# Panel discussion:

## **Data Governance –** *connecting data to action (a Social Constructivist Approach)*

**Presented at**

**HEIR 2014**

**Oxford Brookes**


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# Presentation Outline

- Introductions
- Brief introduction to University of Regina
- Our “reporting problem”
- Some key Principles
- Deloitte Phase 1 report
- U Nottingham approach
- New solutions?
- Questions & Discussion (throughout)

# University of Regina

- Mid-sized Canadian University
- more than 14,000 students
- Over 400 full-time faculty
- UR Campus, plus 3 Federated Colleges (Campion, Luther, FN University)
- ONE central budget for UR “college”


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# U of Regina "Reporting Problem"

- 2 IR staff: "statistics" & metadata
- 6 IT staff on report-writing and Banner programming
- No history of "managerial" reporting (much less "analytics")
- No central data quality control
- For users, on-going frustration
- IR reports that are too successful

# Key Principles

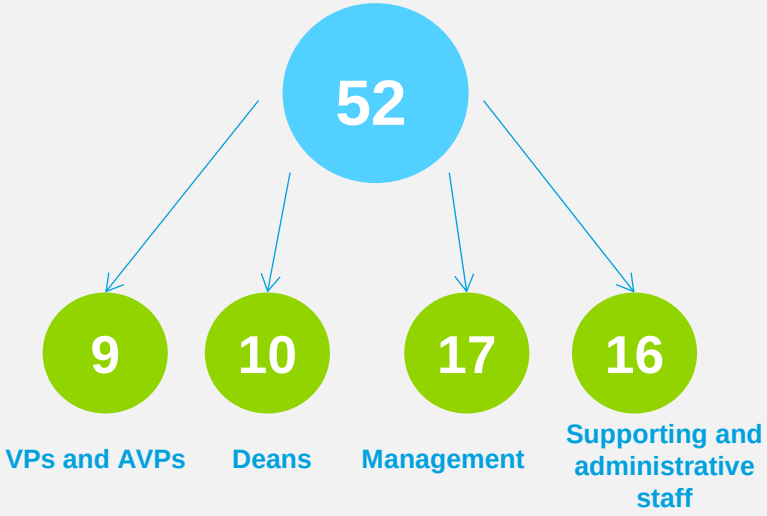
*"so the audience can do it from a less naïve place"*

- "Technology Treadmill" I (*expectations)
- Cost of Quality ("60 – 70%")
- Cost of Planning/Management (*)
- Cost of Communication / Training
- "Technology Treadmill" II (systems)

# Deloitte Phase 1

*A Social constructivist approach to develop a customized data governance model for UR*

**Selected University stakeholders breakdown**




**Interviews conducted: stakeholder breakdown per faculty**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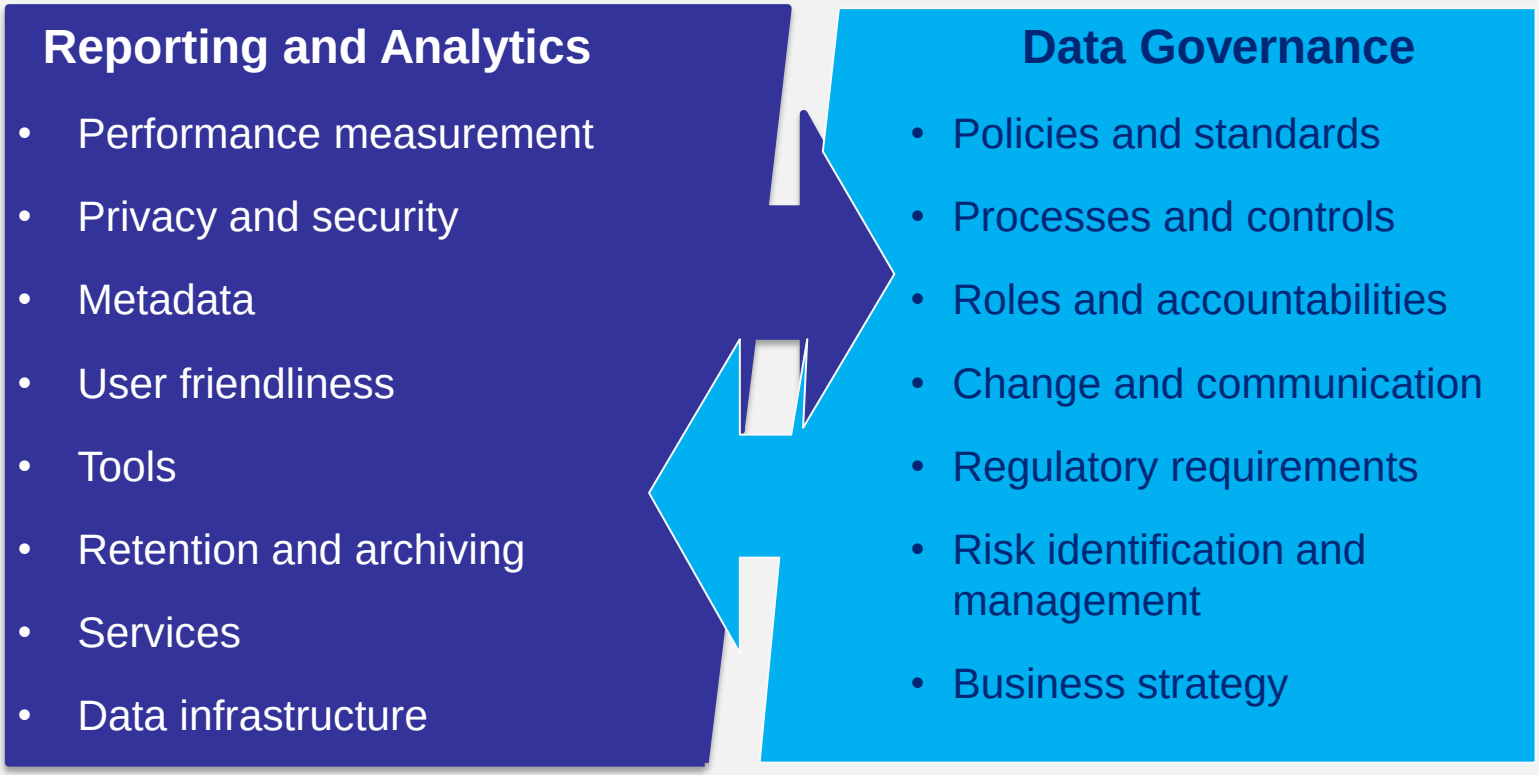
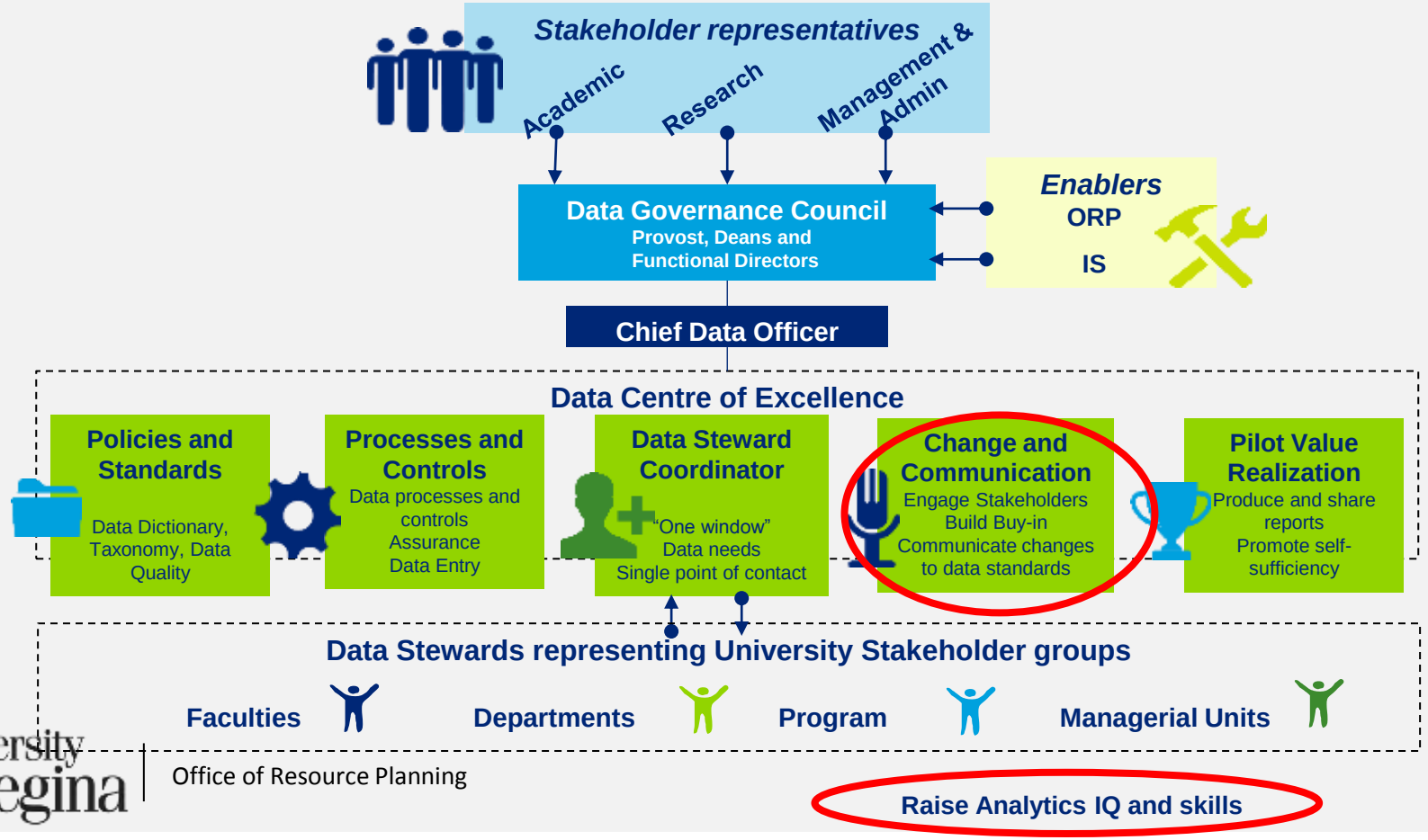
# Deloitte: The framework

The Governance model requires the support and participation of each stakeholder group within the University to enable IR



# Deloitte: Governance Model

DG will serve as a foundation to build data standards, data-driven decision making, and a "one window" to reporting

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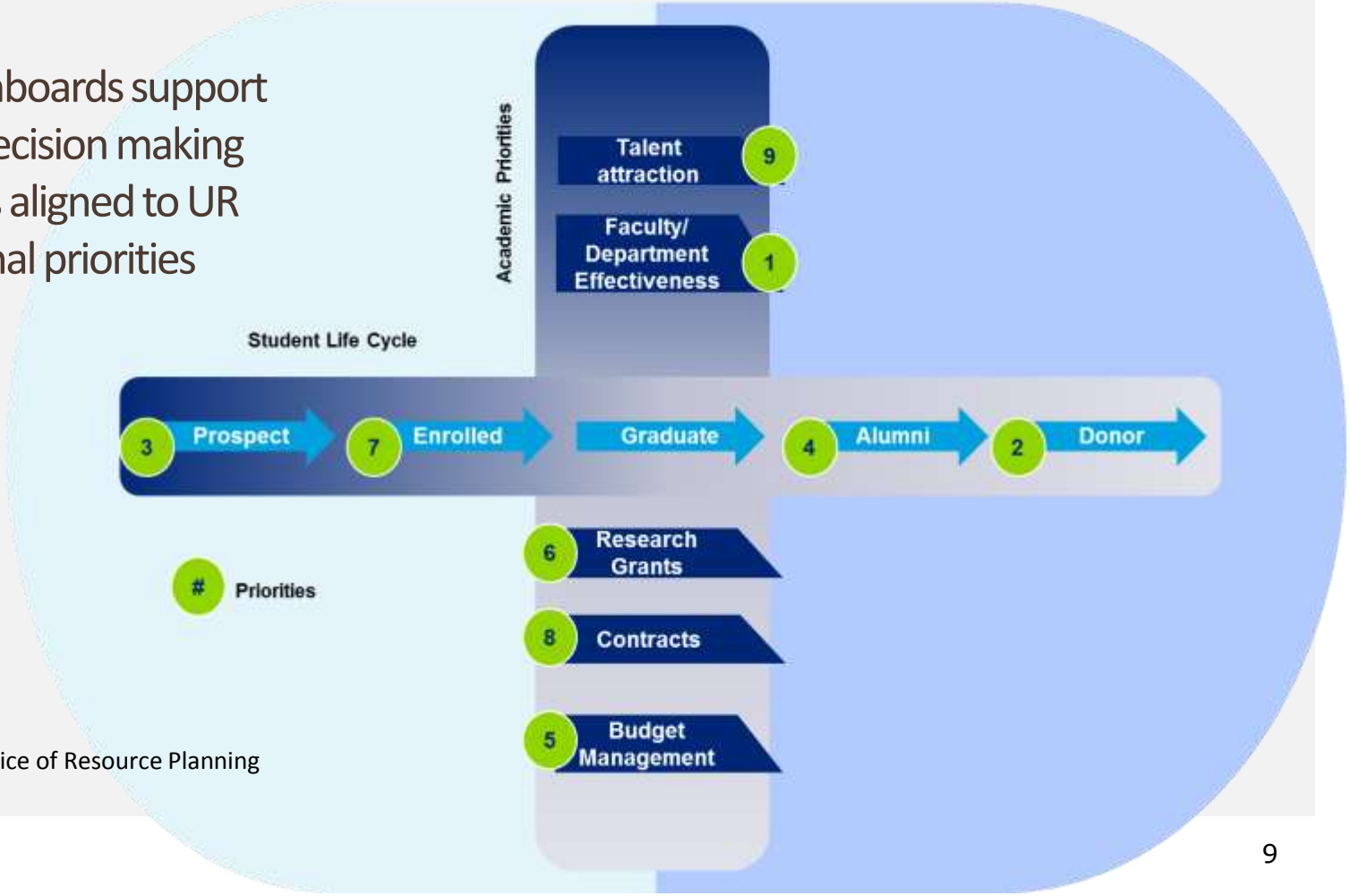
# Deloitte: IR Priorities

## To drive organizational value, we proposed an Analytical Model with both academic and non-academic value streams

- Nine dashboards support specific decision making processes aligned to UR institutional priorities

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# Business Intelligence and Data Governance

## At the University of Nottingham

## 7th Annual UK and Ireland HEIR Conference

Dr. Tom Loya, Director of Strategy, Planning & Performance

"The world is noisy and messy. You need to deal with the noise and uncertainty."

Professor Daphne Koller
Computer Scientist, Stanford University

How did we deal with the noise and mess?

# Context

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## Data Governance – key concerns include…

- Definition(s) and meanings
- Data quality management
- Appropriate usage
- Access and security (sources *and* outputs)
- Roles
  - Data Stewards - content, context, biz rules
  - Data Custodians – tech environment, databases..
- In practice: little as clear-cut as it sounds, and requires regular review and adjustment

# Context

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## About the University of Nottingham

- The University of Nottingham
  - 33k students in UK (24k UG, 9k PG) – about 28% Int'l
  - 4500 at UoN Malaysia; 5800 at Uon Ningbo, China

# Context

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## BI at UoN – The journey, where we are

- Following initial "exec mandate" in 2008:

| | |
|---|---|
| 2009 | Begin developing enterprise DW and BI Hub |
| 2010 | Prototypes and pilot |
| 2011 | Live (UK only) - Student performance dashboards<br>UG + PG Applications (daily extracts); All student records from 2006<br>Conversion rates, demographics, progression, attainment, tariff, fee status, WP…<br>NSS: all questions, all subjects, all HEIs from 2008<br>League tables: all tables, all measures, all HEIs from 2008 |
| 2012 | Live - Research performance dashboards<br>Awards, grants, income – all levels (Uni to named individuals); finance and HR data<br>Access from China and Malaysia |
| 2012-2014 | Improve infrastructure, report push, 'social BI', build predictive analytics capability |

- 'Source system aware' data warehouse
- Top priorities: achieve resilience, broaden/deepen benefits

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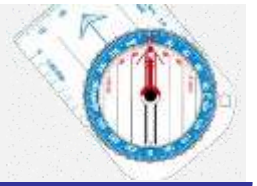
## Early discoveries & lessons



| | From | To |
|---|---|---|
| BI Consumers | Top management | Everyone |
| Report Author | Devolved/embedded | Central |
| Geography | UK | Global |
| Key Purpose | KPIs | Strategic-Operational |
| Sources | Internal | Mixed |
| User Experience | Tailored | Universal |

## BI: Current position and Data Governance

- ✓ Central/authoritative BI reporting *for areas covered*
- ✓ Recognised importance of DG at outset, but…
  - ➢ Data governance ***versus*** timely delivery & benefits
  - ➢ Purism/Idealism ***versus*** pragmatism
- Not all data governance challenges met (yet)
- Right balance = Choices
- The choices we made, and why…

# Example Reports

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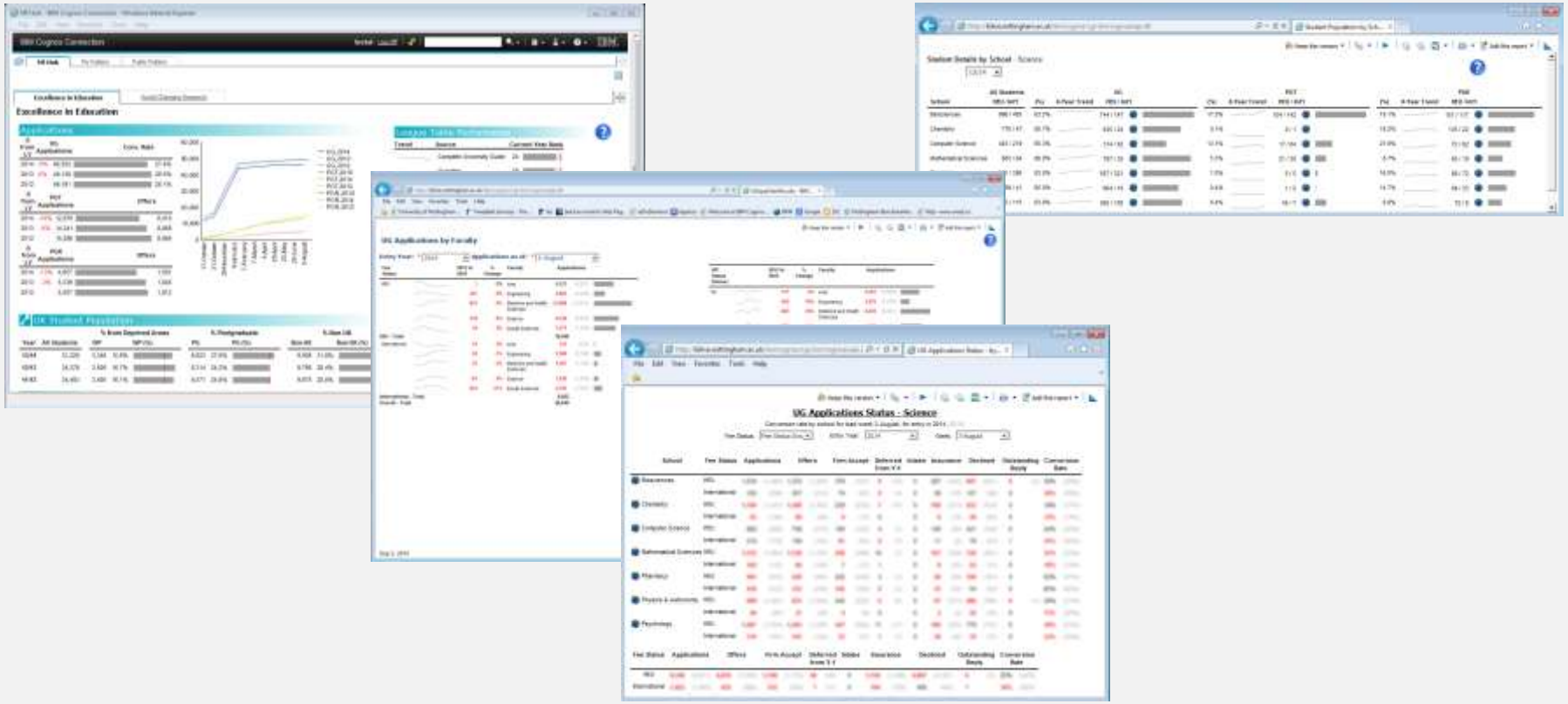


- **E in E dashboard**: applications and conversion current position and trends; student population/demographics; degree class and tariff
- All student performance drillable from University to individual students

# Example Reports

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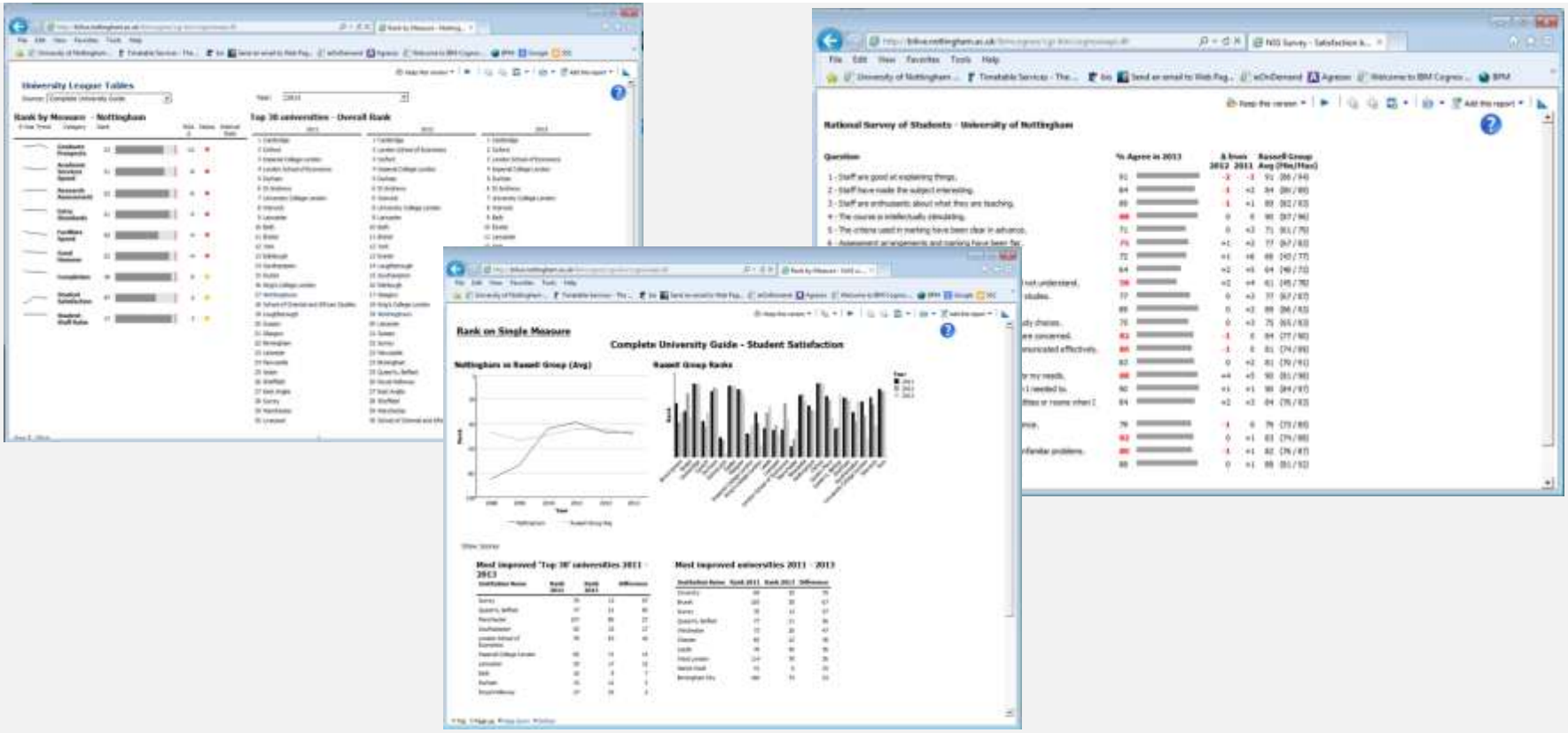
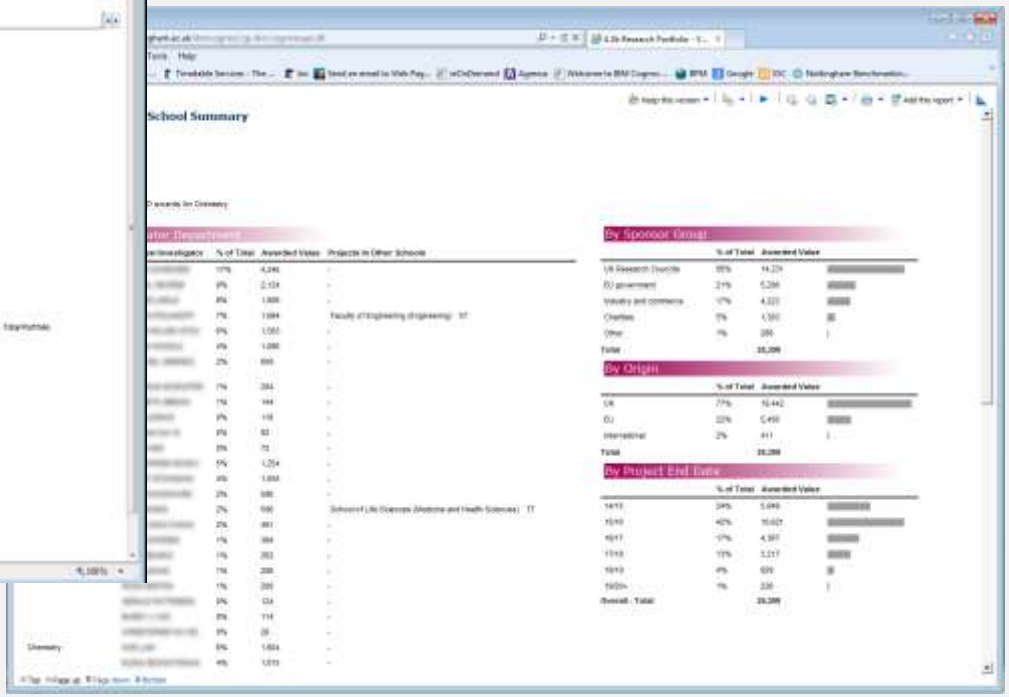



- **League tables**: All measures, all tables, all UK universities since 2007
- **NSS:** All questions, all subjects, for all UK HEIS over 6 years
- For both, ability to select relevant peer HEIs and/or departments

# Example Reports


- **Research dashboard**: income, awards, trends, funding sources, margin, etc
- All research performance from Uni to named individual researchers
- Custom query: find colleagues – by funders, amount, duration, subject, etc

# Choices & Implications



## Access: controlled or universal?

- Limited access familiar, but: consumes resource, limits impact, significant admin overhead
- Universal access potentially transformative
- 'Full exposure' key to high/rising data quality
- Exposure => vulnerability (but gets people talking)
- Risk: thin grasp of how transparency *should* work

# Choices & Implications

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## DG Scope: All data assets or (just) BI?

- Enterprise data governance is a good thing, but
  - Is it *your* job or *your* priority?
  - How do you eat an elephant?
  - How far upstream? How far downstream?
  - Pretence to govern data = will to power, thus conflict
  - Can you progress with good practice in narrow areas?


- What about external data sources?
  - Who can acquire and use?
  - Competing 'truths' will continue to emerge
  - Presume to explain difference, not obstruct use
  - Can't stop them, so do it better – with and for them

# Choices & Implications

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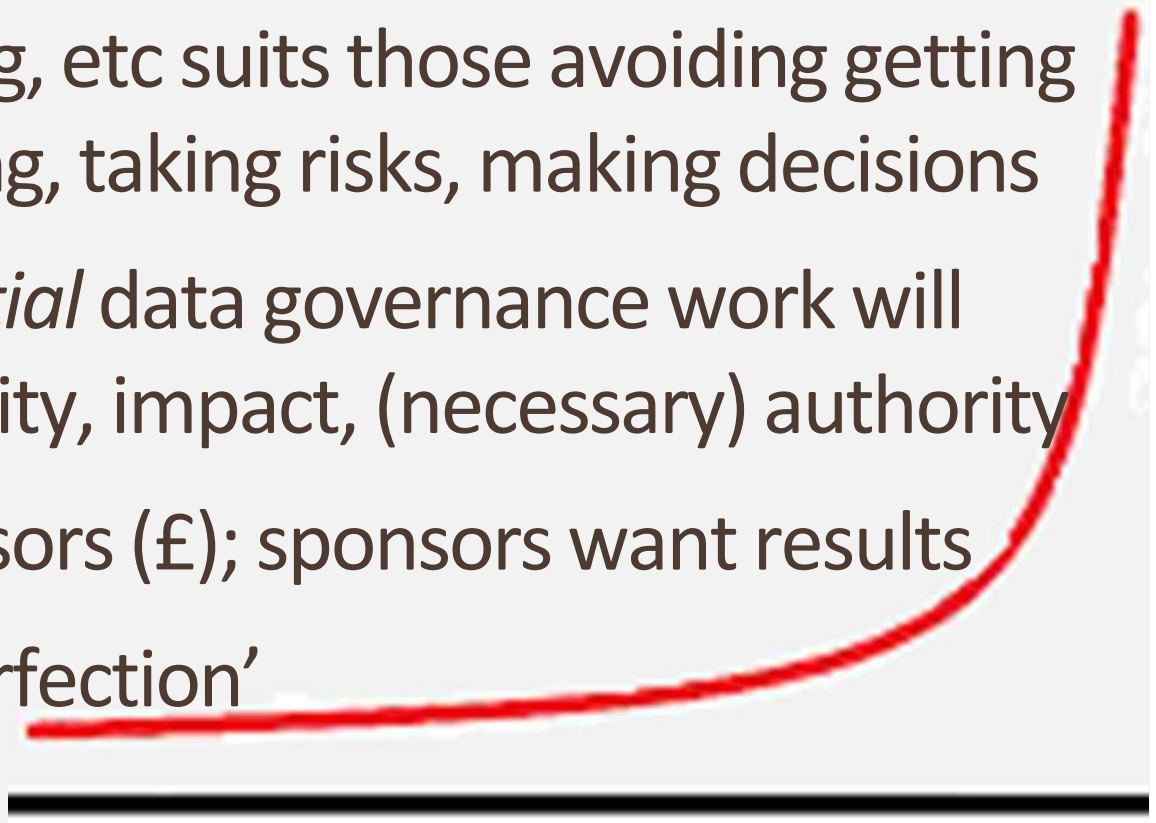
## Balance priorities: 'Do it right; do it once', *versus* 'get it out; make an impact'

- Talking, defining, etc suits those avoiding getting stuck in, learning, taking risks, making decisions
- Avoiding *essential* data governance work will jeopardise quality, impact, (necessary) authority
- You need sponsors (£); sponsors want results
- 'Asymptotic perfection'



# Wrap up

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## From the trenches…

- Credibility, delivery, track record trump (formal) authority
- No 'right way' or 'best way' – 'just right for you, right now'
- Know where and why to set and maintain *core* standards…
  (E.g. Conformed , high-quality, validated, traceable data)
- Defer to subject-area expertise; build on their authority
- Don't eat the elephant: pick the first few projects carefully
- Most important choices entail *significant* culture changes
- Unfortunately not always a "field of dreams"
- But choices ≠ compromise

# New Solutions?

- Agile
- Fast prototypes to start two-way communication sooner
- Better communication of context: graphics, drill-down, webpages, metadata
- More accessible management tools for DW/BI process

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Thank you!
Questions?