Launchpad SOP

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Team - Global Agriculture

Launchpad: Introduction

- Our new product development process must become more **disciplined**, specifically focused, and rapidly paced to support aggressive growth objectives for our agriculture business.

- Organizationally, we have realigned our teams to meet this objective, but must now define and commit to a formal process weighted toward **end-user R.O.I.** to maximize success and meet profitability goals.

Launchpad Objectives – Product Excellence & Commercialization

Launch More "Upper Quadrant" Products

Reduce Development Time

(Speed to Market)

Better Incorporate Voice-of-Customer Feedback

Generate More Accurate Sales Forecasts

Deliver Results!

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What is "Launchpad?"

- **Valley Launchpad** is the name for our standardized New Product Development (NPD) process, which will provide consistency and maximized efficiency across all new product development efforts.

- This document serves as a reference for engineers and product managers involved in our NPD process, as well as to convey roles and responsibilities to senior management.

- Launchpad will encompass qualifying projects, defining who is involved in the process, meeting frequency, procedural checkpoints, funds allocation, product launch, and after-action discussions geared toward continuous improvement.

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Launchpad Tracking: Monday.com

- With the commencement of our Launchpad process, we've started using

Monday.com to help standardize our process and provide broad visibility

Who Uses Launchpad?

- Valley "Stable Team" Projects = *Yes!*
  - **DO** utilize the Launchpad Process
  - Tracked as a new product

- Ag Tech Projects = *Yes!*
  - **DO** utilize the Launchpad process
  - Includes standalone irrigation technology products

- "Functional Team" Projects = *No!*
  - **DO NOT** utilize the Launchpad process
  - PR gets submitted to Windchill
  - Supports/Improves our existing product line

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When Should I Present In Launchpad?

1. Your team is preparing to enter the next stage gate (business case, product launch, etc.)

2. Your team is preparing to spend $ (tooling, prototypes, whatever).

3. Your team needs an answer from senior leadership to address a project impediment.

4. The Executive Staff requests an update on your project.

Any Activity Outside Of These Categories Likely Doesn't Need To Be On The Launchpad Agenda.

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Launchpad Flowchart
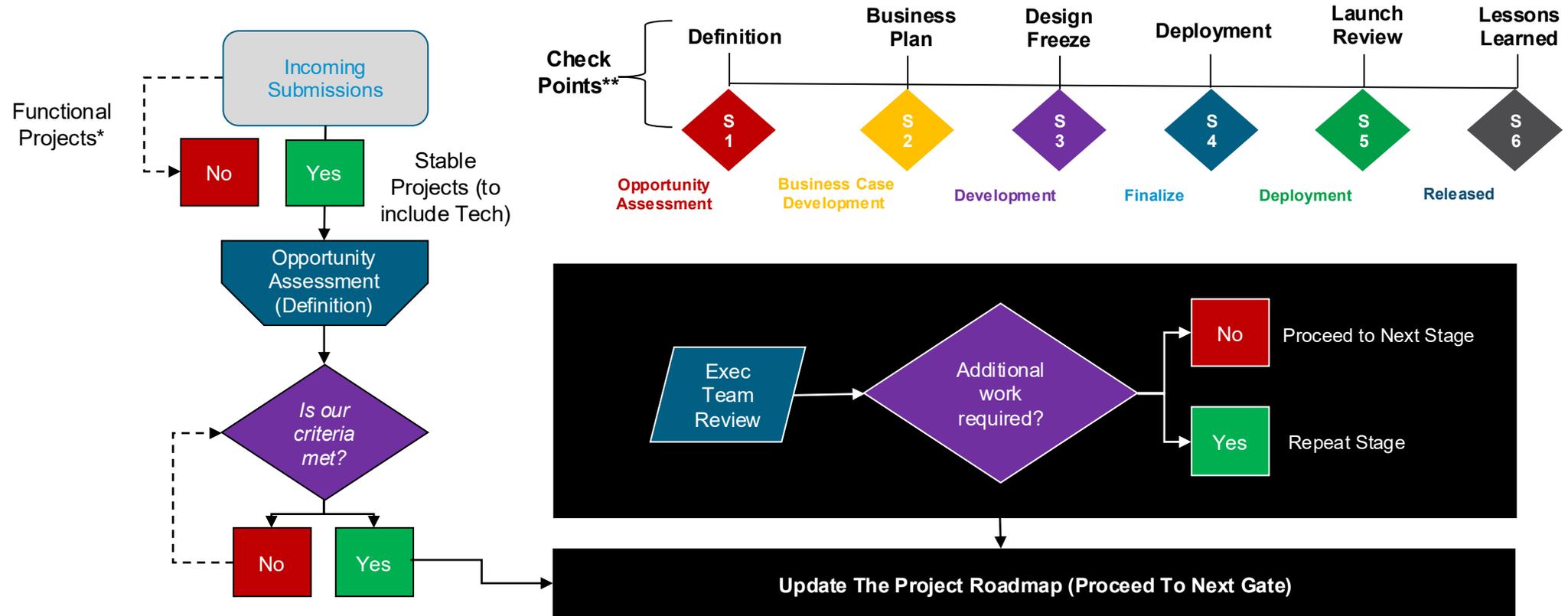
*There may be exceptions for larger Functional Team projects which require Launchpad.

**Teams may elect to skip stages with managerial approval depending upon the project.

Valley Launchpad: Project Stages

STAGE 1: Definition (*Commit Resources*)
- Seek Approval For Engineering Resources
- Categorize Product Quadrant
- PPT Presentation

STAGE 2: **Business Plan** (*Agree to Project Targets*)
- Determine Key Features
- Calculate Target Cost
- Establish Target Launch Date
- Present Voice-of-customer Feedback
- PPT Presentation

STAGE 3: Develop (*Commit Capital Tooling*)
- Approve Final Design And Marketing Proposal
- AR Draft Must Be Submitted In Advance Of This Discussion
- PPT Presentation

STAGE 4: Deploy (*Start Launch Quantity Build*)
- Approve Pricing & Forecast
- Review Launch Plan
- Review Marketing Plan
- PPT Presentation

STAGE 5: Launch Review (*Final Approval*)
- Confirm Launch Inventory And Marketing Materials
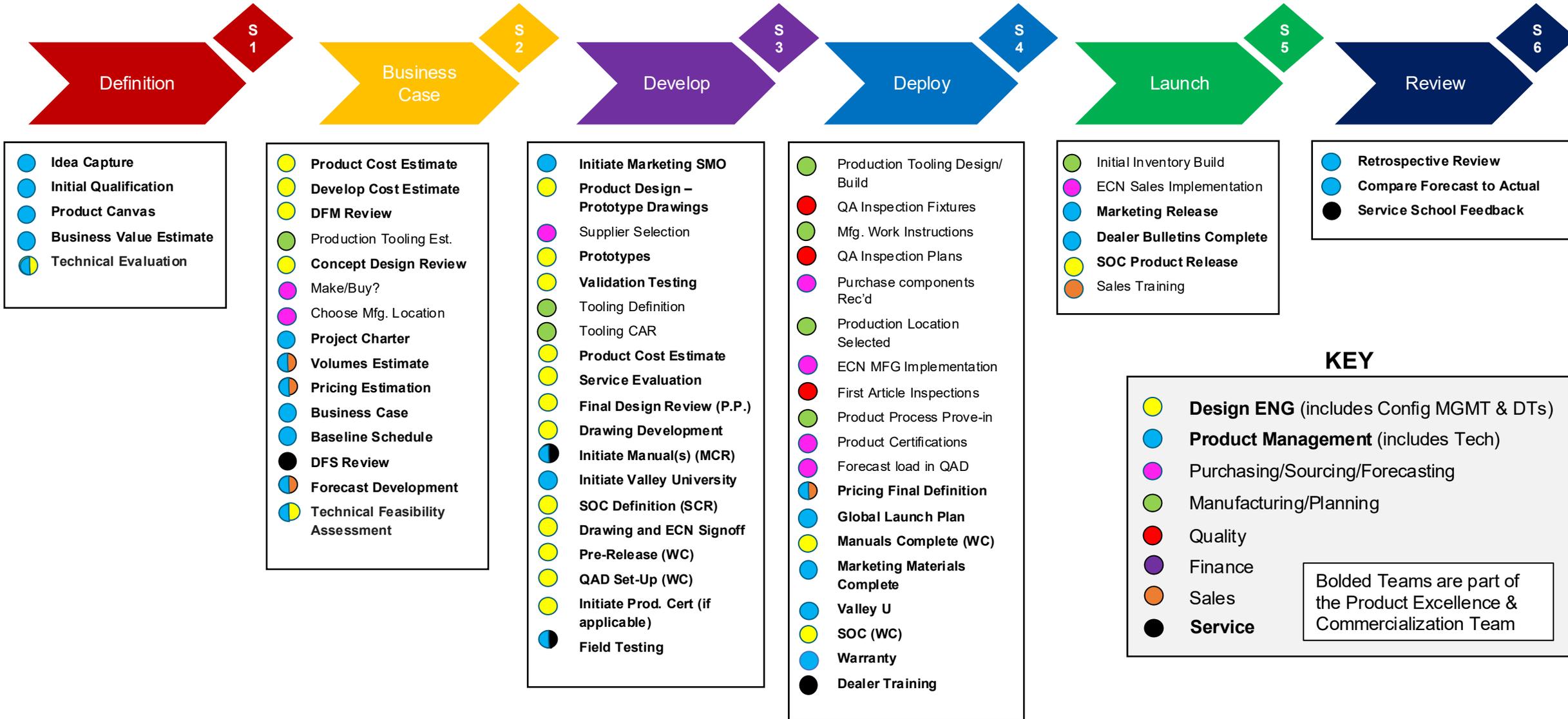- Sales/Service Training Complete
- PPT Presentation

STAGE 6: Lessons Learned (*Discuss Results*)
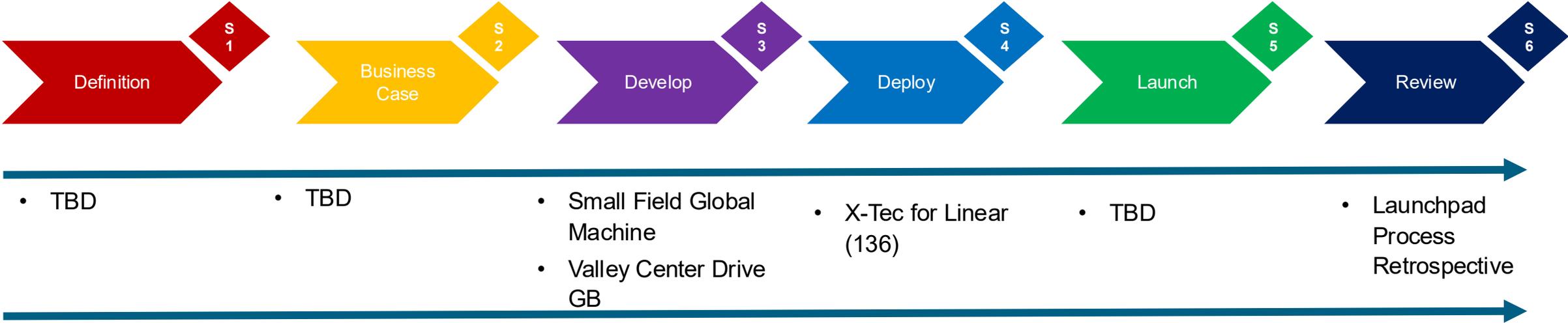- Review Sales Data, Customer Feedback, And Operations Issues
- Suggest Changes To NPD Process
- PPT Presentation

Concept Feasibility — S1 — Development — S2 — Design — S3 — Pilot Run — S4 — Launch Run — S5 — 6-months — S6

Valley Launchpad

S1 — Definition
- Idea Capture
- Initial Qualification
- Product Canvas
- Business Value Estimate
- Technical Evaluation

S2 — Business Case
- Product Cost Estimate
- Develop Cost Estimate
- DFM Review
- Production Tooling Est.
- Concept Design Review
- Make/Buy?
- Choose Mfg. Location
- Project Charter
- Volumes Estimate
- Pricing Estimation
- Business Case
- Baseline Schedule
- DFS Review
- Forecast Development
- Technical Feasibility Assessment

S3 — Develop
- Initiate Marketing SMO
- Product Design – Prototype Drawings
- Supplier Selection
- Prototypes
- Validation Testing
- Tooling Definition
- Tooling CAR
- Product Cost Estimate
- Service Evaluation
- Final Design Review (P.P.)
- Drawing Development
- Initiate Manual(s) (MCR)
- Initiate Valley University
- SOC Definition (SCR)
- Drawing and ECN Signoff
- Pre-Release (WC)
- QAD Set-Up (WC)
- Initiate Prod. Cert (if applicable)
- Field Testing

S4 — Deploy
- Production Tooling Design/ Build
- QA Inspection Fixtures
- Mfg. Work Instructions
- QA Inspection Plans
- Purchase components Rec'd
- Production Location Selected
- ECN MFG Implementation
- First Article Inspections
- Product Process Prove-in
- Product Certifications
- Forecast load in QAD
- Pricing Final Definition
- Global Launch Plan
- Manuals Complete (WC)
- Marketing Materials Complete
- Valley U
- SOC (WC)
- Warranty
- Dealer Training

S5 — Launch
- Initial Inventory Build
- ECN Sales Implementation
- Marketing Release
- Dealer Bulletins Complete
- SOC Product Release
- Sales Training

S6 — Review
- Retrospective Review
- Compare Forecast to Actual
- Service School Feedback

KEY
- **Design ENG** (includes Config MGMT & DTs)
- **Product Management** (includes Tech)
- Purchasing/Sourcing/Forecasting
- Manufacturing/Planning
- Quality
- Finance
- Sales
- **Service**

Bolded Teams are part of the Product Excellence & Commercialization Team

Valley Launchpad

Definition	Business Case	Develop	Deploy	Launch	Review
S1	S2	S3	S4	S5	S6

- TBD
- TBD
- Small Field Global Machine
- Valley Center Drive GB
- X-Tec for Linear (136)
- TBD
- Launchpad Process Retrospective

EXAMPLE
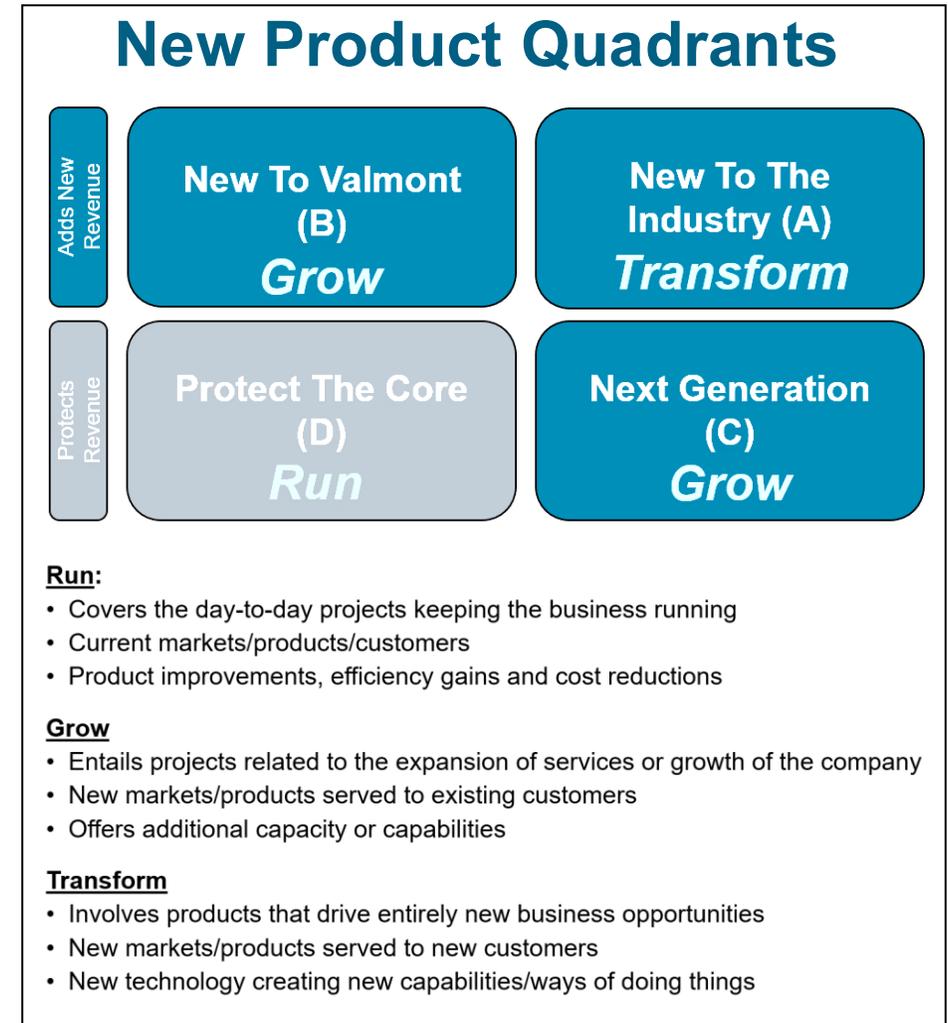
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Definition (Opportunity Assessment)

- During the **Definition (Opportunity Assessment)** phase of Launchpad, the submitter will answer the question:

  - *What is this idea and why is it important to Valmont?*

- In this stage, the Product Quadrant is also selected (see inset table).

- Finally, the project's strategic objective must be addressed, along with questions that will result in an opportunity score. This score determines whether the product/project should proceed through the Launchpad funnel.

New Product Quadrants

Adds New Revenue	**New To Valmont (B)** *Grow*	**New To The Industry (A)** *Transform*
Protects Revenue	**Protect The Core (D)** *Run*	**Next Generation (C)** *Grow*

Run:
- Covers the day-to-day projects keeping the business running
- Current markets/products/customers
- Product improvements, efficiency gains and cost reductions

Grow
- Entails projects related to the expansion of services or growth of the company
- New markets/products served to existing customers
- Offers additional capacity or capabilities

Transform
- Involves products that drive entirely new business opportunities
- New markets/products served to new customers
- New technology creating new capabilities/ways of doing things

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Project Scoring

- **Development Effort (DE)** measures the manpower or relative resources required to develop a specific solution.
  - 5 = X-Small
  - 4 = Small
  - 3 = Medium
  - 2 = Large
  - 1 = X-Large

- **Business Value (BV)** is a measure of expected incremental revenue for the new product in question or for the ancillary sales created by the new product. Consists of **annual** bottom-line (<u>incremental</u>) sales.
  - 5 = $5M+
  - 4 = $2.5M - $5M
  - 3 = $1M - $2.5M
  - 2 = $500K - $1M
  - 1 = 0 - $500K

- **Grower ROI (GR)** is the weighted financial measure depicting how much profit a grower stands to make by implementing the solution.
  - 5 = 1 Year or $1,000,000
  - 4 = 2.5 Year or $750,000
  - 3 = 5 Year or $500,000
  - 2 = 7.5 Year or $250,000
  - 1 = 10 Year or $100,000
  - 0 = 15+ Years < $100,000

Opportunity Assessment (Definition)

	People	Item	Strategic Objecti	Score
☐		Single Pivot Point	🗨1	17.5
☐		Improved Poly Machine	⊕	12.5
☐		New and Improved Global Span Struct...	⊕	14
☐		Improved Valley WGB	⊕	11.5
☐		Valley Global Corner Structure	⊕	9.5
☐		68 RPM Constant Move at all speeds	⊕	15

Scores are calculated when entered on the Monday.com project board!

*Score = (DE Score) + (1.5 * BV Score) + (2 * ROI Score)*

A Minimum Score of 13 is Required To Move Forward

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STAGE 1: Definition

S1 The ideation and validation stage begins the new product development process.

- In this stage, teams present product ideas to stakeholders, keeping in mind that a new product idea (or ideas to improve an existing product) can come from anywhere, including dealers, end users, and employees.

- Stage 1 should always be based on profitability goals and the Voice-of-the-Grower/Dealer (VOG/VOD) so that only the best ideas advance.

- Launchpad will effectively prioritize our best ideas (versus "*pet projects*") so that innovation can flourish, and technology leadership is maintained.

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STAGE 2: Business Plan

S2 Outline key deliverables and KPIs

- Choose the right people and teams

- Understand the competitive timeline

- Explore cost targets and BOM

- Offer foresight into product positioning, and the what-if scenarios

- Present Voice-of-Customer feedback

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STAGE 3: Design Freeze

S3

This stage finalizes the overall product need using VOC feedback

- Consideration for the marketing plan

- Accounts Receivable objectives

- Discuss prototyping results

- Suppliers, lead times and manufacturing plans are also discussed

- Field Testing begins

Development

	Item		What is this idea and why is it important to...
☐	Floating Pump Skid Standard Design	⊕	Develop a Valley standard floating pump skid t...
☐	New Valley Centerdrive	⊕	Develop a Valley designed and proprietary gea...
☐	X-TEC 68	⊕	Tower box with dedicated inverter with insulati...
☐	600V invertor	⊕	To create an option to protect the pivot for cri...
☐	New WEG Capacitor Bank	⊕	Implementation of multimeter for power facto...
☐	Motor X-Tec 3hp Weg	⊕	Currently there are Baldor motor + Omni gearb...
☐	Global Small Field Machine	⊕	Valley is currently not competitive in the short...
☐	10" 8120 Design	⊕	Business Need to develop 10" 8120 span so th...

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STAGE 4: Deployment

S4 Product ECN is issued

- *What does the most effective launch timeline look like?*

- *How will success be measured?*

- *How will this product be positioned against similar products in the market?*

- *What roadblocks could delay the launch?*

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STAGE 5: Launch Review

S5

Customer Service training should be completed

- *Is Tech Service prepared?*

- *Are patent applications filed?*

- *Is the sales team trained?*

- *Are we ready to take orders?*

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STAGE 6: Lessons Learned

S6

Continuous improvement is a vital phase of any product development cycle. It is essential to:

- Identify the effects change has on a product

- Pinpoint areas in the product development cycle that can improve product quality and longevity

- Discuss which areas of the product development cycle can be optimized or improved
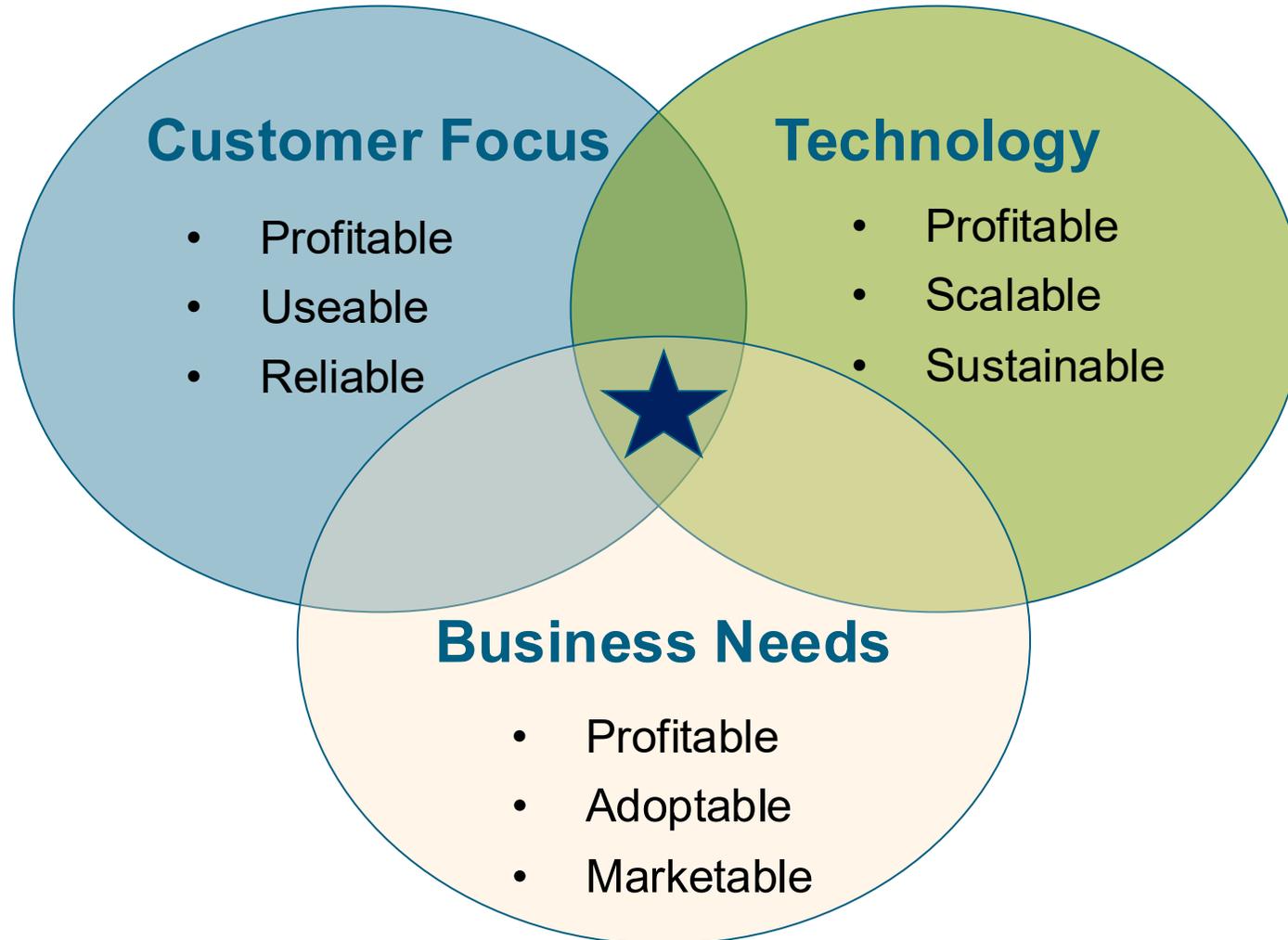
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Executive Agenda

- Roadmap Review

  - Highlight changes

  - Provide Project Updates

- Business Case Approvals

- Design Freeze Approvals

- Launch Approvals

- Project Reviews

  - (Last 3 years)

PRODUCT EVOLUTION MEETING

Today's Date: 1/30/2023

STAGE GATE	PROJECT NAME	QUADRANT	PROJECT ID	PROJECT LEADER	TIME	
GATE 1 : PROJECT CHARTER	New Model Smart Pivot	C	30001	Caughey	9:00 AM	9:10 AM
(10 Minutes Per)	Enhanced Machine Diagnostics	C	30002	Long	9:11 AM	9:21 AM
GATE 2 : BUSINESS PLAN	Adv. GPS Alignment	C		D. Roberts	9:22 AM	9:44 AM
(20 Minutes Per)	Pivot Sensor Dynamic VRI Rx	B	30005	A. Caughey	9:45 AM	10:05 AM
	Hummingbird Toolbar		30	A. Caughey	10:06 AM	10:26 AM
GATE 3 : DESIGN FREEZE / AR	New Model Linear	C	30008	T. Fields	10:27 AM	11:42 AM
(15 Minutes Per)	ICON for Linear	B	30009	T. Long	11:43 AM	11:58 AM
LUNCH BREAK					12:00 PM	1:00 PM
GATE 4 : LAUNCH	Smart Pivot Functional	C	30011	J. Gerdes	1:01 PM	1:31 PM
(30 Minutes Per)	Corner Move	B	30012	D. Roberts	1:32 PM	2:02 PM
GATE 5 : FINAL APPROVAL	Complete Corner VRI	A	30014	T. Long	2:03 PM	2:18 PM
(15 Minutes Per)	Valley 365 2.0	C	30015	A. Caughey	2:19 PM	2:34 PM
GATE 6 : LESSONS LEARNED	Complete Corner Constant Flow	A	30017	J. Gerdes	2:35 PM	2:45 PM
(10 Minutes Per)						
END OF SESSION						

Sample Agenda

Agenda submissions are due one week in advance of the meeting. The schedule will be maintained and organized by the Scrum Master.

Meeting Cadence: TBD (Agenda Owned By Project Management)

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Achieving Business Goals

Customer Focus
- Profitable
- Useable
- Reliable

Technology
- Profitable
- Scalable
- Sustainable

Business Needs
- Profitable
- Adoptable
- Marketable

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THANK YOU

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