



Smarter decisions for better business outcomes

WELCOME

Mark Fieldhouse

Business Unit Executive, IBM Business Analytics



Agenda



TIME	DESCRIPTION		
10.00	Welcome		
	Mark Fieldhouse, Business Unit Executive - IBM Business Analytics		
10.15	Smarter decisions for better business outcomes Colin Shearer, Global Executive, Advanced Analytic Solutions, SPSS		
10.50	Leicester Tigers Sports Science - Injury and Performance Prediction and Influence		
	Andy Shelton, Head of Sports Science, Leicester Tigers		
11.30	BREAK		
11.45	Better BI builds better Businesses		
	Rob Roberts, Head of BI Product Management Practice, DHL Supply Chain, EMEA		
12.25	Panel Discussion and Q&A		
12.45	LUNCH		
13.45	Business Analytics Live - Software in Action		
45.45	Integrated demo and presentation of end to end solution		
15.15	Wrap up		
45.00	Mark Fieldhouse, Business Unit Executive - IBM Business Analytics		
15.30 16.00 -	BREAK Customer Application to win		
16.00 -	Managing Sales Compensation	Using Analytics for Social Benefit	Customer Analytics to win customers and grow your business
	Kevin Pilcher, Senior Manager, Corporate and Information Management Systems Infrastructure Services Unit, Colt Telecommunications	Gary Seaman, Head of Business Analytics, Medway Youth Trust	Paul Ravenscroft, Senior Loyalty Insights Manager, Boots & Rachel Pillsbury - CRM Data Mining Manager, Boots
16.50 - 17.30	Managing Sales Compensation	Using Analytics for Social Benefit	Customer Analytics to win customers and grow your business
	Kevin Pilcher, Senior Manager, Corporate and Information Management Systems Infrastructure Services Unit, Colt Telecommunications	Gary Seaman, Head of Business Analytics, Medway Youth Trust	Paul Ravenscroft, Senior Loyalty Insights Manager, Boots & Rachel Pillsbury - CRM Data Mining Manager, Boots
17.30	NETWORKING RECEPTION		



Today's organizations are facing many **DISRUPTIVE FORCES** fueling the need for analytics

The emergence of a new data era

Creating new opportunities to capture meaningful information from new varieties of data and content coming at organizations in huge volumes and at accelerated velocity

=

The shift of power to the consumer

Creating the need for organizations to understand and anticipate customer behavior and needs based on customer insights across all channels



Accelerating pressure to do more with less

Creating the need for all parts of the organization to optimize all of their processes to create new opportunities, to mitigate risk, and to increase efficiency

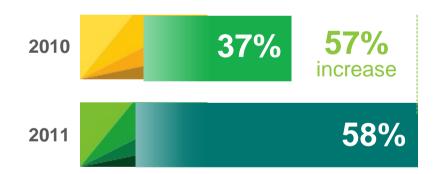




Organisational pressures are at a point where analytics has evolved from business initiatives to **BUSINESS IMPERATIVES**

More organization are using analytics to create a competitive advantage

Respondents who believe analytics creates a competitive advantage



Source: The New Intelligent Enterprise, a joint *MIT Sloan Management Review* and IBM Institute of Business Value analytics research partnership. Copyright © Massachusetts Institute of Technology 2011

And leaders are outperforming their competitors in key financial measures

1.6X Revenue Growth

2.0X EBITDA Growth

2.5X Stock Price Appreciation

Source: Outperforming in a data-rich, hyper-connected world, IBM Center for Applied Insights study conducted in cooperation with the Economist Intelligence Unit and the IBM Institute of Business Value. 2012



ANALYTIC-DRIVEN ORGANIZATIONS are distinguished

At the point

of impact

by their ability to leverage ...

All information

All information
Transaction data
Application data
Machine data
Social data
Enterprise content

All people

All departments
Experts and non-experts
Executives and employees
Partners and customers

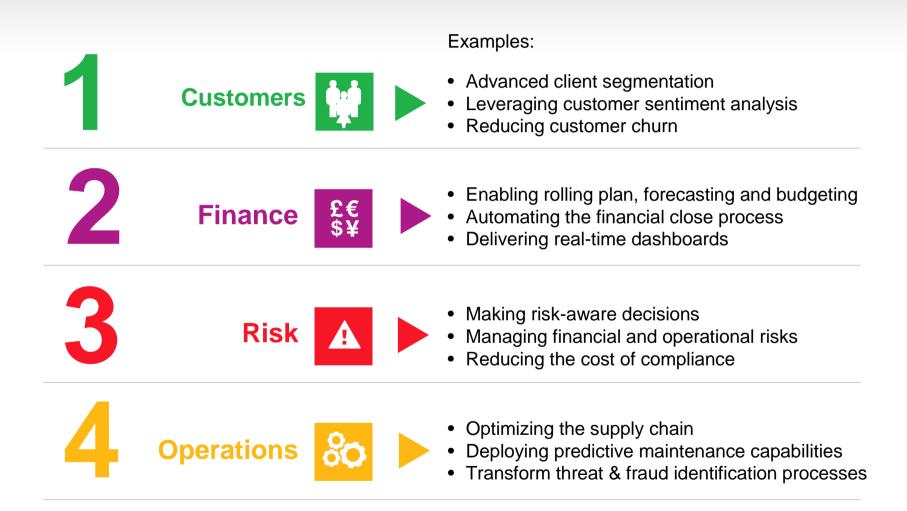
All perspectives

Past (historical, aggregated)
Present (real-time)
Future (predictive)

All decisions

Major and minor
Strategic and tactical
Routine and exceptions
Manual and automated

...focusing on high-value initiatives in core BUSINESS AREAS



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Smarter decisions for better business outcomes

Smarter Decisions for Better Business Outcomes

Colin Shearer

Global Executive, Advanced Analytic Solutions



Disclaimer

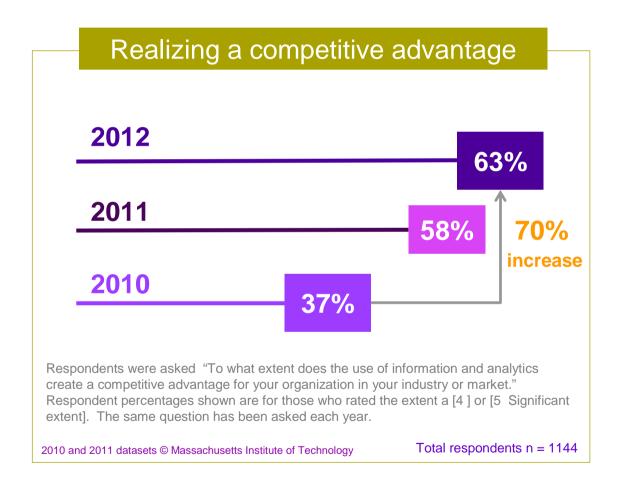


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Nearly two out of three realizing a competitive advantage from information and analytics

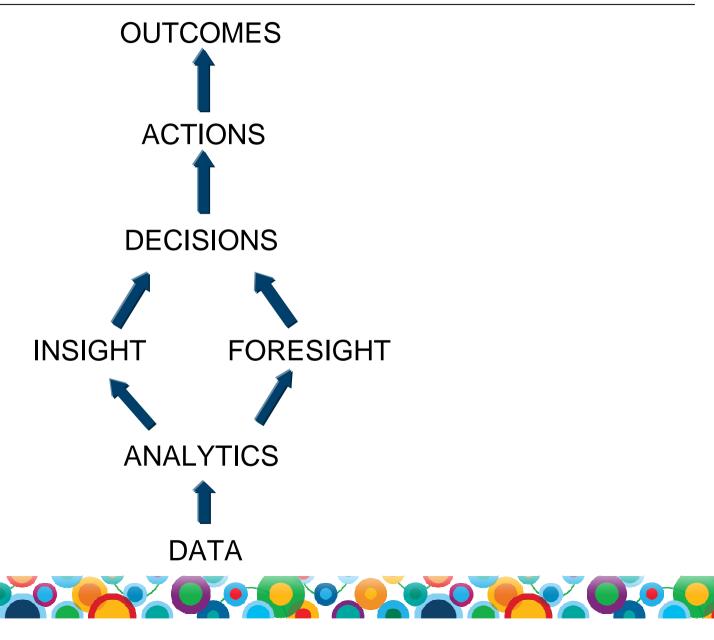






It's all about outcomes





Organizations drive transformation by starting with one of these four high-value initiatives

Examples:



Grow, retain and satisfy customers



- Churn management
- Social media sentiment analysis
- Propensity to buy/Next best action



Increase operational efficiency



- Predictive maintenance
- Supply chain optimization
- Claims optimization



Transform financial processes



- Rolling plan, forecast and budget
- Financial close process automation
- Real-time dashboards



Manage risk, fraud & regulatory compliance



- Operational and financial risk visibility
- Policy and compliance simplification
- Real-time Fraud identification



And organizations are gaining value from working with IBM





Grow, retain and satisfy customers



60%

Improvement in billed revenue retention rate



Increase operational efficiency



BECKER UNDERWOOD 50% Increase in inventory turns



Transform financial processes





50%
Reduction in planning cycle times



Manage risk, fraud & regulatory compliance





70%

Trading decisions improved with 70% of counterparties



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Sources of Customer Information





Interaction data



•E-Mail / chat transcripts
•Call : Ce votes



Web Click-streams



Attitudinal data

Needs & Desires





























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Extracting intelligence: Full-spectrum analytics





Business Intelligence

Predictive Analytics

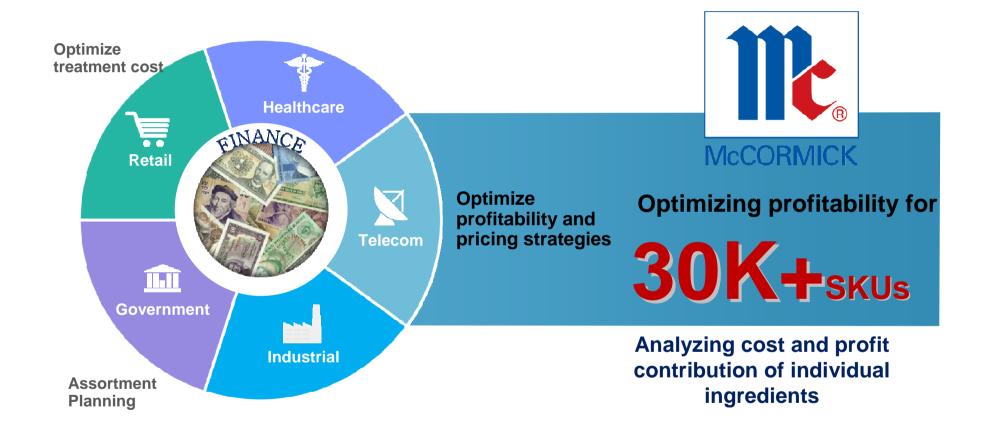












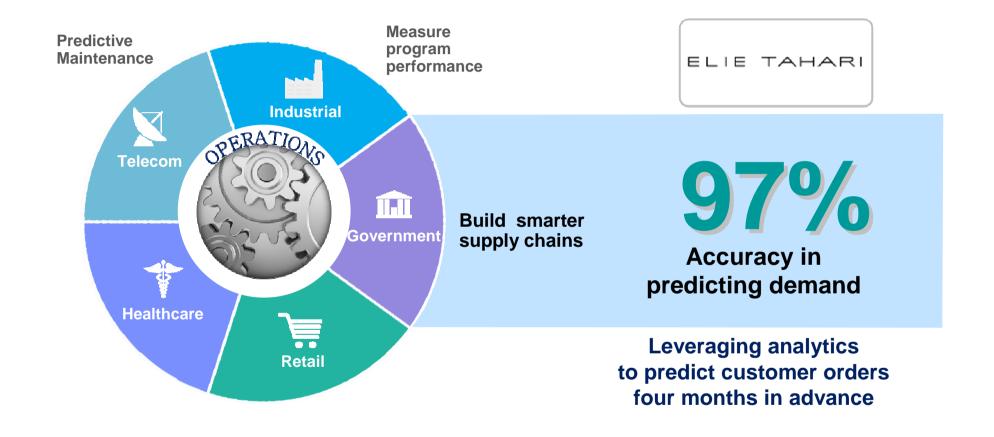




















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Automating and optimizing decisions











Business Process Management









Business and custom solutions





Bringing together...

Rules

Predictive Analytics

Optimization









Optimization





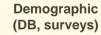








Predictive analytics



Business rules

Interactions (Call center, web)

Behavioral (Orders, payments)

Attitudinal (Surveys, social)



- Smarter fraud detection
- 95% reduction in time to refer for investigation
- Up to 88% increase in pursing fraudulent claims

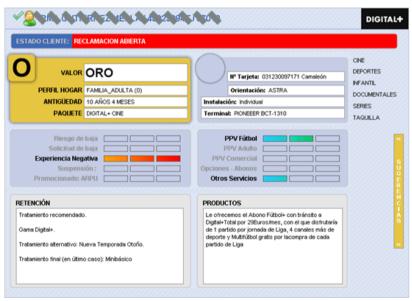


DIGITAL+



Used Real-time Predictive Analytics to leverage in-bound customer interactions to drive loyalty and life time value

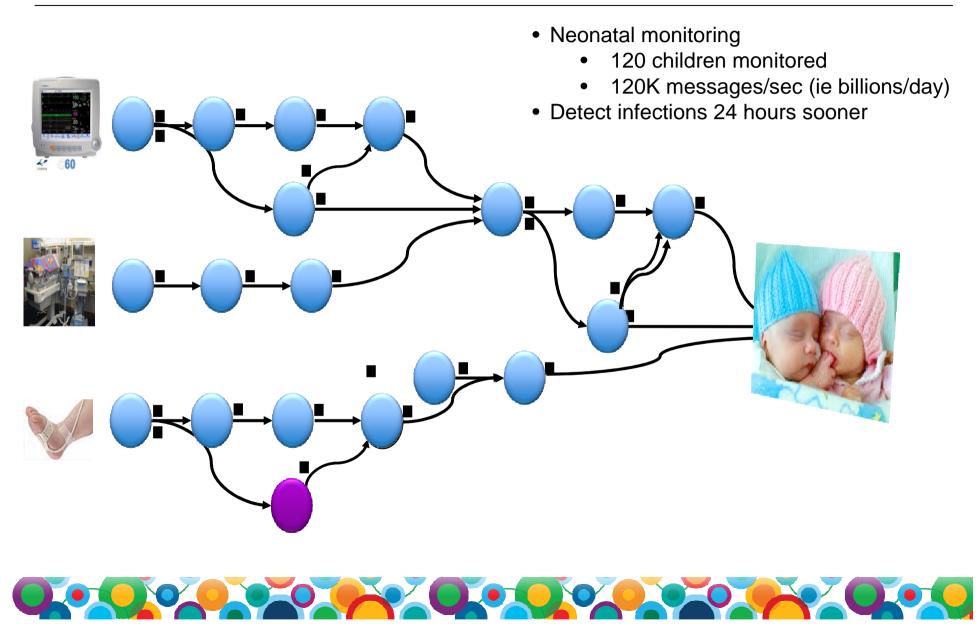
- Shorter, more relevant calls led to increased satisfaction for customers and agents
- Substantial cross-selling through the inbound service channel
- 20% higher retention in first 2 months





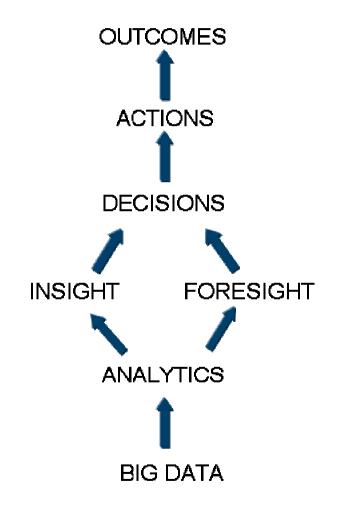
Decisions on Streaming Data







IBM: A holistic and integrated approach to analytics and big data







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IBM Analytic Answers

A portfolio of **cloud-hosted solutions** that deliver directlyactionable predictive/prescriptive information to the line of business

Removes barriers to adoption of advanced analytics :





Expertise



Dependence on IT



Start-up time

- Leverages IBM's deep analytics expertise but tailored to each client's business, using their data
- Built on IBM's analytic platform for unsurpassed scalability, analytical power, and performance
- No technical/analytical skills required
- Subscription based
- Brings the power of advanced analytics to new users

References to potential future products are subject to the Important Disclaimer provided earlier in this presentation







Initial areas: IBM Analytic Answers for...

Insurance Renewals



Which of my insurance policy holders are unlikely to renew next month? How could I persuade each one to stay loyal?

Purchase Analysis & Offer Targeting



Which products do my customers tend to buy together? Can I leverage that knowledge to create combination offers and promotions that increase basket size and revenue per customer visit?

Student Retention



Which of our students are performing below their predicted potential? How should we intervene to get them back on track and avoid the possibility of their dropping out?

Prioritized Collections



Which of my overdue debtors are likely to pay? How much can I recover from them, and which treatment will be most effective for each?

Providing information that is actionable at the level of individual cases

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Summarising



For business success, you need to be able to:

Leverage your data assets...

- ...and unlock their value with smarter analytics....
- ...to drive better decisions and more timely and appropriate actions
- ...to generate improved outcomes and higher returns
- Aspire to a holistic, enterprise-scale vision
- But identify key areas where you can make initial quick wins
 - –Never let "data excitement" distract you from a focus on business goals!



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Note: each completed survey increases your chance to win an Apple iPod Touch with daily drawing sponsored by Alliance Tech.



Leicester Tigers Sports Science

Injury and Performance Prediction and Influence

Andy Shelton – Head of Sports Science



Introduction

Background

- What is rugby union?
- Why do we need to monitor our players?
- What do we need to measure?

What are we doing?

- What data do we collect?
- How do we manage our data?
- How do we analyze our data?
- What do we report?

What does the future hold?

- How do we move forwards?
- What else could we monitor?



Background



What is rugby union?

2 teams of 15 players (with 8 substitutes)

Aim is to score points via putting the ball over the 'try line' or kicking the ball over the posts

Run with the ball, pass backwards or kick in attack

Tackle in defence

Running and collisions













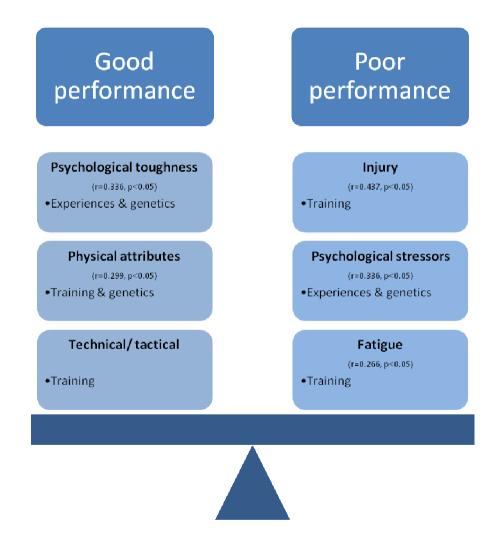


What is rugby union?

Position	Working scrums	Working tackles	Working carries	Working rucks/mauts	Collisions	Total working collision elements	Total working collision elements per minute	Total working collision elements W.R	Frequency of total working collision elements (s)	Total distance (m)	Distance < 3.6 m.s1 (m)	Distance 3.6-5 m.s-1 (m)	Distance 5-67 m.s-1 (m)	Distance > 6.7 m.s-1 (m)	Total détance >3.6 m.s-1 (m)	Time spent > 3.6 m.s-1 (min)	Maximum 10 min running intersity (m.min-1)	Total running elements > 5.6 m.s-1	Total running elements > 5.6 m.s1 per minute	Total running e lements > 5.6 m s-1 W:R	Frequency of total running elements >5.6 m.s1 (s)	Total working collision and running elements >5.6 m.s1	working collision and running elements > 5.6 m.s-1 per minute	Total working collision and running elements > 5.6 m.s-1 W.R pening	ncy of total working collision and running elements >5.6 m.s1 (s)	Mean recovery speed (m.s-1)	Decelerations from 3.6 m.s-1	Decelerations from 5 m.s1	Decelerations from >5 m.s-1	Total Decelerations
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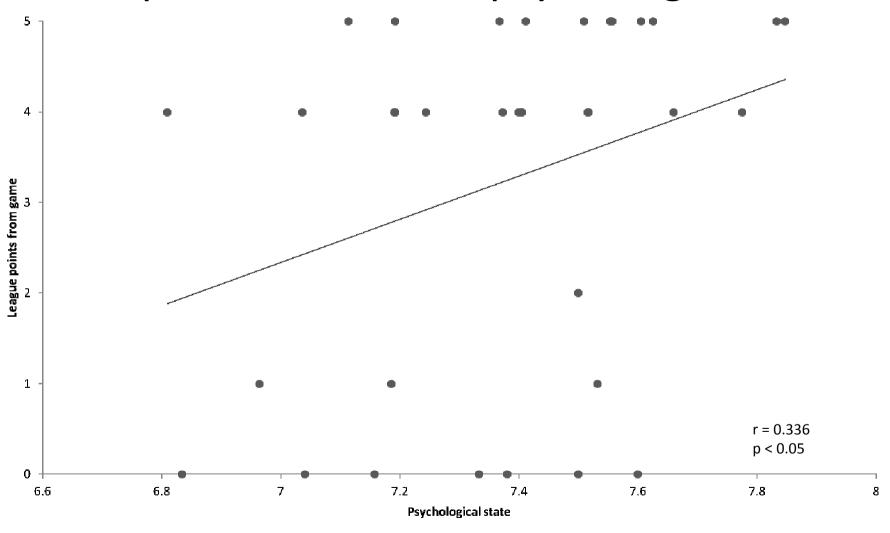


Why do we need to collect data on players?



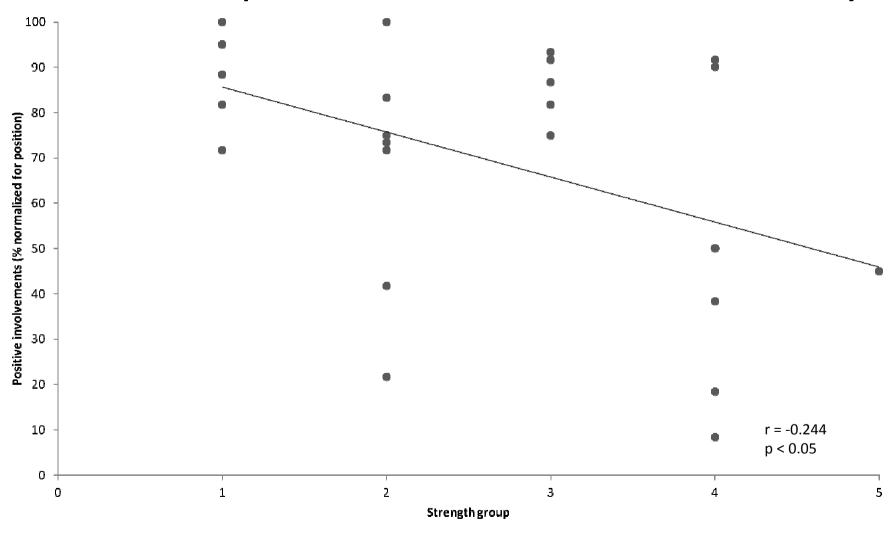


Team performance and psychological state



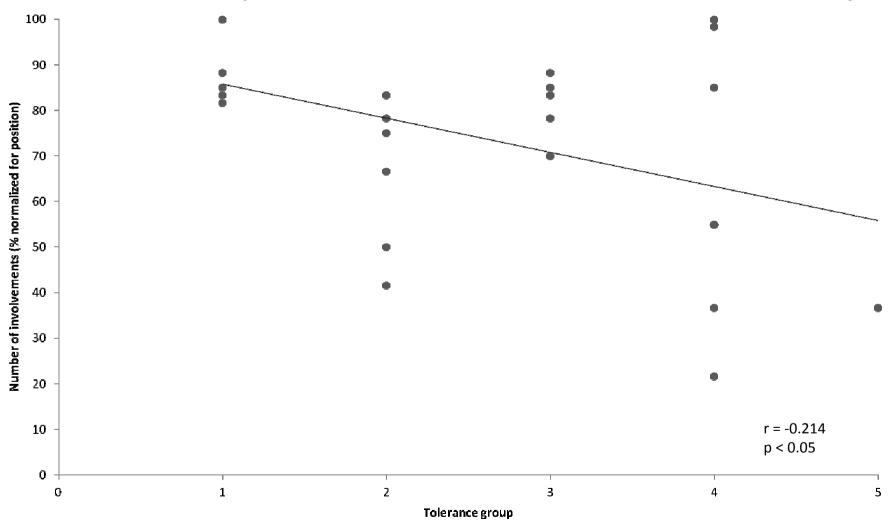


Individual performance and athletic ability



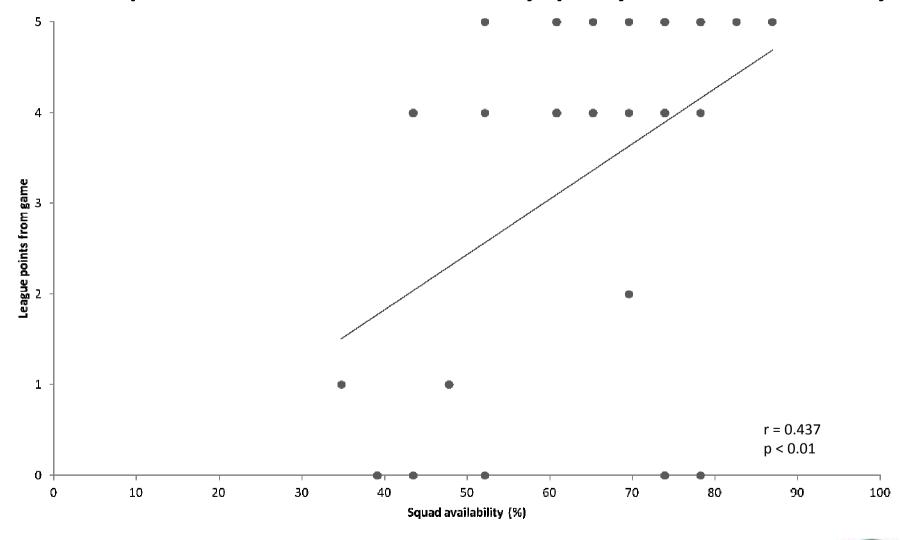


Individual performance and athletic ability





Team performance and key player availability





Matt Hampson Foundation

Matt Hampson is a former English rugby union prop who became paralysed from the neck down after a scrummaging practice accident for England under 21 on 15 March 2005.

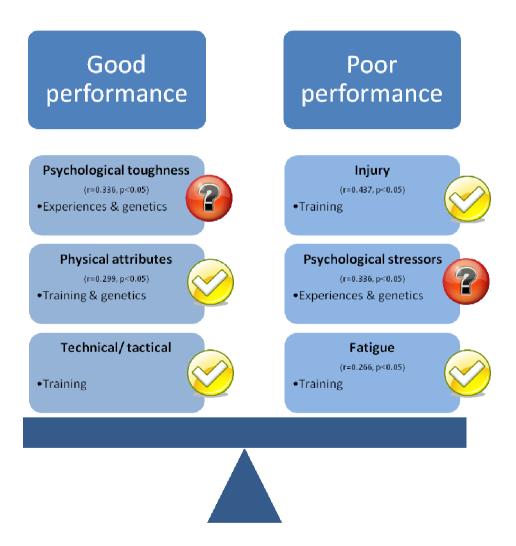


He founded the Matt Hampson Foundation in 2011 with the aim of providing advice, support, relief and/or treatment for anyone suffering serious injury or disability which has arisen from any cause, but in particular from participation in or training for any sport, sporting activity or other form of physical education or recreation.

Inspiring and supporting young people seriously injured through sport.



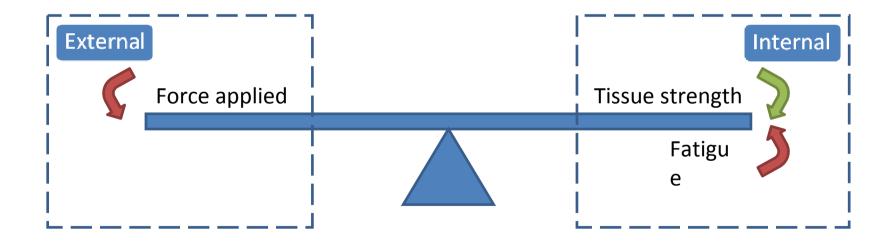
What can we affect?





When does an injury occur?

When force exerted on a tissue is greater than that which it can withstand.



How can we affect strength and fatigue?

The purpose of any training program is to provide a stimulus for sports-specific adaptation resulting in improved skill and/ or athletic performance.



How do we adapt to the stimulus?

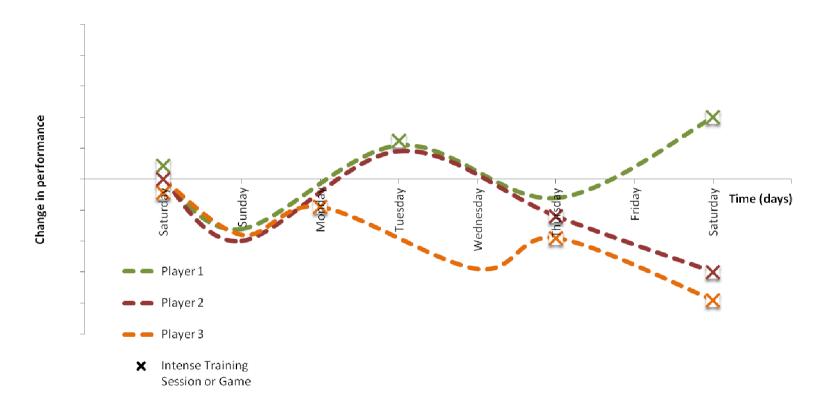


Figure 1 Schematic demonstrating player 1 (green) who trains at the right time, resulting in increased performance; and players 2 (red) and 3 (orange) who leave too long, and not enough time between training sessions respectively, both resulting in decreased performance.



Present

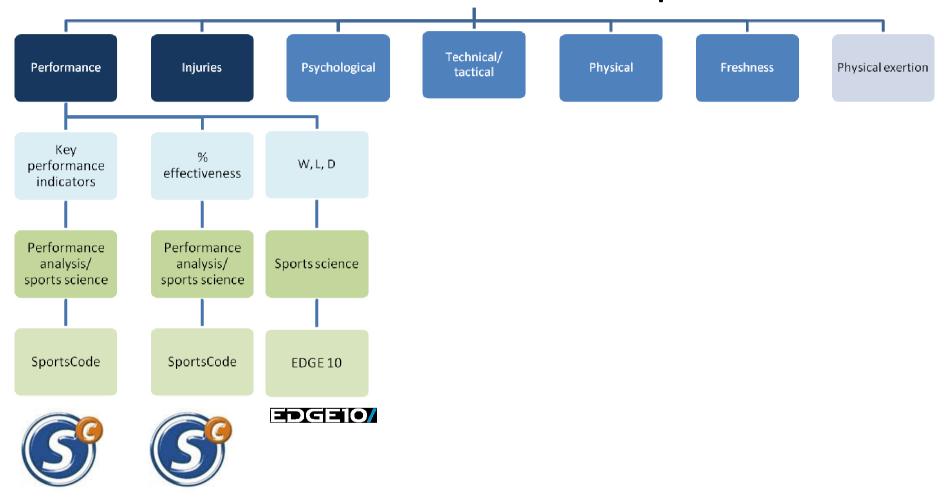


What data are we collecting now?

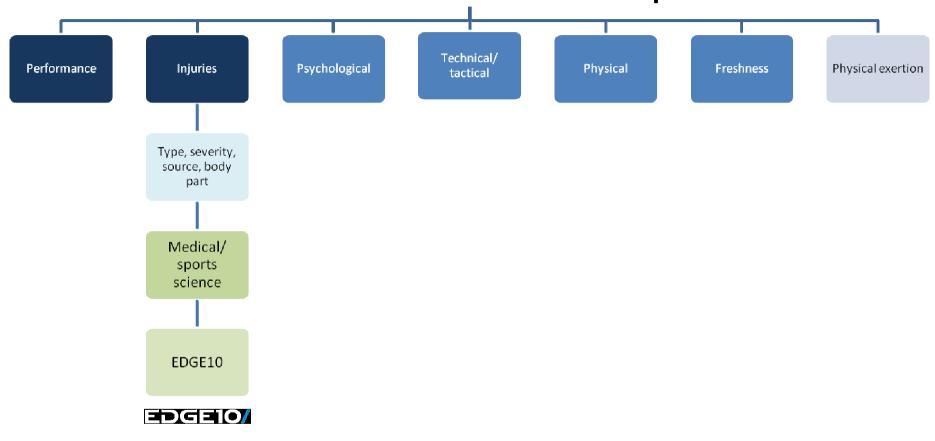
Information use

- Acquisition
 - From a host of different sources
- Management
 - Data collated in EDGE10
 - All physical exertion and monitoring information in one place
- Analysis
 - IBM's SPSS Modeller
- Reporting
 - Graphical representations of physical exertion and monitoring data

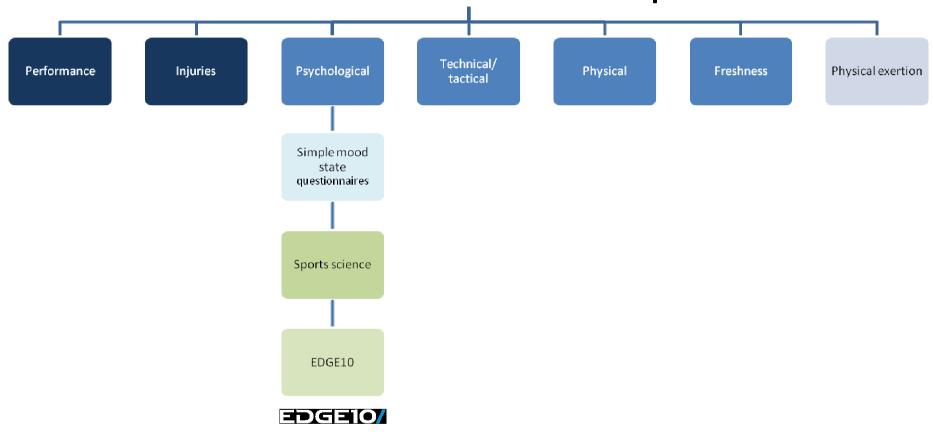




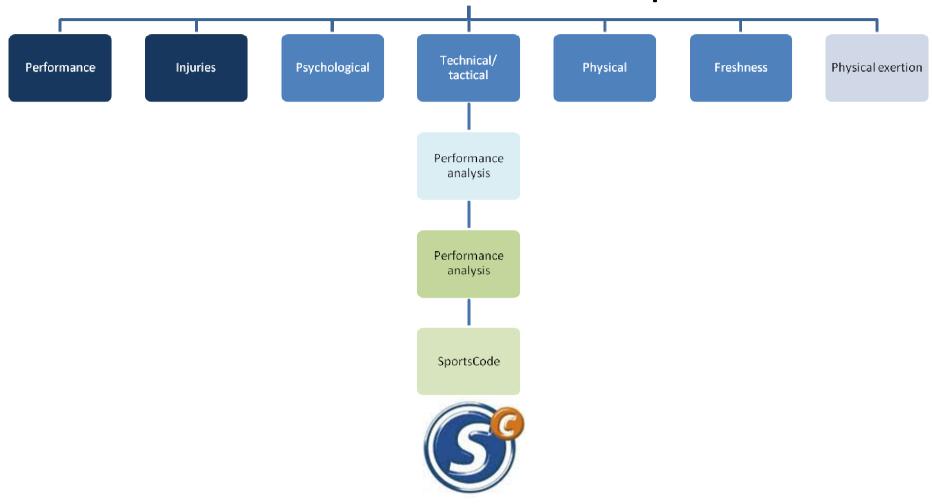




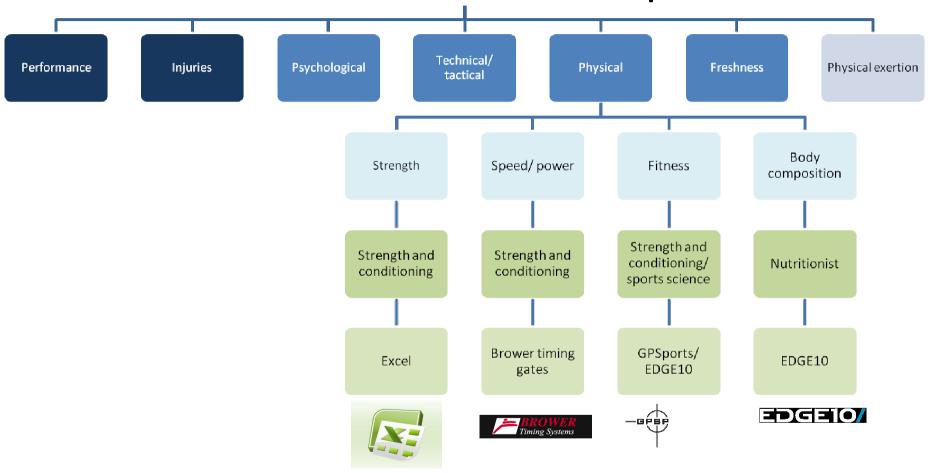




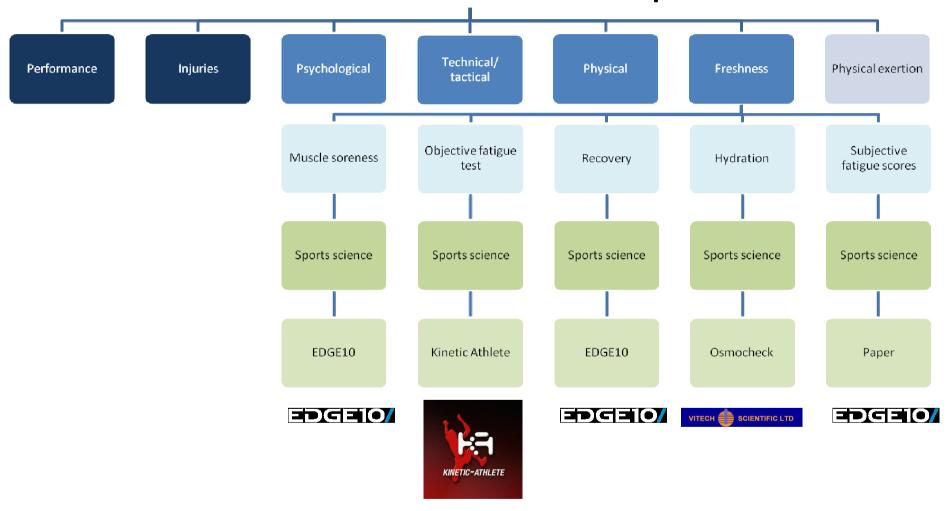




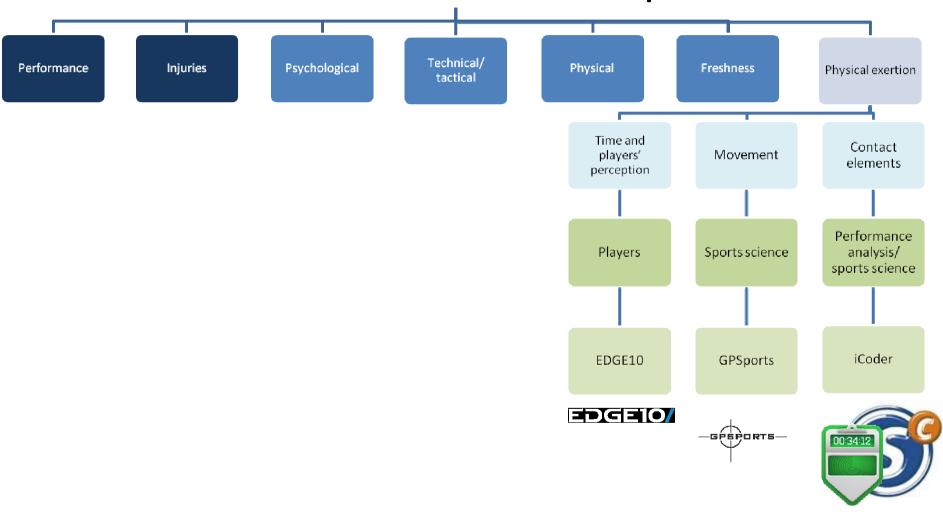






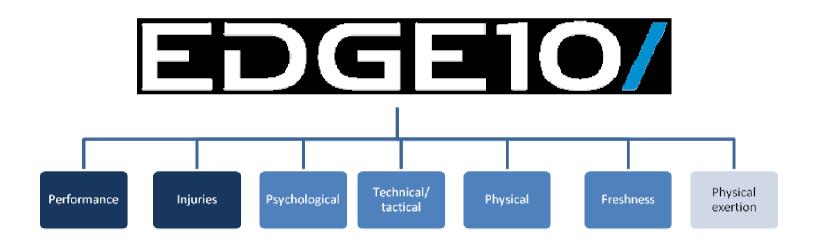


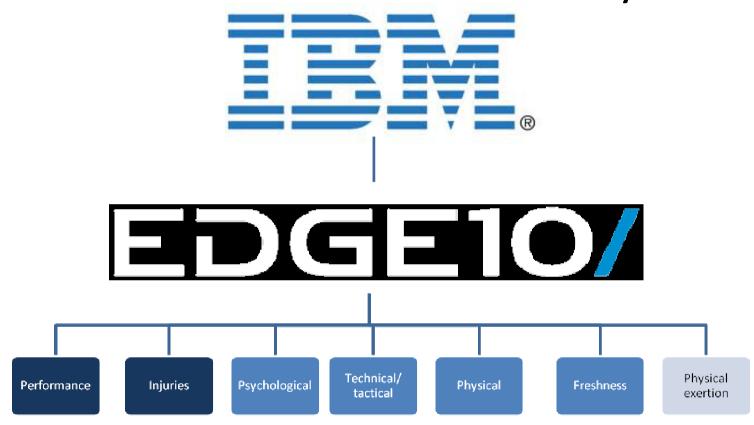


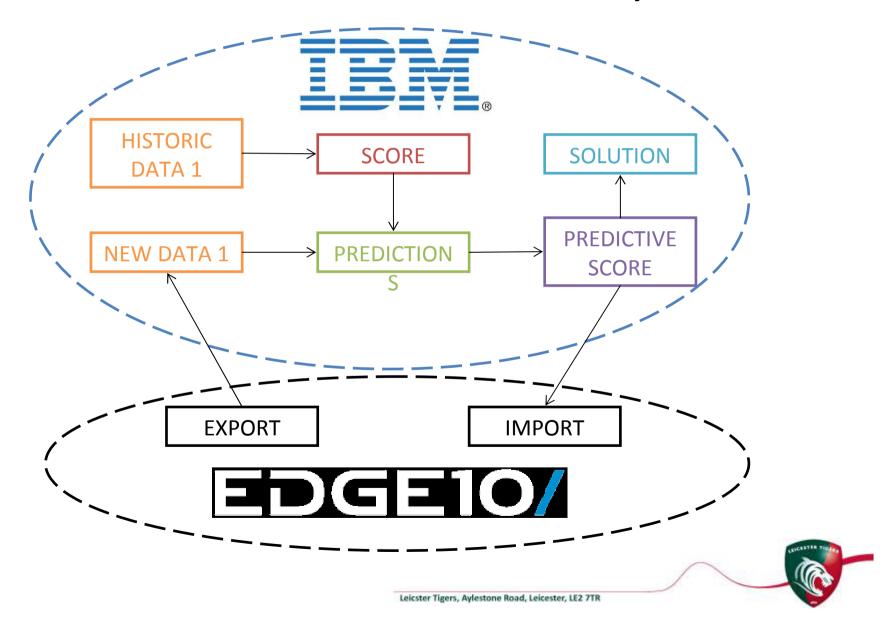


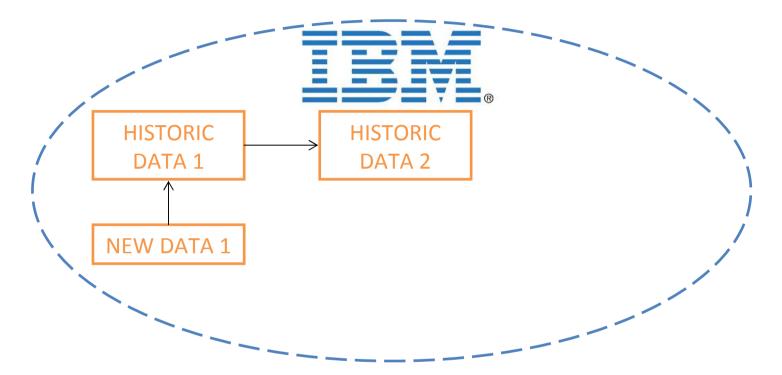


Information use – Data management

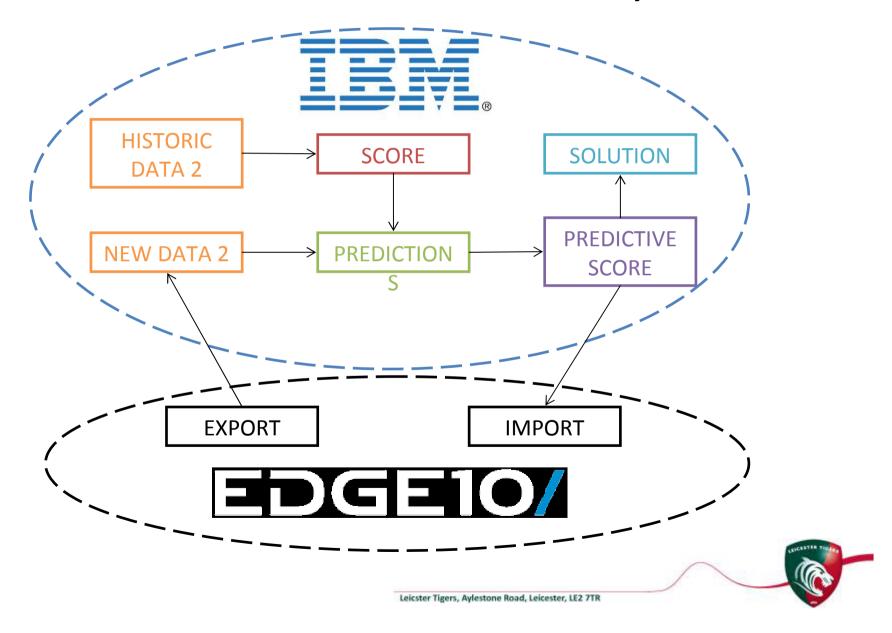


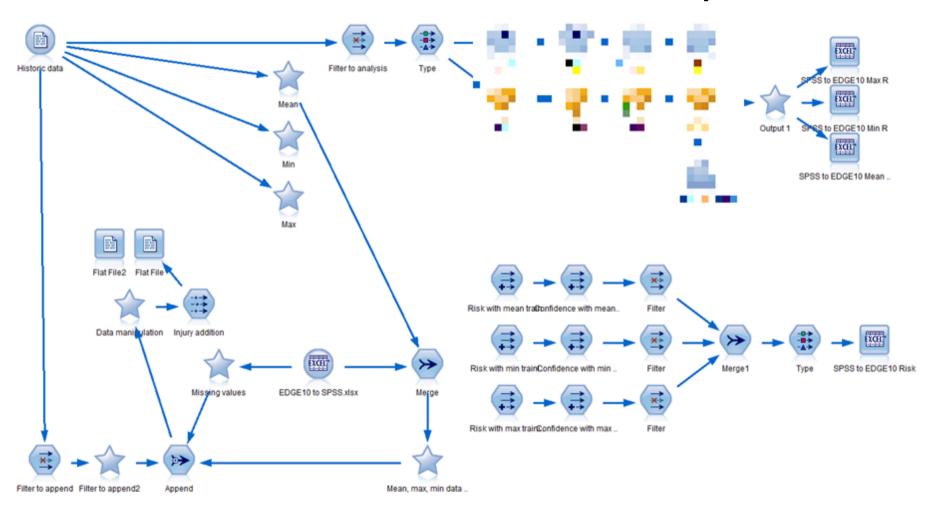




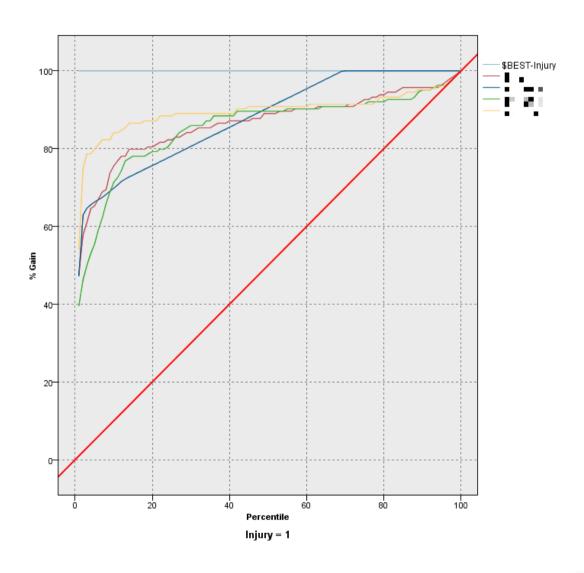








Information use – Model evaluation





Information use – Data reporting

Injury prediction

- Yes or no
- Confidence

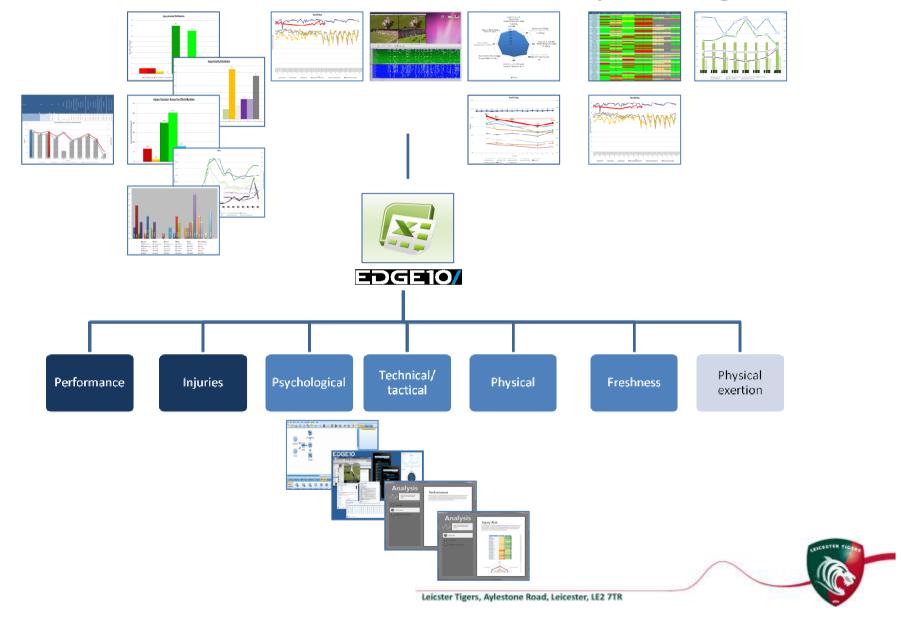
How do we affect this?

• Chronic

- Strength and tolerance of tissue
- Gait (technique with young players only)
- Acute
 - Tolerance of tissue
 - Fatigue
 - Physical (training volume and recovery)
 - Psychological



Information use – Data reporting



Summary

Benefits

- •Better organised scientific based data leading to predict and effect performance/injury risk leading to:
 - •Improved squad well-being
 - •Improved skill acquisition
 - •Stronger, faster, more powerful, fitter players
 - Fresher players
 - More effective training management
 - Fewer and less severe injuries to key players
 - Better performance
 - Marginal gains



Future



Where could we head next?

Performance

• Technical/ tactical analysis

Recruitment

• Youth player selection

Genetics

- Player development
- Training direction



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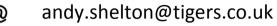
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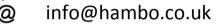
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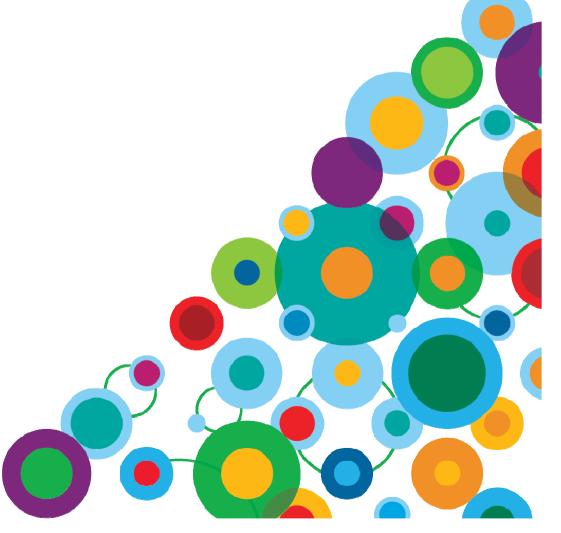




Smarter decisions for better business outcomes

Coffee

Please be seated by 11:45





Better BI Builds Better Businesses visualmetrics & DHL Supply Chain EMEA

WayneHover/Rob Roberts



visualmetrics

- Formed 1997, based in Chester/London
- Dedicated to Management Information projects
- "Visual" Analytic Application suite
- 100+ Customers
- Worked with DHL for over 14 years
- BI Partnership Framework agreement with DHL for the delivery of Consultancy & Support Services



















DHL Supply Chain EMEA

Rob Roberts



DHL Supply Chain & Organisational Background

Key Project Drivers

Project Outcomes & Lessons Learned

Future Plans





DHL Supply Chain at a glance

DHL Supply Chain is a single source contract logistics provider that offers customers:

- Warehousing
- Distribution
- Managed Transport services
- Value added services
- •Business process outsourcing: Williams Lea partnership
- Supply chain management

DHL are the worldwide Lead logistics provider

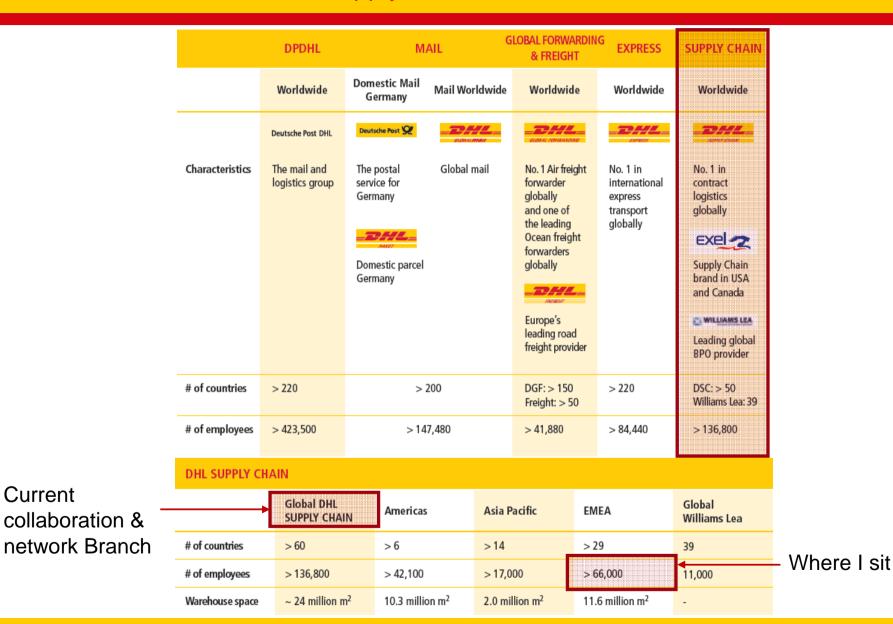
Industry sectors consist of:

- Automotive
- Consumer
- Energy & Chemicals
- Engineering & Manufacturing
- •Life Sciences & Healthcare
- •Retail
- Technology
- •Williams Lea (BPO)
- •Global Specialist Business Unit
 - Service parts logistics
 - Envirosolutions
 - NHS supply chain

Global Air, Ocean and Road Operating 24/7 365



Deutsche Post DHL - Supply Chain



Current

collaboration &

BI Infrastructure

Dedicated BI product Management Practice (Centrally run)

- Recognised practices and awareness
- Infrastructure and operational change request control
- Product maturity
- Ensure roadmap is in line with BI partner
- Project Business and IT alignment
- Ensure BI practice is in line with Business and IT strategy

Specialist BI Partner

· Requirements Gathering

xisha metrics

- Implementation
- Project Management
- Support provider
- Hardware & Networking Hosted, Managed & Supported environment specifically for BI



Architectural BI components

Structured framework for organising the data

PRESENTATION LAYER

User Roles, Preferences Simplified View Logical SQL Interface

SEMANTIC OBJECT LAYER

Dimensions Hierarchies



Measures

Calculations

Aggregation Rules

Time Series

PHYSICAL LAYER



Map Physical Data Connections Schema











Across Any Data Sources
Includes: WMS, TMS, T&A, CRM, Oracle Finance

Role-Based Views of the Information Relevant to the User

Consistent Definition of Business Measures, Metrics, Calculations, *Turning IT to Business view*



DHL Supply Chain & Organisational Background

Key Project Drivers

Project Outcomes & Lessons Learned

Future Plans





Operational Drivers

• Prompt Delivery of Information

 Reporting tools should be easy to use with data that is up to date without the need for analysts to compile report packs

Dissolve 'off-Line' Data Silos

 Provide a *single trusted source* of business information capable of replacin duplicated, MS Excel and MS Access sources

Communication and Discussion

Offer the ability to share findings and communicate business wide. **Devolved Report Writing**

Reduce Reliance on Analysts

 Reduce the need for highly skilled analyst involvement in the provision of management information – focus on analysing the information

Analyst Productivity

 Offer tools which allow efficient creation of complex reports, further reducing reporting time-lags





KPI's and Alerts

Dashboards need to alert decision makers to exceptions in performance

Trend Analysis

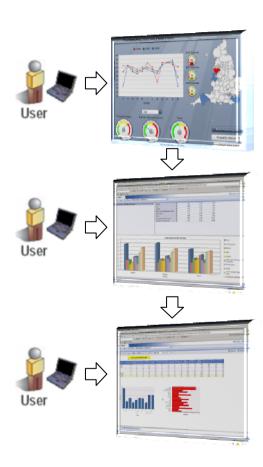
 Provide comparative data to allow effective accurate, visual benchmarking of performance

Ad-Hoc Analysis

 Fully functional query toolset to allow deep analysis and reporting answering questions arising from the business

Interactive Push Reporting

 Create a suite of interactive reports and analyses commonly required by the business on a subscription basis



SUPPLY CHANGE

Technical Drivers

Data Warehouse – Backbone of the solution

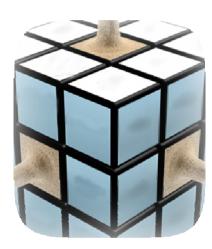
 Create a single source of accurate, timely data, to support the delivery of meaningful information drawing from many different data sources to create a single version of the truth

Business Continuity

- A solution which is portable and independent of any single operational application
- A solution that is easily supported and uses best in class technology

Deployment of Management Tools

 Delivery of an enterprise scale platform which offers scalability and depth of functionality able to support the business moving forwards





DHL Supply Chain & Organisational Background

Key Project Drivers

Project Outcomes & Lessons Learned

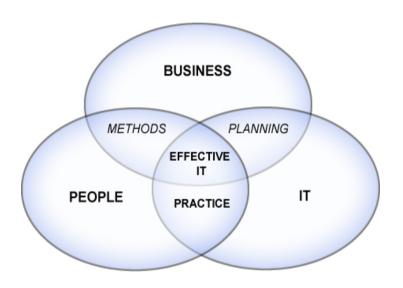
Future Plans





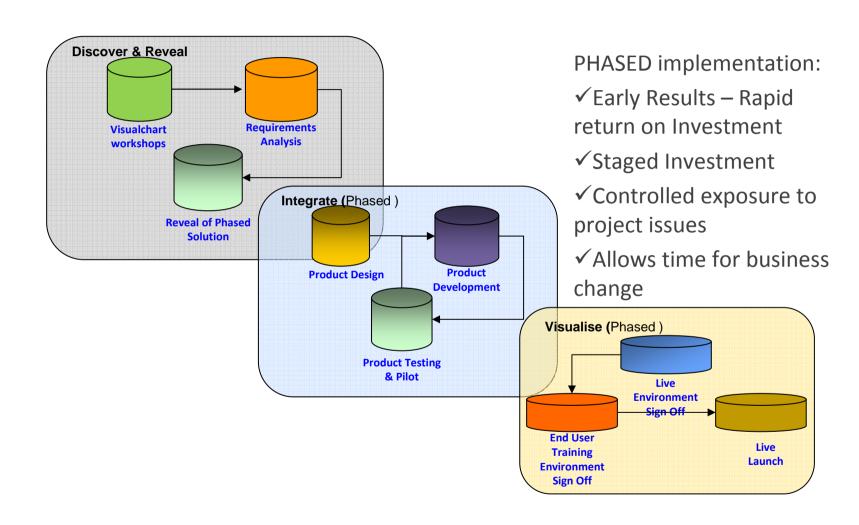
Implementation Success Factors

- Executive Sponsorship
- Data Quality
- Agreed Scope
- Program Management
- Communication
- Change Management (RIO)
- Testing & Performance
- User Training & Adoption





Solution Delivery





DHL Supply Chain Current Customer Overview

- European deployment
- 300+ user base
- Various sectors & functions including:
 - Retail
 - Consumer
 - Industrial
 - Central IS
 - Transport
 - Finance
- Covering business areas:
 - Warehouse reporting
 - Transport & contract performance
 - Business performance
 - PO & financial reporting
 - KPI reporting and alignment
 - Procurement
 - Sales





DHL NHS Supply Chain - £2.4 Billion/annum 10 year contract



DHL provides logistics services for the healthcare industry. Includes temperature controlled environments for medicinal products and non temperature controlled for surgical or medical devices. Services include warehousing in an unparalleled network of GMP compliant facilities linked to managed transportation and customs clearance activities

Need for timely, automated, self service Business Information across all areas of the business:

- Finance Consolidated monthly reporting against contract
 - Cash Flow from Changes in Working Capital
 - Operating Margin, Sales Growth Value
- Sales Support for planning & forecasting, bid support and customer management
 - Contract Utilisation
 - At risk Business, volume & value
 - Forecast Value Accuracy, Conversion Volume Rate
 - Value of New Opportunities
- Procurement Product price management and bid support
 - Operating Margin
 - Sales Frequency, Sales Volume Per Customer
 - Sales Value Per Customer
- Delivery OTIF (on time in full) performance



Benefits:



- Provide NHS Supply Chain with prompt, reliable self served information on a daily basis.
- Enable NHS SC staff to maximise time acting on true information rather then preparing data.
- Provide a standardised approach to Management Information across the NHS Supply Chain.
- Deliver Pro-active dashboard alerts identifying areas that require action
- Single point access to a growing archive of NHS SC information.

Lessons learned: DHL NHS Supply Chain

- Project methodology to support business engagement, requirement definition, project delivery (timescales/cost)
- Business support and involvement throughout project delivery is key
- Reduce Complexity of project by delivering in phases
- Development of BI Competency Centre



DHL SPL (Service Parts Logistics) Global Logistics Market in High Tech Sector



One global service parts logistics network over 100 countries and for over 200 customers. DHL ensures that the right service parts are at the right place at the right time. Four key segments include:

Key business drivers for SPL were to improve report delivery time to decision makers, reduce the manual effort required to produce Management Information, provide a self-service report writing capability and introduce alerting capability based on key KPI tolerances.

- Phase 1 Same day delivery performance reporting
 - Delivery performance (Customer/Vendor)
 - Provide a standard offering with a single global view
 - Reduce time to action
- Phase 2 Build on Phase 1, adding KPIs in the following business areas:
 - Transportation, Warehouse Activity, Service Quality, Order Management
- Phase 3 support for more operational type reporting against the new SeLECT
 - Mobile deployment
 - Direct customer access
 - Following MDM programme



Benefits



- To provide a standard best practice reporting solution globally aligned to Business strategy.
- Reduce costs by removing the need for analysts to manually create performance information for each customer in each region
- Increase Operational efficiency by alleviating the impact multiple reporting processes had on existing core applications.
- Provide best in class customer reporting experience.
- Spend less time preparing reports and more time taking action from them.
- Provide single global view identifying trends from multiple view points allowing positive actions to be taken in support of customers & operations

Lessons learned: DHL SPL

- Project methodology linking customer methodology with delivery team
- Business support and involvement throughout project delivery is key
- Reduce Complexity of project by delivering in phases
- Important to ensure momentum is maintained across delivery Phases
- Development of BI Competency Centre



DHL BA Carbon – All 'over the wing' replenishment for BA Short Haul Flights



Distribution of In flight airline stock for worldwide flights. Includes food, drink, cutlery, first aid boxes. This can be anything excluding plane infrastructure and furniture.

Requirement to deliver business performance (KPI) reporting across the core contract activities:

Transport KPIs

- Disruptions Response Variance (DRV)
- Total Trips(TTs)
- Loading Planning Efficiency (LPE)
- Total Disruptions (TDs)
- Vehicle Arrives Late (VAL)

Warehouse KPIs

- Equipment Prep Time (EPT)
- Late Load Volume (LLV)
- Late load tolerance (LLT)
- Un-catered Flights (UF), Un-catered Disruptions (UD)

Business KPIs

- Serviced On Time (SOT)
- Total No Flights Against Plan (FP)
- Total No Passengers Against Plan (PP)



Benefits



- Provide BA with prompt, stunning self served information on the Carbon operation.
- Identify trends from any time viewpoint on which to take action.
- Clear visible day by day performance monitoring.
- Remove IT Bottlenecks and requirement on XL analysts.
- Use best of breed BI Technology to easily handle and analyse the millions of records Carbon will generate over time.

Lessons learned: DHL BA

- Project methodology to support business engagement, requirement definition, project delivery (timescales/cost)
- Business support and involvement throughout project delivery is key
- Reduce Complexity of project by delivering in phases
- Business sign-off and removal of old 'reporting' systems
- Development of BI Competency Centre

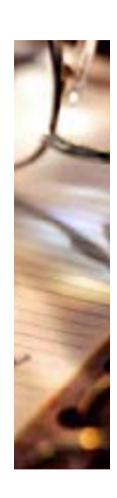


DHL Supply Chain & Organisational Background

Key Project Drivers

Project Outcomes & Lessons Learned

Future Plans





Future Plans

- Initiate a DHL Supply Chain BI User forum
 - Widen understanding of use benefits and share best practice, knowledge sharing
- Develop and deliver more 'templated' BI applications
 - Warehouse Performance Management
 - Transport Management
- Broaden the reach of BI across other areas within Deutsche Post DHL (Mail, GF&F, Express, Functional areas)
- Mobile BI deployment and consumerisation
- BIG data









Royal Brompton & Harefield

NHS Foundation Trust

mothercare









Imperial College Healthcare









Thank you for your time!

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Smarter decisions for better business outcomes

Panel Discussion Q&A

