

# VISION AND STRATEGY

SENIOR DIRECTOR OF ANALYTICS, DATA SCIENCE & LEARNING INNOVATION

LEE DUNCAN  
ADVANCED ANALYTICS & ML LEADER



# SUMMARY

- ❖ I'm a **strategic analytics leader** with a proven track record of unifying fragmented teams, scaling AI and data science capabilities, and delivering measurable impact across complex organizations.
- ❖ I bring the **rare combination** of hands-on technical expertise, deep leadership experience, and a sharp focus on outcomes that matter: equity, engagement, and effectiveness. My approach is people-centered, mission-driven, and built to scale.
- ❖ What excites me about this opportunity at WGU is **the chance to shape a newly consolidated function** into a powerful, integrated engine for student success and learning innovation.
- ❖ This deck outlines how I would approach building trust, accelerating value, and positioning **analytics as a transformative** force at WGU, not just in operations, but in how the institution learns and evolves.



# AGENDA

GUIDING PRINCIPLES

ROADMAP

TEAM INTEGRATION KEYS

SUCCESS METRICS

APPENDIX 1: ABOUT ME

APPENDIX 2: STRATEGY EXAMPLE

# GUIDING PRINCIPLES

(ADAPTABLE BASED ON LEARNINGS IN ROLE)



## MISSION-ALIGNED

(student success, learning at scale)



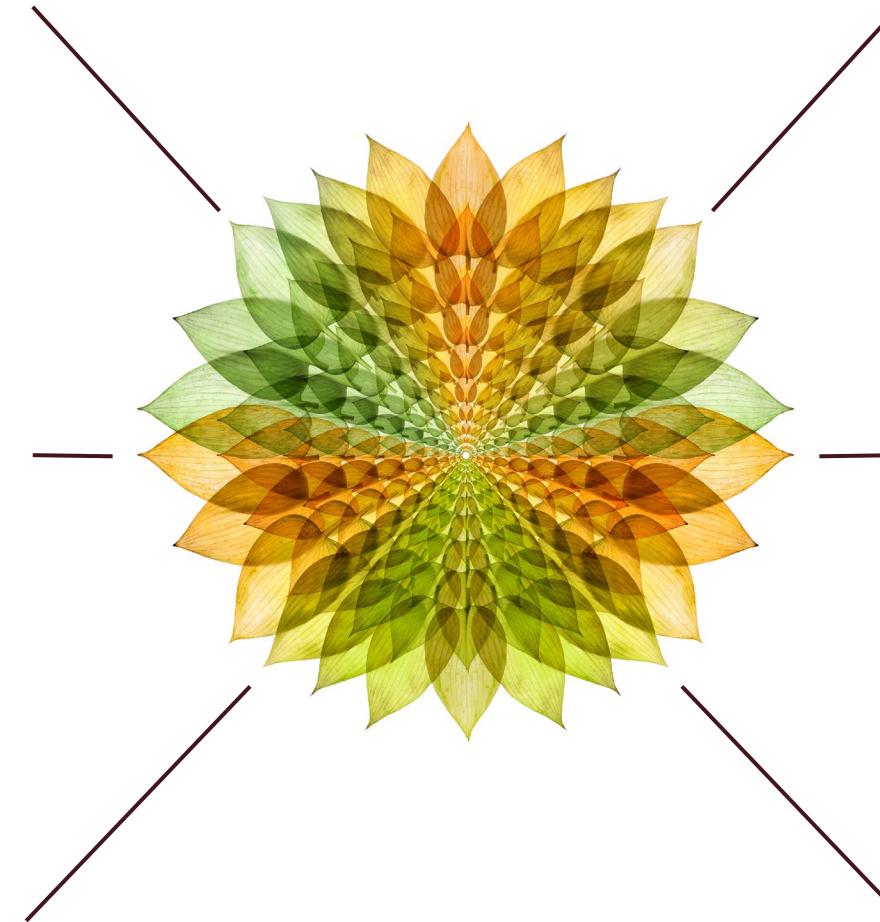
## PEOPLE FIRST CULTURE

(clarity, collaboration, empowerment)



## INFLUENCE

(compelling, data driven storytelling)



## DATA AS AN ENABLER

(prescriptive insights, practical AI)



## SCALABLE INNOVATION

(AI/ML with clear value)

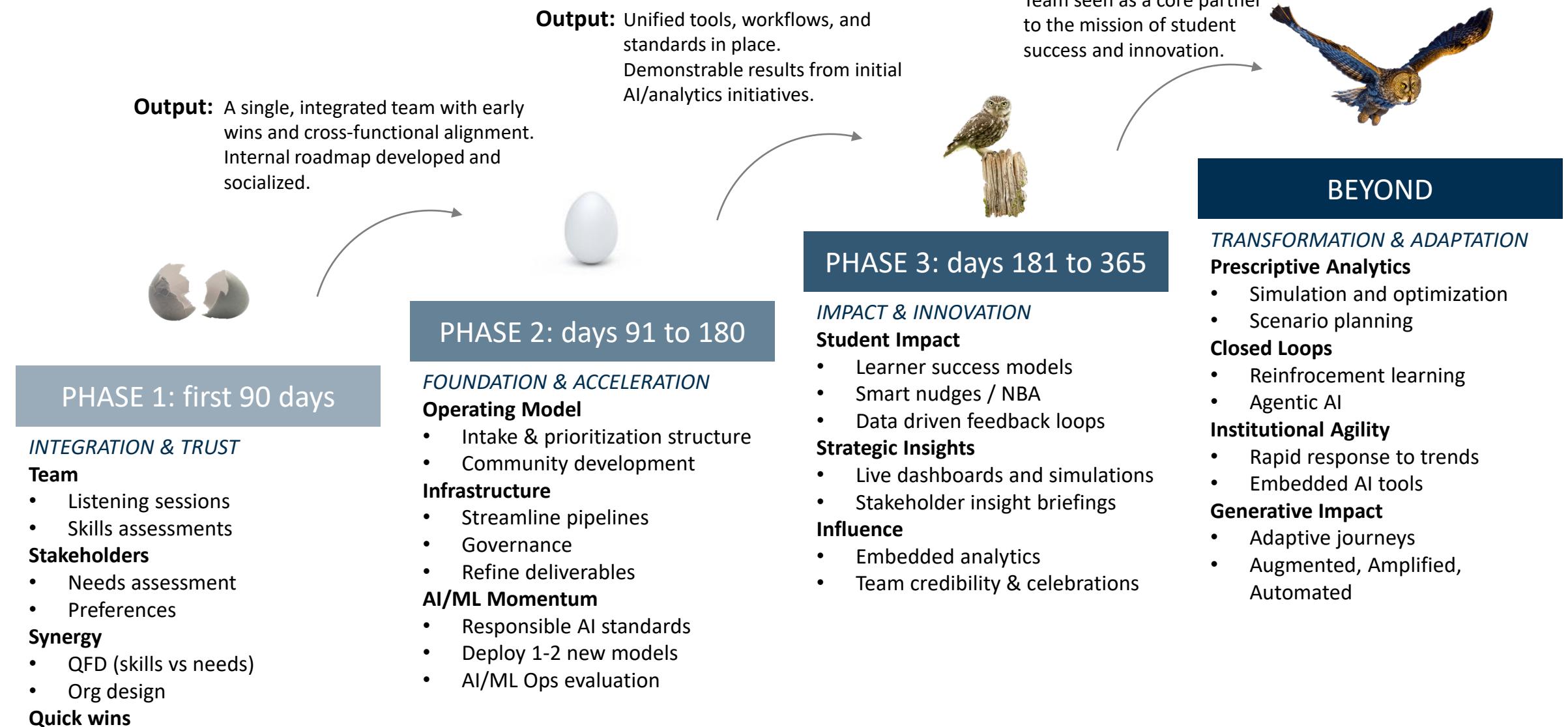


## INNOVATION

(research, exploration, partnerships)

# 90-DAY ROADMAP (HIGH LEVEL)

(ADAPTABLE BASED ON LEARNINGS IN ROLE)



# TEAM INTEGRATION KEYS

(ADAPTABLE BASED ON LEARNINGS IN ROLE)

🔗 *Unification and teamwork*

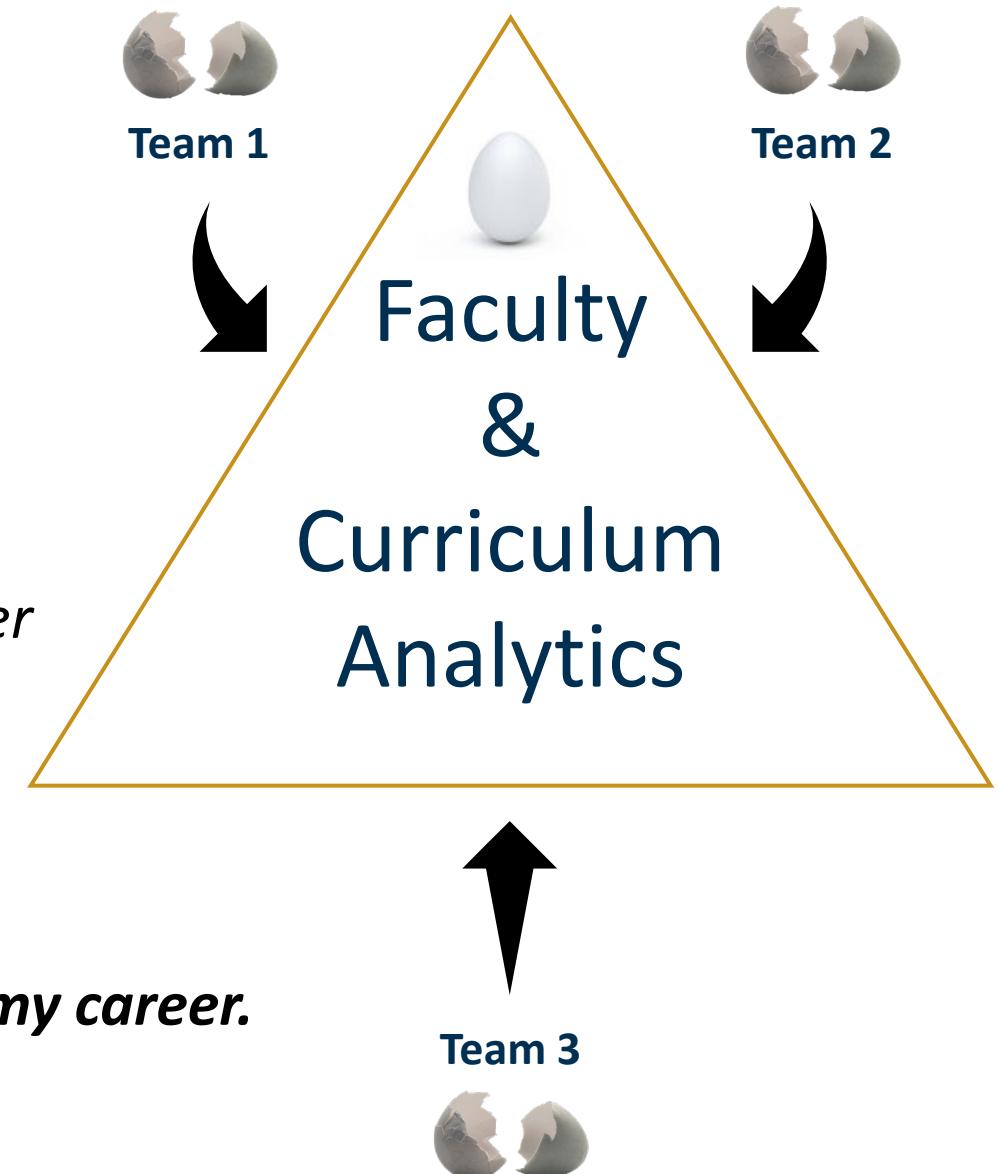
📊 *Org evaluation*

💡 *Shared vision + operating rhythm*

👉 *Elevate strengths of each team and member*

🚧 *Establish foundational norms*

*I have unified multiple teams several times in my career.*



# PROPOSED SUCCESS METRICS (PROVISIONAL)

(ADAPTABLE BASED ON LEARNINGS IN ROLE)



***Team Health***  
*(retention, engagement)*

***Stakeholder Satisfaction***  
*(feedback, reviews)*

***Analytics Adoption***  
*(usage, models)*



***Student Success***  
*(satisfaction, graduation)*



***Operational Efficiency***  
*(cost, speed)*

# APPENDIX 1

## ABOUT ME

# ABOUT ME



LEE DUNCAN



## Experience

- 30 Years of leadership experience
- 20 Years of analytics and A.I.
- 10 Years in Tech

## Education

- Masters in Statistics (honors)
- Bachelors in Mathematics
- Dozens of Certifications

## Leadership

- Founded many teams
- Led orgs in size from 15 to 250
- Collaborator and influencer

## Career Goals

- Broader influence
- Scale analytics and AI programs
- Develop new leaders

## Approach

- Process improvement mindset
- Data and A.I. toolkit
- Strategy and action

## Achievements

- Hundreds of millions in annual value
- Multiple innovative solutions
- Culture and collaboration successes

## Skills

- Programming, ML, AI
- Program / Project Management
- Thought leadership

## Personal Interests

- Family & friends
- Health & fitness
- Learning & creativity

# EXPERIENCE

Shipping industry leadership.

Started as labor. Several promotions in ten years.

\$30M budget

250 FTE



1994 - 2004



B.S.,  
Mathematics



Master of  
Statistics,  
Business



2004 - 2014

Dozens of certifications / nanodegrees.

Founded,  
developed,  
and grew  
several data  
science  
teams.



Two  
promotions.  
  
Billions in  
value.

2014 - Present

30 Years of  
**leadership**  
experience

20 Years of  
leveraging  
analytics and  
A.I.

10 Years in  
Telecom /  
Connectivity

# KEY SKILLS

## Quantitative

### Artificial Intelligence

- ❖ GOFAI, ML, Generative AI

### Machine Learning

- ❖ Supervised, unsupervised, reinforcement learning

### Deep Learning

- ❖ CNNs, RNNs, GANs

### Data and Programming

- ❖ SQL, NoSQL, Python, VBA

### Analytics

- ❖ Visualization, RCA, exploratory

### Prescriptive Methods

- ❖ Optimization, simulation

### Math and Statistics

- ❖ Inference, time series, DOE

## Qualitative

### Business Leadership

- ❖ Diplomacy, influence, vision

### Team Leadership

- ❖ Mentoring, motivation, delegation

### Strategy

- ❖ SWOT, scenario planning, QFD

### Program Management

- ❖ Stakeholdering, operating models, resourcing

### Project Management

- ❖ Planning, risk, comms

### Communication

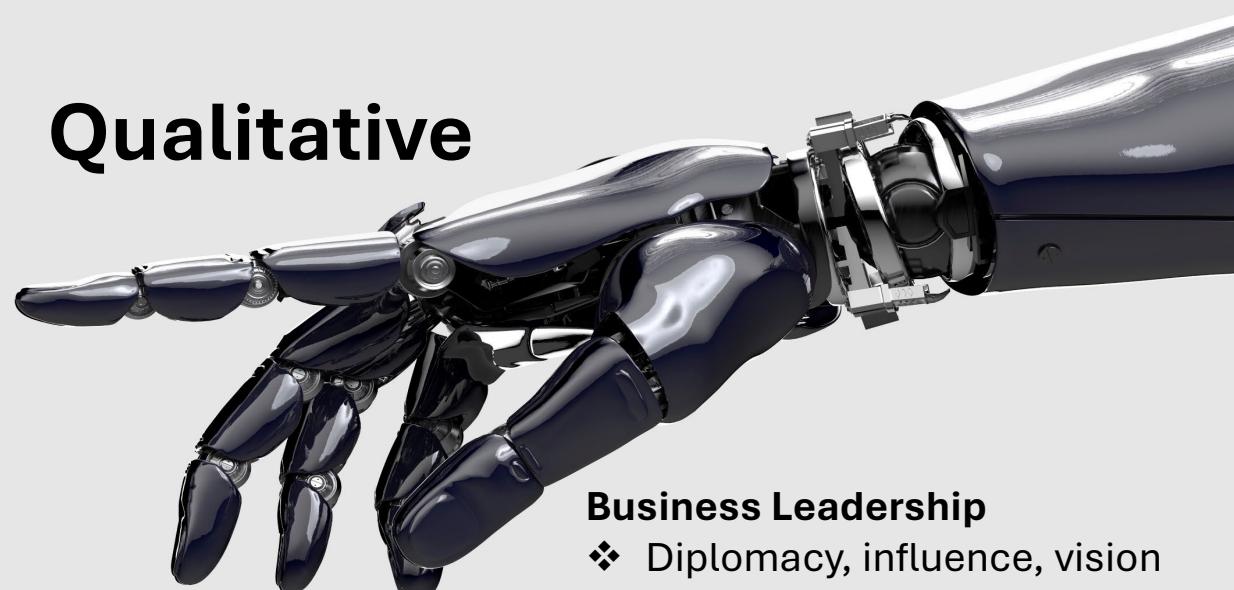
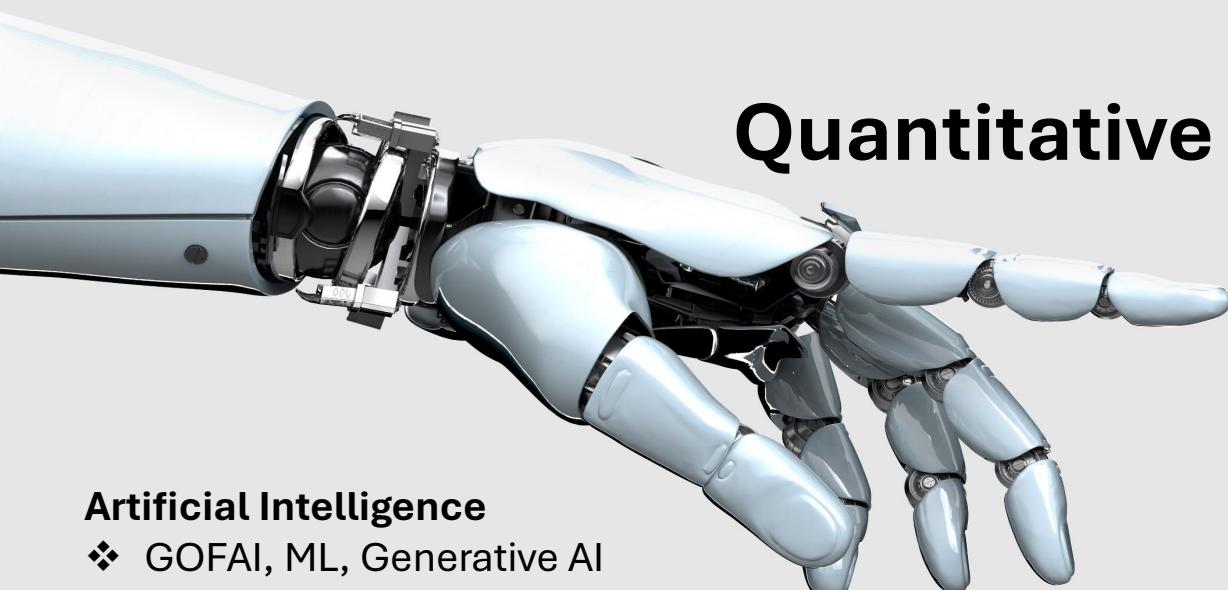
- ❖ Engagement, reporting, resolution

### Master of Statistics in Business

Interdisciplinary Graduate Degree  
Synergy between MBA program  
and Graduate School of  
Mathematics

### Six Sigma Black Belt

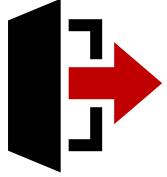
Applies scientific method to  
business process improvement



# SAMPLE OF ACHIEVEMENTS

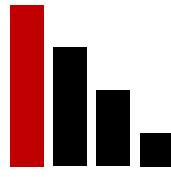
- ❖ Created generative AI vision for Consumer Mass Markets.  
**Founded team.** Secured funding for **\$500M in generative AI use case value** with 200% IRR over 5 years.
- ❖ Shaped vision for Broadband Marketing Advanced Analytics approach. Pitched the idea.  
**Founded and scaled team.**
- ❖ Developed vision for Data, Insights, and Customer Experience Machine Learning.  
**Founded and scaled team.**
- ❖ Founding member of generative AI **Governance and Review Board**, contributing to strategic and ethical oversight.
- ❖ **Founded data science community.** 300+ members. Hackathons, speaker series, learning sessions, communication forums.
- ❖ Directed development of machine learning models delivering **\$300M in annual value**, driving improvement in areas such as churn, marketing strategy, and capital expenditure.
- ❖ Oversaw development of generative AI **call transcript insight extraction** for over 9 million calls per month, reducing ambiguity in CX and influencing crucial business decisions.
- ❖ Created innovative Gen AI approach to identify **next best action**.
- ❖ Developed genetic algorithm and stochastic simulation for call center **labor optimization**.
- ❖ Trimmed **\$60M from rental lot labor** through linear programming models.
- ❖ Developed **automated root cause analysis**, accelerating speed to insights. Applied to call center and CX metrics.
- ❖ Oversaw development of gen AI **agent-based evaluators** for topline CX metric (NPS).
- ❖ Developed novel heuristic approach to **balancing queue time**.
- ❖ **Improved customer sentiment** using interpretable ML regression models to identify actionable factors.
- ❖ Rapidly **improved call center queue time** via analytics, queuing theory, simulation, and optimization.
- ❖ Developed **automated time series analysis**.
- ❖ Developed novel **genetic programming** regression model.

# CASE STUDY: FIBER CUSTOMER CHURN MODEL

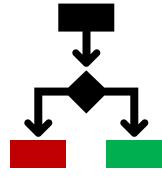


**Very difficult to improve Broadband customer retention.**

Most common approach was to incentivize with recurring credits. (i.e., buy loyalty)



Developed **machine learning model** showing that churn was predictable. Proposed **proactive routing** of high churn risk customers.

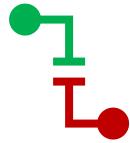


Customers in **top 2 deciles** for churn likelihood are **routed directly** from IVR to **retention**. Technical and collections calls are excluded.



3k incremental customers retained per month. \$120M in customer value per year. **\$60M net value** compared to control.

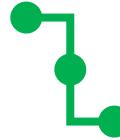
# CASE STUDY: GENERATIVE AI INTEGRATION



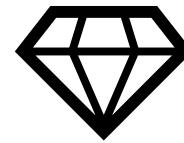
Limited strategy for AI in Mass Markets. Hype cycle driving awareness and interest. Resources spread across teams. **Duplicated and wasted efforts across organization.**



**Create generative AI program** in Mass Markets to accomplish multiple goals including adoption and identification of use cases with clear ROI.



Developed **vision, strategy, team, and operating model** to identify needs and match with solutions. Created POCs. Developed training programs.



**\$500M in gen AI use cases.**  
**Drove adoption from 0% to 50%.**  
Use cases scaled to enterprise. Scope expanded to include all AI capabilities.

# APPENDIX 2

## REAL WORLD STRATEGY EXAMPLE

# STRATEGY: VISION

To establish your company as a leader by harnessing AI to revolutionize customer experiences, streamline operations, and foster continuous innovation.



**Enhance Customer Experience:** Utilize AI to deliver personalized, efficient, and responsive customer interactions.



**Optimize Operations:** Leverage AI to improve operational efficiency, reduce costs, and enhance productivity.



**Drive Innovation:** Develop AI-driven products and services that differentiate Vonage in the market and create new revenue streams.

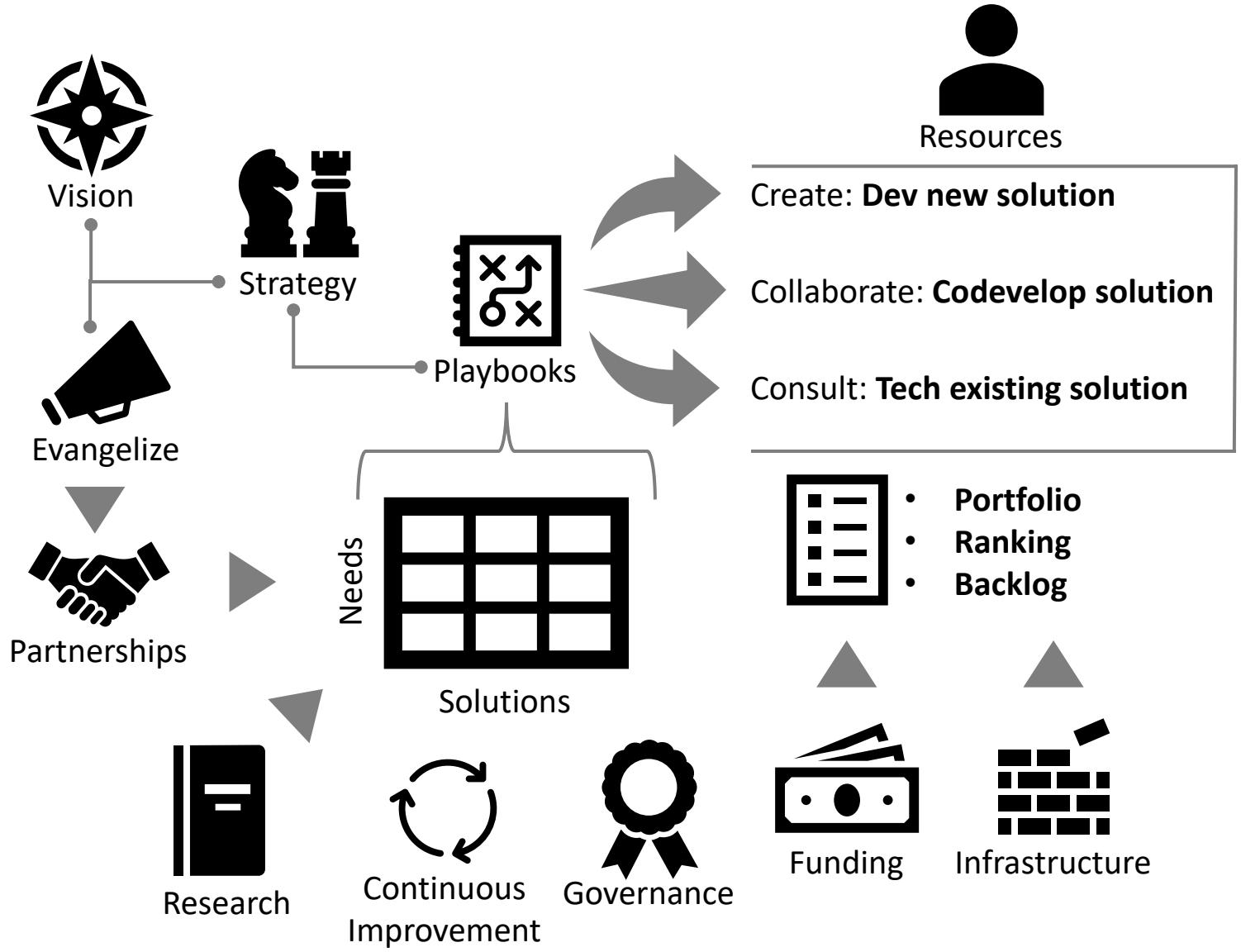


**Ethical AI:** Implement AI ethically, ensuring fairness, transparency, and accountability.



\*Contingent on learnings in role.

# STRATEGY: OPERATING MODEL

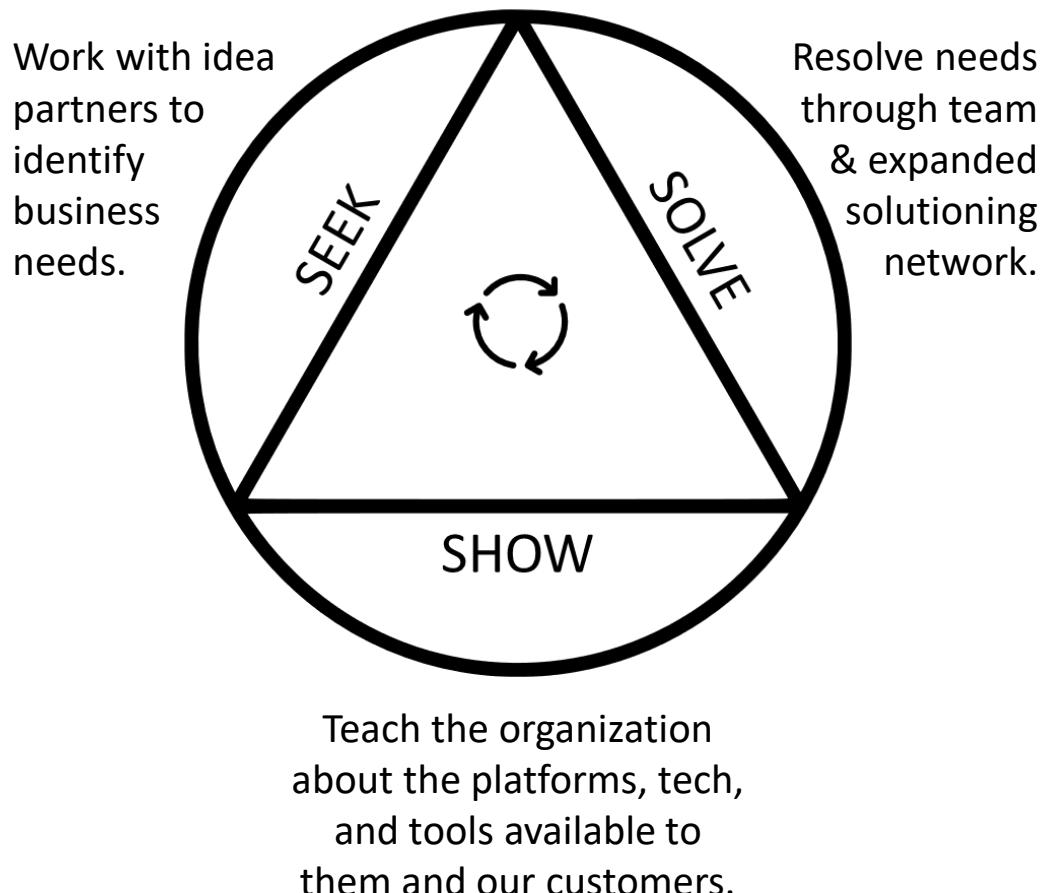


\*Contingent on learnings in role.

# STRATEGY: ENGAGEMENT MODEL

Accelerate • Amplify • Augment • Automate

Consult • Create • Collaborate



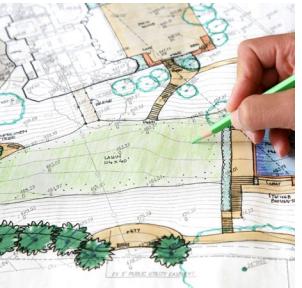
\*Contingent on learnings in role.



# STRATEGY: KEYS TO SUCCESS

## Infrastructure

- Scalable compute
- Data management
- Tools & platforms



## Team

- Data scientists
- ML engineers
- Project managers
- Mentorship programs
- Continuous learning
- Scrappy POCs



## Partnerships

- Internal domains
- Industry
- Internal communities
- Academic



## Finance

- Development funding
- ROI metrics
- Operational budget



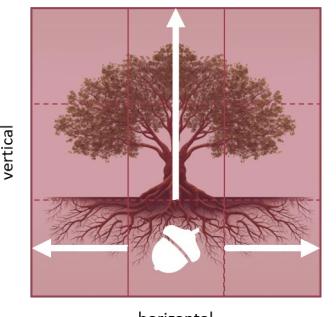
## Governance

- Governance board
- AI policy
- Ethical guidelines
- Transparency and accountability



## Value Expansion

- Expand vertical use cases horizontally.
- Expand horizontal use cases vertically.



\*Contingent on learnings in role.



# STRATEGY: ROADMAP

## PHASE 3 EVOLVE

- **Optimization:** Continuously optimize AI models and processes for better performance. Versioning and champion challenger frameworks. Monitor for drift.
- **Innovation Lab:** Establish an AI innovation lab to explore cutting-edge technologies and new applications.
- **Continued Expansion:** Scale successful AI initiatives across the enterprise.
- **Communities:** Foster innovation through events like hackathons.

## PHASE 2 EXPAND

- **Infrastructure:** Invest in scalable AI infrastructure, including cloud services and data storage.
- **Integration:** Integrate AI solutions with existing systems and workflows.
- **Scale:** Expand vertically and horizontally.
- **Portfolio:** Continue to identify new use cases.
- **Continuous Learning:** Implement feedback loops and continuous learning mechanisms to improve AI models. Keep team member skills up to date.

## PHASE 1 ESTABLISH

- **Readiness:** Evaluate current AI capabilities and infrastructure. Develop operating model.
- **Relationships:** Establish connections with critical stakeholders.
- **Governance:** Found AI governance board.
- **Data:** Develop a robust data governance framework and ensure data quality and accessibility.
- **Talent:** Hire or train AI specialists and data scientists.
- **Portfolio:** Launch pilot projects for high-impact use cases.

\*Contingent on learnings in role.



# THANK YOU



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