



NARS

Developing a Culture of Continuous Improvement

October 6, 2020



What is the purpose of your organization?



To serve your customer

What does the customer need?



To eliminate poverty and hunger

**How are you going to
eliminate poverty and
hunger?**



Continually improve the productivity of key crops.
Continually improve agronomic management processes.

Develop a Culture of Continuous Improvement

Identify Customer Needs and Deliver Value

“The world we have created is a product of our thinking; it cannot be changed without changing our thinking.” ~**Albert Einstein**
“



**“When you change
the way you look at
things, the
things you look
at change.”**

Wayne Dyer



Change starts from the inside.
If you want your outside life to change, you first have to start with your mindset. Start learning how to learn, form new habits, learn new skills, and stop repeating what's not working.

Albert Einstein

What does a continuous improvement culture look like?

Culture eats strategy for breakfast.

- Peter Drucker

Core Elements of a Continuous Improvement Culture

- Leadership commitment
- Organizational commitment
- **Focus on customer needs**
- Improvement Strategy
- Training, equipment, physical environment
- Standard work
- The people performing the work are involved in improving the work
- Personal accountability/Everybody everyday
- Change management
- Performance management/metrics

Improvement Methodologies

Toyota Production System

Lean

Six Sigma (SS)

Theory of Constraints (TOC)

Systems Thinking

Total Quality Management (TQM)

Agile

Triz

What is Lean?

Lean is a system for developing a continual improvement way of thinking.

What is Lean?

Lean is an organizational growth strategy based on satisfying the customer by delivering quality products and services that are just what the customer needs, when the customer needs them, in the amount required, at the right price, while using the minimum of material, equipment, space, labor, and time.

What is Lean?

Lean is unique as a management approach because it doesn't aim to tell people what to think or what to do but how to think about things so they come up with their own ideas, insights and initiatives.

Michael Ballé, lean author, executive coach and co-founder of Institut Lean France

The best people to improve the process are the people working in the process



What is Lean?

Lean is a continuous, evolutionary process of change and adaptation, not a singular, idealized vision or technology-driven goal state.

Goals of Lean



Improve Quality



Eliminate Non-Value Added
(Waste)

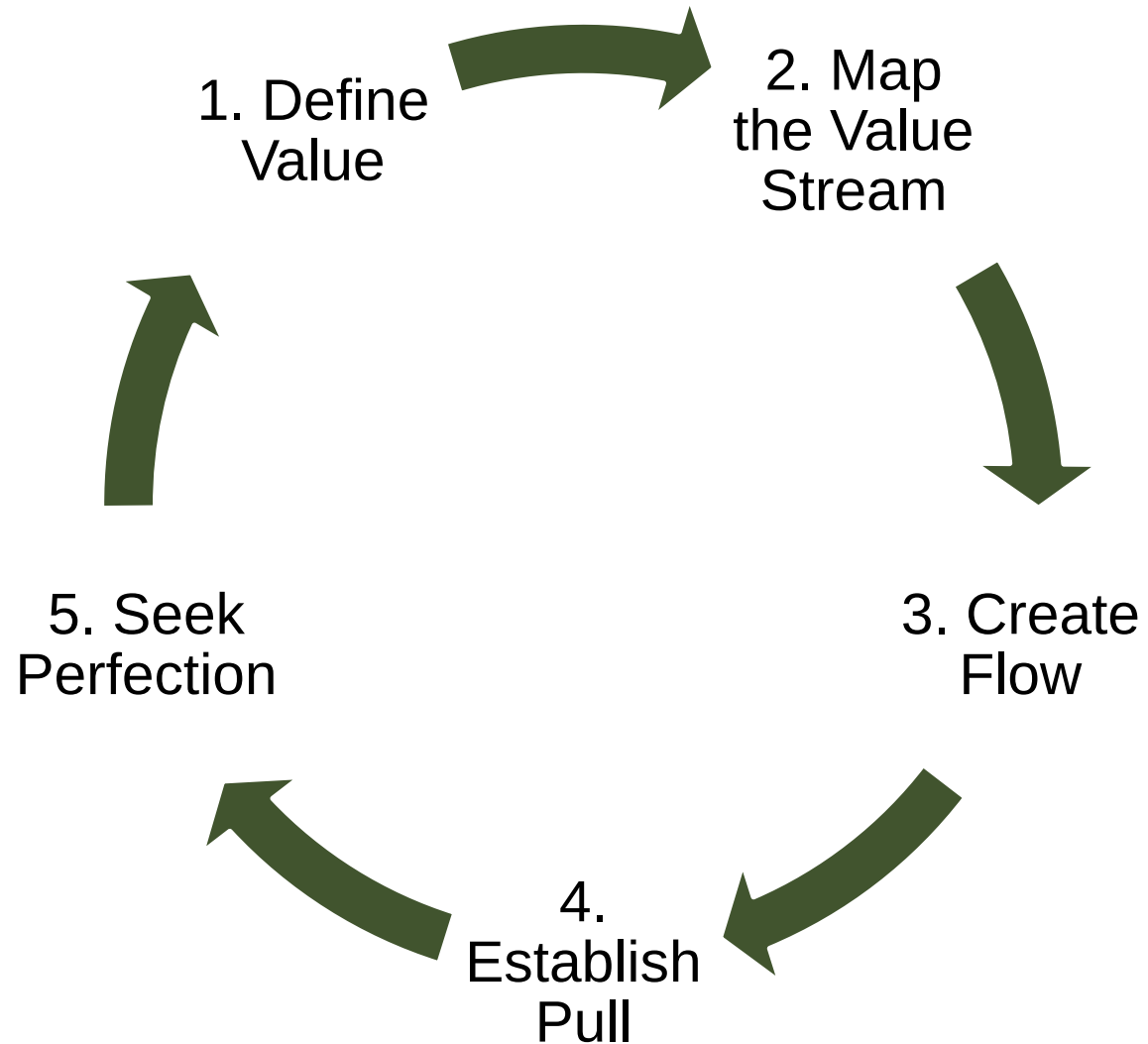


Reduce Lead Time

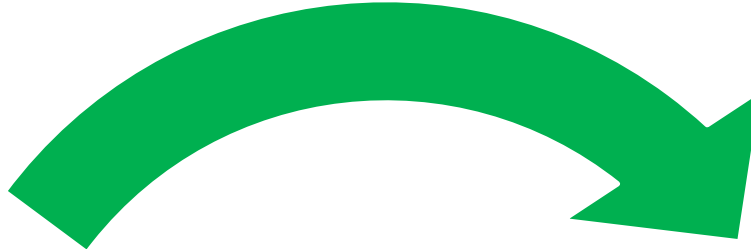


Reduce Total Costs

5 Principles of Lean



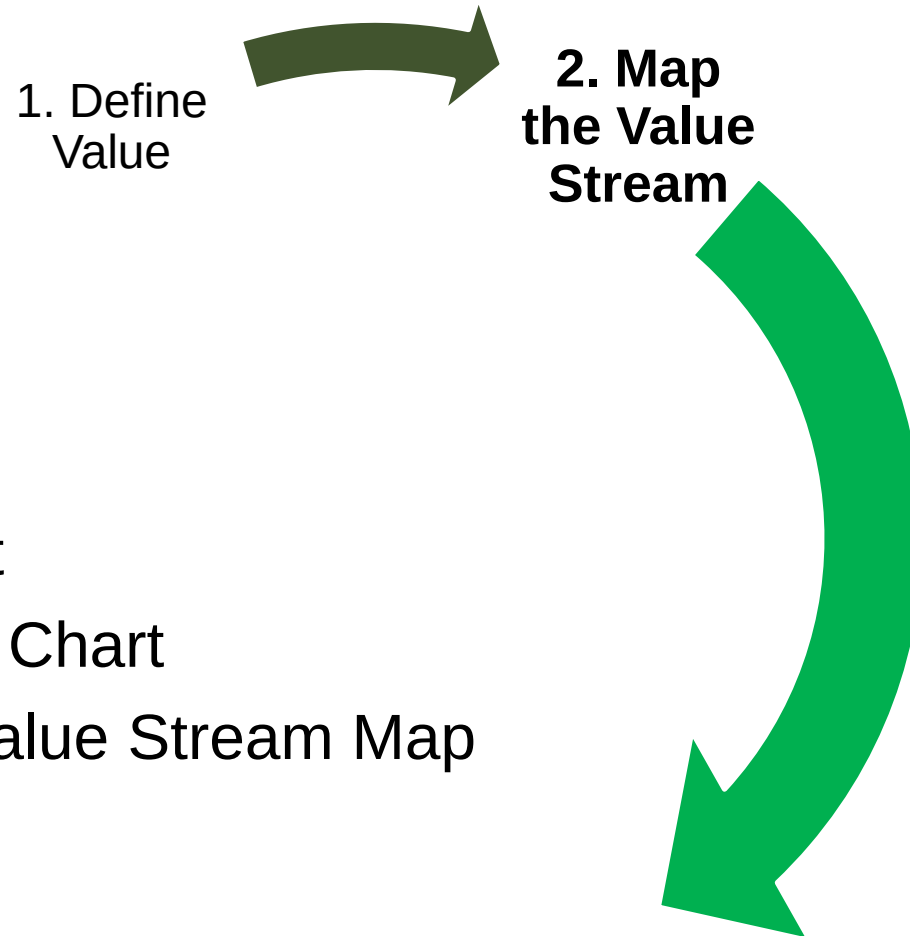
Principle of Lean – Define Value



1. Define Value

- Voice of the Customer VoC
- Problem Statement
- Project Charter
- Purpose Statement
- Critical to Customer/Critical to Quality

Principle of Lean – Map the Value Stream



- SIPOC
- Flowchart
- Swimlane Chart
- Top Down Flow Chart
- Current State Value Stream Map

Principle of Lean – Create Flow

- Spaghetti Diagram
- Collect and analyze data
- Identify Waste
- Fishbone
- 5 Whys
- Analyze causes of waste
- Visual Management
- Mistake Proof
- Cellular Design
- 3P
- Load Leveling
- 5S
- Point of Use
- Ideal State VSM
- Cycle Time/Process Time/Lead Time
- Value Added/Non Value Added time
- Setup Reduction
- Employee Activity

1. Define Value



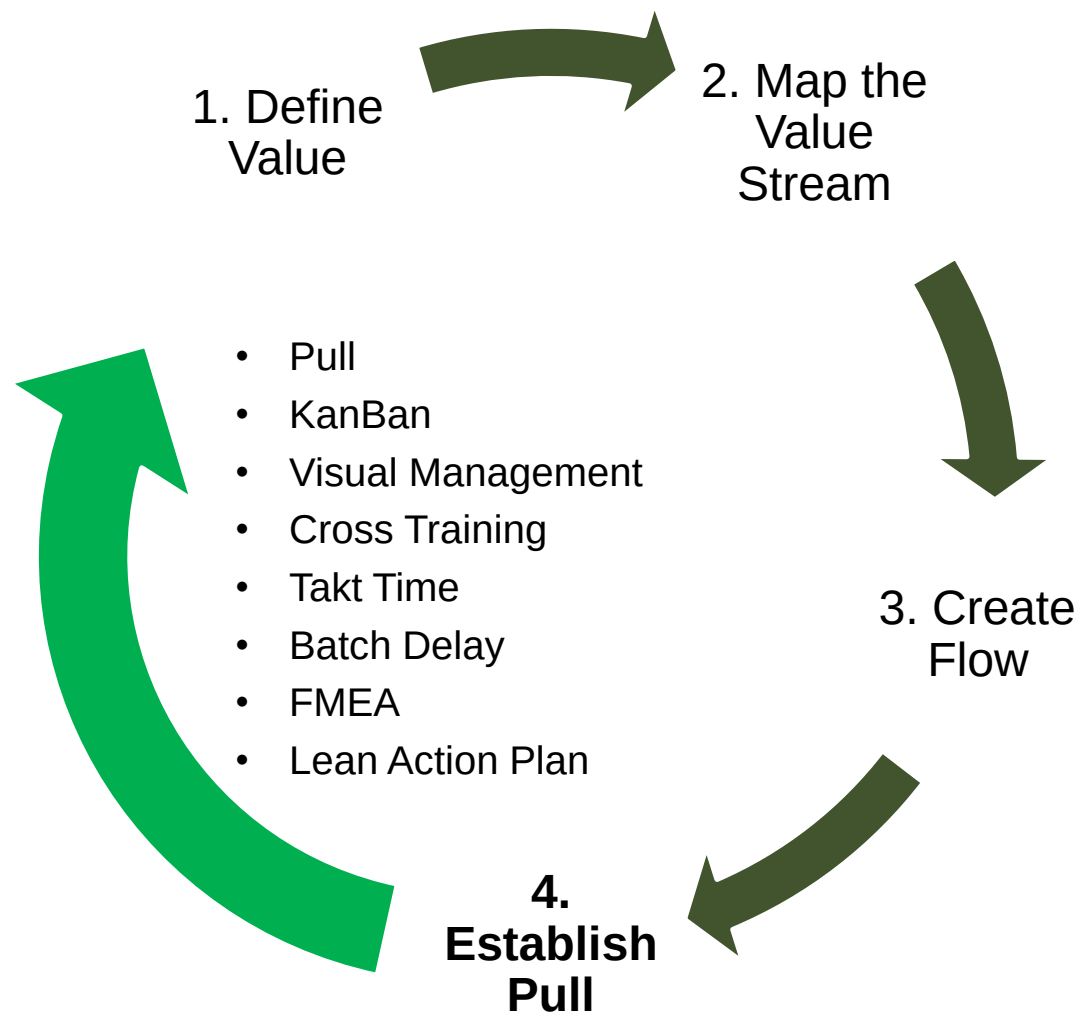
2. Map the Value Stream



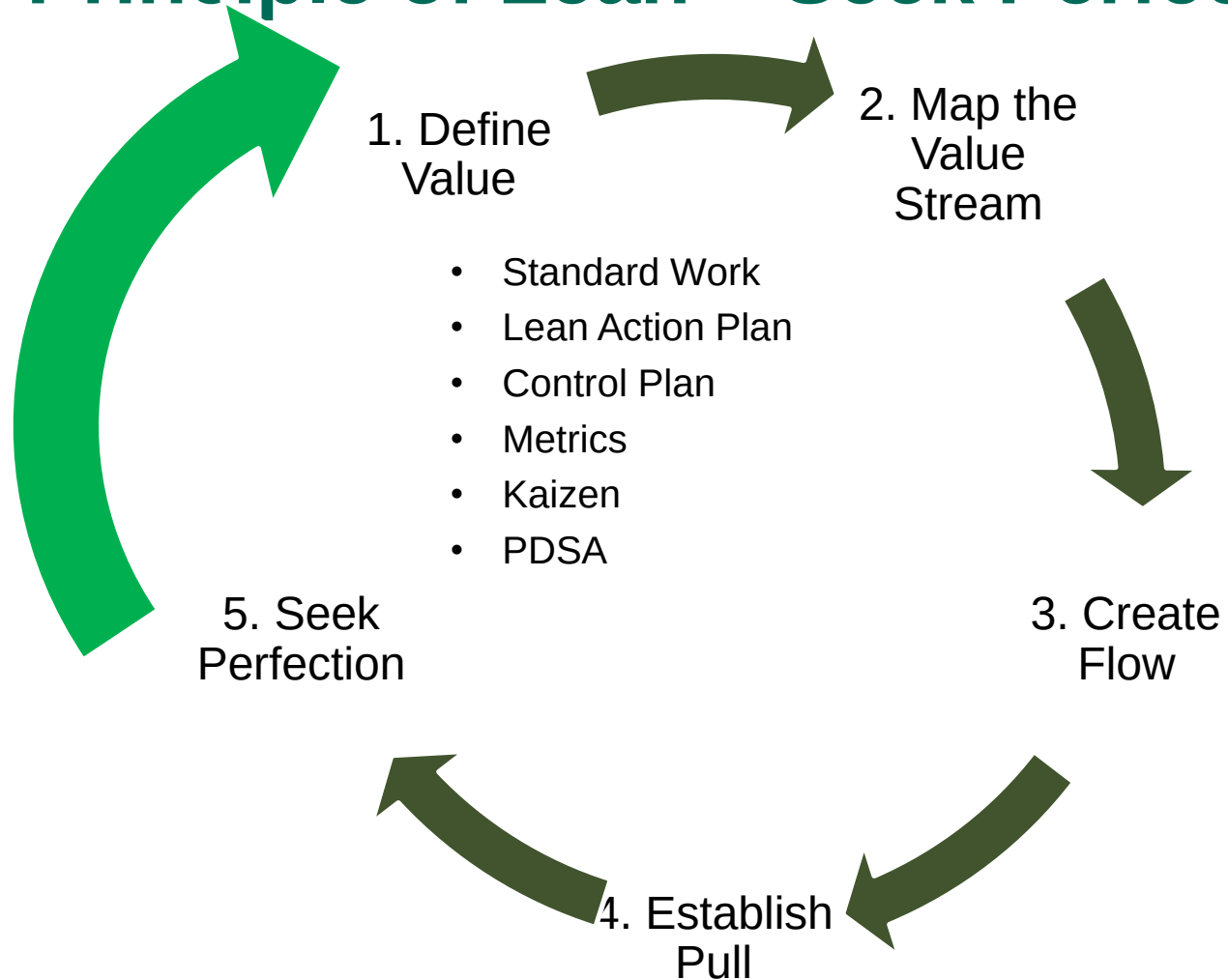
3. Create Flow



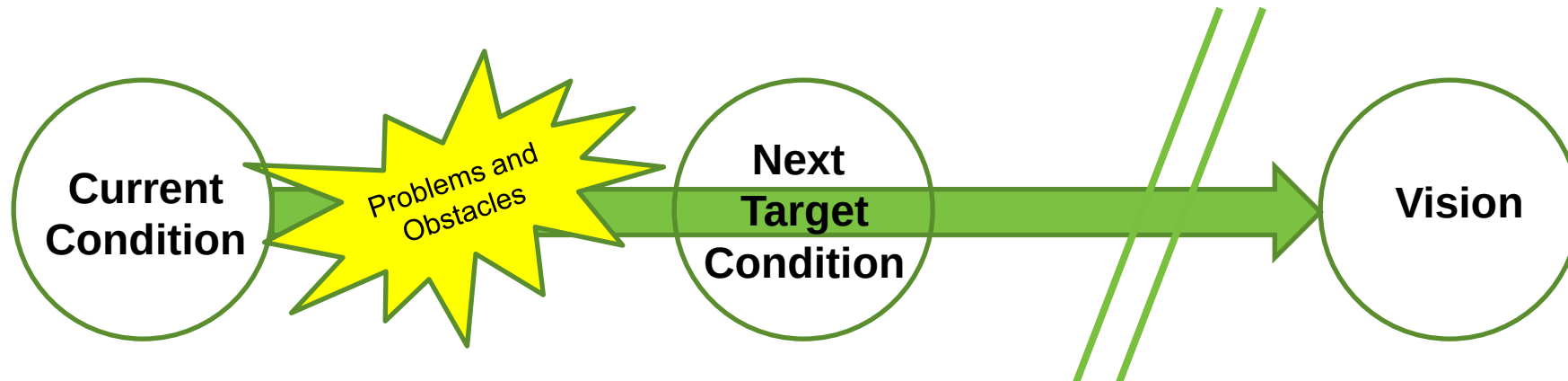
Principle of Lean – Establish Pull



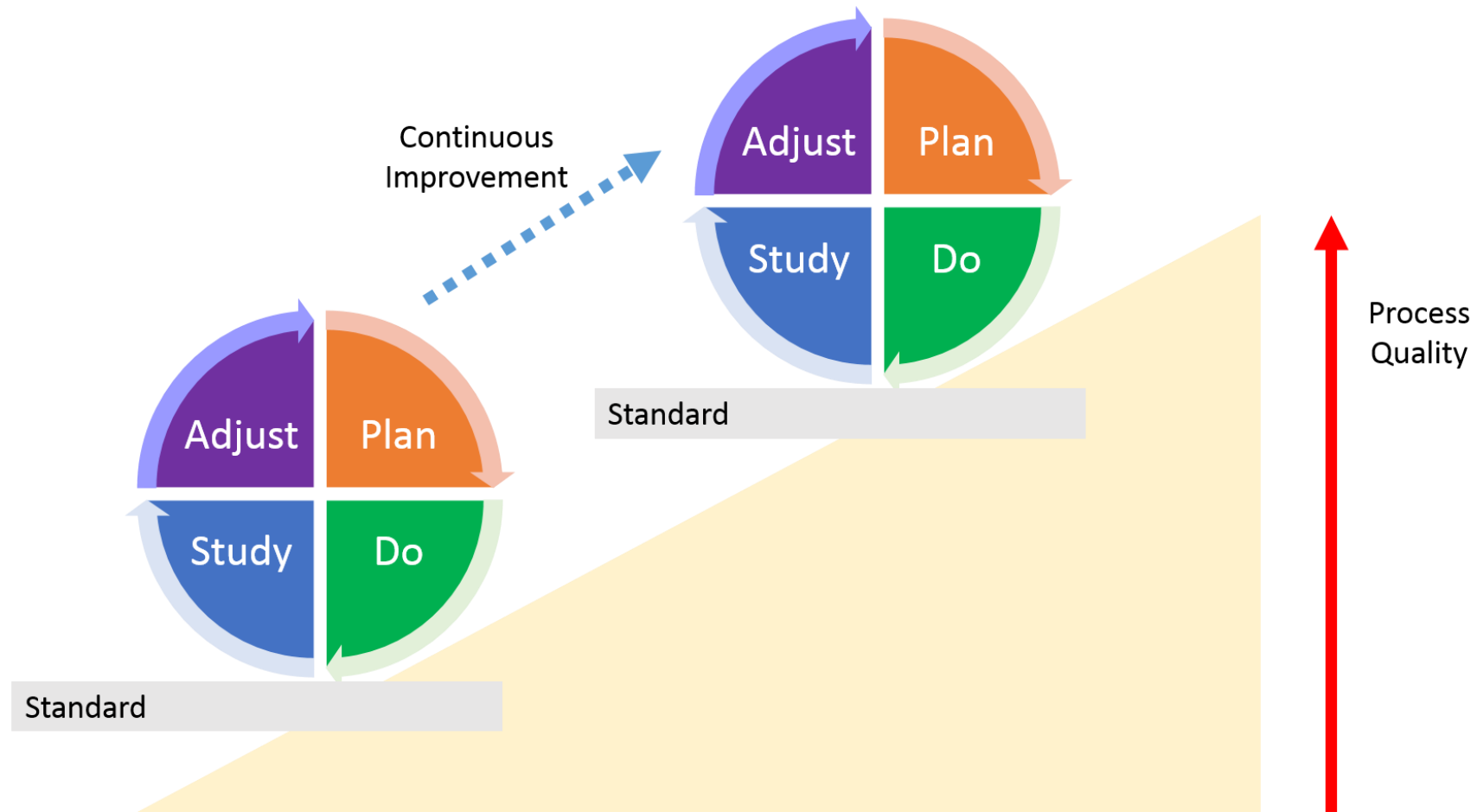
Principle of Lean – Seek Perfection



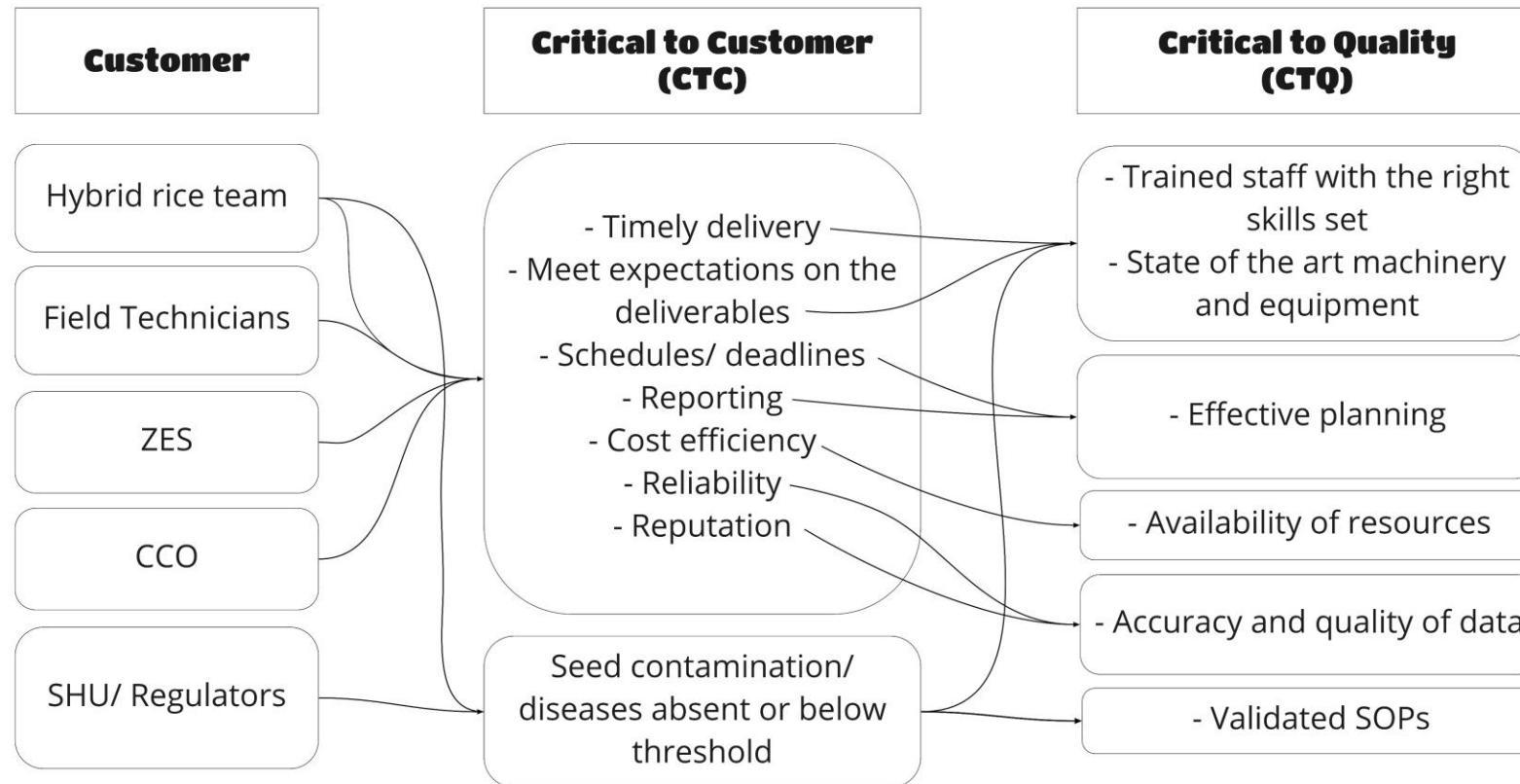
Continuous Improvement



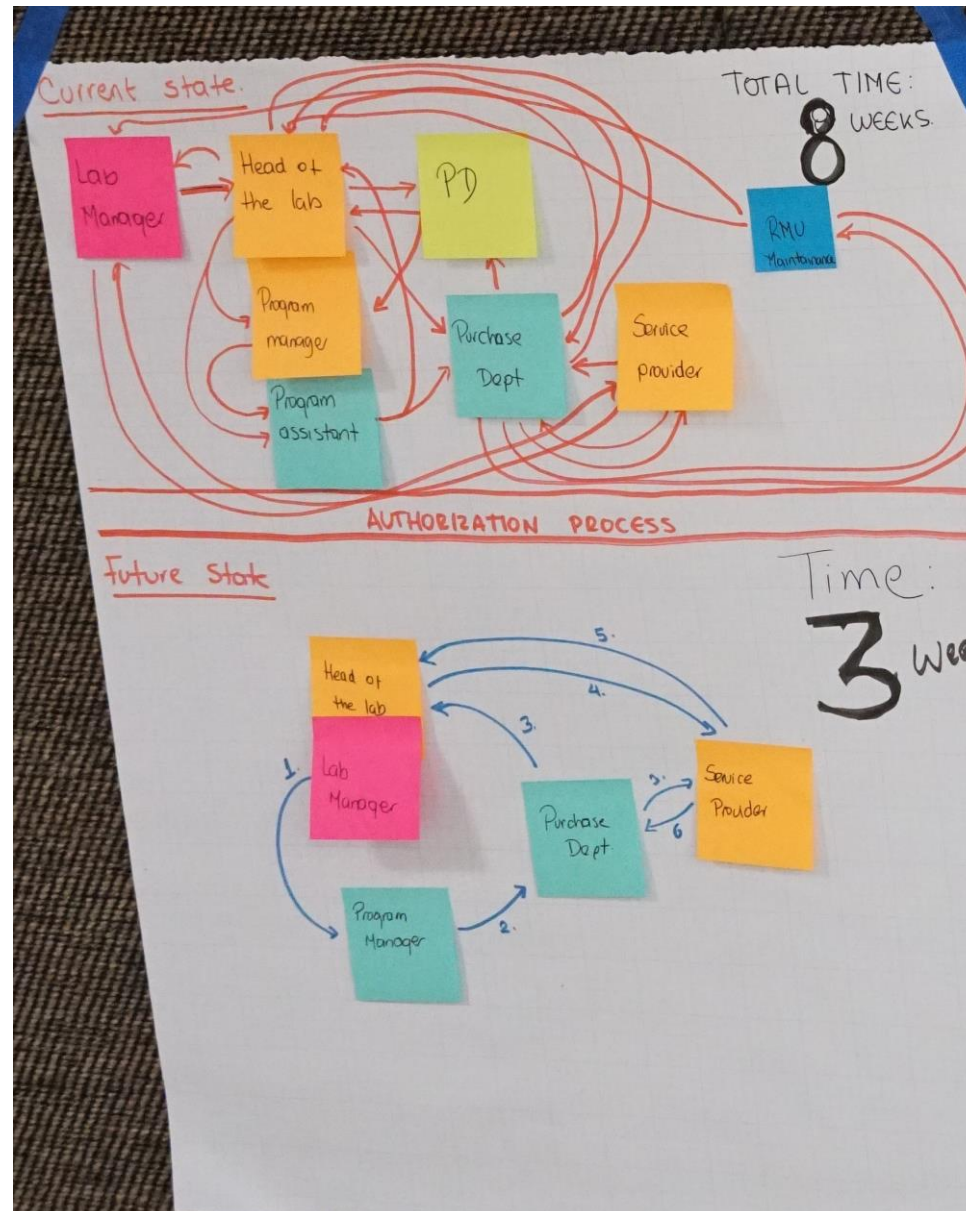
PDSA – the Scientific Method



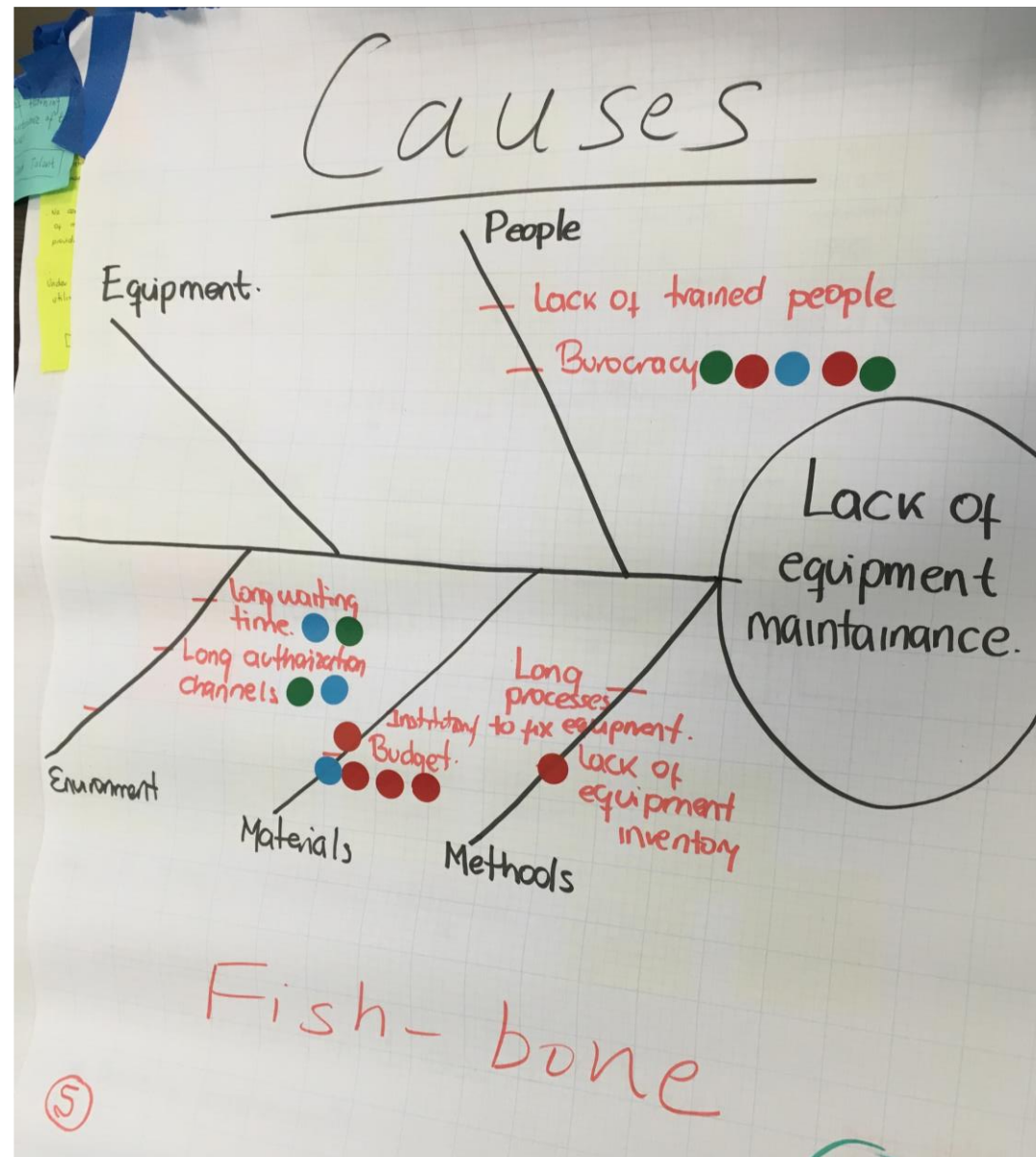
1. Define Value



2. Map the Process



3. Create Flow – Eliminate Waste

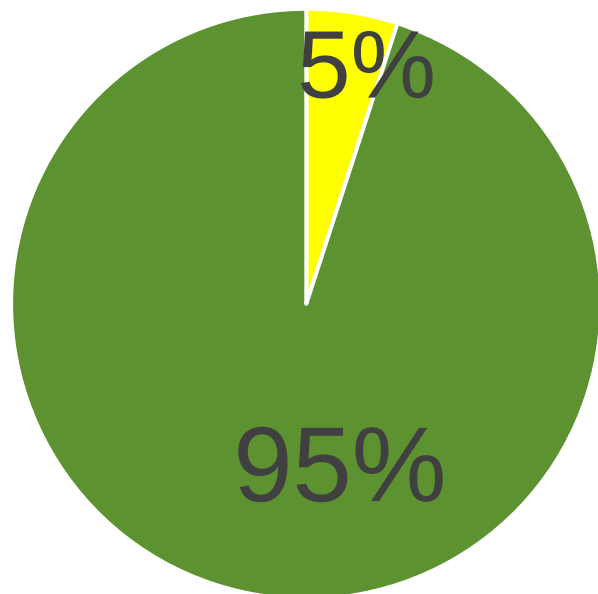


4. Establish Pull & 5. Seek Perfection

LEAN ACTION PLAN

PRIORITY RANK	PROGRAM	TASK / ACTION	WHO		STATUS
1	Planning and Unified OCS Requests	Dedicated committee to create a template form to capture all relevant information (Checklist) and to provide sharing instructions	Jun, Ben, Rhulyx Martina	30 d	
		Share with customer for review, approval and implementation.	Jun, Martina, Rhulyx	30 d	
2	GK Service Agreement	Identify/List of non-critical activities	Jun	30 d	
		To identify control points (CTQ and variations) (implement mistake proofing)	Shery, Vel	60 d	
		Learning and development plan by GK	Ed / Jaesel	90d	
3	RT Trainings	- Prepare training material - Classroom training on Quality control points - Schedule season long training on rice seed production and seed quality mgt.	Gids, Ben, Sheryl, Roy/Anna	30 d 60 d 120 d	
4	Disease Management	- Create proposal of measures to implement (ZES+CCO+HRC) - Meeting with experts to assess proposal and generate final document	Ben, Gids, Rhulyx, Roy	30 d 30 d	
		create SOP/WI		60 d	

Value Added vs Non-Value-Added



■ Value Added ■ Non Value Added

The Eight Wastes

Transportation – Movement of materials or people that does not add value

Inventory - Supply beyond the volume need for smooth flow through the process.

Motion - Movement of people or resources that does not add value.

Waiting - Idle time when productivity comes to a halt.

Overproduction - Making more than required by the next process.

Overprocessing - Extra effort that creates little or no value.

Defects - Errors causing rework, incorrect information or poor reports.

Underutilized Talent - Not deploying people to the best of their abilities.

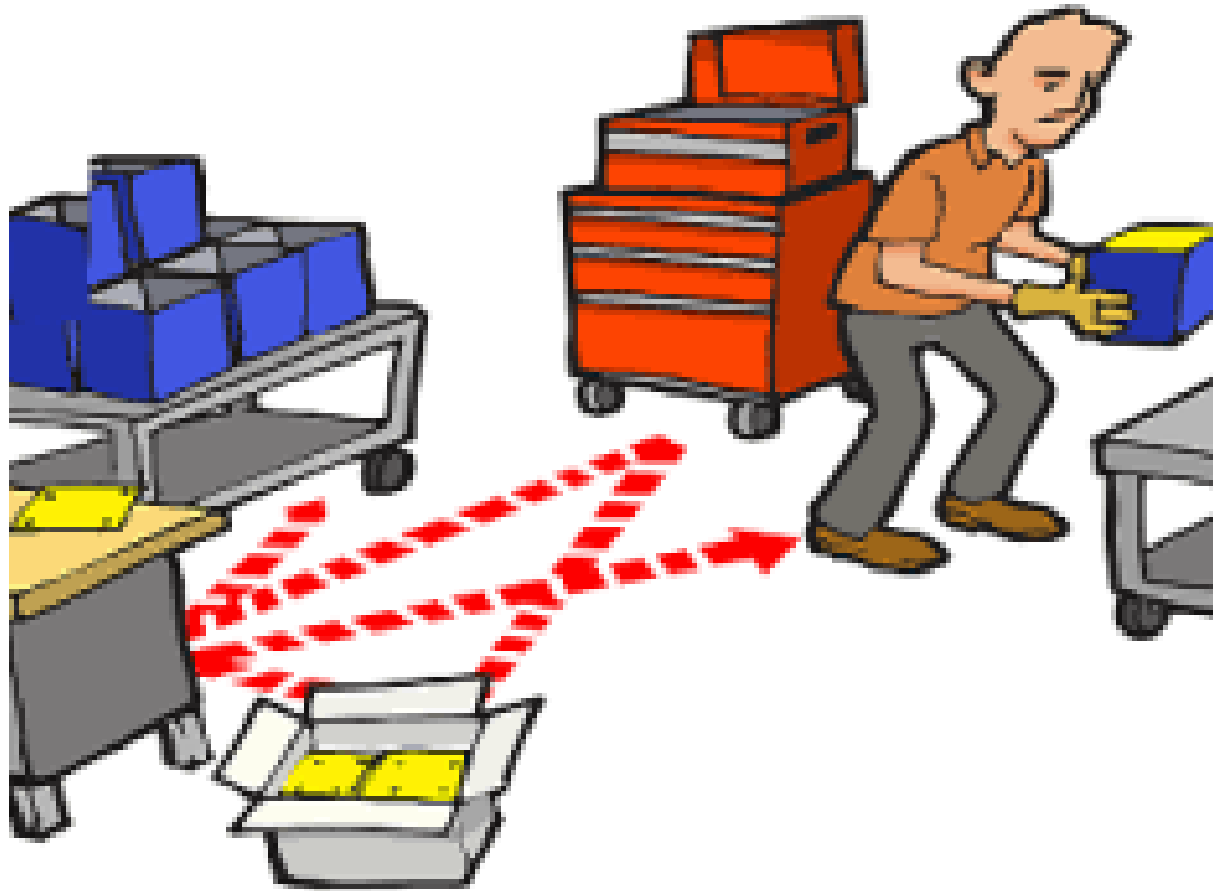
The Waste of “Transportation”



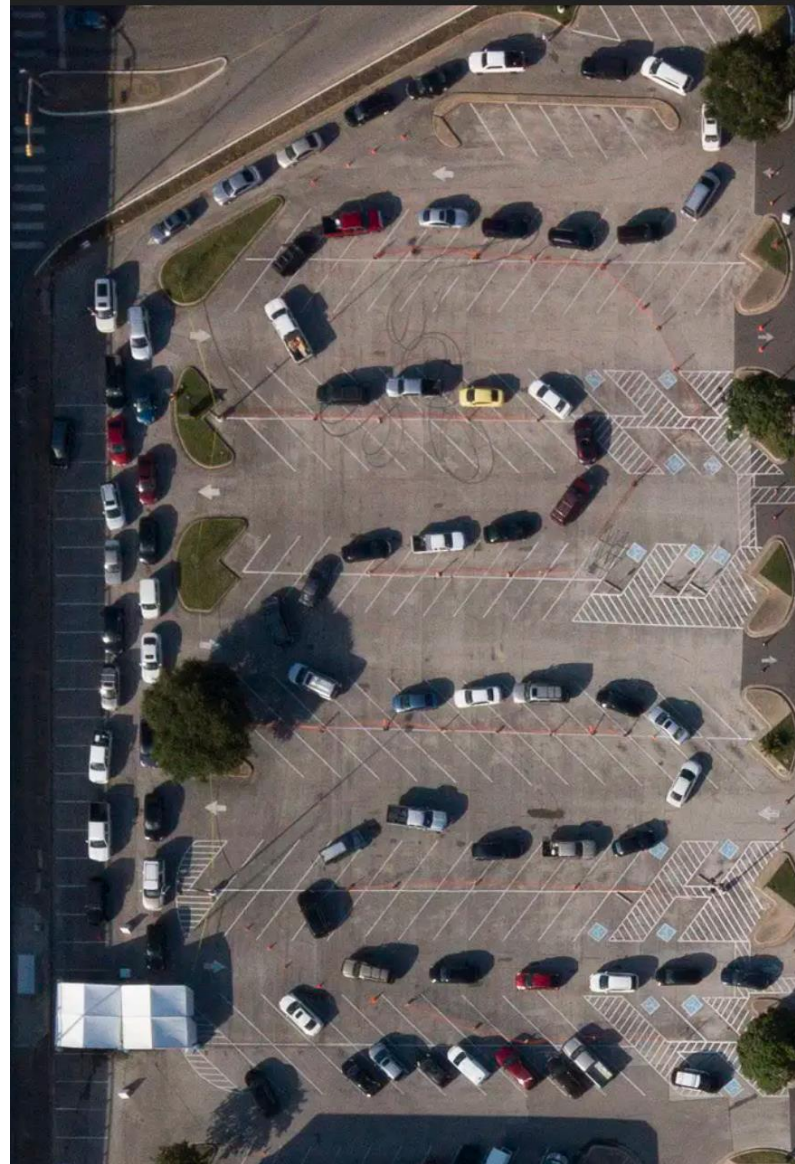
The Waste of “Inventory”



The Waste of “Motion”



The Waste of “Waiting”



The Waste of “Over Production”



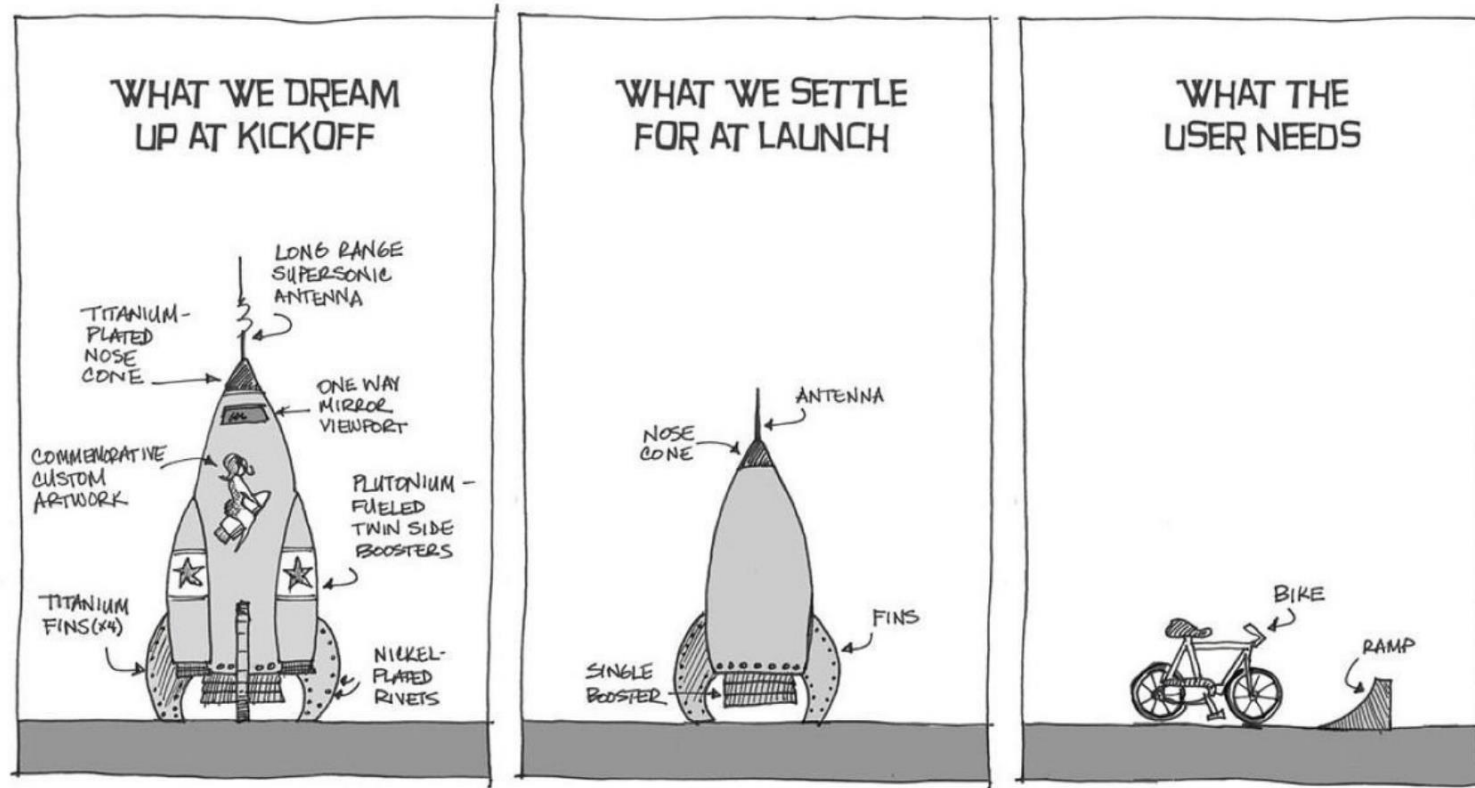
Water-White Corn Syrup

Definition of *water-white*

:approaching water in colorlessness
and clarity

The Waste of “Over Processing”

THE UX DESIGNER PARADOX



"Over-engineering problem from software developer and product manager perspective" (rspective)

The Waste of “Defects”



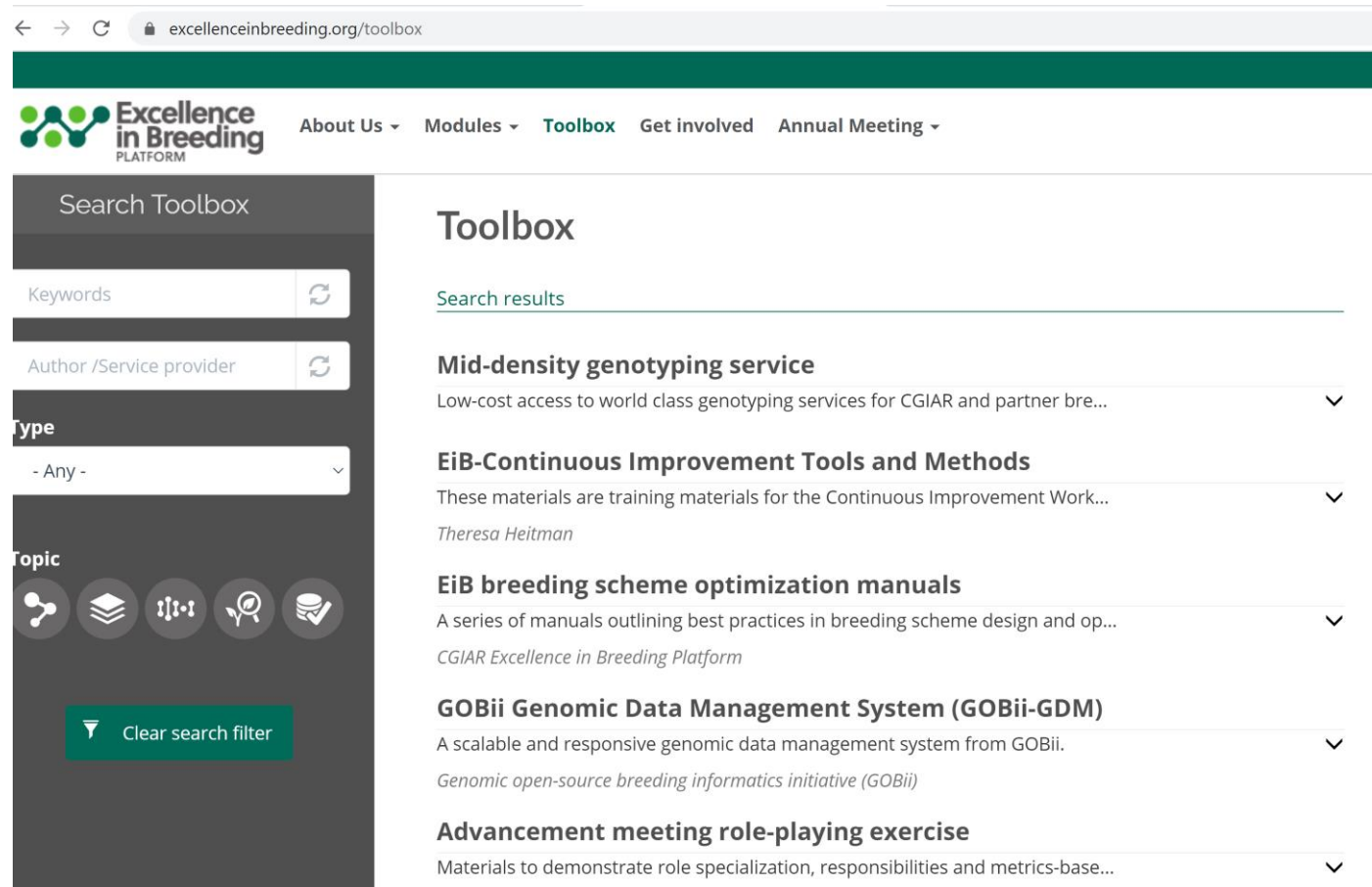
The Waste of “People”



How can we support National Programs in Continuous Improvement?

Current Resources

- Access to CI learning materials in the Toolbox on the Excellence in Breeding website
<https://excellenceinbreeding.org/toolbox>



The screenshot shows the 'Toolbox' page of the Excellence in Breeding Platform. The page has a dark green header with the logo and navigation links: 'About Us', 'Modules', 'Toolbox' (highlighted), 'Get involved', and 'Annual Meeting'. Below the header is a search bar with the text 'Search Toolbox'. To the left of the main content area is a sidebar with filters: 'Keywords' and 'Author /Service provider' (both with refresh icons), 'Type' (a dropdown menu set to '- Any -'), and 'Topic' (a row of five icons representing different topics). Below these filters is a 'Clear search filter' button. The main content area is titled 'Toolbox' and lists several resources, each with a title, a brief description, and a dropdown arrow. The resources listed are: 'Mid-density genotyping service' (Low-cost access to world class genotyping services for CGIAR and partner bre...), 'EiB-Continuous Improvement Tools and Methods' (These materials are training materials for the Continuous Improvement Work... by Theresa Heitman), 'EiB breeding scheme optimization manuals' (A series of manuals outlining best practices in breeding scheme design and op... by CGIAR Excellence in Breeding Platform), 'GOBii Genomic Data Management System (GOBii-GDM)' (A scalable and responsive genomic data management system from GOBii. by Genomic open-source breeding informatics initiative (GOBii)), and 'Advancement meeting role-playing exercise' (Materials to demonstrate role specialization, responsibilities and metrics-base...).

Continuous Improvement Tools and Methods

- Project Management
- Project Charter
- A3
- Introduction to Operational Excellence and Continuous Improvement
- Team Building
- Define Value
- Process Mapping
 - Value Stream Mapping
 - Flow Charts
 - SIPOC
 - Spaghetti Diagram
- Non Value Added/Waste Identification
- Root Cause Analysis
- Data Collection and Analysis
- Improve Flow
 - 5S
 - Set up reduction
 - Employee Activity
 - Batch Delay
 - One Piece Flow
 - Cell Design
 - Point of Use
- Pull Replenishment, Kanban
- Kanban
- Load Leveling
- Standard Work
- Mistake Proof
- Visual Management
- Action Plan
- FMEA
- Control Plan
- Kaizen Event
- Storyboard

Resources Coming Soon

- Access to online learning modules in the LMS (Learning Management System)
- Monthly learning topics
- Learning Videos