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Welcome!

Agenda:

12:45 Arrival and networking

1:00 Recognition

1:15 Welcome and Introduction to WiCi

1:20 Ice Breaker Activity

1:35 “Finding the greatest value! Lean as a project selection tool”

2:20 Closing and Next Steps

Welcome and Introduction to WiCi

- Refresher
- Guiding Principles
- Team Leads
  - Andy Ortman – Communications
  - Geb Lefeber – Logistics
  - Joe Webb – Content & Activities

Activity

1. Introduce yourselves to your table.
2. In the envelope on the table are instructions for a common activity.
3. Use the post-it notes at your table to map the steps in the activity. You should have a beginning and an end.
4. Put the post-its on the sheet of paper you've been provided.
5. You have 5 minutes. When you are finished stick the sheet of paper up on a wall near you.

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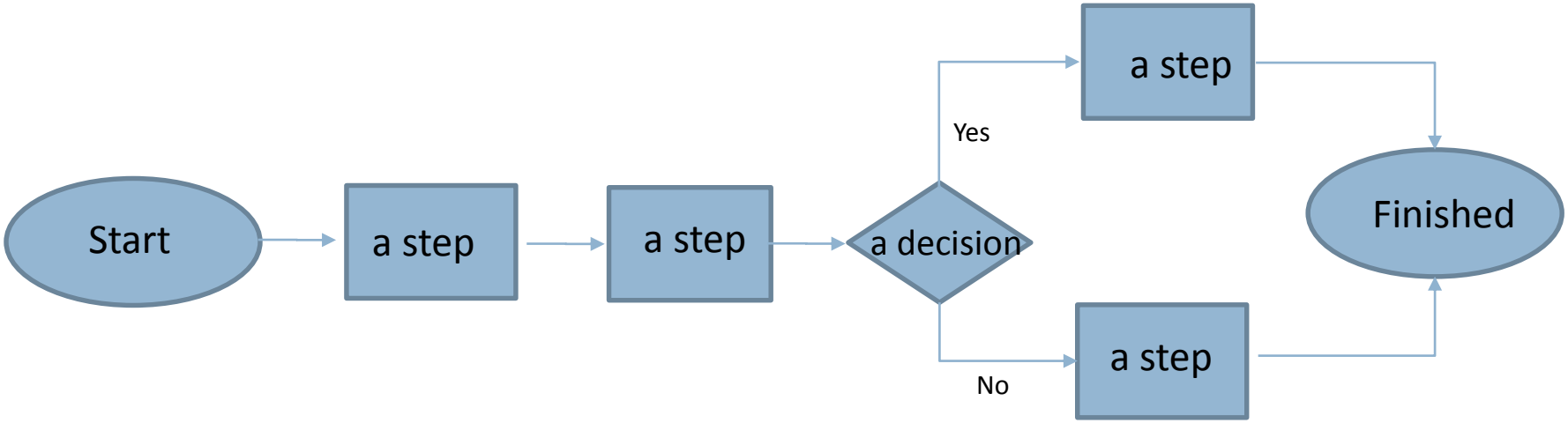
Activity



Simple process map example

Welcome!

Finding the greatest value - Lean as a project selection tool

Presenter: Dan Koetke, Consultant
Office of Quality Improvement, UW-Madison

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Learning Objectives

- Understand some of the basic terms associated with value analysis
- Appreciate how Lean principles can be used to inform project selection
- Recognize how knowledge can be gained by discussing lessons learned
- Obtain contact information from at least one colleague you interact with today

Assessing the Efficiency of Faculty Course Scheduling

Problem Statement:

Information flows across at least 7 applications and is processed by scores of employees. There are unexploited best practices and significant opportunities for cost savings, and quality improvements.

Definition of Success:

Quantitative analysis of waste associated with the current faculty scheduling process that can be used to influence decision-making.

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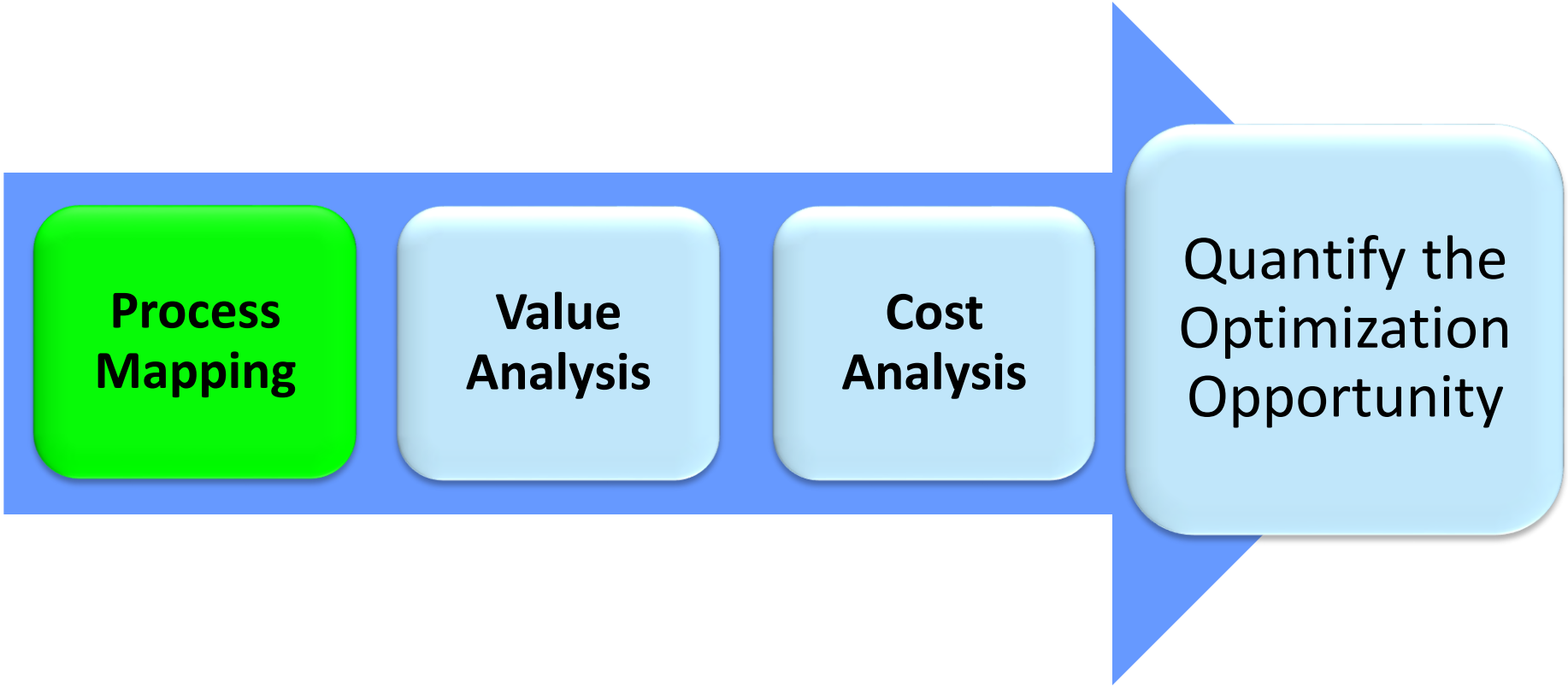
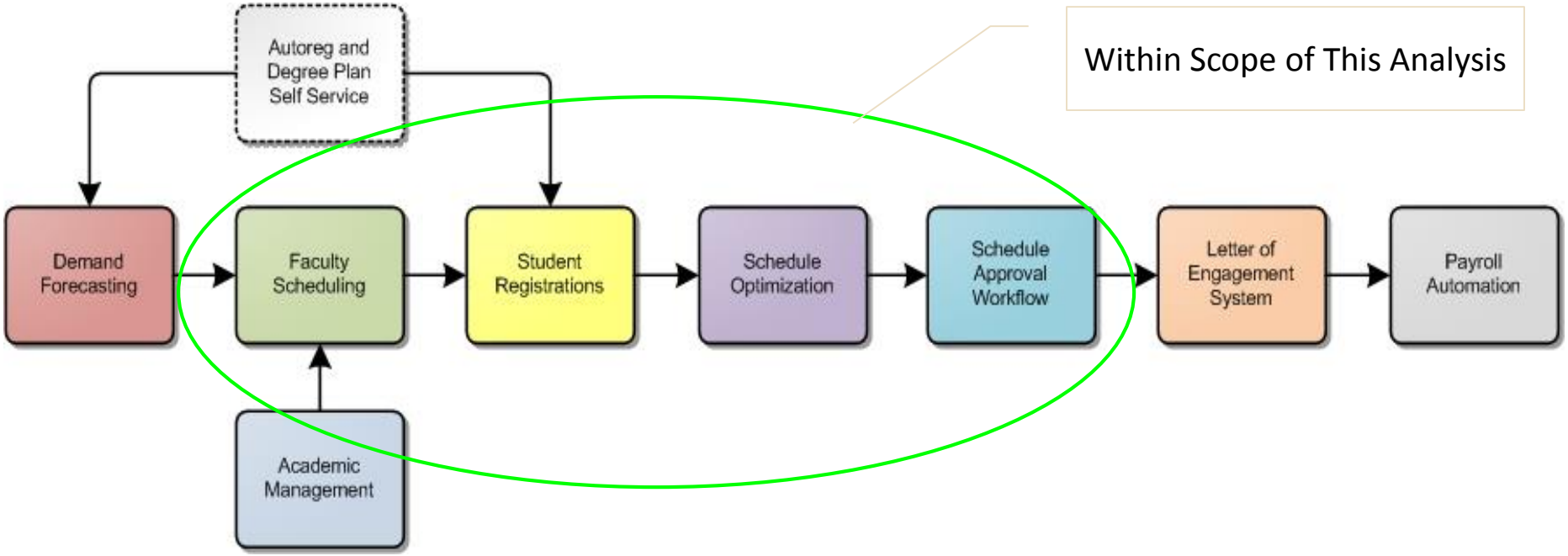
Project Goal

Quantify ($) the optimization opportunity associated with eliminating waste from the current-state process to inform decision makers how to move forward

Project Roadmap



High-Level Process Map



Process Start: A student needs a seat in an online course section

Process Stop: Final class schedule for all schools approved

Project Inclusions:

- Scheduling related to all KU course sections, including campus-based online students
- Quantitative cost / opportunity analysis

Project Exclusions:

- Scheduling related to all KHEC ground-campus course sections
- Analysis of solution alternatives

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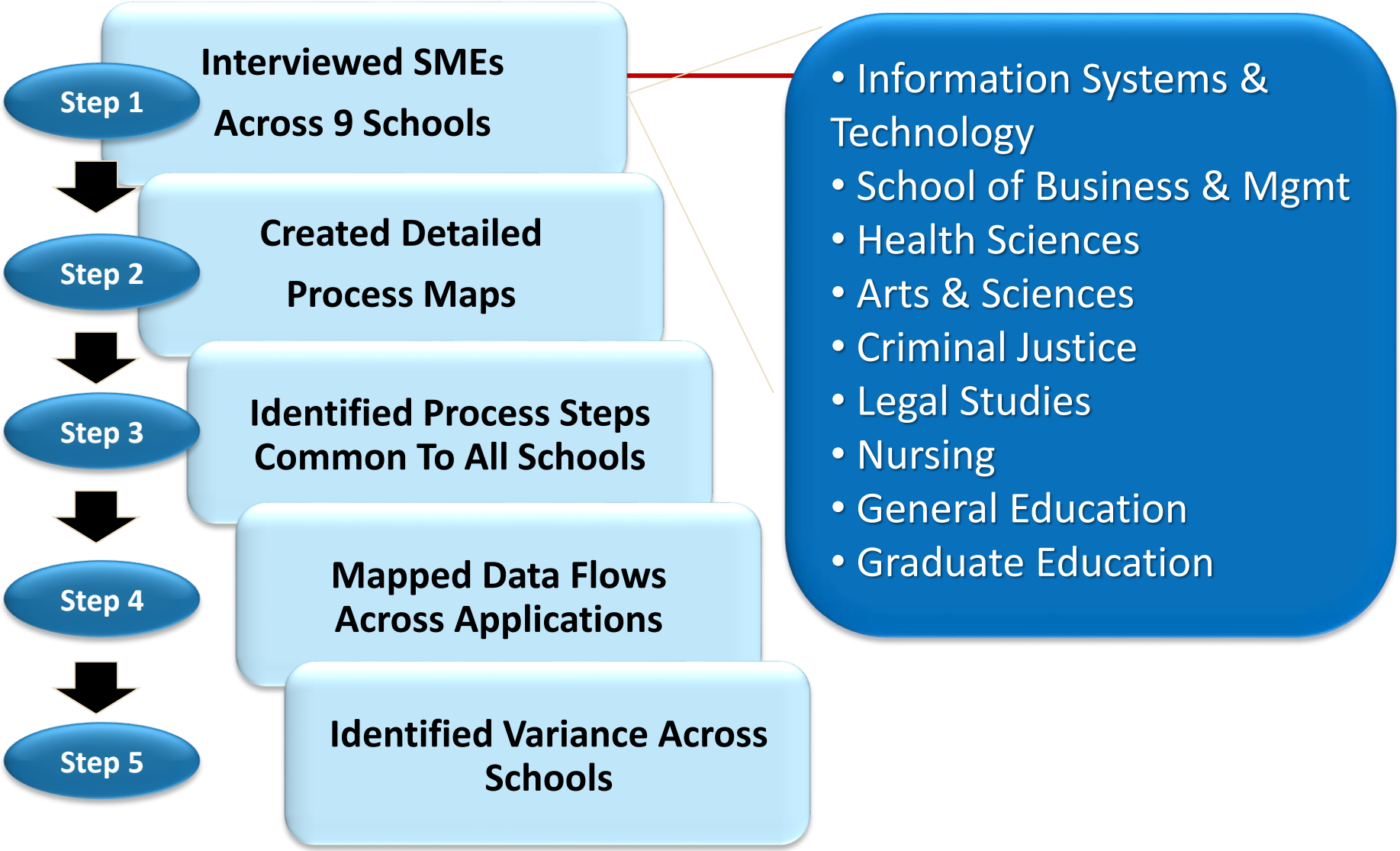
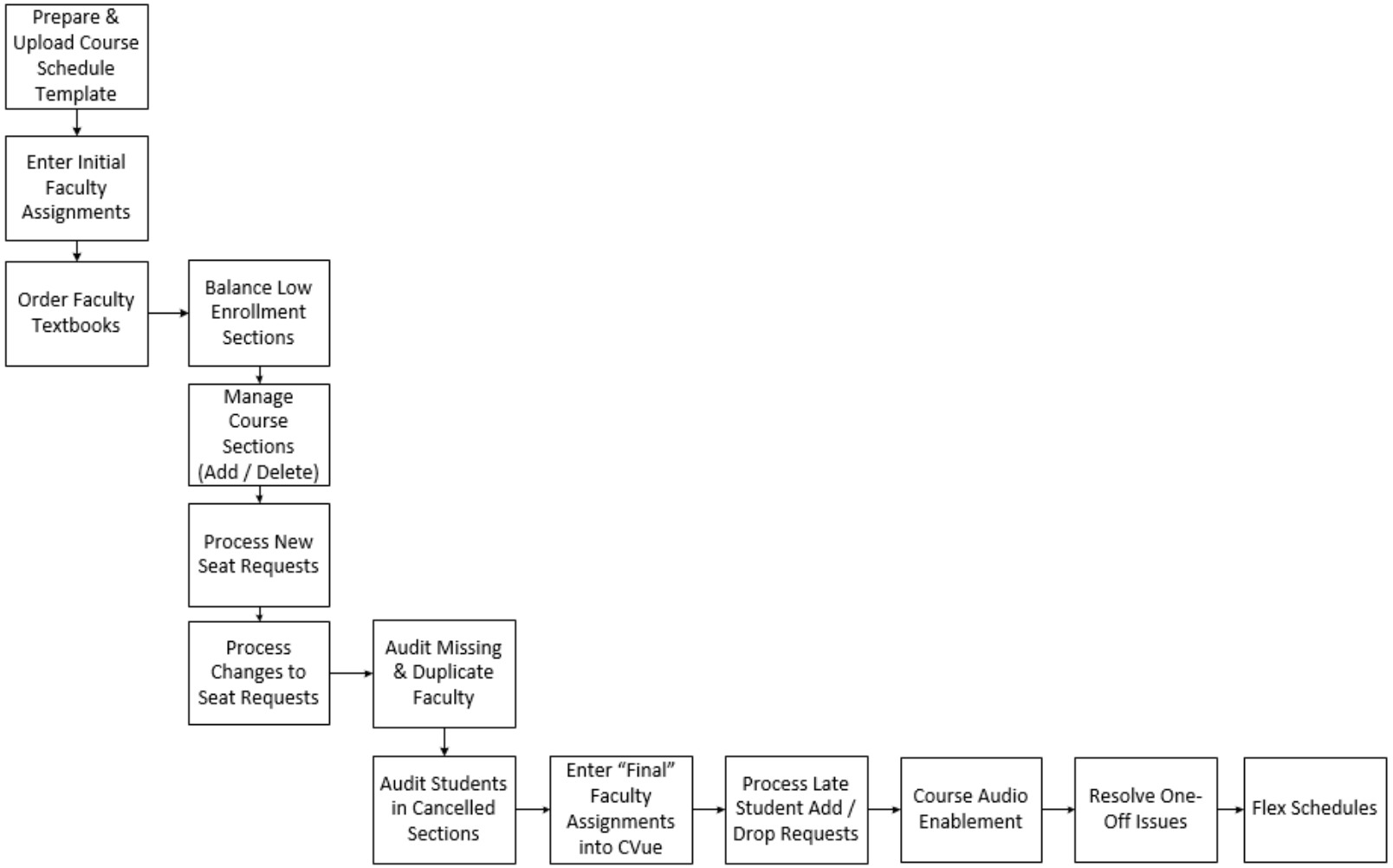

Step 1
Interviewed SMEs Across 9 Schools
Step 2
Created Detailed Process Maps
Step 3
Identified Process Steps Common To All Schools
Step 4
Mapped Data Flows Across Applications
Step 5
Identified Variance Across Schools
• Information Systems & Technology
• School of Business & Mgmt
• Health Sciences
• Arts & Sciences
• Criminal Justice
• Legal Studies
• Nursing
• General Education
• Graduate Education

Process Map – Steps Common to All Schools



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Key Findings – Steps Common to All Schools

- Excessively complicated processes involving seven applications
- Too many manual tasks with frequent handoffs
- Final process outputs are very similar across schools
- Identical deadlines & very similar process timelines across schools
- All schools complete various performance audits throughout the process to identify and correct errors

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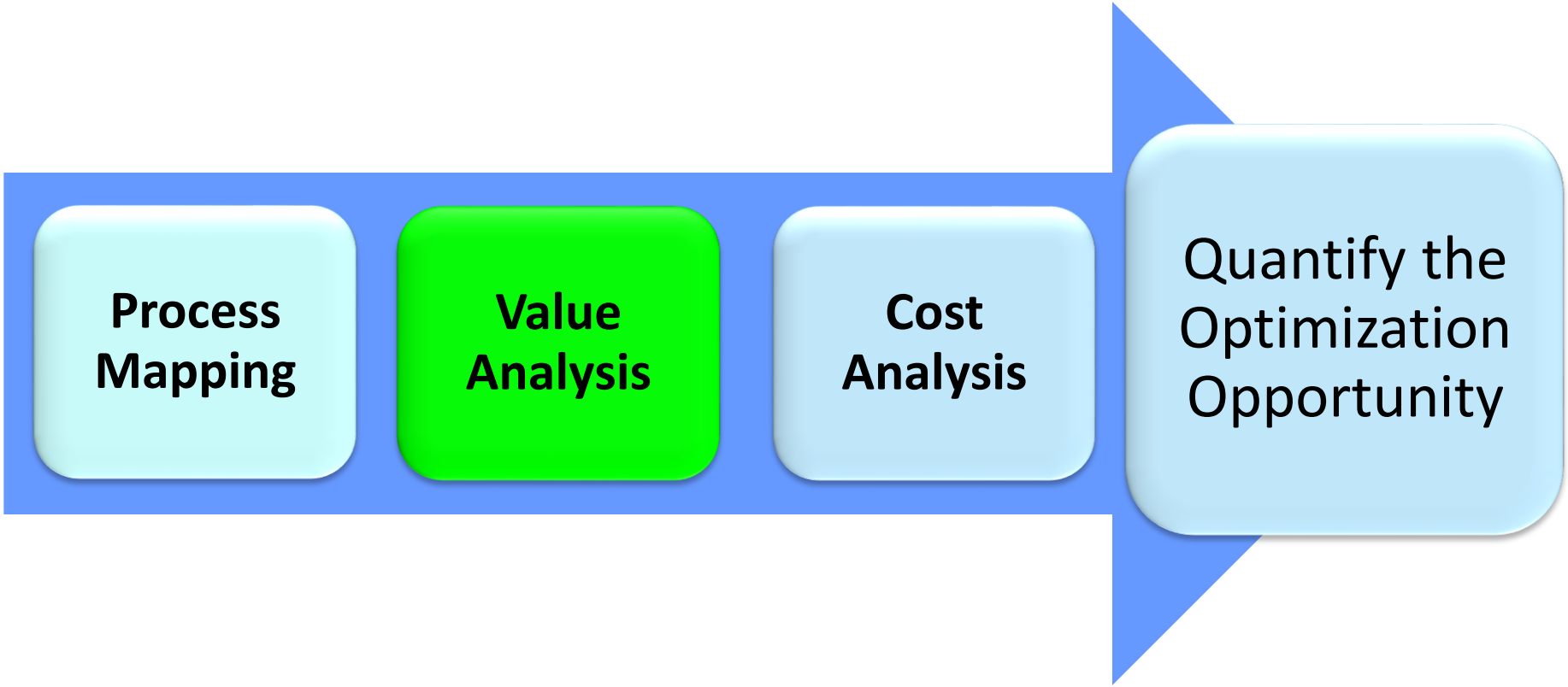
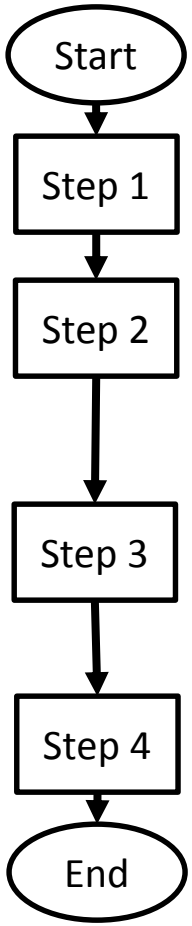
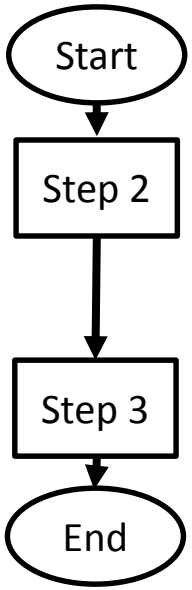
Project Roadmap

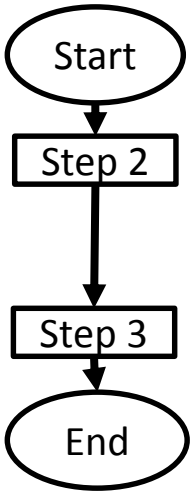


Basic Lean Concepts

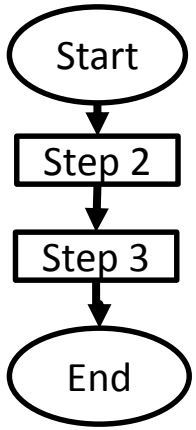




1. Eliminate non-value added steps



2. Reduce the time it takes to complete steps that add value



3. Reduce the "white space" between steps that add value

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Value Analysis: Operational Definitions

Value–Added Activities

All activities from the time a student need is identified until that need is satisfied for which he or she is willing to pay

→ Improve Efficiency

Business Value-Added Activities

Not necessary to deliver student's requirements but are either: 1. Critical to sustaining the process or 2. Required due to known constraints (usually external)

→ Evaluate for Waste

Non Value-Added Activities

All activities that are not necessary to deliver a student's requirements and can be eliminated through process redesign

→ Remove Waste

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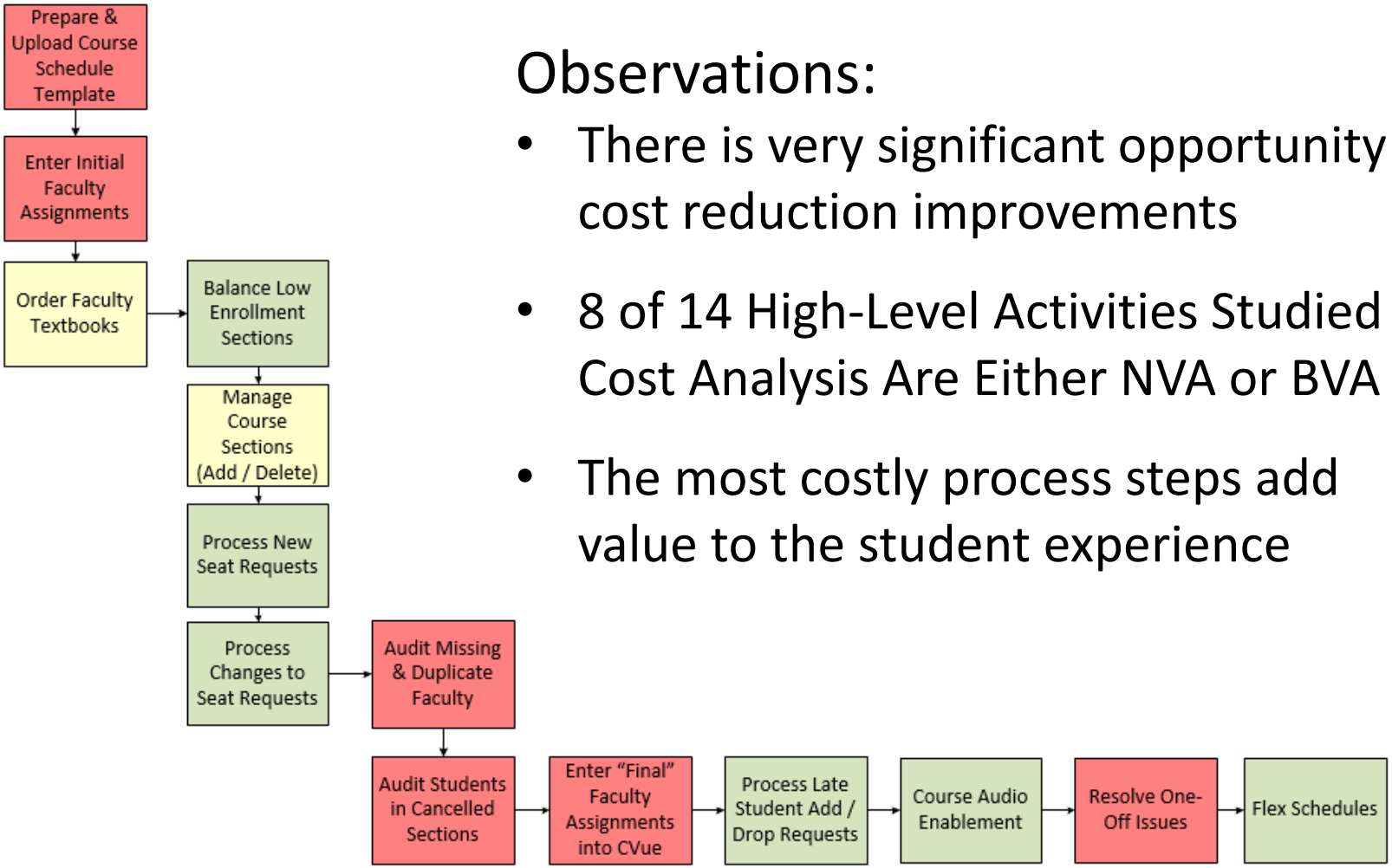
Value Analysis: Assessment of Process Steps



Observations:

- There is very significant opportunity for cost reduction improvements
- 8 of 14 High-Level Activities Studied in Cost Analysis Are Either NVA or BVA
- The most costly process steps add value to the student experience

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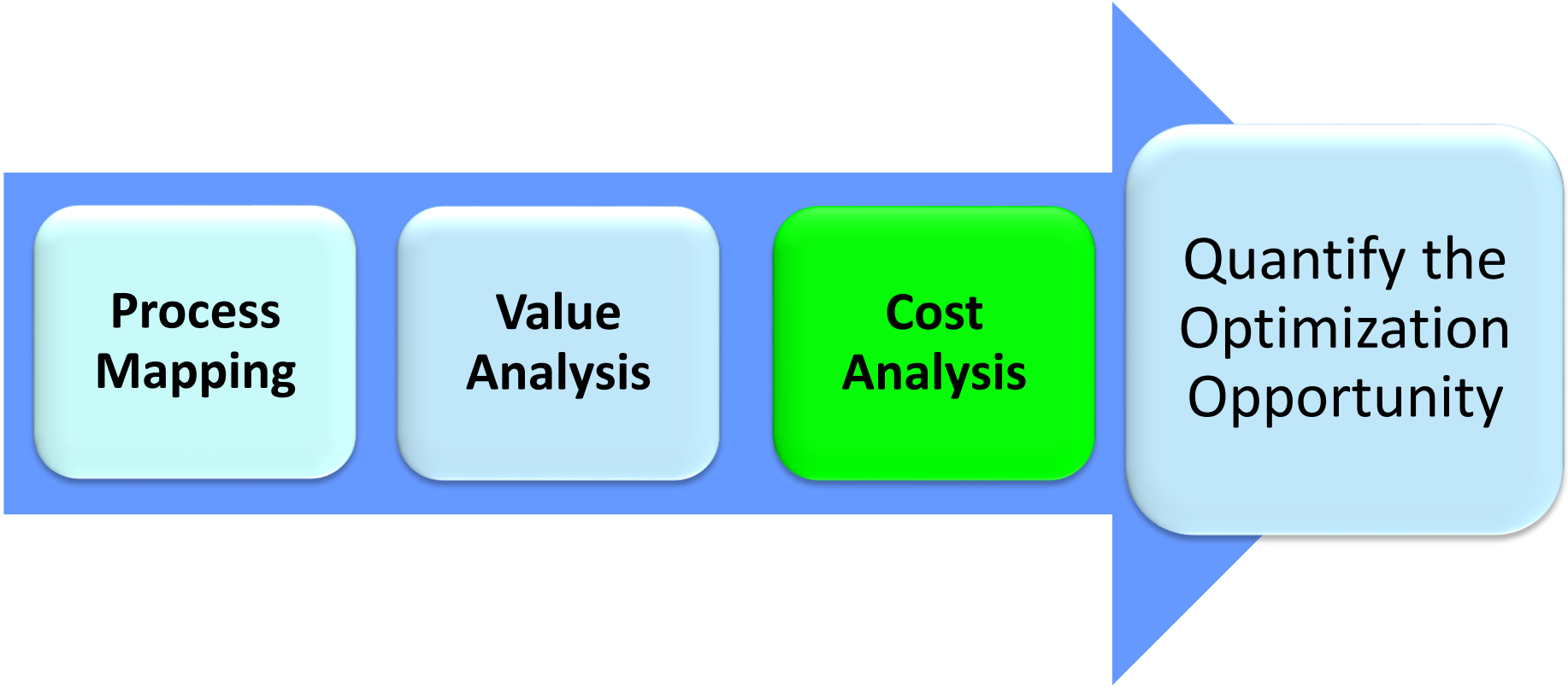
Project Roadmap



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Data Collection

Challenges…

"That's impossible!"

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Data Collection Methods

surveys

focus groups

Methods…

opinion polls

"Hmm…one of these just might work…

reports

direct observation

sampling

data queries

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Steps to Effective Data Collection

1. Determine success metric(s)
   time, cost, volume, quality
2. Determine the best data collection method
   online survey, personal interviews, focus groups, existing reports, create new reports, etc…
3. Create a Data Collection Plan
4. Train the data collectors

Get Started!

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A Simple Data Collection Plan

WHAT DATA COLLECTION METHOD?	WHEN WILL DATA BE COLLECTED?	WHO WILL COLLECT DATA?	WHAT WILL THEY NEED TO DO?
Identify which data collection method will be used (survey, interview, observation, record review)	*Describe the timing and frequency of data collection, including when it will be complete*	*Identify who will be responsible for collecting the data*	*Describe the steps they will take to complete the data collection*

HOW WILL THEY BE TRAINIED IN COLLECTING THE DATA?	HOW WILL DATA COLLECTED BE MONITORED?	WHO WILL MONITOR THE DATA COLLECTED?	HOW WILL YOU KNOW THE DATA SET IS COMPLETE AND CORRECT?
Describe the steps to prepare them for the data collection	*Identify how the data collection process will be monitored for quality, consistency and completeness*	*Identify who will monitor the data collection for quality, consistency and completeness*	*Identify what measure(s) will indicate a correct and complete data set*

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Cost Analysis: Data Collection Template

Process / Activities		Average Time Spent Per Term (Hours)															
Process Step	Sample Activities 1. List is NOT intended to be all-inclusive 2. Certain activities apply only to certain schools	Deans	ADoFs	ADoSs	ADoCs	Academic Chairs	Dept Chairs	Academic Assistant Chairs	Faculty	Sched Mgrs / AOMs / VSMs	Sched Coordinators	Dept Ops Mgrs (DOMs)	Registrar	Academic Advisors	Admin Assistant	Vertical Data Analyst	Academic Relations Manager	Comments
Prepare Initial Schedule Template	_Revise course schedule template _Upload template _Run and evaluate initial CER _All communications related to preparing the initial schedule template																	
Enter Initial Faculty Assignments	_Review faculty schedule preferences & decide on faculty assignments (approx 80%) _Initial faculty assignment approvals _Enter first round of faculty assignments _All communications related to assigning/approving first round of faculty assignments																	
Order Faculty Textbooks	_Prepare, update and monitor spreadsheets used to track textbook order requests _Approve faculty textbook order request _Resolve textbook issues (books not received, incorrect order, rush orders, etc...) _All communications related to textbook order requests / approvals / resolving issues																	
Balance Low Enrollment Sections	_Analyze schedule to determine which students need to be added or removed from sections _Process changes _All communications related to student section reassignments (i.e., emails to Dept Chairs, etc...)																	
Manage Course Sections	_Analyze schedule to determine sections to add or cancel _Process section changes (including increasing # of reserve sections, activating reserve sections, etc...) _All communications related to section changes (i.e., emails to Dept Chairs, etc...)																	
Process New Seat Requests	_Create new seat request tickets _Monitor, prioritize, and disposition tickets _Process student registrations & seat assignments																	

- Created a Standardized Data Collection Template to be Used by Reps From 9 Schools
- Trained Reps on Data Collection Process
- Compiled Results to Calculate Total Annual Process Cost

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Cost Analysis: Value Analysis- Average Cost Per Term Across Schools

Average Cost Per Term Across Schools (by Process Step)													
Value Assessment	Process Step	IT	IT-Grad	SBaM	SBaM-Grad	GradEd	HS	GenEd	AS	Nursing	CJ	LS	TOTAL
BVA	Order Faculty Textbooks	10.52	5.26	10.52	5.26	150.24	597.21	285.46	691.11	225.36	262.92	217.85	2461.69
BVA	Manage Course Sections	270.43	60.10	277.94	180.29	225.36	2681.79	826.32	856.37	691.11	450.72	450.72	6971.15
BVA	Other	237.38	237.38	237.38	237.38	0.00	0.00	0.00	0.00	1652.64	338.04	0.00	2940.20
BVA	TOTAL Cost Per Term (By School)	518.33	302.73	525.84	422.93	375.60	3279.00	1111.78	1547.48	2569.11	1051.68	668.57	$ 12,373
NVA	Prepare Initial Schedule Template	97.66	67.61	112.68	82.63	320.76	416.92	517.58	572.42	570.91	161.51	150.99	3071.66
NVA	Enter Initial Faculty Assignments	243.39	121.69	259.92	177.28	345.55	3072.42	736.18	743.69	841.35	525.84	413.16	7480.47
NVA	Audit Missing & Duplicate Faculty	126.20	21.03	126.20	42.07	202.82	638.52	120.19	210.34	240.38	45.07	45.07	1817.91
NVA	Audit Students in Cancelled Sections	132.21	20.28	132.21	20.28	135.22	142.73	120.19	112.68	0.00	30.05	30.05	875.90
NVA	Enter "Final" Faculty Assignments Into (CVue)	84.13	26.29	84.13	47.33	375.60	691.11	300.48	360.58	120.19	75.12	75.12	2240.08
NVA	Resolve One-Off Issues	90.14	90.14	90.14	90.14	67.61	67.61	217.85	67.61	1014.12	0.00	0.00	1795.37
NVA	Other	0.00	0.00	0.00	0.00	0.00	101.41	0.00	0.00	0.00	0.00	0.00	101.41
NVA	TOTAL Cost Per Term (By School)	773.74	347.06	805.29	459.74	1447.57	5130.71	2012.47	2067.31	2786.96	837.59	714.39	$ 17,383
VA	Balance Low Enrollment Sections	240.38	22.54	247.90	150.24	330.53	916.47	555.89	555.89	120.19	154.00	131.46	3425.48
VA	Process New Seat Requests	6953.13	471.75	16236.48	2851.56	2125.15	13713.94	17160.46	15211.09	1292.07	12404.60	6641.38	95061.60
VA	Process Changes to Seat Requests	1301.08	99.16	3033.35	513.82	563.40	2883.11	3407.45	2914.66	189.30	2630.71	1557.99	19094.05
VA	Process Late Student Add/Drops	27.79	27.79	27.79	27.79	132.96	301.23	537.11	426.68	99.16	181.04	172.78	1962.14
VA	Course Audio Enablement	0.00	0.00	60.10	0.00	52.58	30.05	30.05	67.61	0.00	0.00	0.00	240.38
VA	Flex Schedules	0.00	0.00	0.00	0.00	105.17	60.10	165.26	60.10	60.10	0.00	0.00	450.72
VA	Other	237.38	237.38	237.38	0.00	101.41	0.00	0.00	6118.54	338.04	0.00	7270.13	450.72
VA	Total Cost Per Term (By School)	8759.77	858.62	19843.00	3543.42	3411.21	17904.90	21856.22	25354.57	2098.86	15370.34	15773.74	$ 120,685
VA	TOTAL Cost Per Term (By School)												
	TOTAL Cost Per Term (By School)	9814.45	1271.03	20936.75	4426.08	5132.96	26314.60	24980.47	22850.81	11582.78	17259.62	9886.57	$ 154,456

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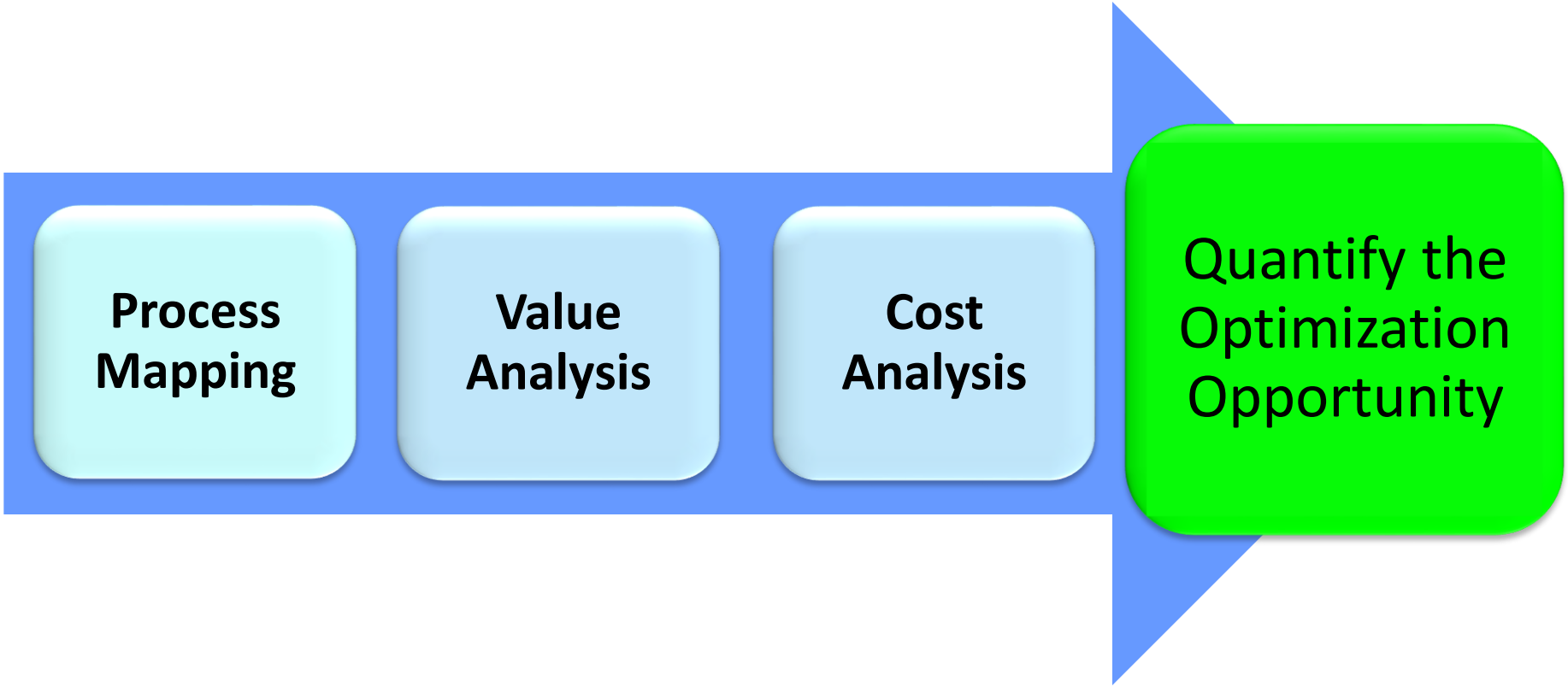
Project Roadmap



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Optimization Opportunity: Annualized Estimate

VALUE ANALYSIS									
	TOTAL ANNUALIZED	NVA Activities	BVA Activities		VA Activities				
		100%	100%	50%	100%	20%	30%	40%	50%
COST	$ 2,148,485	$ 241,798	$ 172,108	$ 86,054	$1,734,579	$ 346,916	$ 520,374	$ 693,832	$ 867,290
TOTAL OPPORTUNITY	$848,225	$ 241,798		$ 86,054			$ 520,374		

Final Comments:

- Estimate Assumes Data Collection by School Representatives is Accurate
- Estimate Includes Labor Cost Reduction Opportunity ONLY
- Estimate Does NOT Include Stipends Paid to Faculty for Last-Minute Changes & Does NOT Include the Cost of Technology Support

Conservative Total Opportunity Over $800K

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Focus Questions - Lessons Learned

- **Advantages**: how effectively did the work of the project team inform decision-makers how to move forward?
- **Disadvantages**: what are some of the limitations to the approach the team decided to use?

Definition of Success:

Quantitative analysis of waste associated with the current faculty scheduling process that can be used to influence decision-making.

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Closing and Next Steps

- Content Submission Form
- Survey Follow-Up
- Stay After/Network

Thank You!

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WiCi Website

https://sites.google.com/a/wisc.edu/wici-network/

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