

Implementation success story of a business intelligence (BI) system – solving the big organisation data problem with best practices in BI

**Regional Conference on
Institutionalising Best Practice in Higher Education**

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Agenda

- Introduction
- Research
 - *Problem*
 - *Objective*
 - *Methodology*
- Results
- Conclusion
- Thanks & Discussion

Introduction

Background

- *In our strategic plan 2012 – 2017 The UWI recognises the importance of leveraging on information & communications technologies (ICT) to gain a competitive advantage, strengthening decision making processes and being an information-driven organisation.*
 - *Resource constraints*
 - *Financial constraints*
 - *Political and economic pressures*

What is business intelligence?

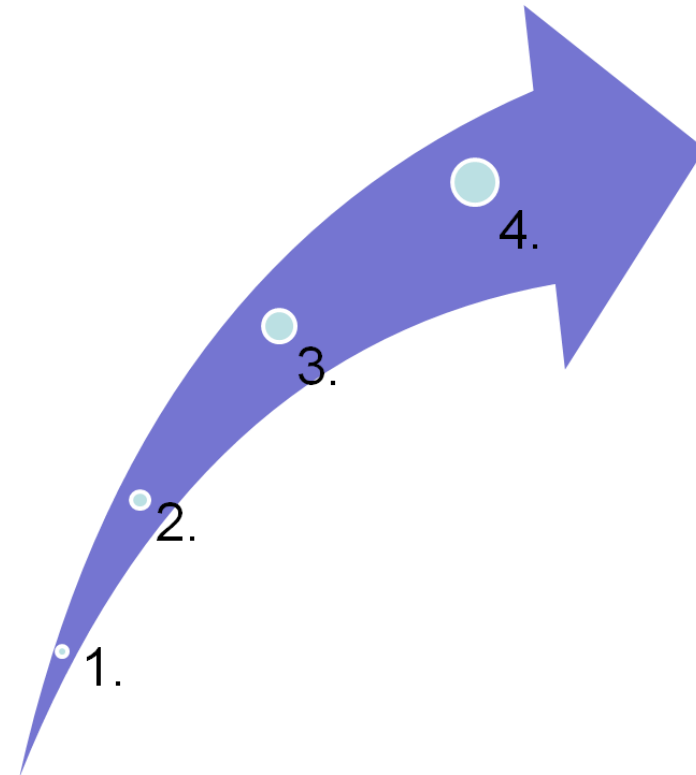
- *Business intelligence (BI) is a set of methodologies, processes, architectures, and technologies that transform raw data into meaningful and useful information. It allows business users to make informed business decisions with real-time data that can put a company ahead of its competitors. – Forrester, Evelson, 2008*

Global perspective on BI

- *Business intelligence and analytics rated as CIOs' top visionary plan to increase competitiveness over the next three to five years. – IBM, *The Essential CIO, Global CIO Study, 2011**
- *BI ranked as the top technological priority for CIOs globally. – Gartner, *Executive Program Survey, 2013**
- *BI remains ranked as the top strategic technology in higher education. – Educause, *Higher Education's Top-Ten Strategic Technologies, 2015**

BI Maturity Model

1. Access to enterprise/operational data
 - *Assisting decision makers*
2. Self-service querying, analyses and reporting
 - *Empowering decision makers*
3. Functional data marts/warehouse
 - *Better integration*
 - *Greater control*
 - *Improved reporting and analytics*
4. Fully-integrated cross-functional enterprise data warehousing



Typical challenges in BI

- Require large investments and long term commitment
- Take several iterations and are progressively expensive
- Business needs are continuously growing, evolving and changing
- Traditional models compel early abandonment of projects



Good source of literature on BI

- 'Business Intelligence – The Savvy Manager's Guide', D. Loshin
- 'Perspectives on Business Intelligence', R.T. Ng, P.C. Arocena, D. Barbosa, G. Carenini
- 'Business Intelligence – Practices, Technologies, and Management', R. Sabherwal, I. B-Fernandez
- 'Business Intelligence A Managerial Approach', E. Turban, R. Sharda, J.E. Aronson, D. King
- 'Business Intelligence Roadmap', L.T. Moss, S. Atre
- 'Business Intelligence for Dummies', S. Scheps
- 'The Datawarehouse Toolkit', R. Kimball, M. Ross
- 'Relentlessly Practical Tools for Data Warehousing and Business Intelligence', R. Kimball
- TDWI – www.tdwi.com
- CIO – www.cio.com
- Forrester – www.forrester.com
- Gartner – www.gartner.com
- Educause – www.educause.edu
- IBM – www.ibm.com
- Microsoft – www.microsoft.com

Research

Problem

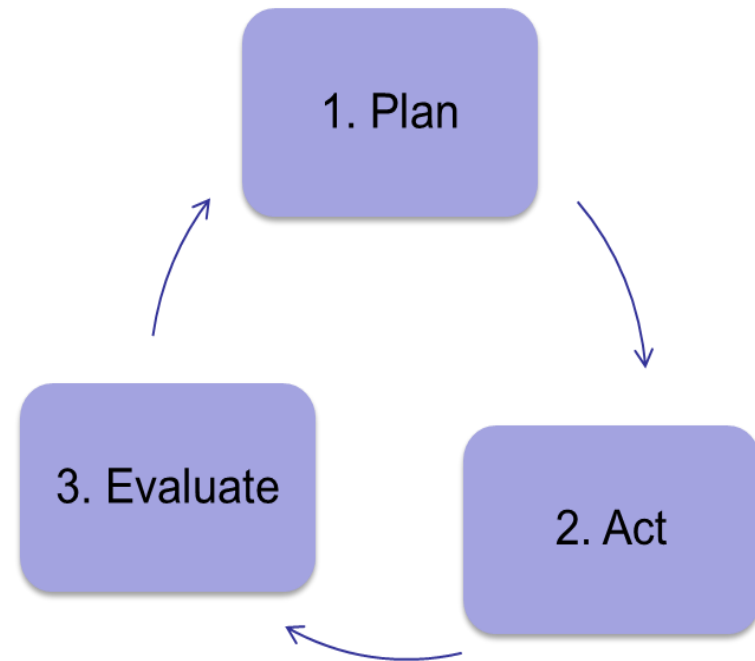
- *At the St. Augustine Campus there is high dependency on IT for information needs, often causing an IT backlog in requests for information due to resource constraints and resulting in long cycle times for gathering information.*
 - *Multiple systems and data sources*
 - *Inconsistencies and data quality issues*
 - *Limited analytical and drill-down reporting capabilities*

Objective

- *To explore the implementation of a BI system in a constrained environment with limited resources and establish local standards and best practices for the same.*

Methodology

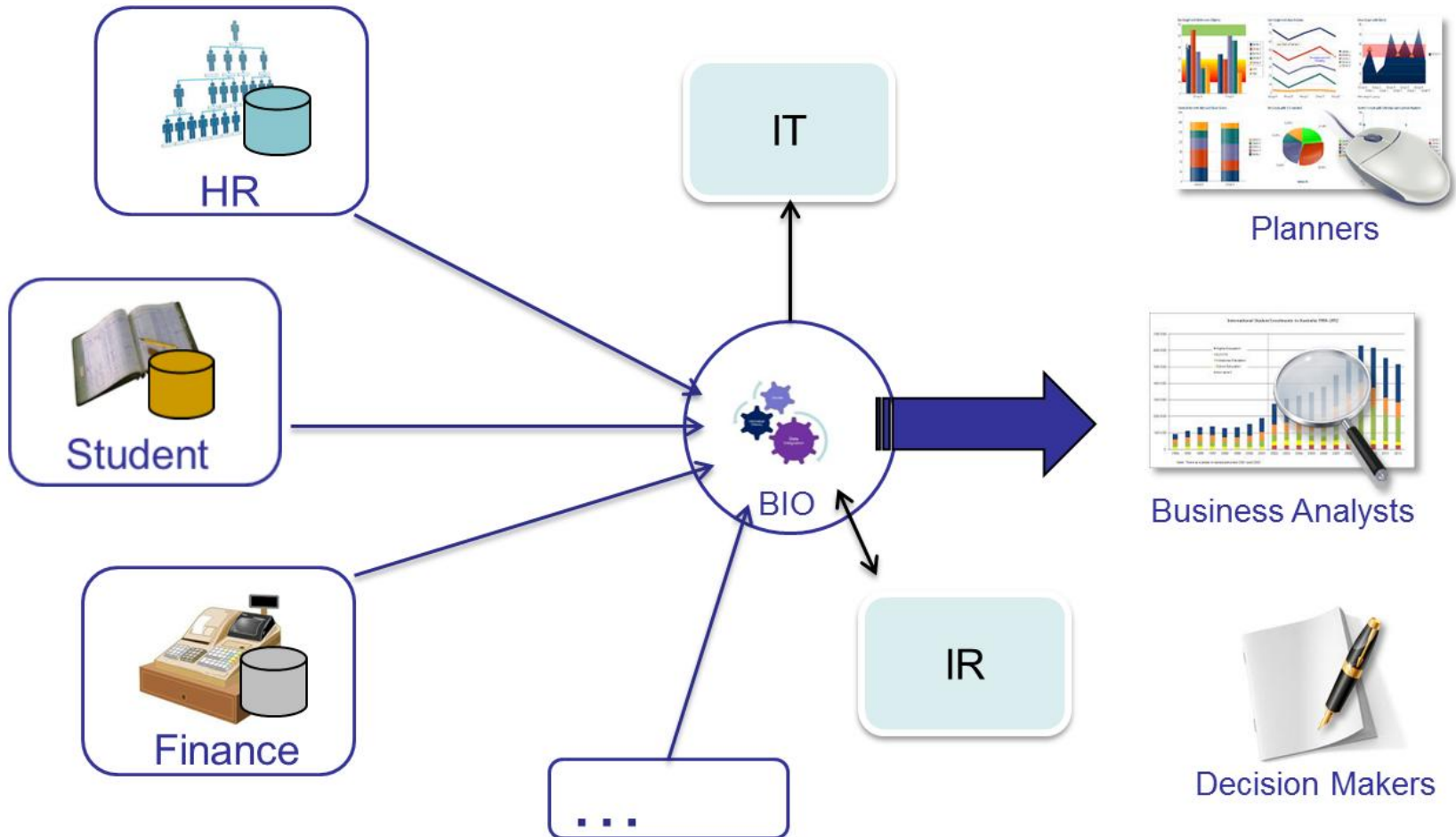
1. Planning
 - *Develop/Amend BI strategy*
2. Acting
 - *Execute BI strategy*
3. Evaluating
 - *Interviews (qualitative)*
 - *Benchmarking (qualitative)*
 - *IT helpdesk (quantitative)*



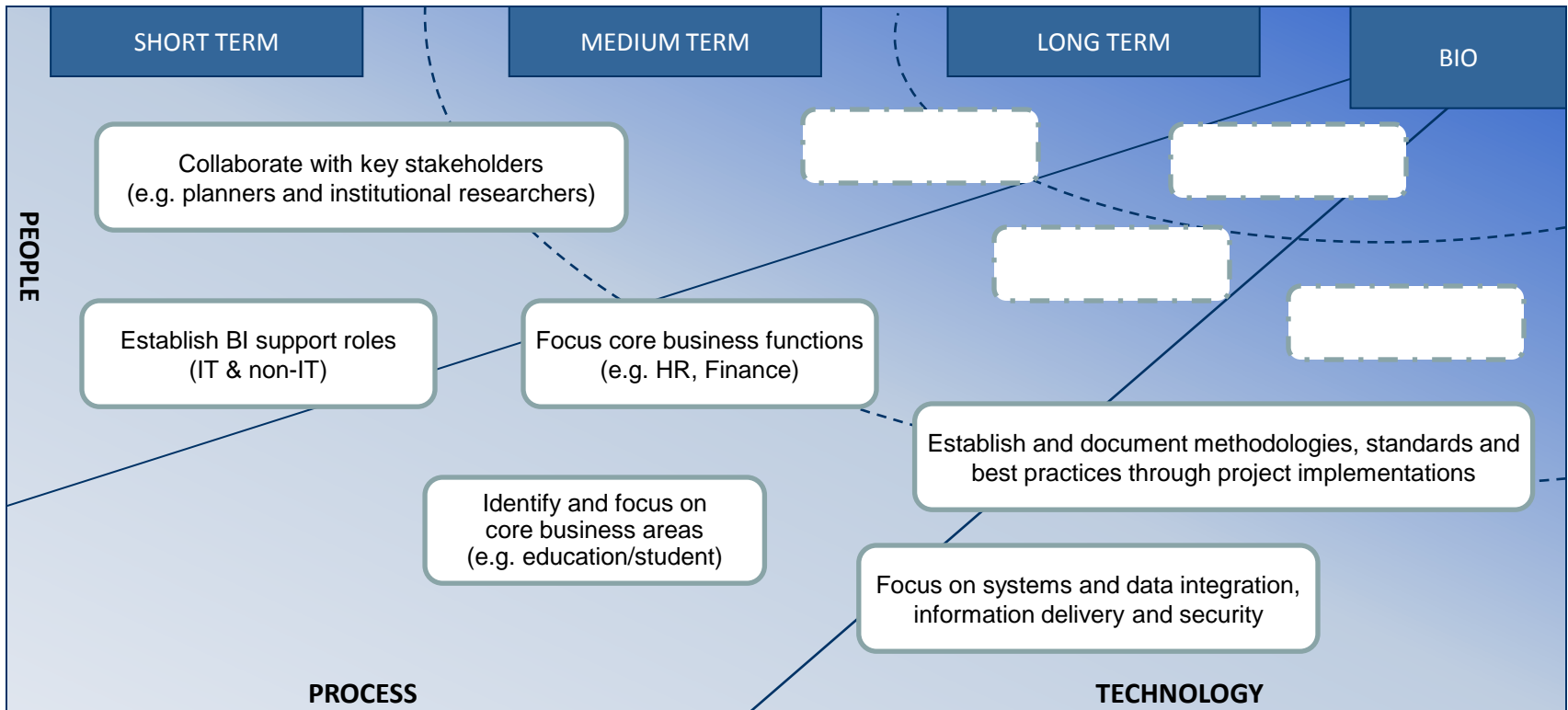
Results

BI Strategy

- Vision – our vision is consistent with our strategic plan 2012 – 2017 that The UWI will leverage on ICT to gain a competitive advantage and evolve into a information-driven organisation.
- Goal – our goal is to establish a business intelligence office (BIO) that serves the information needs of the organisation and supports decision making at all levels.
- Aim – our aim is to take the organisation from a BI maturity level 1 (operational data access) to a BI maturity level 4 (fully-integrated cross-functional data warehousing).

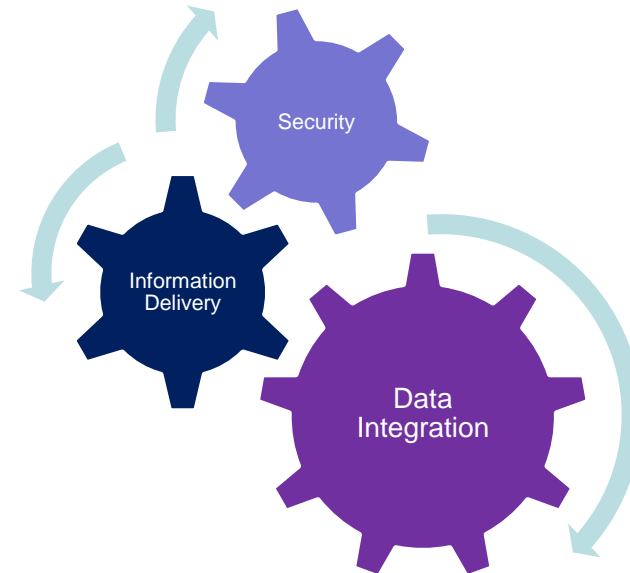


Strategy Roadmap



BI Framework

- BI Framework solution
 - *Standards*
 - *Methodologies*
 - *Development tools*
- Develop, manage and deliver BI solutions in a consistent manner
- Implement BI solutions for any level of maturity
- Support iterative, incremental development and constantly evolve!



- ✓ Flexible
- ✓ Automated
- ✓ Scalable
- ✓ Adaptable

Impact

- ✓ Better access and availability of information to decision makers
- ✓ Increased user satisfaction and confidence in information
- ✓ Greater ability to adapt to growing and changing business needs
- ✓ Costs savings from efficient use of ICT resources via integration

Conclusion

Conclusion

- Align your BI strategy to your organisation's strategic plan. Understand BI to be a long term commitment, and prepare for flexibility, adaptability and scalability.
- Standardise on technologies, methodologies and processes for data integration, information delivery and security. Adopt existing standards where possible.
- Focus on core business areas and functions, identify and engage key stakeholders.

Thanks & Discussion

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