VWoA Project Funding Enhancement Proposal

Team 19

Our team

Jake Joseph
jakejose@iu.edu

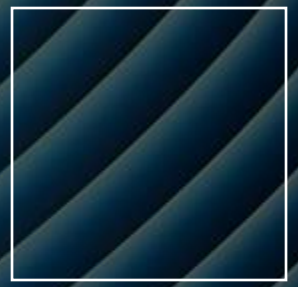
JJ Bogner
jjbogner@iu.edu

Priya Huddar
phuddar@iu.edu

Vivi Armacost
varmacos@iu.edu

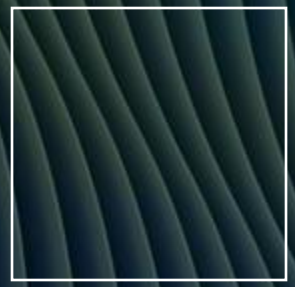
Presentation Agenda

VWoA's internal IT department needs to improve their project ranking process to decide which projects get funded



VWoA has adopted a strategy of diversification of product to match global demands in different vehicle categories. At VWoA, IT is primarily involved in "keeping the lights on" for business and is viewed as a cost center, plagued with schedule and cost overruns

A new internal IT department is constituted to centralize all IT capabilities. A new system for ranking projects for potential funding is formulated to formally decide which IT projects would get funding



How can the new funding process be improved to enable VWoA to engage in the "right" projects and how does IT become a business enabler at VWoA?

Improve the IT project proposal template and change the prioritization process to focus on pertinent projects while emphasizing education within the organization

Align **IT with overall company objectives** by creating detailed project proposal templates and a standardized prioritization process

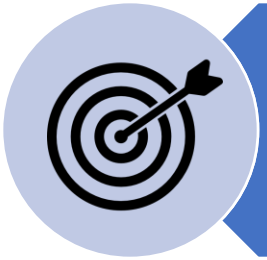
Analyze the individual project workstreams and increase cross-team collaboration to reduce project redundancy

Streamline workstream management through a standardization of processes and tools throughout the VWoA organization

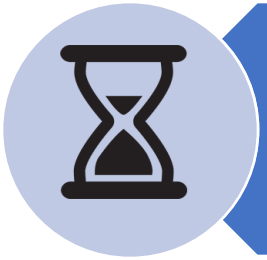
Implement a risk assessment process into the overall project ranking process

Upgrade the project proposal template to include details regarding project tasks to generate insights into requirements, timelines and dependencies between projects

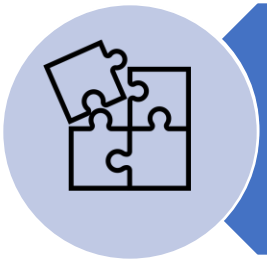
Current State



Prioritization of projects is inefficient as many business units propose redundant solutions and approvals rely heavily on project alignment to NRG goals



Projects that depend on the completion of other projects are often pushed back to later years

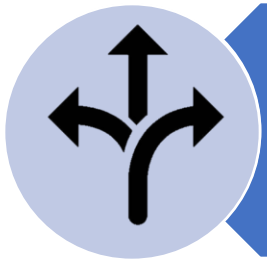


Dependencies and new enterprise projects cause business units to constantly reprioritize proposals to fit in the overall project schedule

Future State

Individual project workstreams will provide a better metric to prioritize projects based on how well individual activities fit into the organizational strategy

Increased project details will allow business units to better coordinate project development and work on smaller activities that will free up work for larger projects

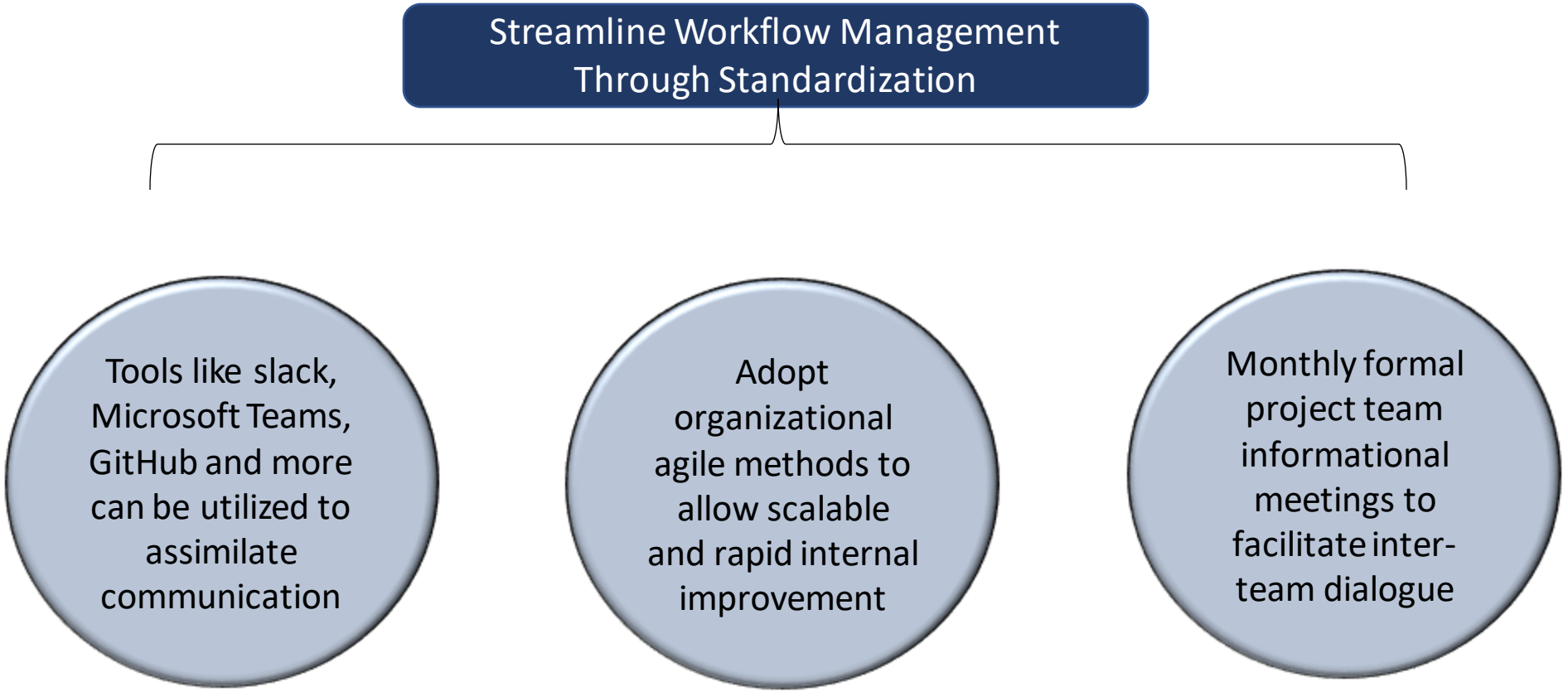


Smaller activities will provide greater flexibility in the project schedule for changing requirements and will allow activities to be added and removed without needing to adjust entire project timelines

Action Steps

- Include individual project workstreams in proposal process
- Adjust the proposal template
- Consolidate project work flows into one overall list
- Discuss activities that have overlapping actions / responsibilities and combine workflows accordingly
- Continually update overall project schedule as new requirements arise
- Add and remove activities to support overall company goals and vision

Implement guideline processes and tools for internal communication to enable VW to expand between their US and global enterprises and maintain global continuity



Streamlining workflow clarifies requirements, improves productivity, and promotes quality, not only in projects teams, but throughout the enterprise. Employee morale boosts when processed are organized and well defined.

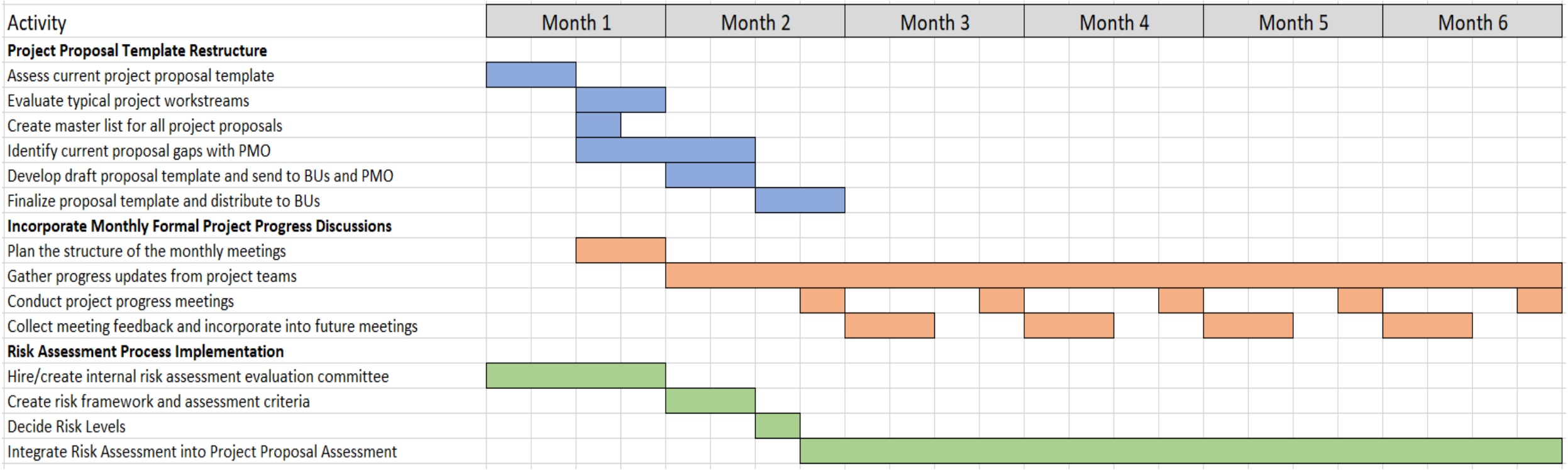
Implement a risk assessment process into the overall project ranking process, while assessing project's alignment with future VW state

1
- Formalize a committee to calculate the Risk Score of project based on understanding of scope, technology, employee confidence
- Decide levels of acceptable risk

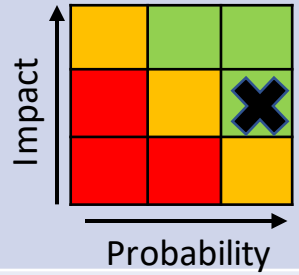
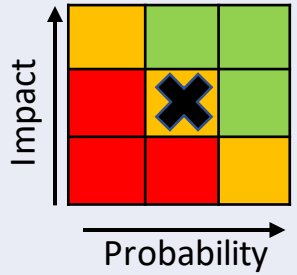
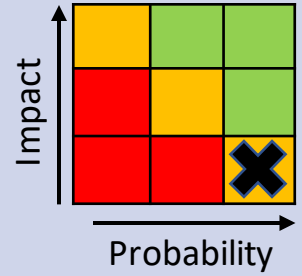
2
- Calculate cost of delays
- Include frameworks for security and control integration within all projects
- Include mitigation techniques specific to risks identified

3
- Assess project's overall alignment with VW future state
- Assess project scalability, integration with current systems

New Project Ranking plan will take 6 months to implement



A detailed mitigation plan will address risks

Risks		Mitigation Plan
Lack of understanding of business scope of project		Detailed template for Project Proposal that enforces the need to clearly state scope and objectives with specific Definitions of Done
Unrealistic ROI, projects running behind schedule and overbudget		Rigorous financial assessment before funding approval. Regular "phase gates" between project phases to reevaluate Go/NoGo decisions for the next project phase
Resentment among teams whose projects don't get funding		Robust communication channels to convey the reasons why certain projects were picked over others. Transparency in the selection process

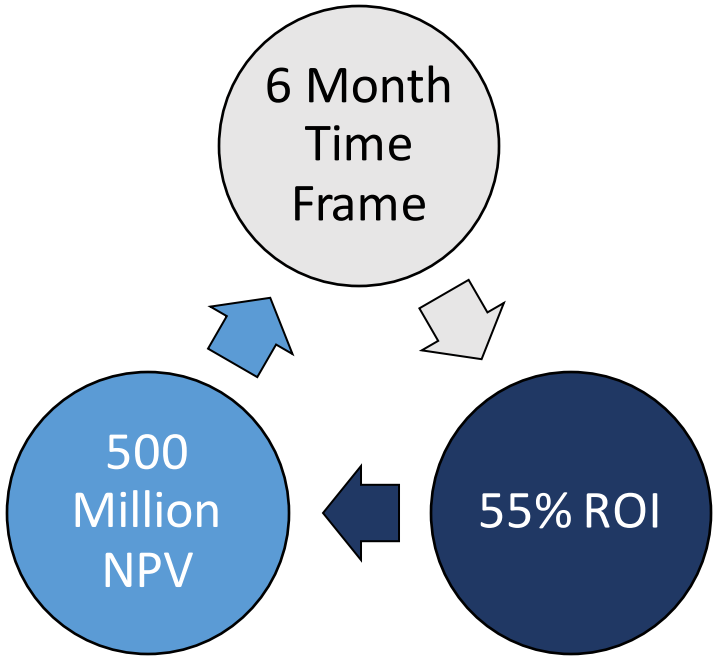
New project ranking structure is a good investment for VW

Period (Year)	0	1	2	3	4	5			
								ROI	55%
								NPV	$ 527,199,222
Net Cash Flows (NCF)	$ (930,550,000)	$ 327,450,000	$ 327,450,000	$ 327,450,000	$ 327,450,000	$ 327,450,000		IRR	22%
NPV (Annual)	$ (930,550,000)	$ 314,855,769	$ 302,745,932	$ 291,101,858	$ 279,905,632	$ 269,140,031			
ROI (Running Total)	-74%	-47%	-22%	4%	29%	55%		Recalc directly from NCF	
								NPV	$527,199,222
Costs									
One-Time (Non-recurring)	Often incurred prior t	"go-live", e.g. year 0/1							
Cost of Consultants Hired to Assist Development	$ 2,000,000								
Software Licensing	$ 1,000,000,000								
New Hardware	$ 1,000,000								
Infrastructure Adjustment	$ 250,000,000								
Training users prior to going live	$ 5,000,000								
One-Time Costs per Period	$ 1,258,000,000						$ 1,258,000,000	Total One-Time Costs	
Recurring	Often begin after "go-live", e.g. Period 1 or 2								
IT infrastructure costs of supporting the new soft	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000			
Salaries of IT or business employees, consultants,	$ 2,300,000	$ 2,300,000	$ 2,300,000	$ 2,300,000	$ 2,300,000	$ 2,300,000			
Software and hardware licensing fees and/or upg	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000			
Follow-up training and support costs	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000			
Recurring Costs per Period	$ 6,300,000	$ 6,300,000	$ 6,300,000	$ 6,300,000	$ 6,300,000	$ 6,300,000	$ 37,800,000	Total Recurring Costs	
Total One-Time and Recurring Costs per PeriodCo	$ 1,264,300,000	$ 6,300,000	$ 6,300,000	$ 6,300,000	$ 6,300,000	$ 6,300,000	$ 1,295,800,000	Grand Total Costs	
Benefits									
Cost reduction									
Lower inventory carrying costs	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000			
Lower cost of goods sold	$ 3,400,000	$ 3,400,000	$ 3,400,000	$ 3,400,000	$ 3,400,000	$ 3,400,000			
Lower unit cost of manufacturing	$ 2,600,000	$ 2,600,000	$ 2,600,000	$ 2,600,000	$ 2,600,000	$ 2,600,000			
Lower purchase price of materials	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000			
Lower salaries costs (+benefits)	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000			
Lower IT maintenance costs (storage, computing	$ 1,200,000	$ 1,200,000	$ 1,200,000	$ 1,200,000	$ 1,200,000	$ 1,200,000			
Lower overall maintenance cost	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000			
Cost avoidance									
No longer need to hire consultancy	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000			
No longer need to overproduce vehicles	$ 100,000,000	$ 100,000,000	$ 100,000,000	$ 100,000,000	$ 100,000,000	$ 100,000,000			
No longer need to for redudant goods	$ 9,000,000	$ 9,000,000	$ 9,000,000	$ 9,000,000	$ 9,000,000	$ 9,000,000			
Value/revenue enhancement									
Increased sales (need to apply gross margin)	$ 200,000,000	$ 200,000,000	$ 200,000,000	$ 200,000,000	$ 200,000,000	$ 200,000,000			
Increased rate of sales growth	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000			
Increased gross margin (assuming stable costs	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000			
Increased speed (faster) time to market for ne	$ 2,400,000	$ 2,400,000	$ 2,400,000	$ 2,400,000	$ 2,400,000	$ 2,400,000			
Total Benefits per Period	$ 333,750,000	$ 333,750,000	$ 333,750,000	$ 333,750,000	$ 333,750,000	$ 333,750,000	$ 2,002,500,000	Grand Total Benefits	

https://www.sofi.com/learn/content/good-return-on-investment/#:~:text=A%20good%20return%20on%20investment%20is%20generally%20considered%20to%20be,500%20after%20adjusting%20for%20inflation.

https://www.volkswagenag.com/presence/investorrelation/publications/annual-reports/2020/volkswagen/Y_2019_e.pdf

Invigorating the IT project proposal template while educating the greater VW organization on how IT can enable success for overarching business goals will lead to IT becoming a business enabler at VW



Standardize Workflow Management

Reduce Redundancies and Find Goals

Oversee Risk and Assess Value

Cross-Functional Communication

Since IT is aligned with major VWoA business goals, funding will be required to support IT initiatives that will be the essential to overall organizational success in the future.

Appendix

OVERVIEW OF VWOA STATE

HYPOTHESIS:
TREE 1
TREE 2

ISSUE & RESEARCH:
ISSUE TREE
RESEARCH PLAN

Recommendation Table

Risks & Mitigation

Enterprise lacking major view of company goals and how IT can benefit those goals

Plan blueprint has a hierarchical and prioritized view of major enterprise goals

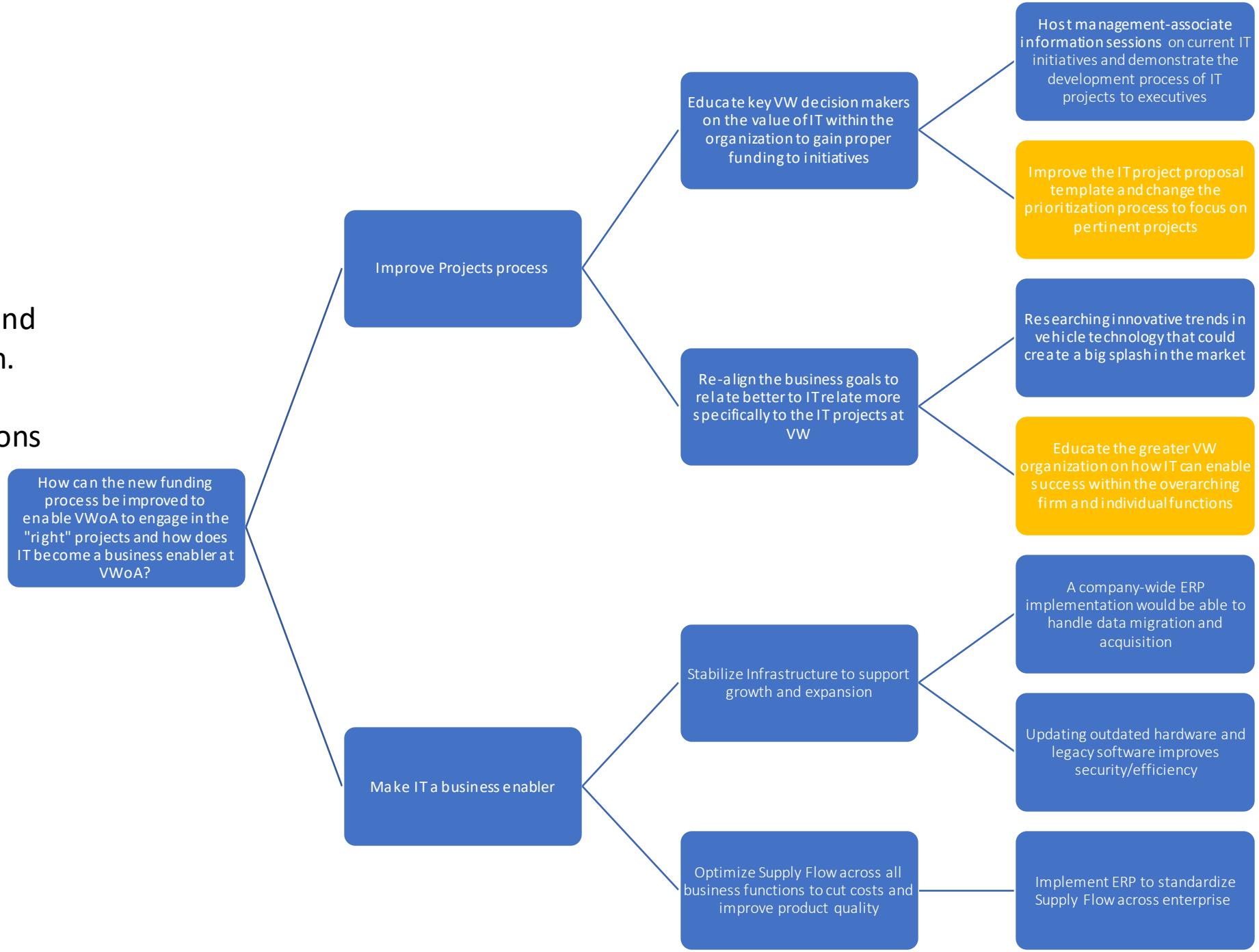
The new project funding plan enables VWoA to do the "right" projects

Blueprint has enterprise wide information inventory

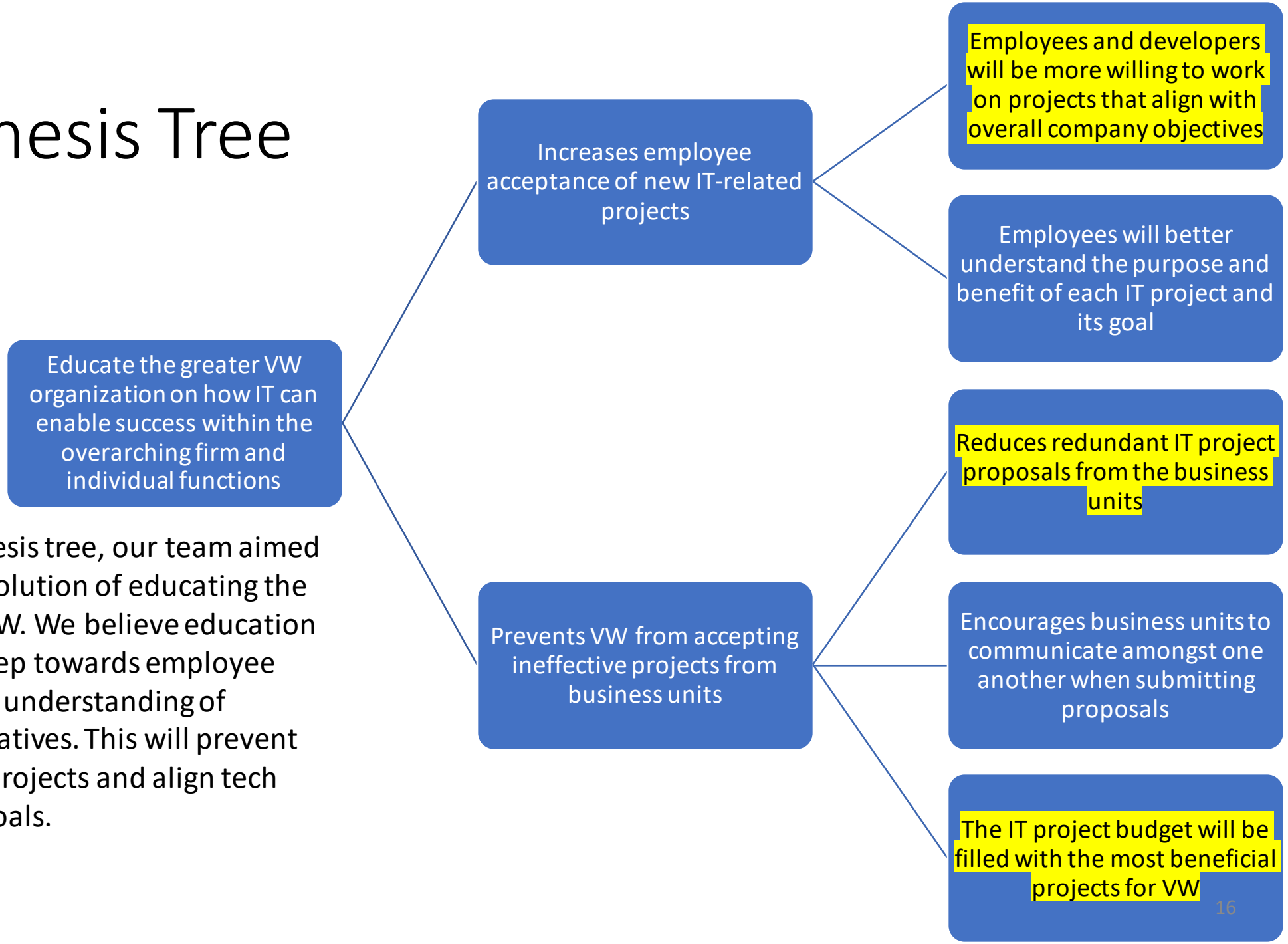
Investments are categorized into 3 groups depending on their purpose

Issue Tree:

The goal of our issue tree is the address VW's misaligned project selection process and the negative stigma around IT in the organization. Clear and encompassing solutions are a major point of emphasis for the overall goal of the presentation.



Hypothesis Tree



For this hypothesis tree, our team aimed to explore the solution of educating the employees of VW. We believe education is the biggest step towards employee acceptance and understanding of technology initiatives. This will prevent poorly funded projects and align tech with business goals.

Hypothesis Tree

This hypothesis tree indicates our thought process for the solution of improving the IT project proposal template and prioritizing the focus of essential projects to VW. Due to limited recourses and an influx of proposals, a new approach needs to be considered.

Key Pieces of Reasoning to Research

- Well established enterprise Project Rating Documents
  - These will enable us to understand what factors are important when ranking projects
  - These will help us understand how to best align IT projects with business long-term business goals
  - They will help us understand how risk assessment of projects is done

- Does bringing people from different teams to discuss related projects help reduce dependencies, bring forth better solutions and speed up projects?
  - Case studies of organizations that have implemented such models

- Enterprise IT Education
  - Successful education tactics
  - Organizations that may be helpful in implementing this solution
  - Financial burden of education strategies

Research Plan

Look up professional resources like Gartner to find:

- How companies estimate budgets for enterprise-wide implementations
- Considerations while ranking IT projects for funding
- Case studies of enterprises that have successfully aligned business unit requests to into enterprise goals
- Organizational structure of committees that rank IT projects for funding
- Research for how companies assess the risk of projects and how companies structure internal project risk assessment teams
- Research to understand how companies begin the transition towards a SAFe type of project collaboration style
- Examples of how companies facilitate meetings across the entire organization to collaborate on project progression

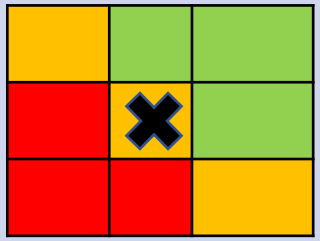
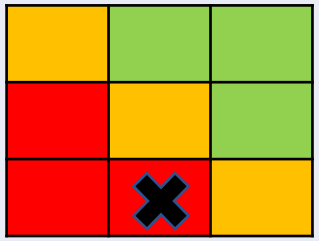
Answer (Recommendation Table)

Recommendation 1	Recommendation 2	Recommendation 3
Restructure the Project Proposal Template to include more details about project workflows • This will require the team to work out all the details involved with the project before they submit • This will also allow the PMO to have a better understanding of project timelines • Consolidate project workflows in one overall list	**Incorporate monthly formal project progress discussions** • This will closely mimic the ideas of the SAFe framework and the Program Increment Planning sessions • Facilitate inter-team dialogue • Reduce dependencies between projects • Generate understanding of project status and potential sources of delays / projects that need additional help	**Implement a risk assessment process into the overall project ranking process** • Form an evaluation committee within VW to assess risk • Include mitigation techniques specific to risks identified • Decide levels of acceptable risk • Include frameworks for security and control integration within all projects • Will act as a decision-making mechanism for projects

List of Actionable tools

- Version Control: Git, Github
- Collaboration: Teams, Slack, GroupMe, WhatsApp
- Methodologies: Waterfall, Agile (Scrum, Kanban)
- Document Sharing: Sharepoint, Google G-Suite
- Project Management: Microsoft Project
- Visualization: Microsoft Vizio, Draw.io, Lucidchart

Additional Risks and Mitigation

Risks		Mitigation Plan
Project planning for individual workstreams may increase the overall planning period and may result in resistance from employees.		Incorporate training sessions for the new proposal process early during the transition and communicate the benefits of the more detailed proposal process to employees.
Standardization can limit mobility and individual team choices which may stir hesitancy across business units and slow the growth of the firm		Ensure that proper planning and analysis of standardization procedures and tools is done before fully implementing the standardization procedures.
Team members may not understand how to leverage the new collaboration tools that we plan to implement.		Provide training courses and certifications on the various tools selected. Train power users to help the organization transition to using this technology.