

USB Update

Presented by Richard Joost

*2017 Soybean Breeders
Workshop*




USB Guiding Principles

















- **FY2017-2021 Strategic Plan**
 - **MISSION:** “Maximize profit opportunities for U.S. soybean farmers”
 - **VISION:** “Soybean innovation beyond the bushel”
- **Value Creation Framework (StageGate)**



2017-2021 USB Long Range Strategic Plan Goals

SUPPLY	1	 SUSTAINABLE PRODUCTION	Soybean producers use improved seed varieties and the latest production techniques to maximize profit opportunities while meeting the standards of the U.S. Soybean Sustainability Assurance Protocol.
	2	 TECHNOLOGY	Farmers use big data and technological advances to maximize their profit opportunities.
MARKETPLACE	1	 INFRASTRUCTURE	Potential partners and influencers use new information to communicate to appropriate target audiences why improvements to the transportation infrastructure are needed.
	2	 VALUE	The soy value chain is using an accurate definition of the U.S. soy advantage and bringing that value back to farmers.
DEMAND	1	 MEAL	Animal and aquaculture producers seek meal made from U.S. soybeans in their feed rations because of the superior component value.
	2	 OIL	End users recognize, use and communicate the advantage of both conventional and high oleic U.S. soy oil.
	3	 INDUSTRIAL USES	Manufacturers of high value or high volume industrial products prefer U.S. soybean oil or meal as a feedstock/ingredient.
	4	 SUSTAINABILITY	Buyers and end users recognize U.S. soy as a sustainable and responsible choice for food, feed and industrial applications.
	5	 FOOD EXPORTS	Targeted food manufacturers in export markets prefer U.S. soy protein.

UNITED STATES

		ACTION TEAMS					
		SUPPLY		MARKETPLACE		DEMAND	
TARGET AREAS	MEAL	 SUSTAINABLE PRODUCTION	 TECHNOLOGY	 VALUE	 MEAL	 INDUSTRIAL USES	 FOOD EXPORTS
		Production Research		Market Research		Product Research	
		Communications					
	OIL	 SUSTAINABLE PRODUCTION	 TECHNOLOGY	 VALUE	 OIL	 INDUSTRIAL USES	
		Production Research		Market Research		Product Research	
		Communications					
	SUSTAINABILITY	 SUSTAINABLE PRODUCTION	 TECHNOLOGY	 INFRASTRUCTURE	 VALUE	 SUSTAINABILITY	
		Production Research		Market Research		Product Research	
		Communications					

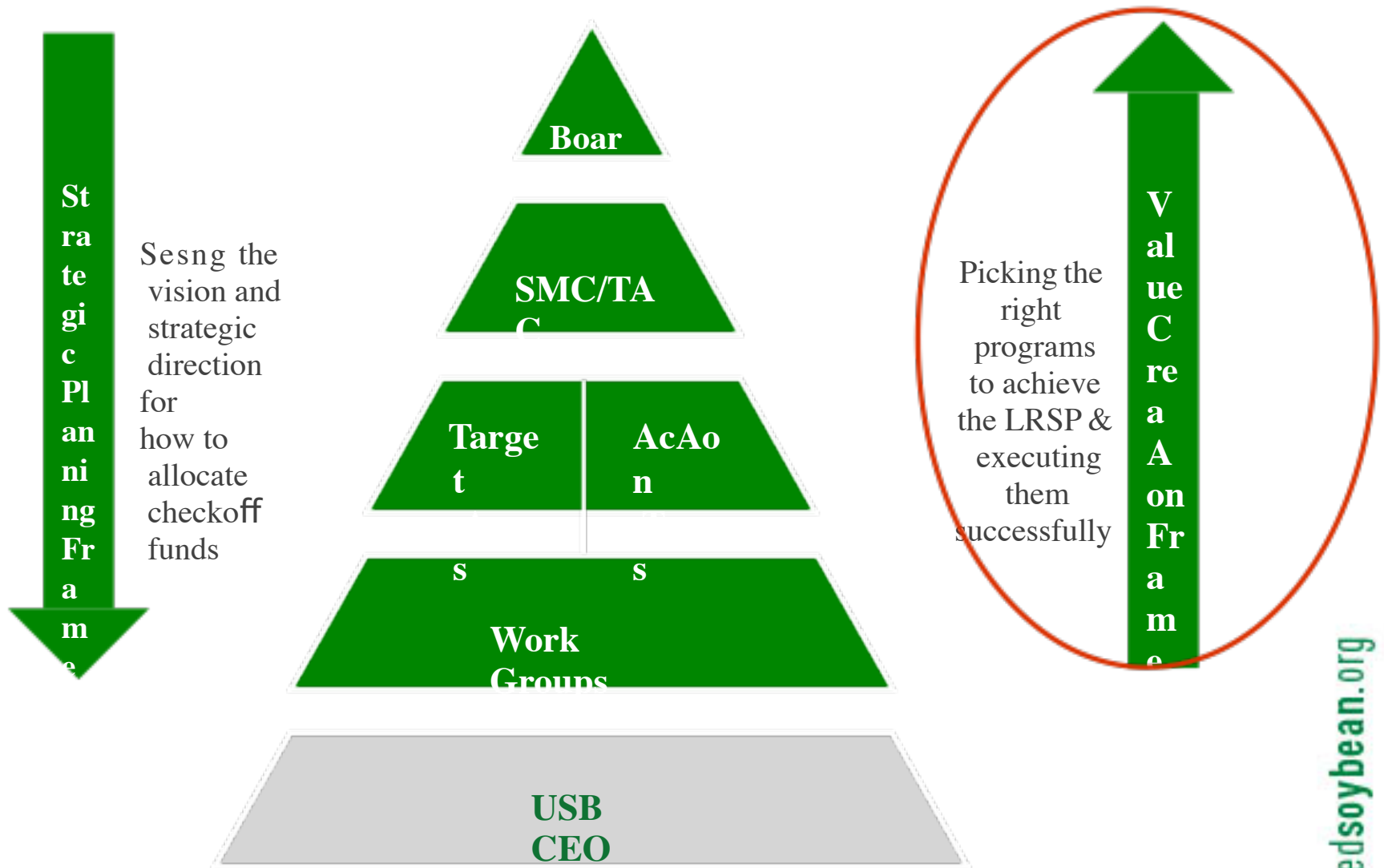




*USB's STAGE-GATE®
VALUE CREATION
FRAMEWORK*



USB Directors drive top-down strategic planning which is fulfilled by bottom-up value creation



Executive Staff Directs Primary Contractors in Developing & Implementing Programs



ExxonMa



City of Se



JOHN DEE



Govern of Cana



MONSANTO



DIAGEO I

Kellogg



Firma



PENNZOIL-Q

CORT

Simpl
Bringing Earth's Resources



NRE
NATIONAL RENEWABLE ENERGY LAB



World Vision
Building a better world for ch



unitedsoybean.org

Johnson & Joh



Energiz



What is a Program?

A planned series of strategic actions to occur over a period of time, to produce an intended result.

Examples of Programs:

- Put a man on the moon and return him safely to earth
- Map the human genome to enable analysis
- Develop High Oleic Soy to recapture lost demand



Two approaches organizations use to fund program ideas

‘The Horse Race’ ‘Poker Game’



- The full bet amount is placed before the race begins – you do not change your bet once the race starts – you are committed
- All horses will finish the race, even when they realize they can no longer ‘win’



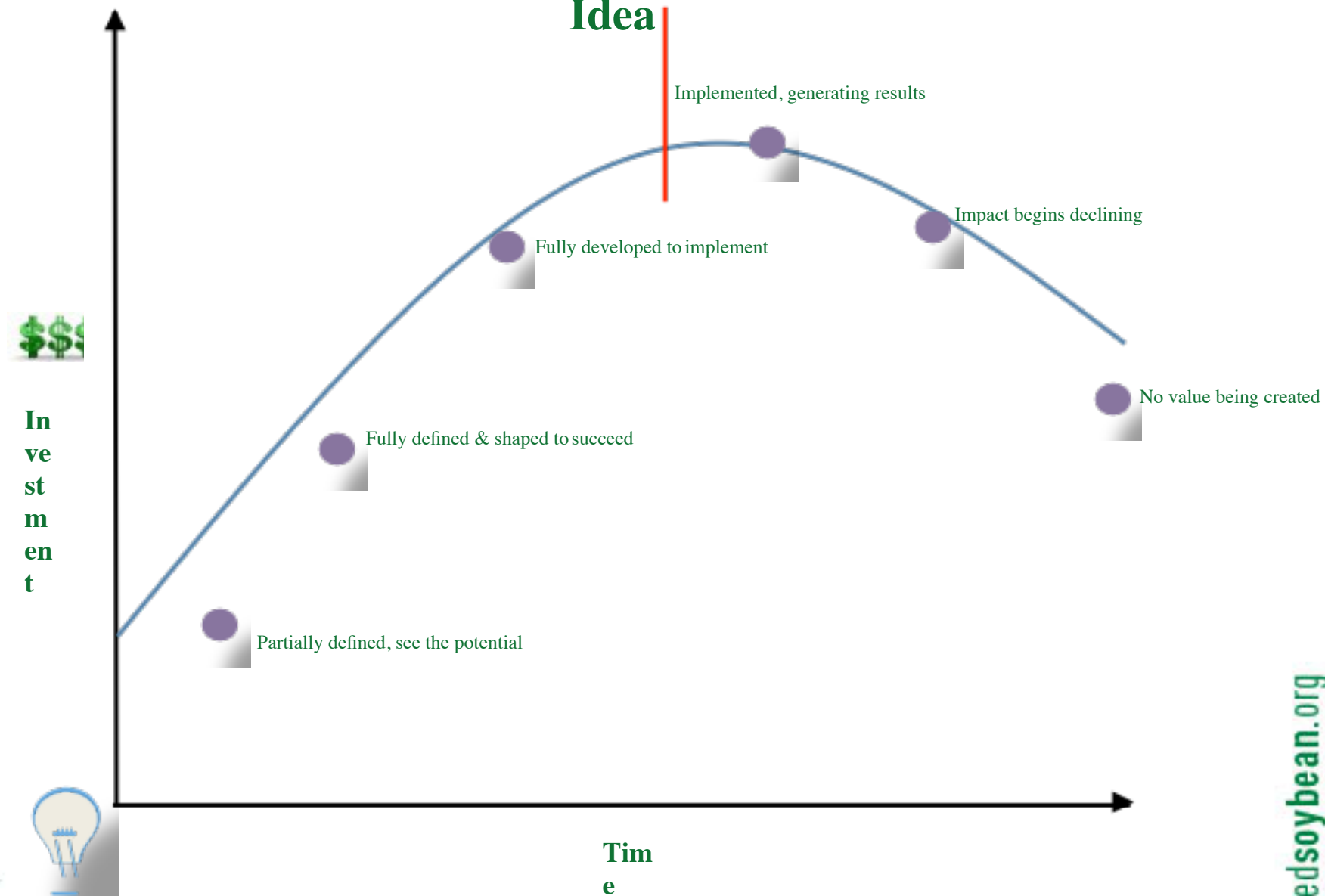
Better Practice

- Bet amounts are incremental, that is, the bet amount is increased **after** the card is dealt and the player determines if the card will enable winning
- Players will not stay in the game if they are dealt a weak card – they will “fold”

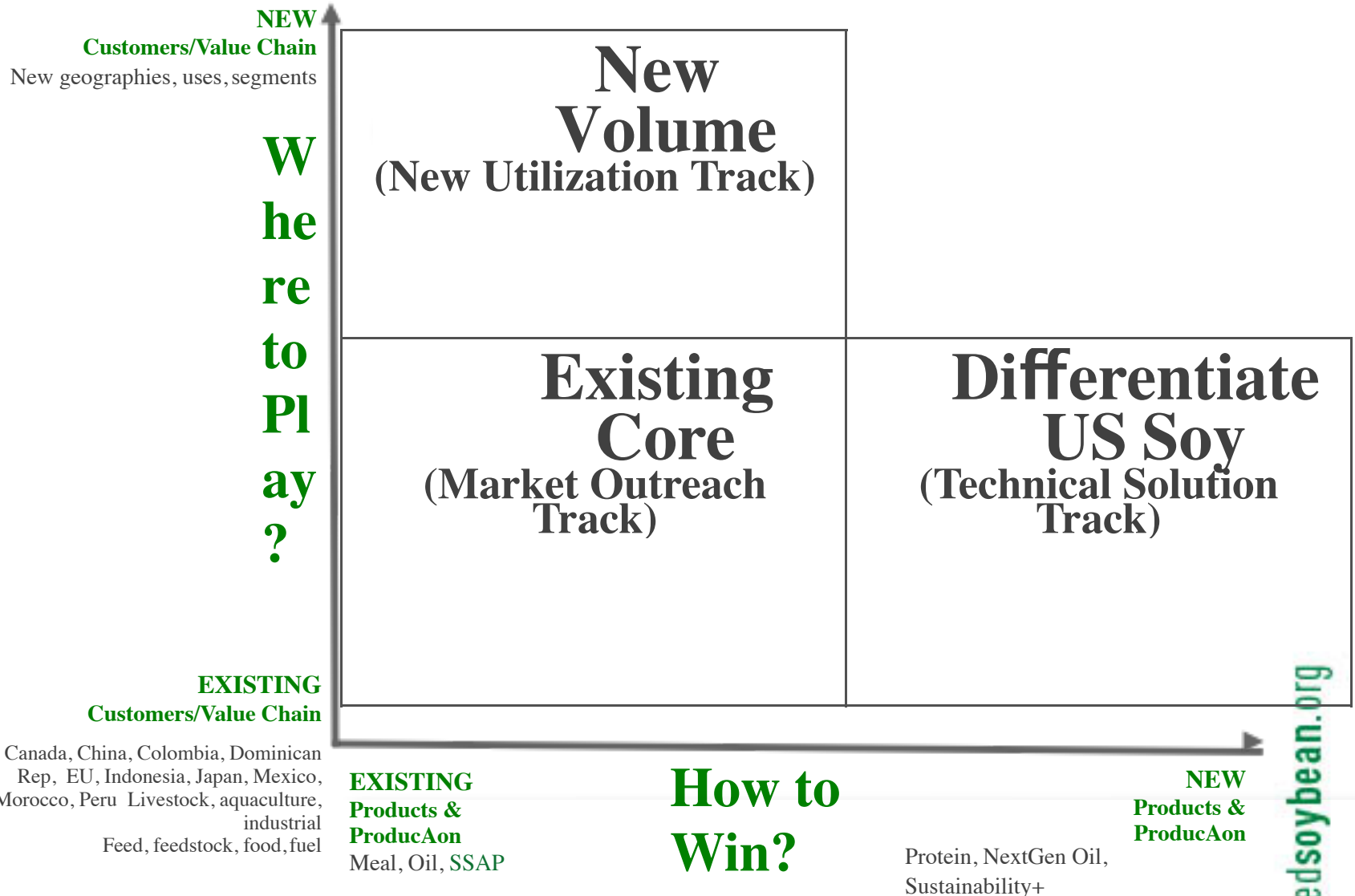


Lifecycle of a Program

Idea



Each quadrant relies on a specialized track to guide program activity



USB's 3 specialized value creation tracks

Communicating to and engaging with existing core customers and value chain partners to preserve and grow utilization.

**Market
Outreach
Track**

Developing new demand for U.S. soy by matching unmet domestic or international market needs with the best soy solution

**New
Utilization
Track**

Creating competitive advantage for U.S. soy growers by differentiating soy offerings throughout the value chain, leveraging the latest technological advancements and innovations

**Technical
Solution
Track**



Technical Solution Track

EXPLORATION

INVESTIGATION

VALIDATION

APPLICATION

Quick, inexpensive assessment to determine if there is merit to proceed

Investigate important problems, opportunities & potential solutions for feasibility

Verify solution concepts for the problem by conducting experiments in the lab or field

Advance validated research for practical use & potential commercialization

- Define problem, unmet need, and describe the magnitude of the problem if not addressed
- Inventory the product landscape, available and potential solutions and uses
- Describe proposed solution parameters including key technologies to leverage
- Describe the target market and key players: audience, potential strategic partners
- Create a high-level road-map

- Describe the **magnitude of the opportunity** based on the proposed solution
- Conduct literature review of the product landscape to develop a deeper understanding of a topic & to conduct a preliminary assessment of viability
- Design and conduct proof of concept experiments
- Conduct foundational research to generate supportive data
- Update the target market and key players
- From preliminary work, develop recommended research pathways / full experimental plan

- Determine potential magnitude of **economic impact** for the development effort
- Reassess product landscape and protect invention or product solution if applicable
- Conduct testing & validation experiments in laboratory and field environments
- Establish characteristics & limitations for the product or solution concept
- Identify risks that may impact product or solution success
- Using results generated, develop recommended Application pathway and experimental plan

- Establish a refined economic analysis
- Generate & test prototype product or solution
- Assess robustness of product or solution in multiple laboratory & field environments
- Undertake competitive technologies analysis
- Reconfirm target market(s) and key players
- Develop application and commercialization concepts
- Develop application path to market

• Final Report

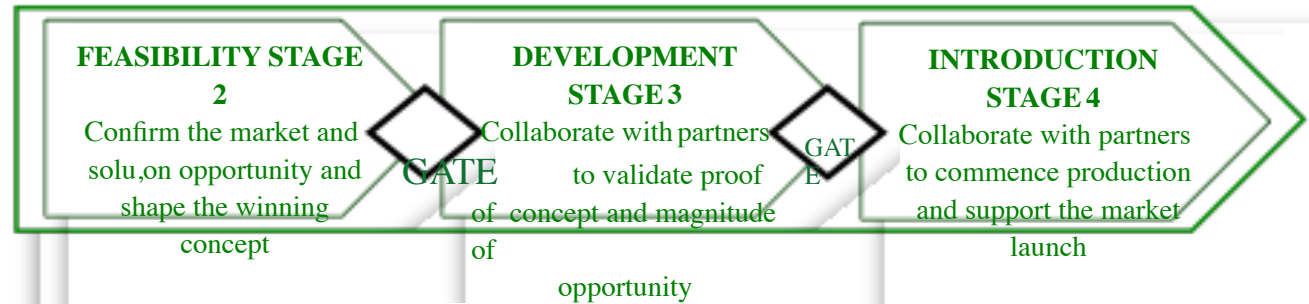
• Final Report

• Final Report

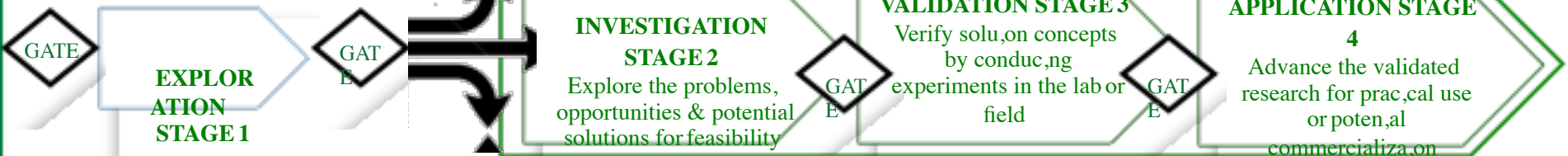
• Final Report

Each programs path through the value creation tracks is unique
 Gates are Go/No Go decision points that open (or close) the door to funding

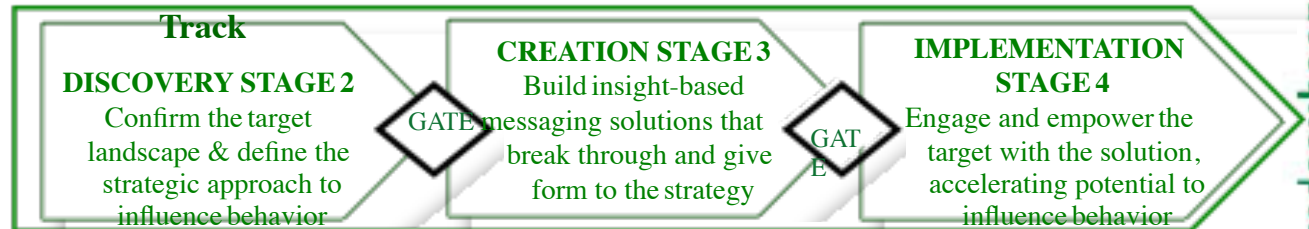
New Utilization Track



Technical Solution Track



Market Outreach Track



Program Maturity Roadmaps

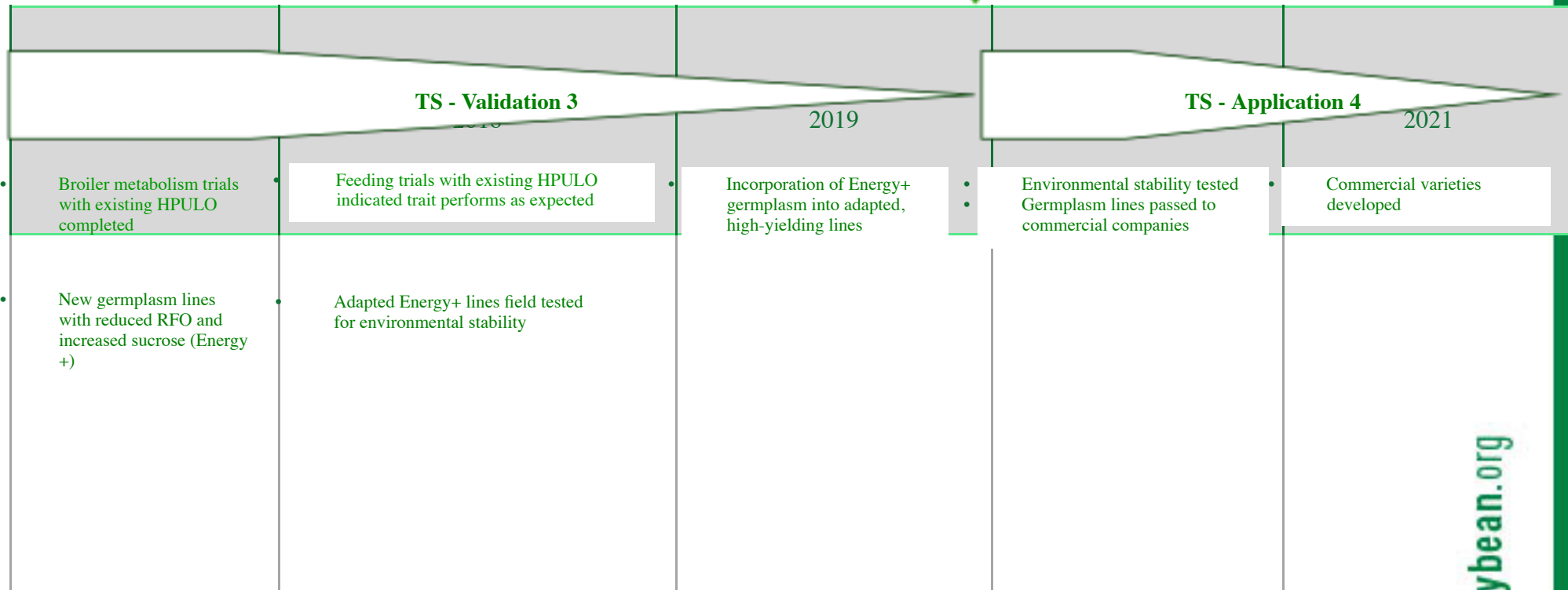
1.	Feed Demand	1.	Oil Diversity
2.	Meat Exports	2.	High Oleic Food
3.	Food Uses/Taiwan- Indonesia	3.	Commodity Oil Food
4.	Meal Industrial Uses	4.	Biofuels
5.	Oil Industrial Uses	5.	Bioheat
6.	Protein +	6.	Sustainable
7.	Energy +	7.	Production Practices
8.	Lower Carbs	7.	Constituent Value
		8.	Transportation Infrastructure



Energy +

Commercial broiler feeding trial proves high-protein, ultra-low oligosaccharides (HPULO) trait

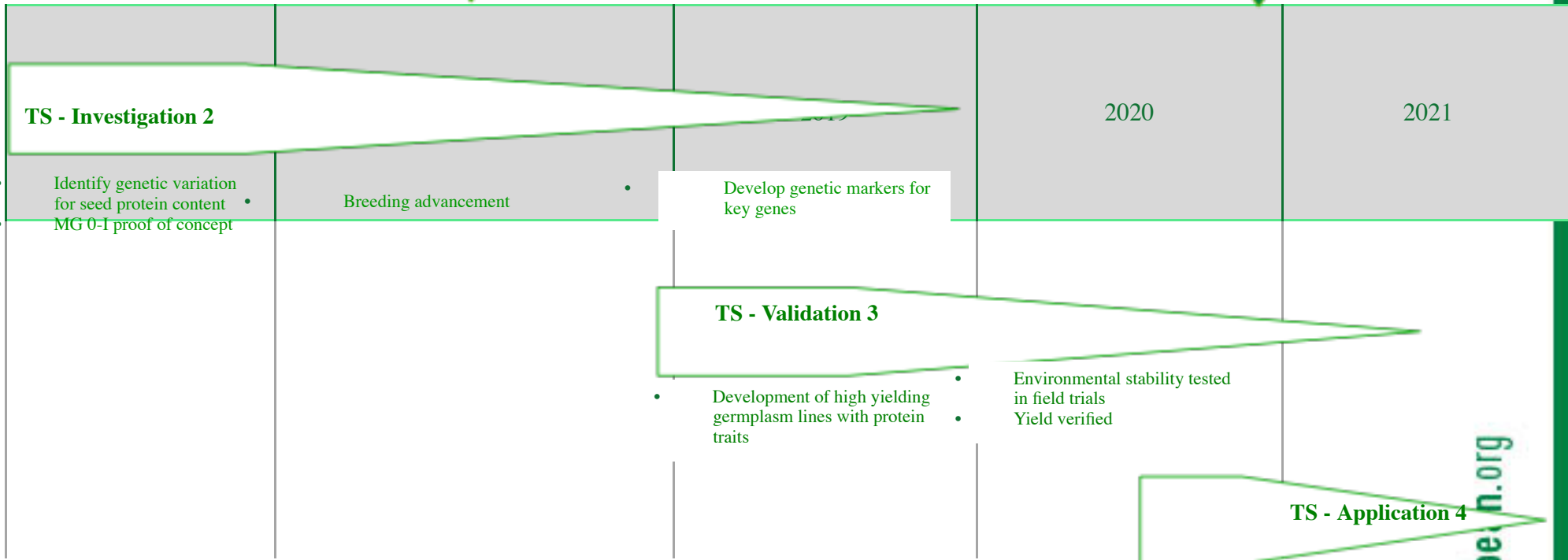
Trait is stable across environments in developed germplasm



Protein +

Maturity Group 0-I high protein/high yield lines identified

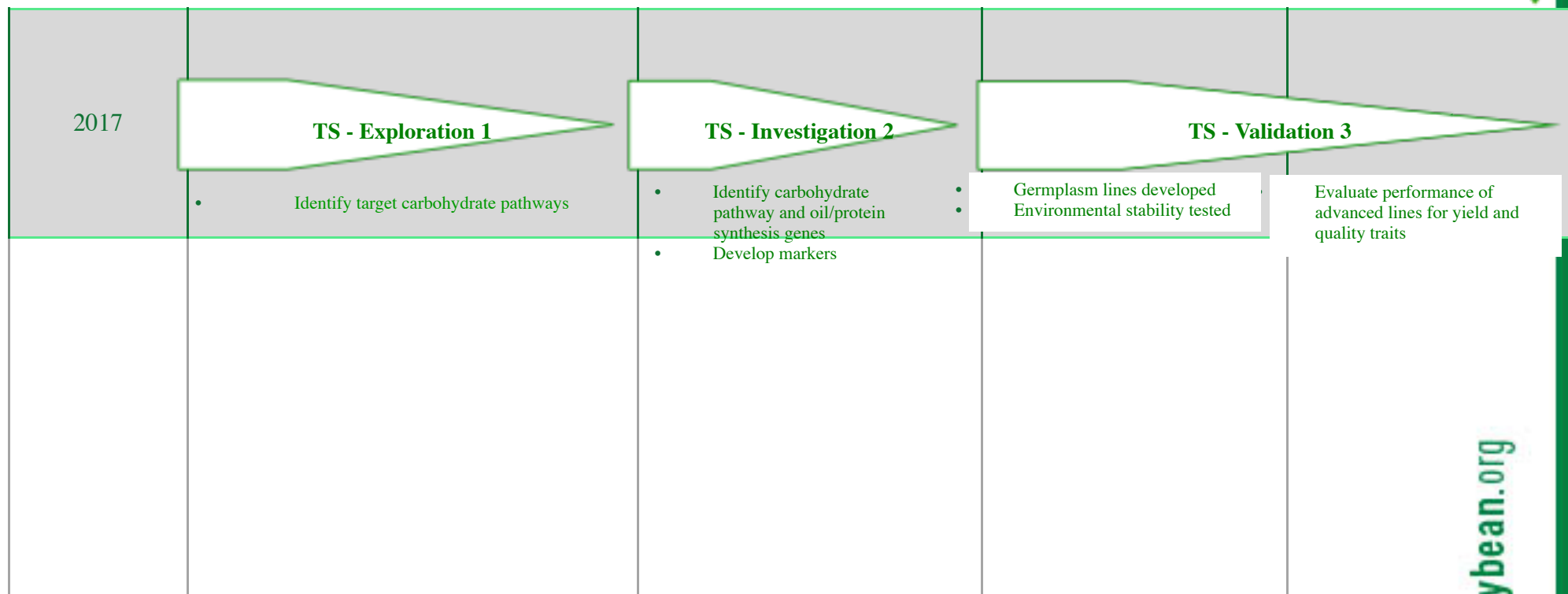
XX seed companies committed to commercialization of increased protein lines



Lower Carbs

Key carbohydrate pathways to manipulate are identified

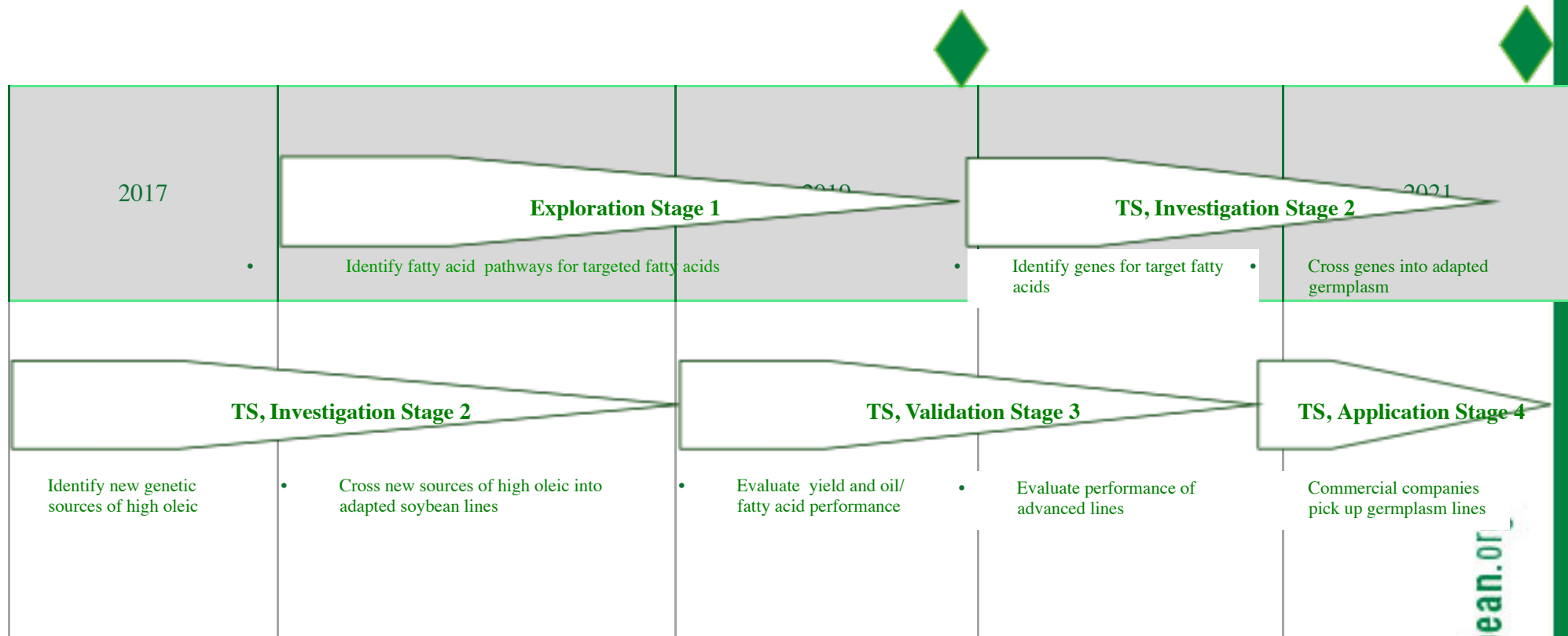
XX seed companies committed to commercialization



Oil Diversity

XX seed companies committed to commercialization of new sources of key fatty acids

Target fatty acid pathways are identified



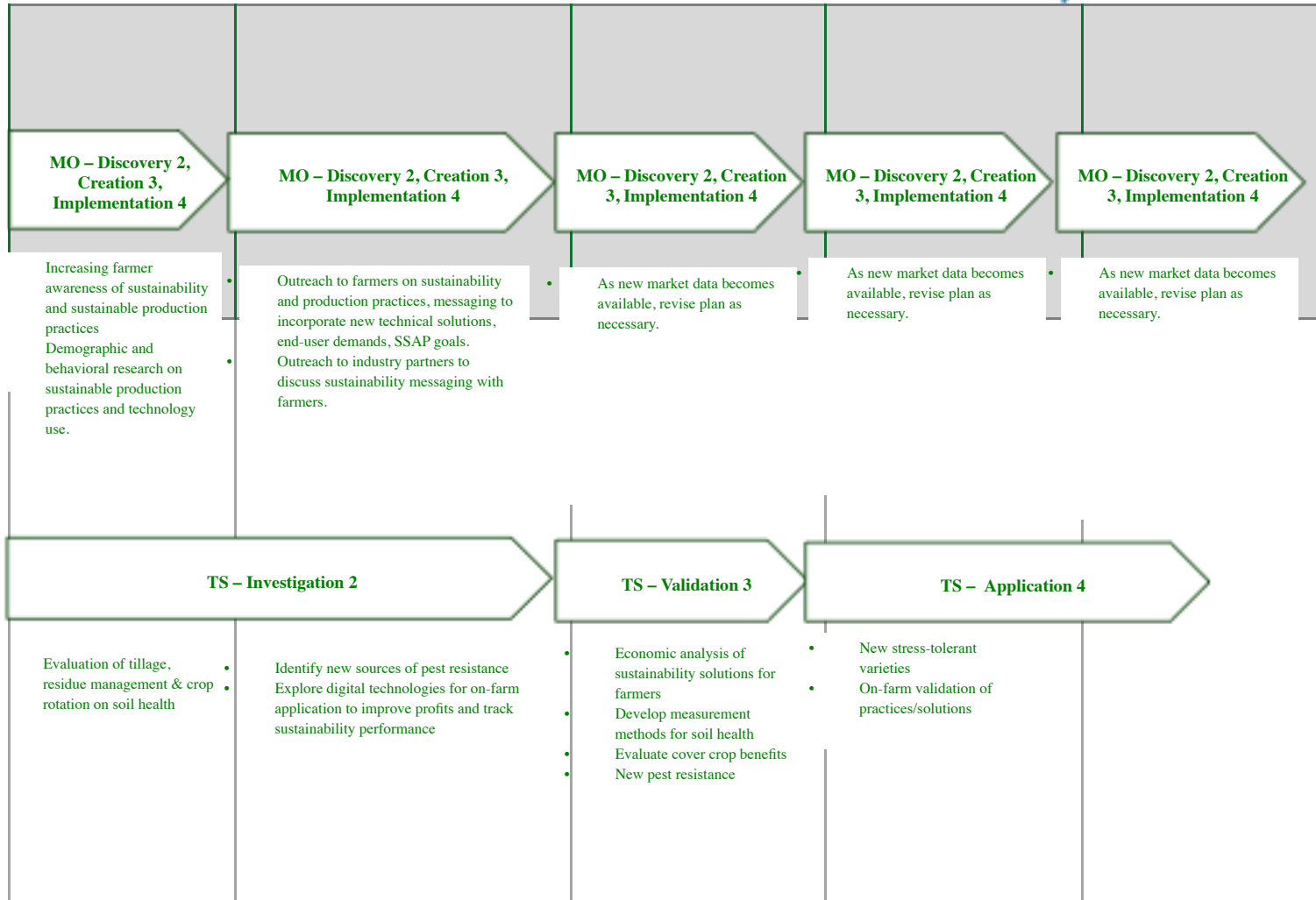
Sustainable Production Practices

63% of farmers know sustainably-produced crop

XXX farmers committed to planting cover crops

XX seed companies committed to commercialize new pest resistance traits

90% of farmers know sustainably-produced crop



Each proposal is summarized into a 1-pager 'Proposal on a Page' (POP) so directors can easily find the information they need to conduct a rigorous evaluation. When necessary, directors can click on the link to the full proposal.

Proposal on a Page (POP) Code Name, #, Funding Request \$ Proposal	Project on a
Project #, Code Name, Budget Project Summary	
1. Strategic Importance - Describe how this proposal advances and/or multi-year roadmap strategies), strengthens	



Workgroup directors govern every Gate by rigorously evaluating and scoring program proposals using 3 criteria

1

Strategic Importance

The extent the proposal advances USB's strategies

- Advances LRSP objectives
- Strengthens key audiences
- Advances strategic partnerships
- Addresses an attractive market

'Does It Matter?'

0 4 7 10



2

Value Impact

The extent the proposal creates value for U.S. soybean farmers

- Differentiates U.S. soy
- Increases farmer profitability
- Drives adoption of US soy offerings
- Advances U.S. Soy Advantage
- Attractive return on investment

'Is It Worth It?'

0 4 7 10



Execution Feasibility

The extent the proposal can overcome implementation challenges

- Clarity of technical challenges & risks
- Clarity of market challenges & risks
- Implementation and adoption risk
- Leveraging third party funding

'Can It Succeed?'



The detailed scorecard guides directors through proposal evaluations

The detailed scorecard helps USB directors calibrate their evaluations. A score of 10, 7, 4 or 0 against each criteria produces an overall Farmer Confidence score for each proposal.

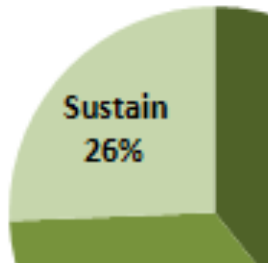
SCORE	THREE EVALUATION CRITERIA WITH ANCHOR DESCRIPTIONS FOR EACH	
	1. Strategic Importance	2. Value Impact
10 =	Achieves the highest priority strategies: <ul style="list-style-type: none"> • Advancing LRSP or multi-year roadmap • Strengthening a key USB audience relationship • Advancing a relevant, strategic partnership • Targeting an attractive market or opening a new window of opportunity 	Significantly advances or achieves: <ul style="list-style-type: none"> • Differentiating of US soy • Increasing profitability for US soybean farmers • Driving adoption of US soy market offerings • The US Soy Advantage & value capture • The benefit of proposal far outweighs its cost
7 =	Strong positive progress toward: <ul style="list-style-type: none"> • Advancing LRSP or multi-year roadmap • Strengthening a key USB audience relationship • Advancing a relevant, strategic partnership • Targeting an attractive market or opening a new window of opportunity 	Strong positive progress toward: <ul style="list-style-type: none"> • Differentiating of US soy • Increasing profitability for US soybean farmers • Driving adoption of US soy market offerings • The US Soy Advantage & value capture • The benefit of proposal outweighs its cost
4 =	Limited progress: <ul style="list-style-type: none"> • Advancing LRSP or multi-year roadmap • Strengthening a key USB audience relationship • Advancing a relevant, strategic partnership • Targeting an attractive market or opening a new window of opportunity 	Limited impact on: <ul style="list-style-type: none"> • Differentiating of US soy • Increasing profitability for US soybean farmers • Driving adoption of US soy market offerings • The US Soy Advantage & value capture • The cost and benefit are near 'breakeven'
	No evidence of strategic fit: <ul style="list-style-type: none"> • Not advancing LRSP or multi-year roadmap 	No impact on value: <ul style="list-style-type: none"> • Not differentiating US soy



USB's Value Creation Framework Dashboard

Review Above-the-Line Proposals as a Portfolio (by Target Area) for Strategic Balance

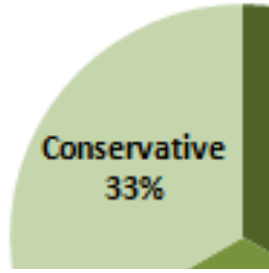
Strategic View of Portfolio: Reviewed by Target Area (July Board MeeAng)



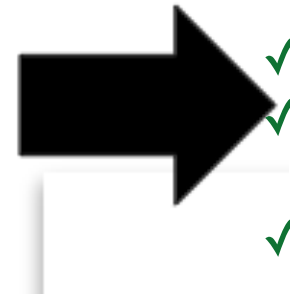
\$ by Target Area



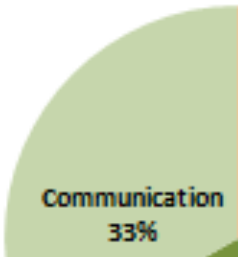
\$ by Goal



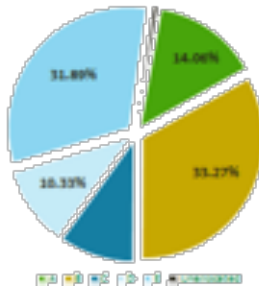
\$ by Innovativeness



✓
 ✓
 ✓
 Strategic Fit
 Maximizes
 Value
 Good Balance



\$ by Track



\$ by Audience



Risk/Reward



Questions??

Thank you!

