

# Innovation Through Understanding: Using Customer Learning Loops to Develop Groundbreaking Products



## Who I am



**Jaime Ogbourne**  
Senior Technical Leader

Engineer  
Innovation Team

## *I love to Learn*

## *I love to make peoples lives better*

Continuous  
Improvement  
engineer –  
shopfloor-

Internal Lean coach –  
Factory equipment  
and process  
development

Plant Sr. Engineer

Divisional  
Continuous  
improvement leader

Corporate continuous  
improvement engineer  
– inlining processes and  
plant startup

Quality SWAT –  
product and process  
improvement

Rapid Recovery  
Initiative leader–  
field Leadtime  
reduction

CX – Customer  
Experience Initiative

Corporate  
Engineering –  
Capacity and output  
increases

Internal Lean Coach  
– Factory equipment  
and process  
development

Co-led Lean Product  
and Process  
development  
initiative

Pii lab – Pella  
innovation Incubator  
– Sr. Technical leader



2024  
**Lean Summit**

## About Pella Corporation



HEADQUARTERS IN  
PELLA, IOWA



AWARDED MORE THAN  
150 PRODUCT  
& DESIGN PATENTS



FOUNDED IN  
1925



10,000+  
TEAM  
MEMBERS



20  
MANUFACTURING  
SITES



PRIVATELY HELD,  
PROFESSIONALLY  
MANAGED



Innovation Team Formed

Integrated Rolscreen  
Concept Window

Easy Slide Operator

Hidden Screen - 250

Hidden Screen - Lifestyle



BEST OF IBEX™  
AWARD WINNER



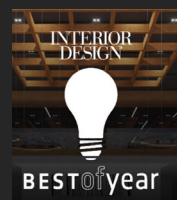
FAST COMPANY



NO. 08  
PELLA  
CORPORATION



FAST COMPANY



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2024

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## Agenda

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- Pella/Innovation
- Favorite Lean Things
- Customer learning loops
  1. Initial customer problem discovery
  2. Set based Design
  3. Regular customer feedback loops
- Customer benefit
- What are you going to do about it?



## Favorite Lean tools

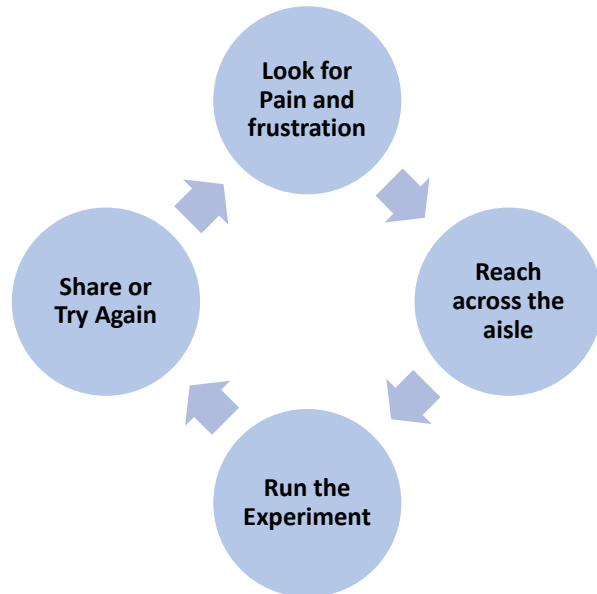
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- What are your favorite Lean tools for serving customers?
- Why?



## My Favorite Lean tools

- Genchi Genbutsu
- Identify pain and frustration
- A3 problem solving and VSM's

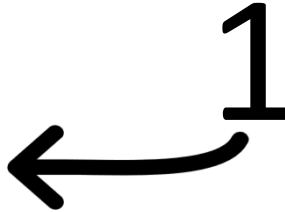


Credit to Jim Womack, Paul Akers, and Rich Sheridan for pointing the way



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## Work to Deeply understand

- “One Toyota Vice President for development answered the question in this way. Market research is too conservative. It can only represent customer needs as the customer currently understand them. But the System designer can look beneath the surface to see how an innovative system can change the way customers understand and satisfy their needs.”
- “You intend to understand the customers needs in detail and take responsibility for meeting them”
- “Above all, be sure that you really understand their Actual needs”

Don't assume you know. Do the work to deeply understand what your product needs to be. As Steve Jobs observed this includes **going beyond** what customers ask for to **understand what is possible to satisfy those unmet needs.**

“The Sienna Chief Engineer drove his team.. More then 50,000 miles across every part of Canada, the US, and Mexico. – The Chief Engineer Experienced a **Visceral lesson** in what is important to the minivan driver”













**The Chief Engineers ultimate responsibility is delivering value to the Customer.**







## Background: 10 Common Steps & Pain Points

			
			
1-Prep unit	2-Prep opening	3-Caulk	4-Shim
<b>Pain Points</b>			
<ul style="list-style-type: none"> <li>Crews often did not know what product or install methods to expect prior to arriving at job sites</li> <li>Placing the unit near the right opening was difficult, unclear, and time consuming (15-20% of their time, or 3-4 m/ unit)</li> <li>Moving the units multiple times was difficult due to size and weight</li> <li>Packaging/trash became tripping hazard once removed</li> </ul>			
			
5-unit in opening	6-Level square and attached	7-Operate unit	8-Interior water seal
<b>Pain Points</b>			
<ul style="list-style-type: none"> <li>Leveling and squaring the unit was difficult as the rough openings are seldom square or level to begin with</li> <li>If the rough openings were too large or small, or not square it made it difficult to properly secure it in place.</li> </ul>			
			
9-Exterior seal	10-Interior air seal		



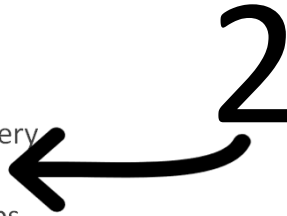


## Project Jigsaw / Interior Installation System

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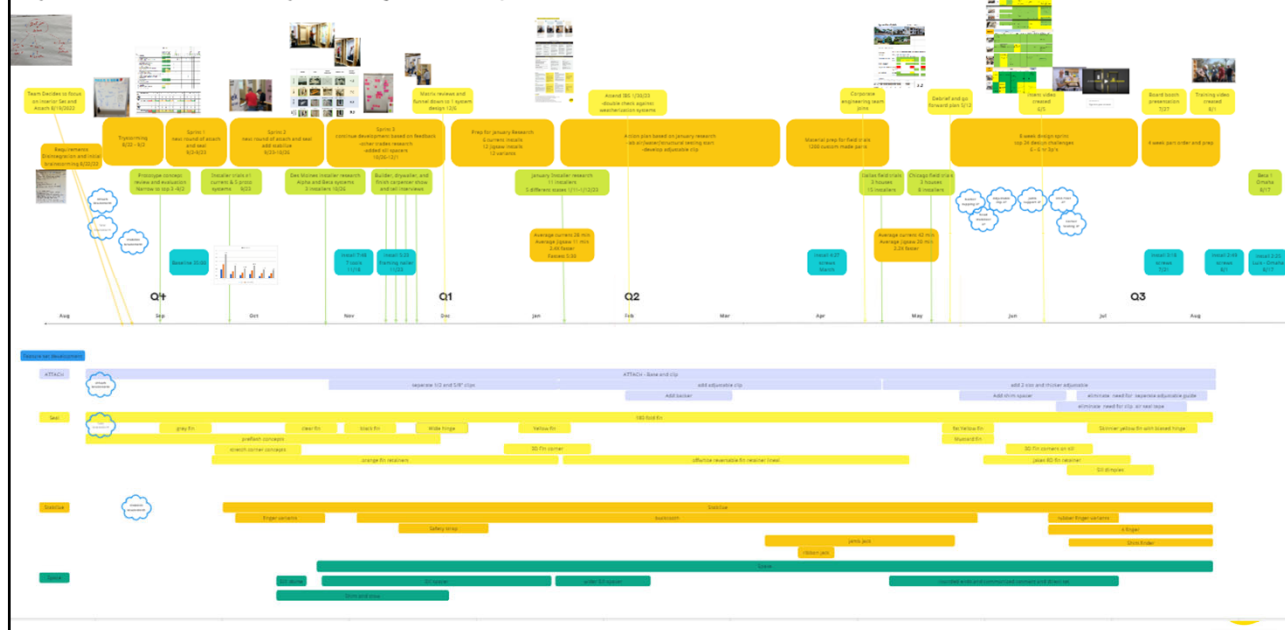


# Set Based design

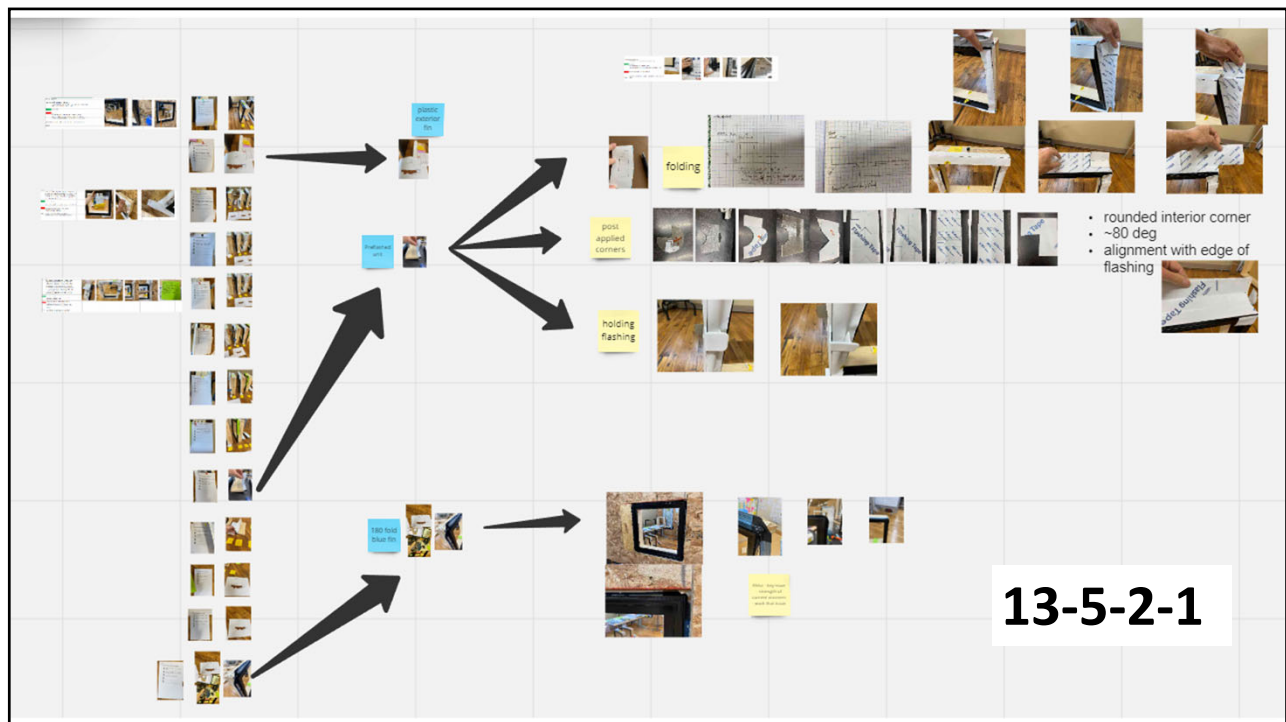
- How do you develop and understand solutions?
- How do you understand if they are feasible?
- How do you understand how well they solve your customers problems?
- How do you know you chose the best solution?



## Interior Install Timeline







3





Easy – to do

Follows existing behaviors

No specialty tools

80% reduction in steps

Easy – to learn

Most learn after seeing once

Difficult to train steps eliminated

Safer

Eliminates holding weight on top of ladder

74% reduction in ladder time

Efficient

3.15X more efficient

Harder jobs even better

1 person install

Confidence

"I don't feel like I have to babysit my installers now"

The easy way is the right way



"I'm expecting this to take the industry by storm...SAFER,BETTER, STRONGER. I'm impressed"

Matt Risinger  
The Build show

*"This is a game changer because you can divide and conquer. It'll up production by a phenomenal amount...you guys kicked this outta the park"*

**BEST OF IBS™  
AWARDS 2024**  
**WINNER  
BEST WINDOW &  
DOOR PRODUCT**



When you see it - it just makes sense  
Why hasn't anyone ever thought of this before?

"By setting windows from the interior, installers are no longer required to carry a window up a ladder — only a roll of flashing tape! The results are simple: superior installation, faster install time and SAFER!"

WILL KING, PRESIDENT OF HIGH COTTON HOMES

*"I mean...it literally doesn't get easier than this. If you blink you miss the install because it simplifies so many steps."*

*"Moving faster isn't better if guys are gonna get hurt. But with this I can go fast AND it's way safer. It eliminates dangerous ladder work."*

"We know our install manager is always looking out for us — its great to see someone else was looking out for us too"



2024

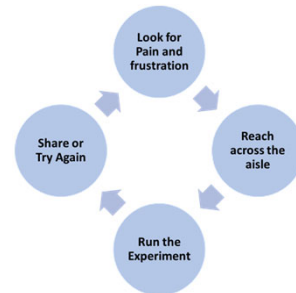
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## Challenge for you:

- How could you discover some of your customers Pain and frustration?
- Which customer learning loop do you want to start with?
- How do you know the problems you are solving are the ones your customer needs solved?
  - What do you do to deeply understand your customers pain and frustration and identify some of the root causes of it?

“When we eliminate pain and frustration-  
we don’t just make the process better,  
we make the lives of those we work with  
and those we serve better too.”



# Questions?

## Hints and Tips

- Just observe
- Play dumb - Ask why – **don't assume**
- Look for common work arounds – its about how it actually gets used
  - **Root cause and think about why**



