/promotion/excellence\\_action\\_uk\\_sport.shtml](http://www.soton.ac.uk/promotion/excellence_action_uk_sport.shtml)

UK Sports video: <http://www.uksport.gov.uk/videos/secrets-of-amys-success>



# Innovation 1: NHS vs F1



[http://accenture.at/SiteCollectionDocuments/PDF/researchnote\\_227.pdf](http://accenture.at/SiteCollectionDocuments/PDF/researchnote_227.pdf) [Exhibit 3, P.7]

## Audio: *In Business – R4*

“From the production line to the NHS” 04/01/07

[http://www.bbc.co.uk/radio4/news/inbusiness/inbusiness\\_20070104.shtml](http://www.bbc.co.uk/radio4/news/inbusiness/inbusiness_20070104.shtml)

‘Firefighting’ rather than strategic management & focusing on ‘targets’ [e.g. <4hr waiting time]

- ‘Backward walk’ to ‘see more clearly’ – e.g. lots of ‘shuffling about’ and that waiting is the norm [whilst the ‘exciting bits’ are atypical]
- need to look at the wider system that the A&E Department and the NHS operate in – a change in A&E affects other stakeholders and a lot is down to organisational culture
- Doctor saw ideas in her son’s textbook [on holiday]

## Articles:

Heart surgeon asks *Ferrari* pit-stop team to enhance a *Critical Success Factor* for the NHS

[1] <http://www.telegraph.co.uk/news/1527497/Ferrari-pit-stop-saves-Alexanders-life.html>

[2] <http://news.bbc.co.uk/1/hi/technology/7934857.stm>

[3] <http://www.nesta.org.uk/how-can-formula-1-be-useful-for-healthcare/>

For [2009] update - see the [Science Museum exhibition](#)

[FastForward: 20 ways F1 is changing our world]:

[1] [http://www.sciencemuseum.org.uk/objects/temporary\\_exhibitions/E2009,-d,-4,-d,-1.aspx](http://www.sciencemuseum.org.uk/objects/temporary_exhibitions/E2009,-d,-4,-d,-1.aspx)

[2] [http://www.sciencemuseum.org.uk/objects/temporary\\_exhibitions/E2008,-d,-197,-d,-1.aspx](http://www.sciencemuseum.org.uk/objects/temporary_exhibitions/E2008,-d,-197,-d,-1.aspx)

[3] [http://www.sciencemuseum.org.uk/objects/temporary\\_exhibitions/E2008,-d,-196,-d,-1.aspx](http://www.sciencemuseum.org.uk/objects/temporary_exhibitions/E2008,-d,-196,-d,-1.aspx)

[4] [http://www.sciencemuseum.org.uk/objects/temporary\\_exhibitions/E2008,-d,-188,-d,-4.aspx](http://www.sciencemuseum.org.uk/objects/temporary_exhibitions/E2008,-d,-188,-d,-4.aspx)

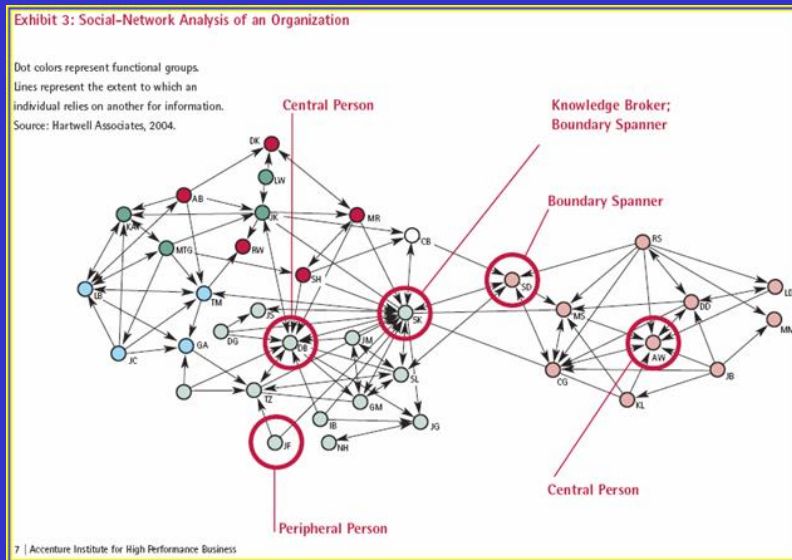
[5] [http://www.sciencemuseum.org.uk/objects/temporary\\_exhibitions/E2008,-d,-188,-d,-3.aspx](http://www.sciencemuseum.org.uk/objects/temporary_exhibitions/E2008,-d,-188,-d,-3.aspx)

[6] [http://www.sciencemuseum.org.uk/objects/temporary\\_exhibitions/E2008,-d,-193,-d,-1.aspx](http://www.sciencemuseum.org.uk/objects/temporary_exhibitions/E2008,-d,-193,-d,-1.aspx)

For videos on key exhibits, go to: <http://www.youtube.com/watch?v=BBuJ82EzrBk>

# Innovation 2: Bottom Line – Sandpaper

- <http://www.bbc.co.uk/programmes/b01mx27l> [11:50 – 16:35] 29/09/12 -



[http://accenture.at/SiteCollectionDocuments/PDF/researchnote\\_227.pdf](http://accenture.at/SiteCollectionDocuments/PDF/researchnote_227.pdf) [Exhibit 3, P. 7]

Sir George Buckley, of 3M, noted that the abrasives team felt that their division saw no growth and that there was 'nothing to be discovered' – so, he challenged the team to come up with something

Looking to nature's abrasives, revived some 'old' projects and, two year's later, *Cubitron II* was launched; with the abrasives division growing at 20 per cent - *Cubitron II* was growing at 300 percent [limited only by capacity]

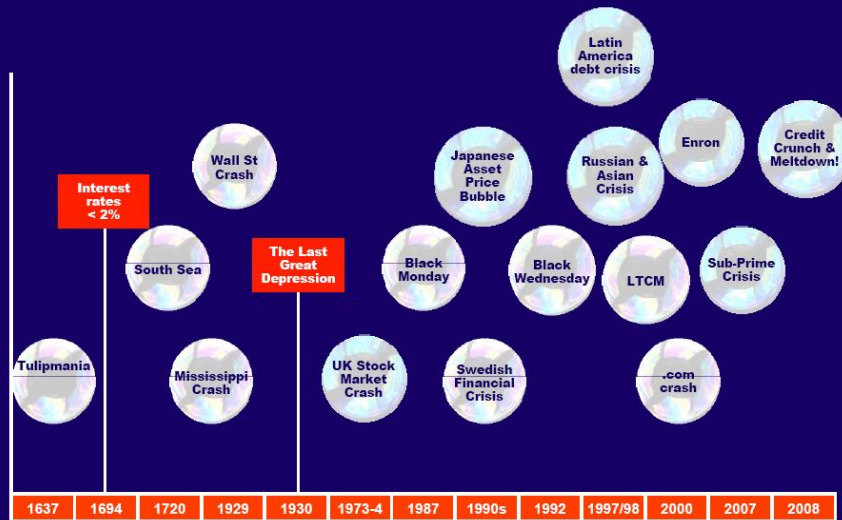
The *Elephant In The Room*

# The Market Environment - Nick van Marken

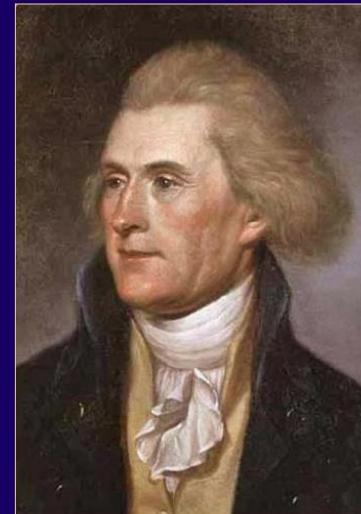
Master Innholders conference - January 2009

- [http://www.masterinnholders.co.uk/downloads/Deloitte\\_presentation.pdf](http://www.masterinnholders.co.uk/downloads/Deloitte_presentation.pdf) -

## Bubble, bubble, toil and trouble.....



## Back to the future.....



'I believe that banking institutions are more dangerous to our liberties than standing armies. If the American people ever allow private banks to control the issue of their currency, first by inflation, then by deflation, the banks and corporations that will grow up around the banks will deprive the people of all property until their children wake-up homeless on the continent their fathers conquered.'

*Thomas Jefferson 1802*

## Relate this to:

- Niall Ferguson and his [2006] presentation to the Bankers' conference: <http://www.youtube.com/watch?v=L1xbksM5ODk>
- *Scientists of the Subprime* [17<sup>th</sup> February 2011]: <http://www.bbc.co.uk/programmes/b00yjs4m>

# Historical Perspectives on Future Scenarios ?

- <http://www.bbc.co.uk/programmes/b01nt4n9> -

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# How Dare We Have:

- Missed out .....
- Not spent more time on .....

