



# Business Driven Implementation Strategies

Let's play "Moneyball"

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# Antitrust Notice

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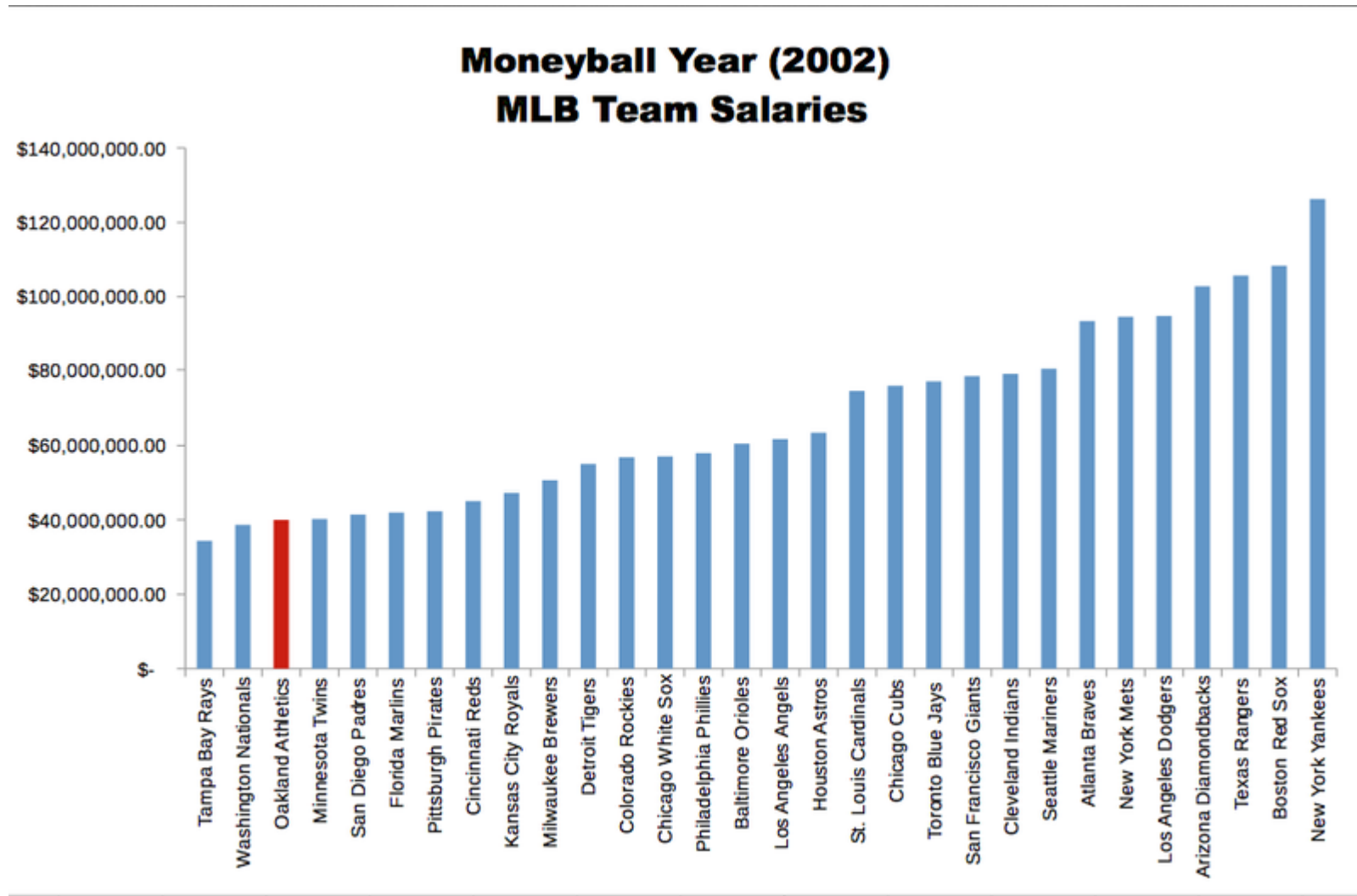
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# Topics

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- Introduction
- Moneyball: Beginning
- Moneyball: Ending
- Bridging the gap

# Introduction: Business Issue for Oakland A's



How do we put together a competitive baseball team in a cost effective way?

# Introduction: Business Issues for an insurer

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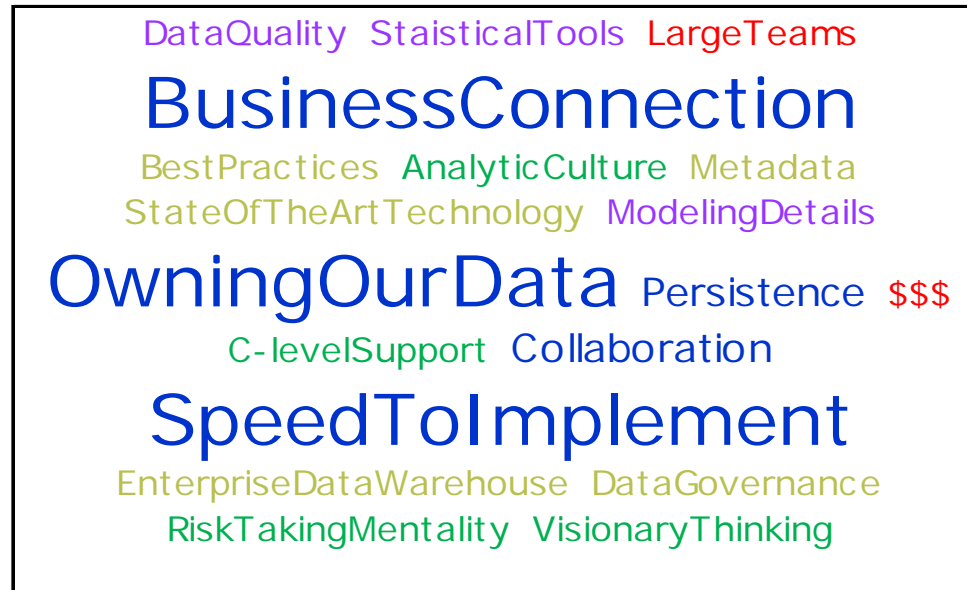
- Optimize price levels
- Minimize operational expenses
- Maximize customer satisfaction levels
- Maximize employee / agent effectiveness

**How does an insurer address all of the above issues in a cost effective way?**

# Introduction: Lessons from Moneyball

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- Moneyball and insurance companies deal with
  - Similar issues
    - How to optimize use of capital?
  - Similar solutions
    - Analytics based decision making
- We will talk about lessons we can learn from Moneyball



# Analytics

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- Introduction
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# Moneyball Beginning: Where is the Actuary?

**Not valued by business, not known to IT**

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**Senior Management**



**Business Head**



**IT**



**Actuary**



# Topics

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# Moneyball Ending: Where is the Actuary?

**Always seen with business, seen as an IT enabler**

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Senior Management



Business Head + Actuary



IT



# Topics

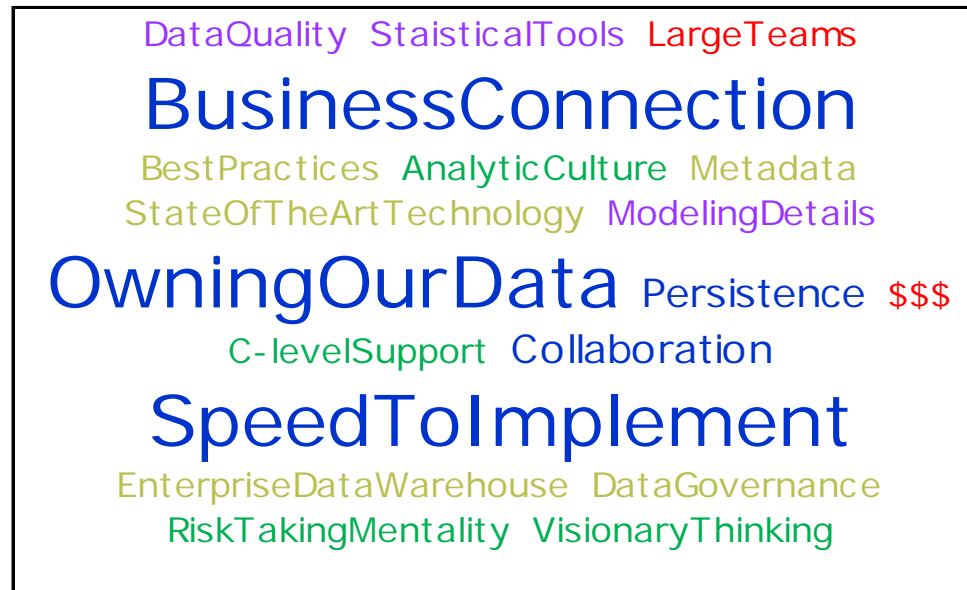
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# Our success depends on

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- Connecting with business issues
- Taking ownership of data
- Speed to implementation



# Connecting with business

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- Understand business issues from a business perspective
  - Find a business sponsor
- Proactively communicate with
  - Senior management
  - Business
  - IT
- Partner with like minded people from other areas

# Owning our Data

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- “Data is a corporate asset that needs to be managed and actuaries can play a role” - Actuarial IQ

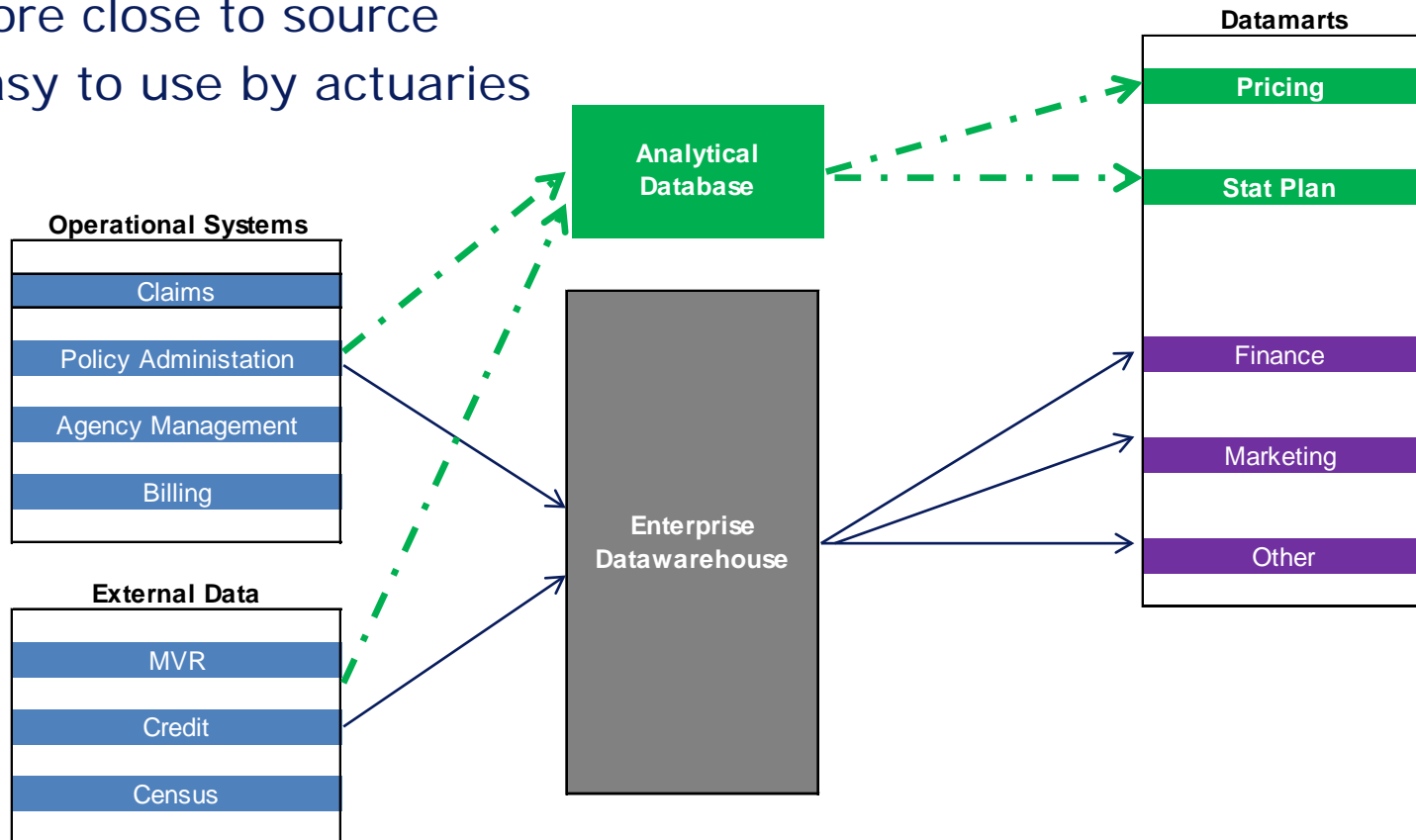
Data by itself has little value. An actuary’s role is to extract value from data to guide others as to how to manage it better.

- 80% or more of time is spent on large modeling projects is spent on data issues – Actuarial IQ
  - We cannot blame data for this problem
  - We need to develop skills internally to
    - Work efficiently with detailed data
    - Demonstrate business value for specific data elements that need a fix

# Owning our data

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- We need our own Analytical Database that is
  - More detailed
  - Less manipulated
  - More close to source
  - Easy to use by actuaries



# Speed to implementation

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- Perfect models have no value if not used in a timely manner
- Business implementation
  - Involve business colleagues early in a project
- IT implementation
  - Use IT only for its strengths
  - Consider “Executable Specifications” (Please see next slide)



# Executable specifications

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- An 'Executable Specification' is a document that
  - Is prepared by actuaries during their analysis phase
  - Can be read and understood by business
  - Can be automatically transformed into implementable application code
- Advantages
  - Document never goes out-of-sync with what is in production
  - Significantly reduces time to implementation
  - Allows iterative solution development
  - Increases quality and reduces implementation costs
  - Single source of information for
    - Business/actuarial users
    - IT system designers
    - Production, testing, and actuarial analysis
    - Creating other documents

# Executable specifications (Example)

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- Demo
  - We will demonstrate a simple Excel based document used in deploying business rules from an underwriting predictive model
- Similar document structure can be set up for
  - Data preparation specifications
  - Variable transformation specifications
  - Model Scoring
  - Reason codes Generation
  - Calculating on-level premiums

# Conclusions

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- Actuary's work is critical to business success
- In order to maximize the value of our work, we need to be willing to play a larger role
  - Proactively reach out to others in the organization
  - Own the data that we use for our analysis
  - Focus early on the implementation phase
  - Find ways to speed up implementation so that our solutions can be put to use when business needs it.

# Q & A

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# References

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