

Digitalizing Results Management

Gregory Richards, MBA, Ph.D, FCMC,
Vice-Dean Graduate Professional Programs

October 25, 2023



TRIPLE CROWN ACCREDITATION

Overview

- Research findings on the use of performance information
- Some key themes from the case studies:
 - Logic models as *data storyboards*
 - The need for Analytic Strategies
 - *Changeability* of the human system

After 60+ years of results management, what have we learned?

1 Meta-analysis of 49 studies: performance information has little impact on performance, (Gerrish, 2016).

2 Better impact when integrated with other management practices, (Poister et al, 2013).

What the research says

4 More sophisticated forms of performance information would likely be used more extensively, (Cepiku et al, 2017, Kroll, 2015).

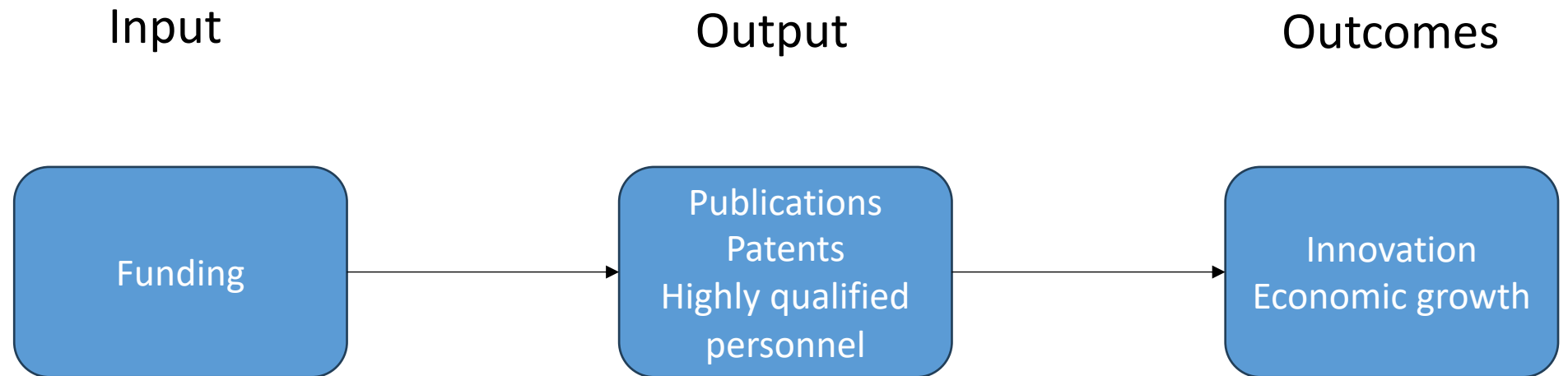
3 Impact constrained by goal ambiguity and layers of bureaucracy, (Hvidman & Andersen, 2014).

The case studies

- The organizations
 - Large public sector organization
 - Large private sector organization
 - 2 not-for-profits
- What we learned
 - Problems are similar
 - Early days for everyone
 - Few *Analytic Strategies* in place

Today, we will focus on the two large organizations.

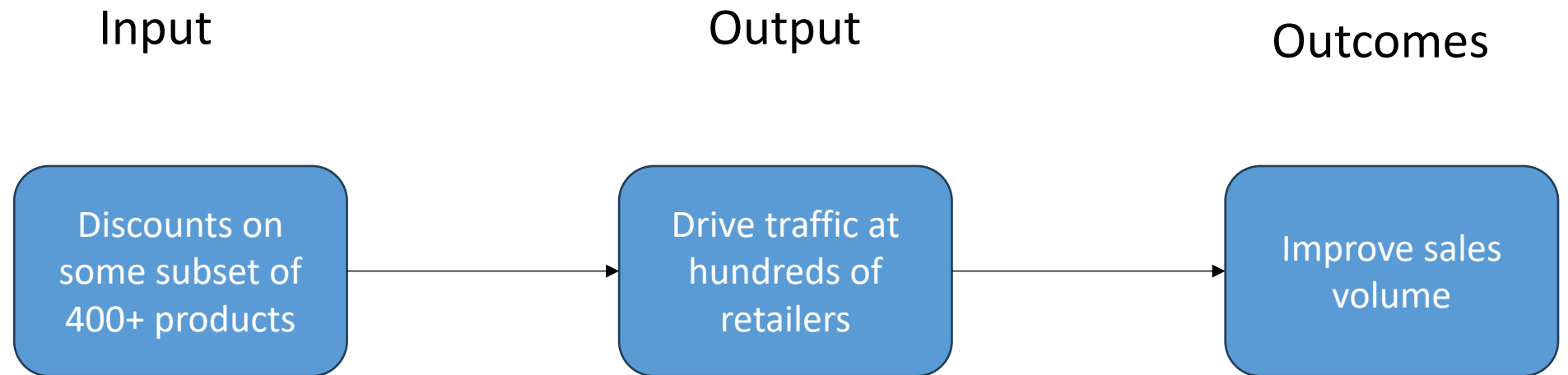
Case study 1: Large public sector organization



Lessons learned:

- The logic model tells the data story
- The data needed to test outputs and outcomes were not available
- The analytics strategy did not match the data strategy

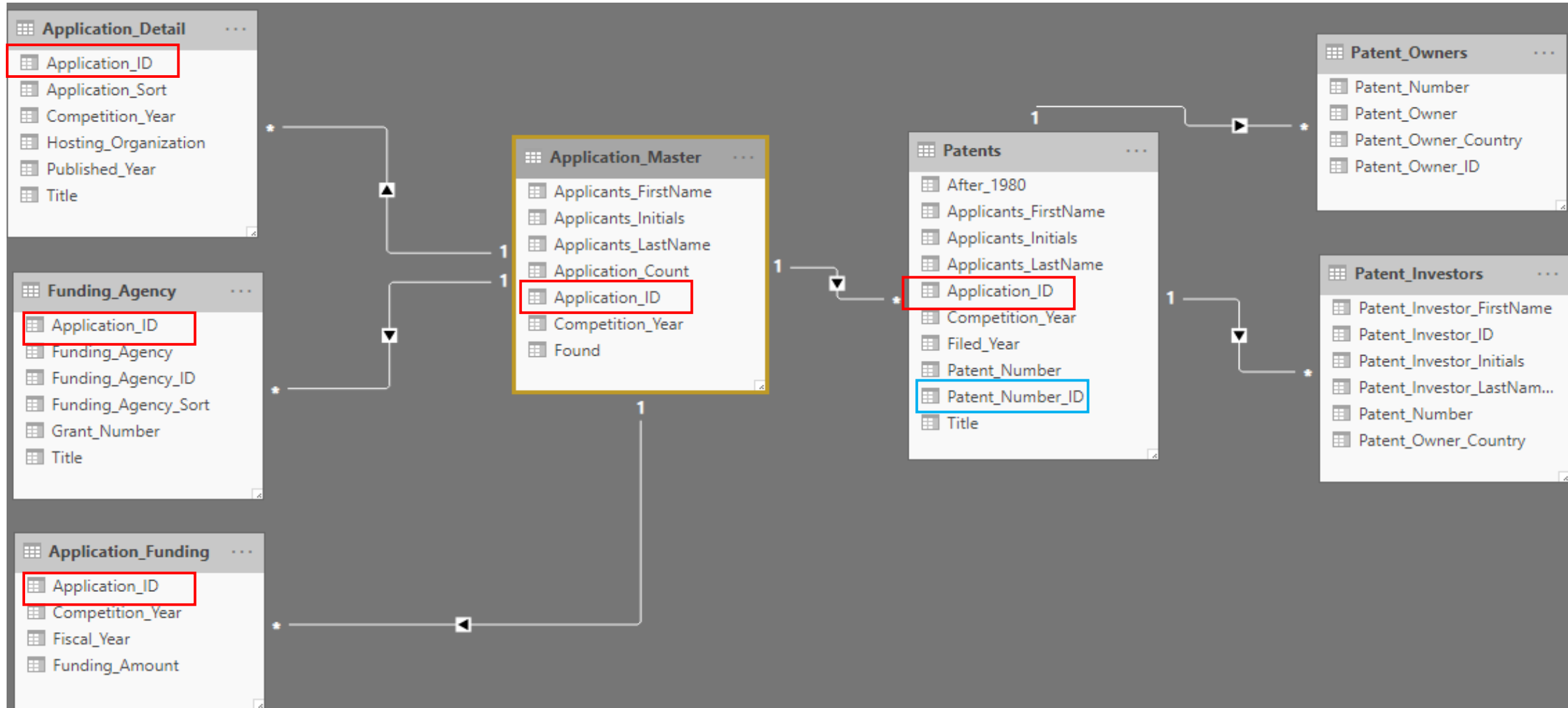
Case study 2: large private sector organization



Lessons learned:

- The logic model tells the data story
- Well-designed data infrastructure
- Business Intelligence framework in place
- The analytics strategy did not match the data structure

Case study 1: Data issues...solution



Case study 2: Data issues...solution

Data transformation + testing of several analytic models + back testing of solution



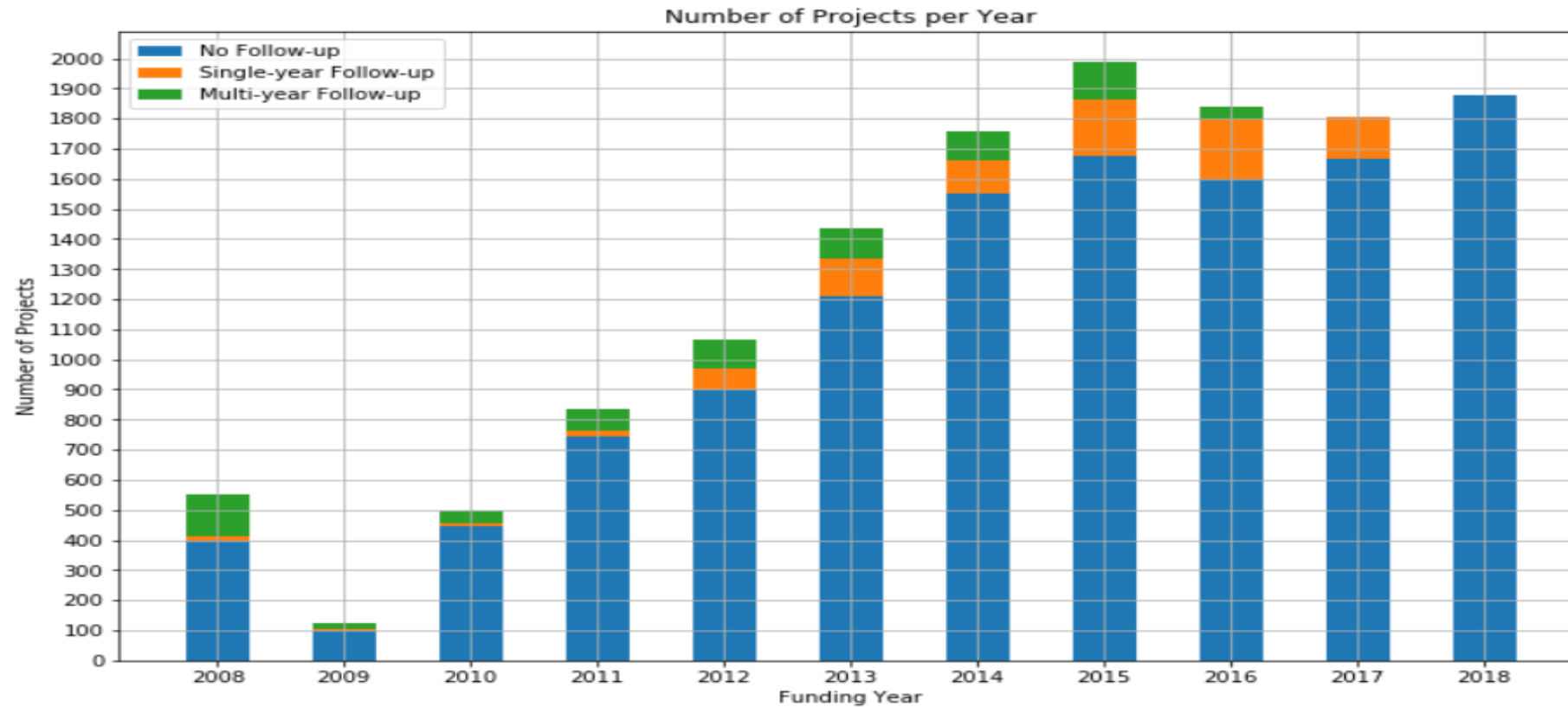
- Long Short Term Memory Network
- Support Vector Machines
- Random Forest

The analytics strategy

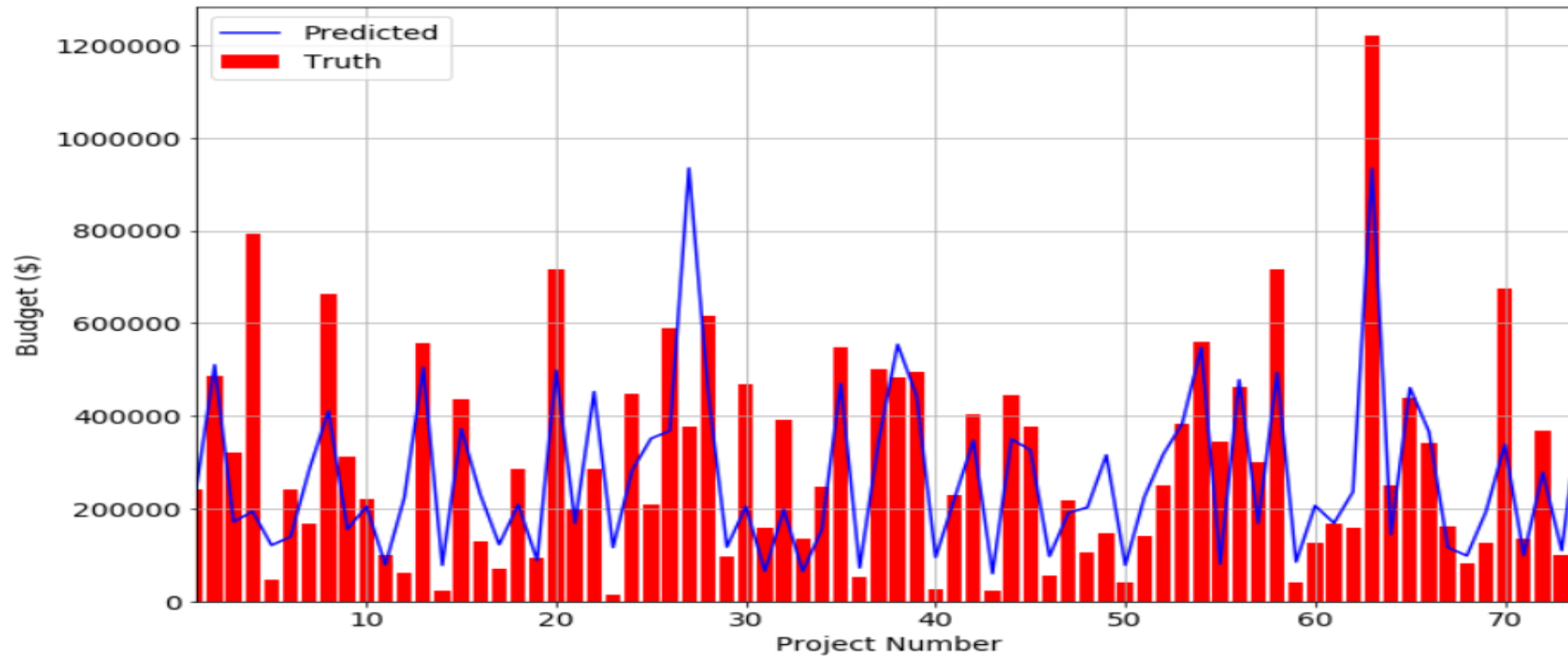
- Depends on the type and amount of data
- Depends on the ability of humans to interpret the output
- Should lead to change: need to prepare a changeable organization.

Fundamental analytics strategy: describe + association modelling + what-if scenarios

Describe-Case Study 1

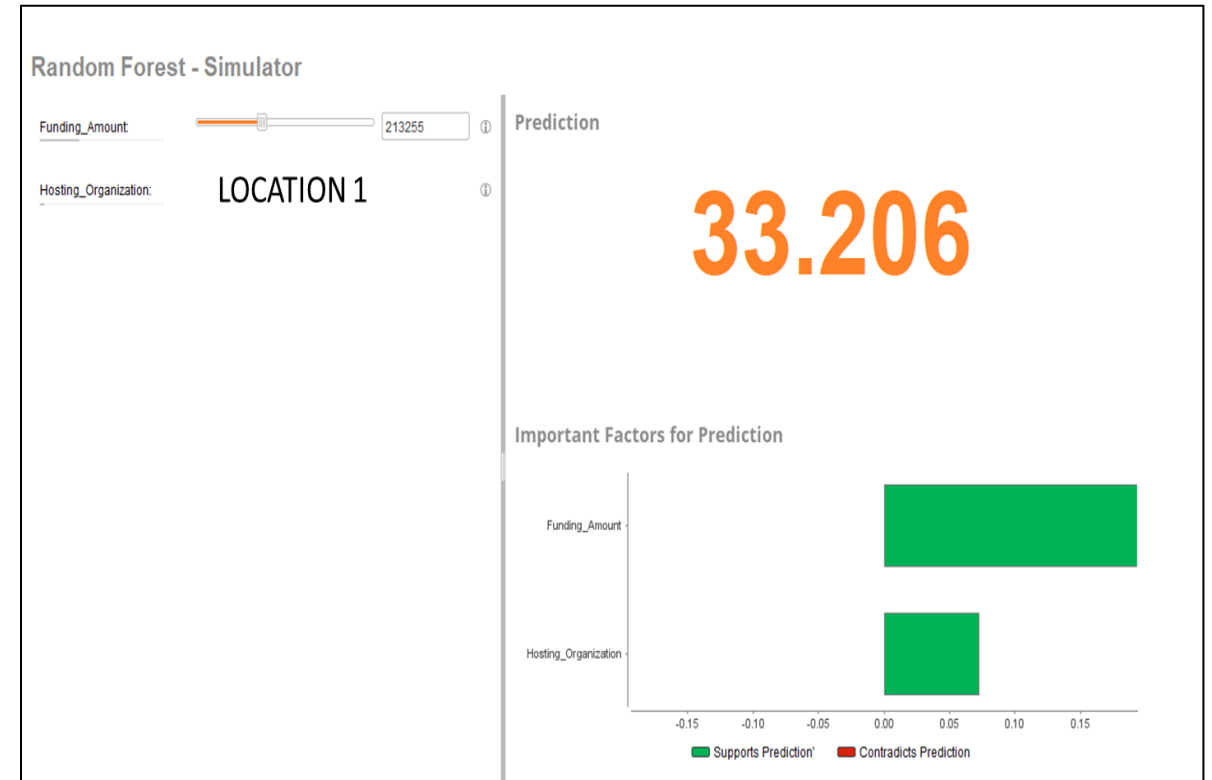
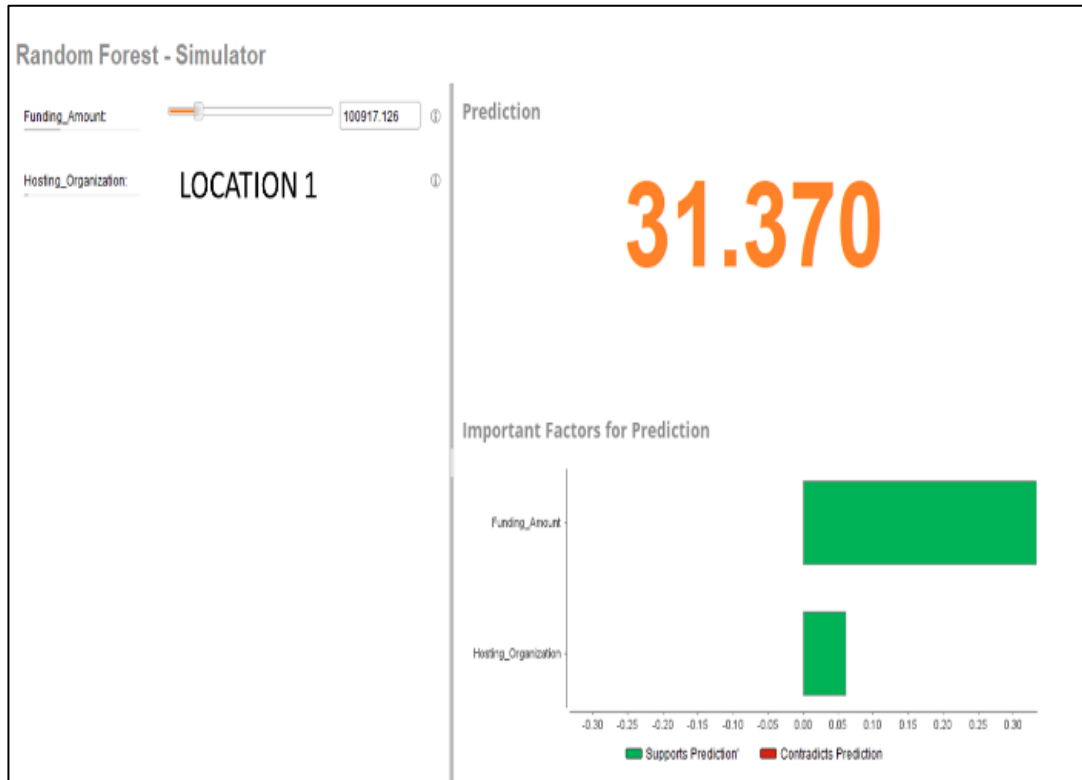


Association modelling: budget needed



Estimated the inputs (budget) given the outputs expected

“What-if” modelling



The most action-oriented element of the analytics strategy

Summary and a way forward

**Logic models are
“data storyboards”**

The nodes identify
The descriptive data. The
“arcs” identify the
association modelling
needed.

**Match the analytics
strategy to the data
available**

Analytics strategy:
descriptive + association
modelling + what-if
scenarios

**The data should be
in “good” form**

Consistent with the logic
model and the association
modelling approaches
especially

**Build change-ability
into the human
system**

Analytics are learning tools;
learning leads to change.

Thank you

For more information: Gregory Richards
richards@telfer.uottawa.ca



TRIPLE CROWN ACCREDITATION