

How to Increase ROI with Returnables

Presented by:

Michael Chiado
President of Americas
Georg Utz Inc.

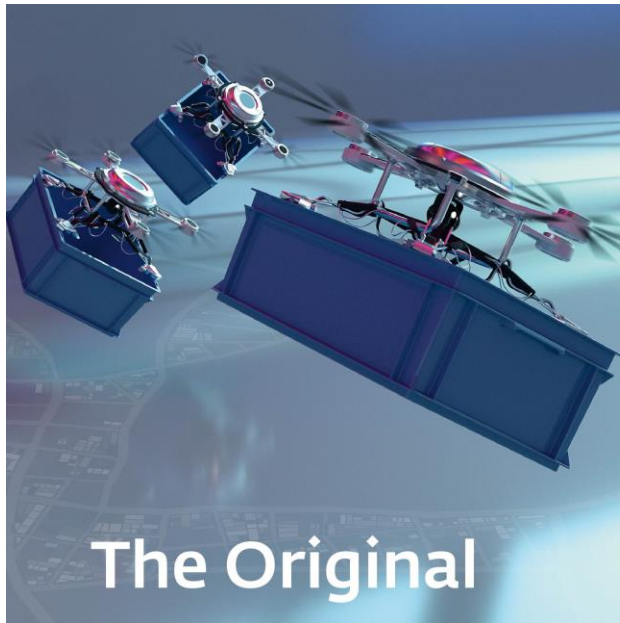


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Introduction

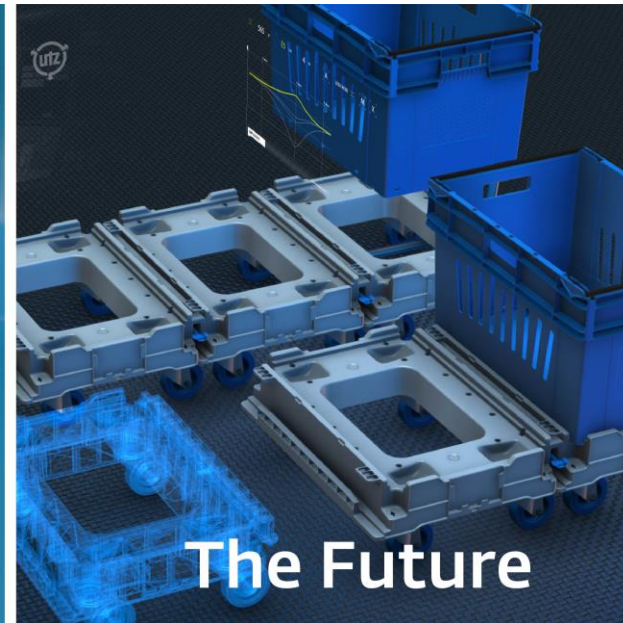
- Presenter
 - Mike Chiado - President of Americas
 - Georg Utz, Inc
 - Booth #8607



The Original



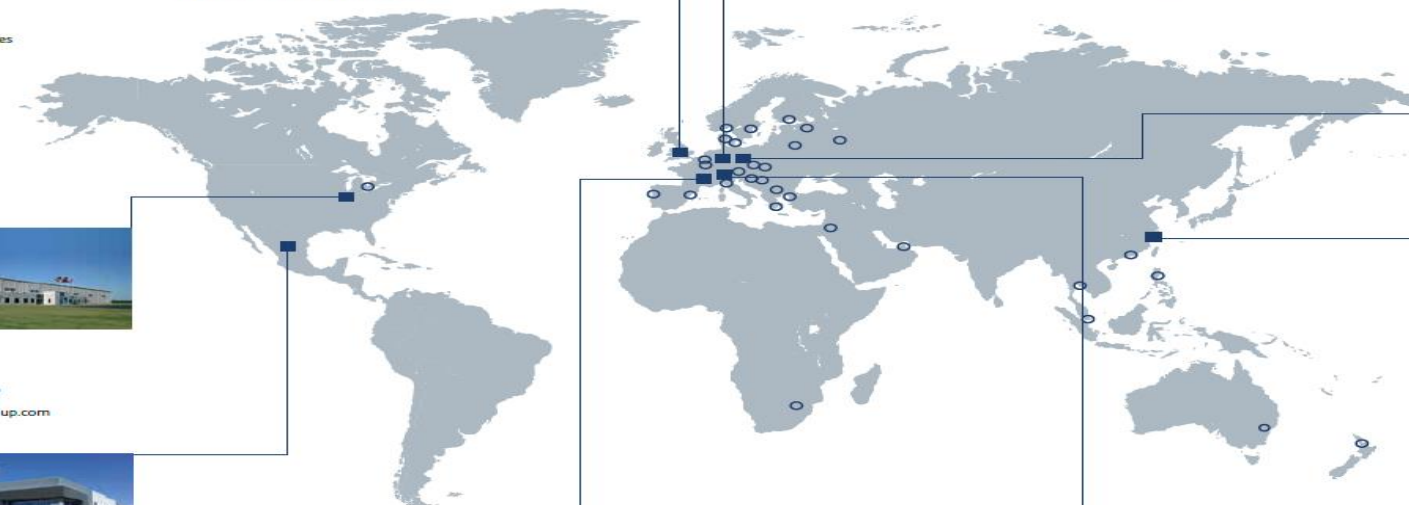
The Game Changer



The Future

Who is Georg Utz

Utz Worldwide



■ Utz production facilities
○ Utz agents

Georg Utz Ltd
Grange Close
Clover Nook Industrial Estate
DE55 4QT Alfreton, Derbyshire
UK
Phone: +44 (0) 1773 543 170
Fax: +44 (0) 1773 543 180
E-Mail: info.uk@utzgroup.com

Georg Utz GmbH
Nording 67
48465 Schüttorf
Germany
Phone: +49 5923 805 0
Fax: +49 5923 805 800
E-Mail: info.de@utzgroup.com

Georg Utz Sp.z o.o.
ul Nowowiejska 34
55-080 Katy Wrocławskie
Poland
Phone: +48 713 16 77 60
Fax: +48 713 16 77 61
E-Mail: info.pl@utzgroup.com

Georg Utz Materials Handling (Suzhou) Co., Ltd.
NO. 698 Jialin Road, SND
215151 Suzhou City, Jiangsu Province
China
Phone: +86 512 6667 0998
Fax: +86 512 6667 0697
E-Mail: info.cn@utzgroup.com

Georg Utz AG
Augraben 2-4
5620 Bremgarten
Switzerland
Phone: +41 (0) 56 648 77 11
Fax: +41 (0) 56 648 79 12
E-Mail: info.ch@utzgroup.com

Pooltec AG
Fischbacherstrasse 11
5620 Bremgarten
Switzerland
Phone: +41 56 648 21 11
Fax: +41 56 648 21 19
E-Mail: info@pooltec.ch

Georg Utz, Inc.
14000 North 250 West
Edinburgh, IN 46124
USA
Phone: +1 812 526 2240
Fax: +1 812 526 2428
E-Mail: info.us@utzgroup.com

Georg Utz de México S. de R.L. de C.V.
Circ. Corral de Piedras 17-A
Poligono Empresarial
San Miguel de Allende, Gto. 37888
Mexico
Phone: +52 415 120 5384
E-Mail: info.mx@utzgroup.com

Georg Utz Sarl
Parc d'Activités les 28
405 Chemin des Vignes
01360 Bressolles
France
Phone: +33 (0) 4 37 85 83 00
Fax: +33 (0) 4 37 85 83 09
E-Mail: info.fr@utzgroup.com

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Our Markets, Products & Customers

Automotive
Chemical/Pharma
Food
Textile
Post
Storage/Logistics
Electronics
Retail
Technical parts



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Purpose

- Explore the potential opportunities to:
 - Improve ROI of returnable assets
 - Increase speed to market
 - Reduce development and annual packaging costs

When Does It Make Sense

- Closed supply loops
- High volume
- High value products
- Sensitive products / easily damaged
- Producing families of similar products
- Replace manual pick and place operations
- Need for buffers between operations - repacking

Why Returnables?

- To capitalize on the benefits of returnable packaging.
 - Reduce packaging cost over time
 - Reduce waste management costs – “Green”
 - Improve quality
 - Improve safety
 - Enable standardization
 - Vehicle to drive standardization

Returnable Working With Automation

Customer Specific

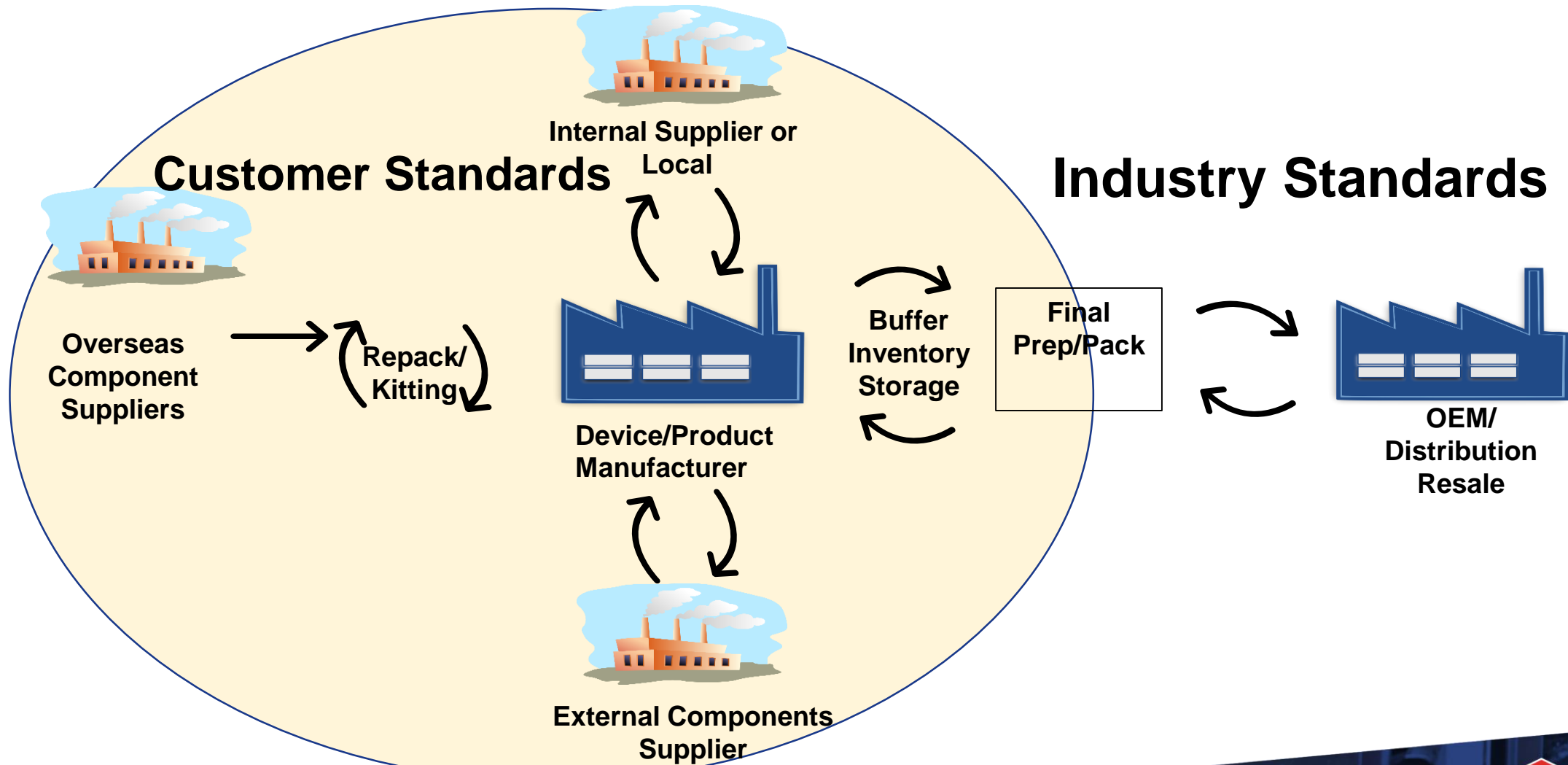


Industry Solutions



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Typical Supply Loops



Vision

- To do more than just pack and transport the product. We want to **add value** to the supply chain by **tying the manufacturing processes** together via a **common transport unit**.



Packaging Strategy Considerations

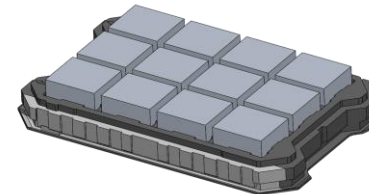
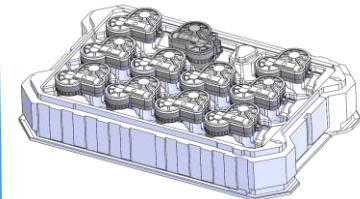
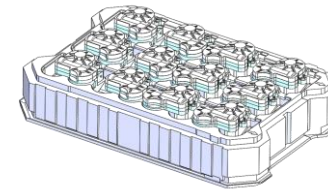
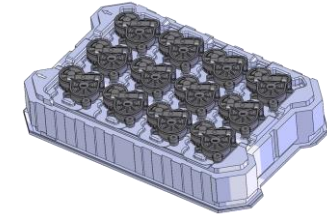
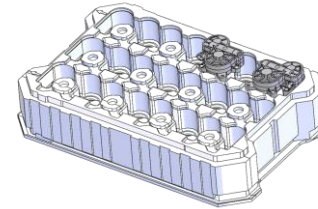
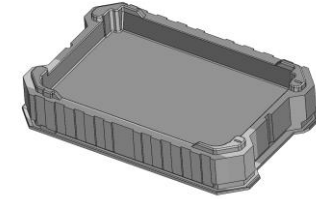
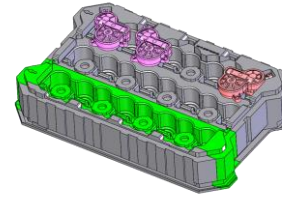
- Speed to market, speed to sale or duplication
- Scalability
- Flexibility
- Reduction in development time
- Reduce administration costs
- Sustainability
- Reduce packaging costs increase ROI

How

- Think Strategically – Drive Standardization at all levels
 - Families of products
 - Individual loops
 - Across facilities
 - Regions
 - Global

Standardization – Where to focus

- Footprint
- Outside frame
- Pallet / Racking
- Conveyance
- Positioning / Locating features
- Materials
- Business Processes



The Power of Standardization on internal process

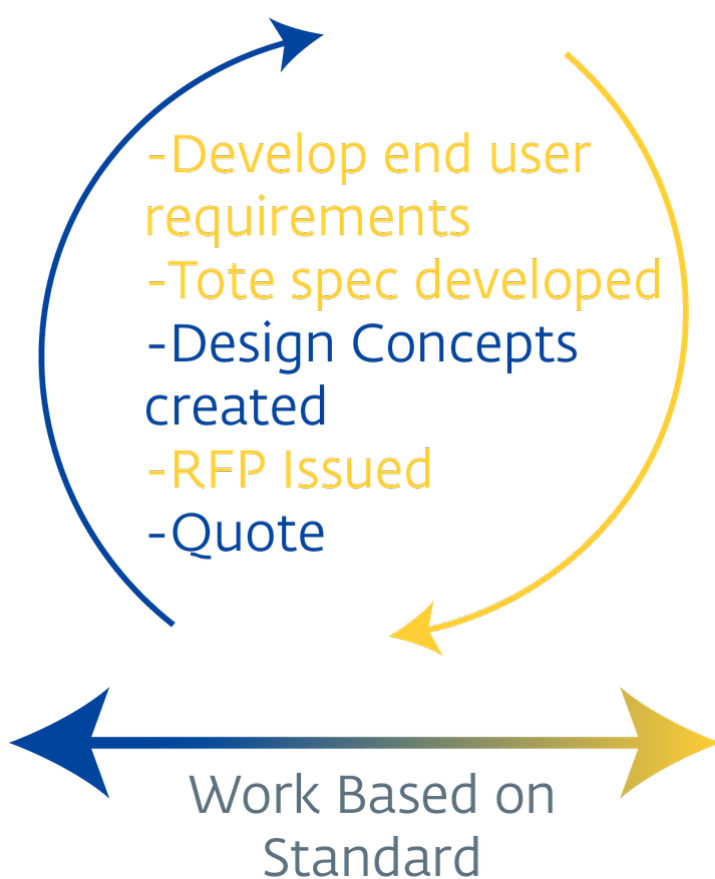
CURRENT PROCESS



The Power of Standardization

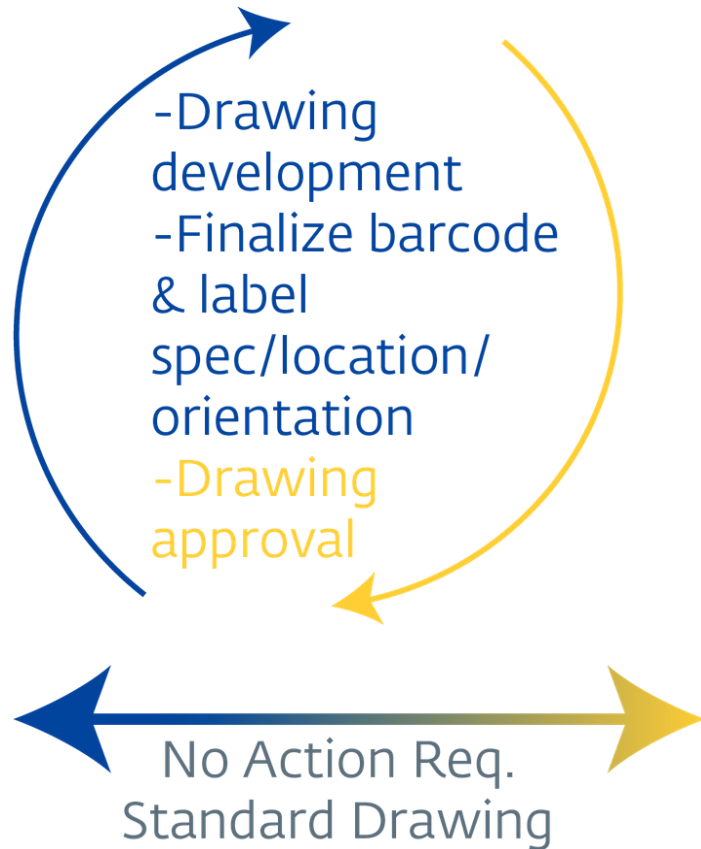
CONCEPT PHASE

SOURCING PHASE

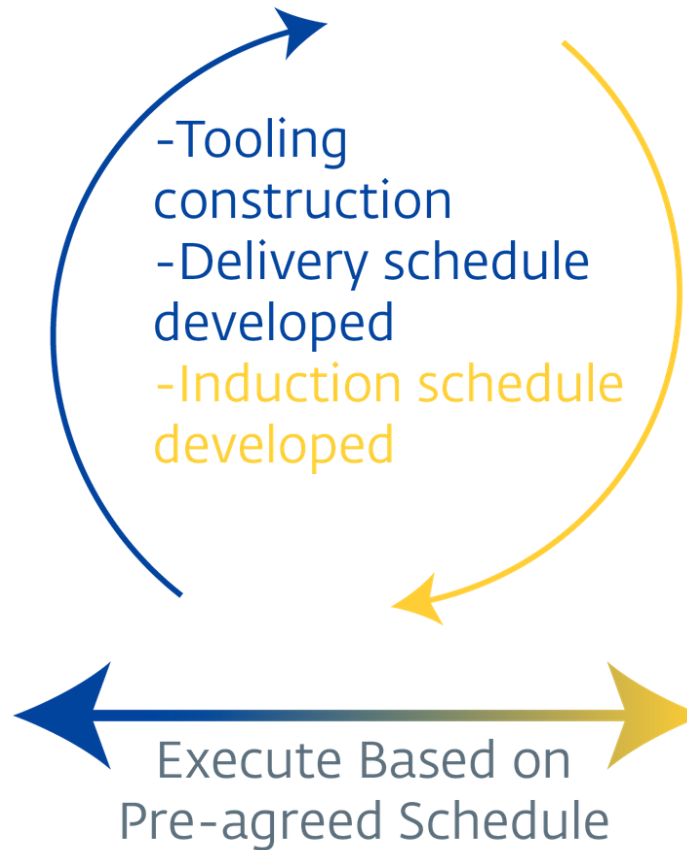


The Power of Standardization

FINAL DESIGN PHASE



TOOLING PHASE



The Power of Standardization

CURRENT PROCESS



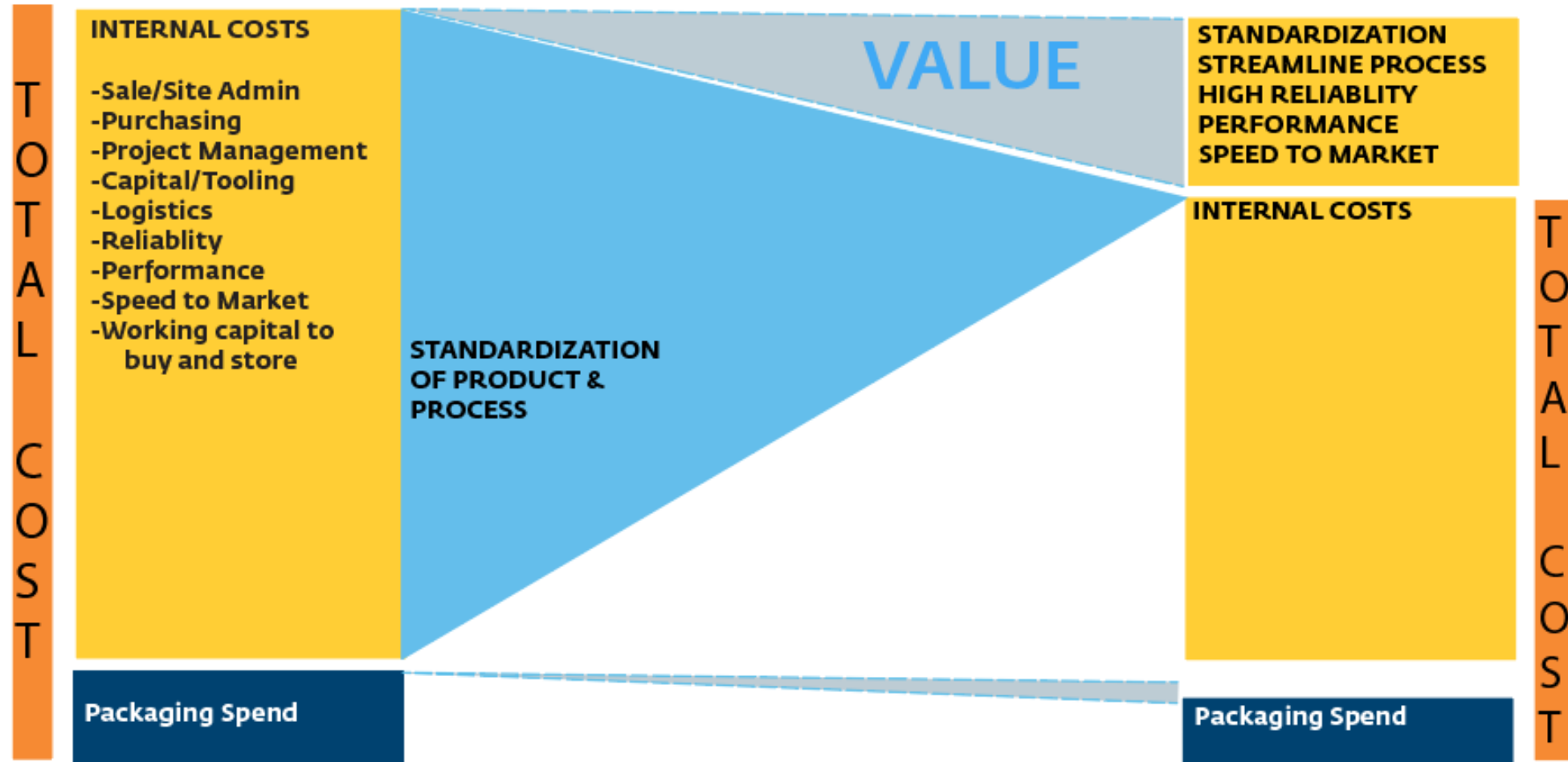
FUTURE PROCESS

Agree upon Standard Product and Procedure



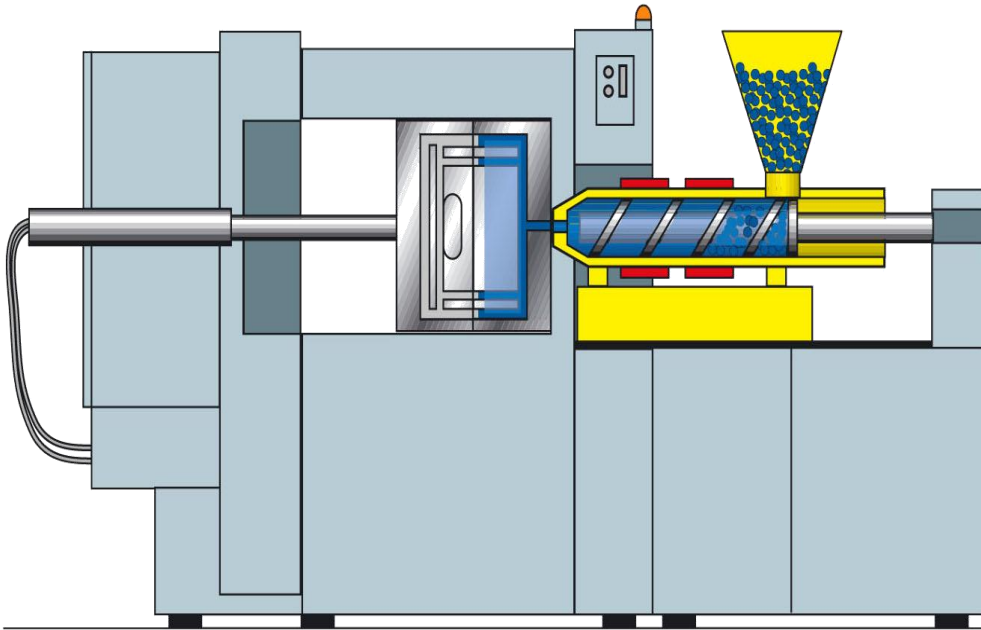
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Value of Standardization

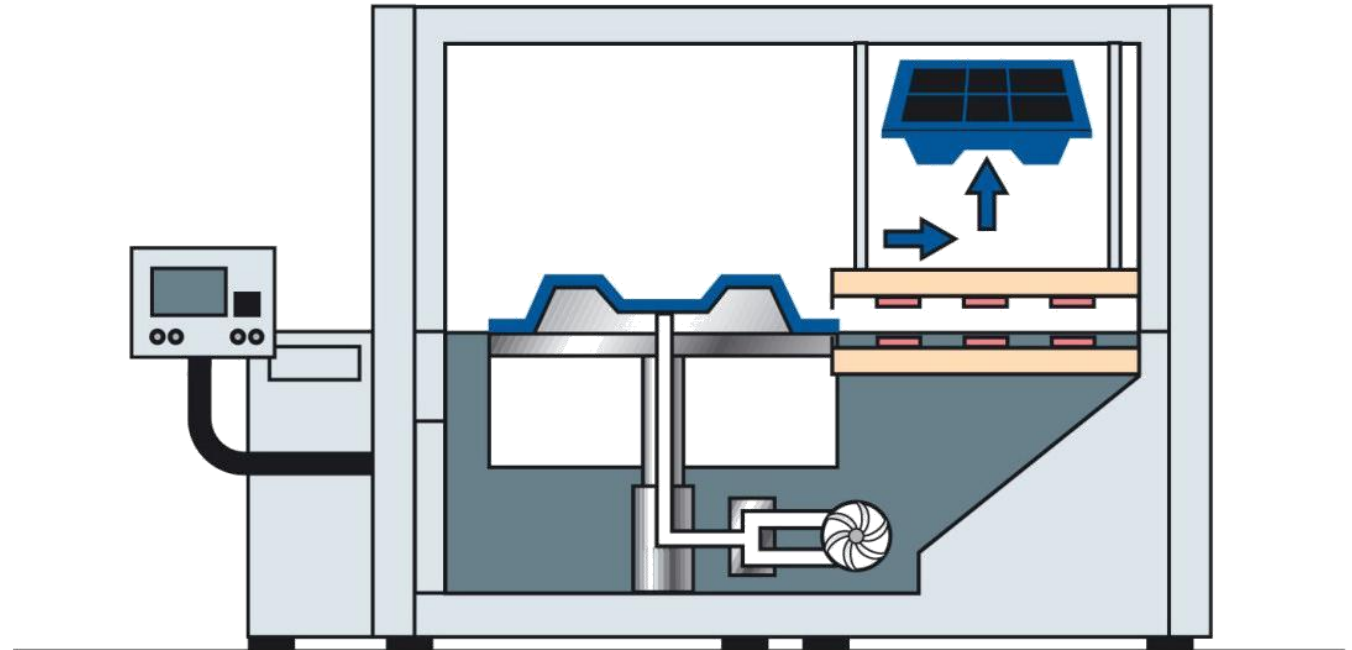


Typical Production Processes

Injection Molding



Thermoforming



Process Comparison

Thermoformed Trays



- Lowest investment
- High level for flexibility
- Lower part density
- Shortest lead time 4-6 wks.
- Highest piece price

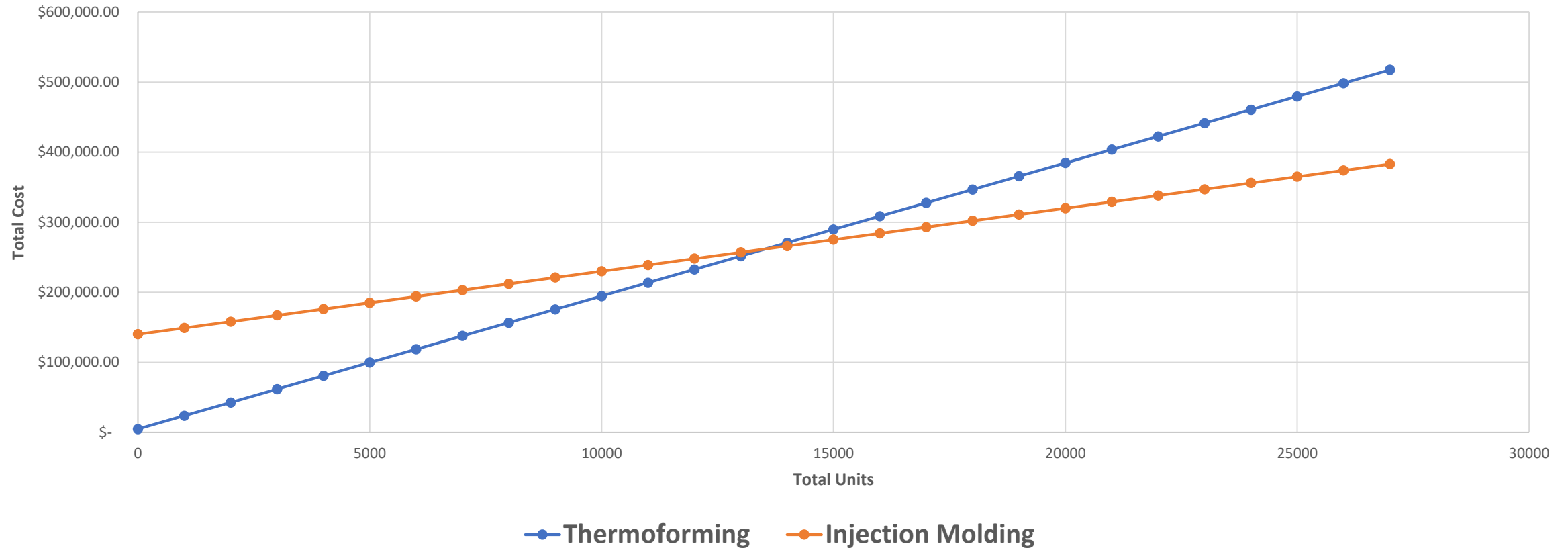
Injection Molding



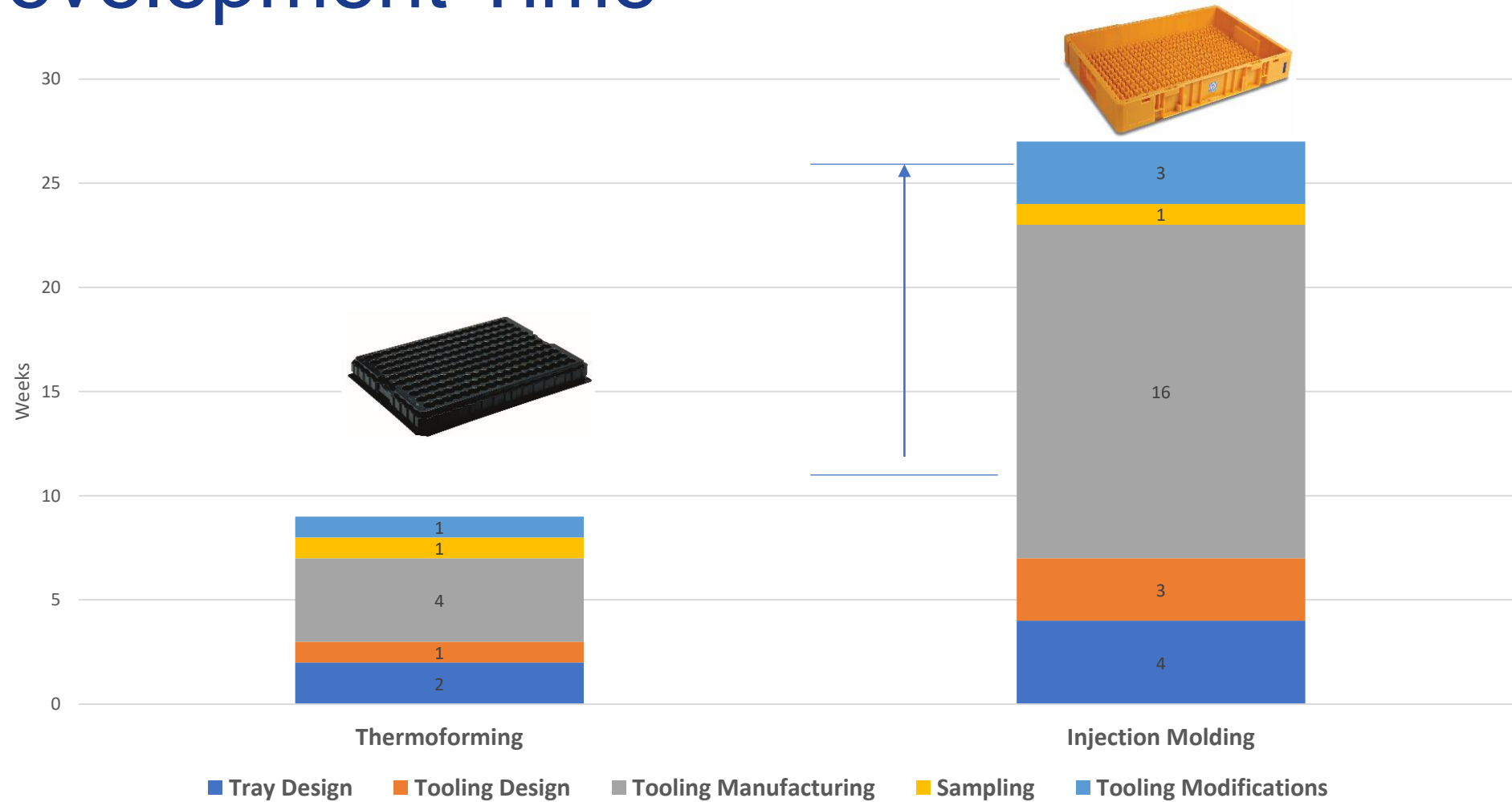
- Highest level of investment
- Flexibility but with cost
- Highest part density
- Tool build 12-18 wks.
- Lowest piece price

Break Even Analysis

Thermoforming vs. Injection Molding Cost Comparison

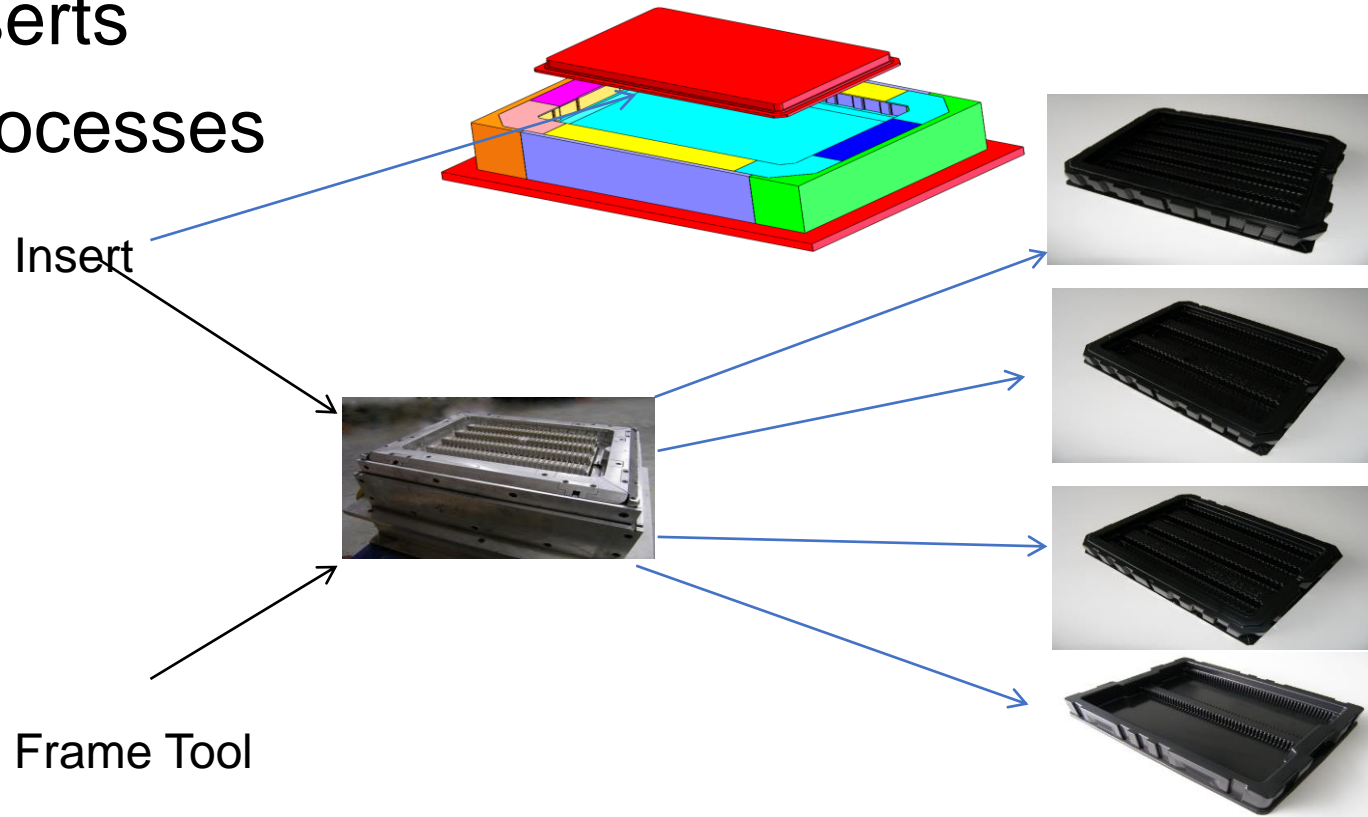


Development Time

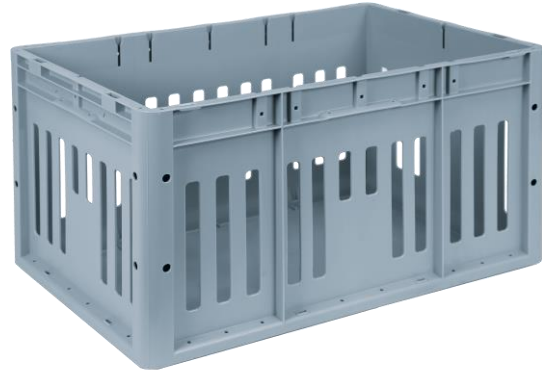
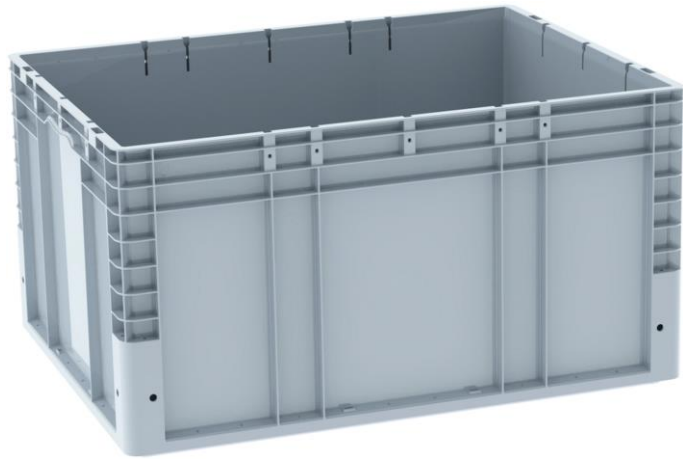


Approaches to Shift the Break Even Point

- Flexible tooling
- Mother Mold - Inserts
- Combination of processes

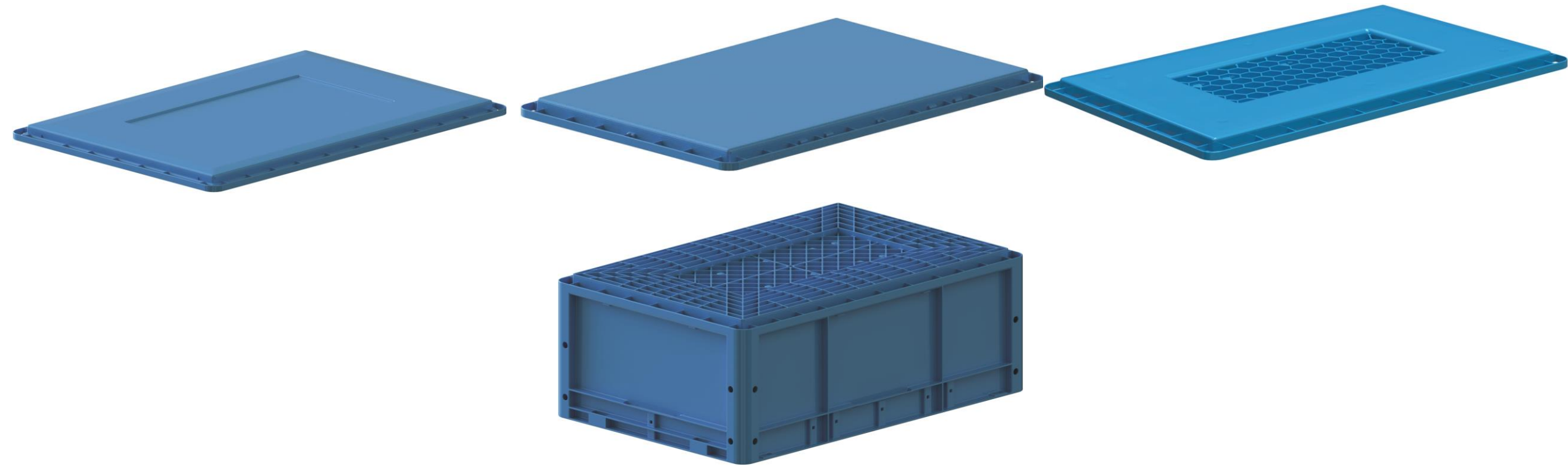


Case Study – AS/RS – System Solution



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Case Study – Optimize AS/RS



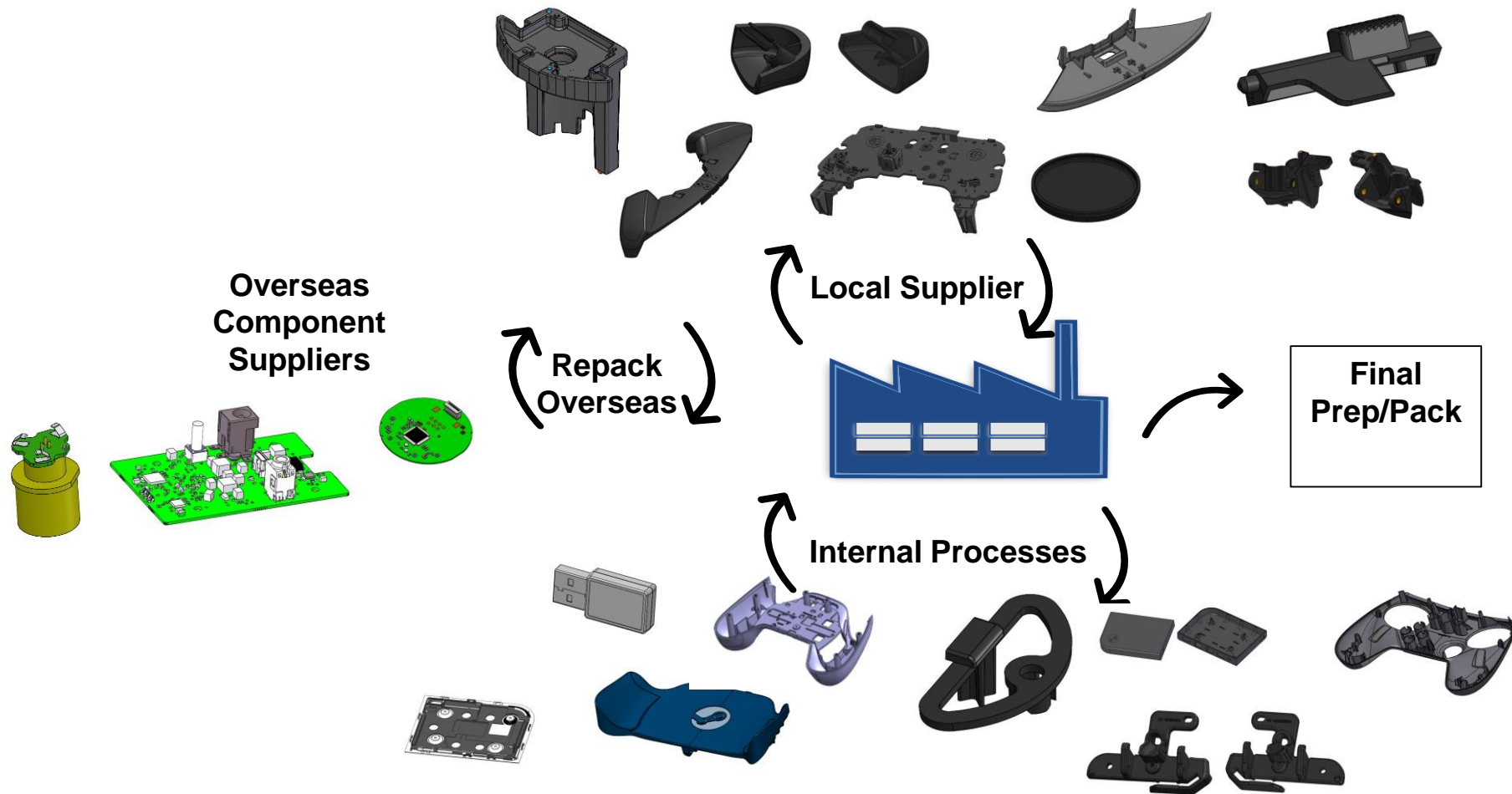
Case Study – Optimize AS/RS

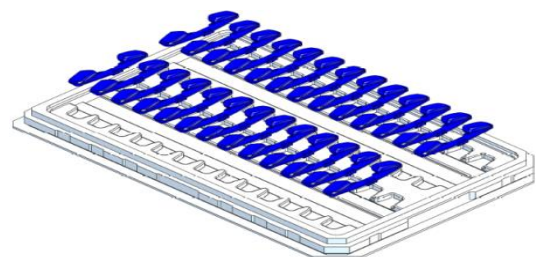
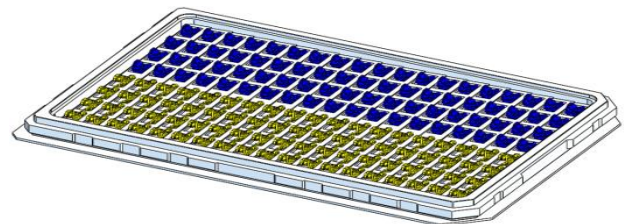
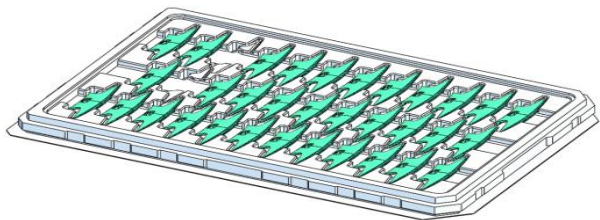
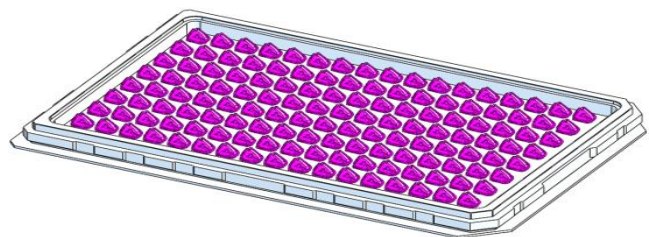
“It’s a very flexible, container design with cups that interlock nicely to the side of master container. You can quickly remove a cup to facilitate a process like order consolidation, such as where you would tip all the SKU items from one cup into another of the same SKU, and then lock the empty cup back into place. We like the cup design because it prevents items from intermixing.”

–Curt Nelson, Engineering Manager Polaris



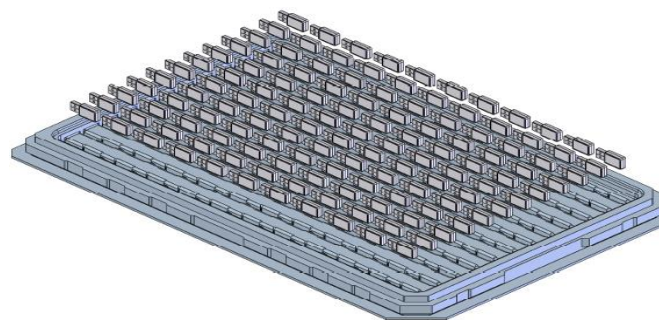
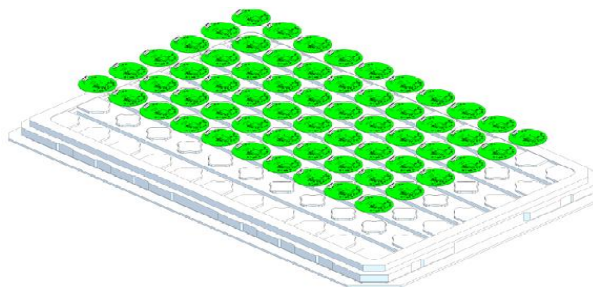
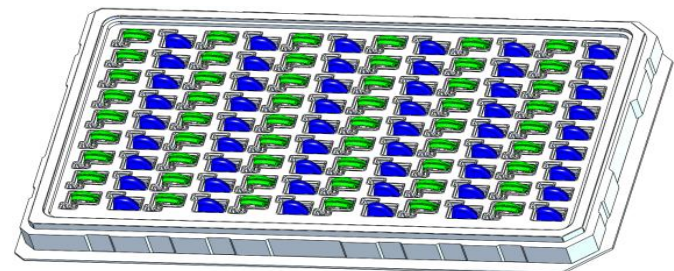
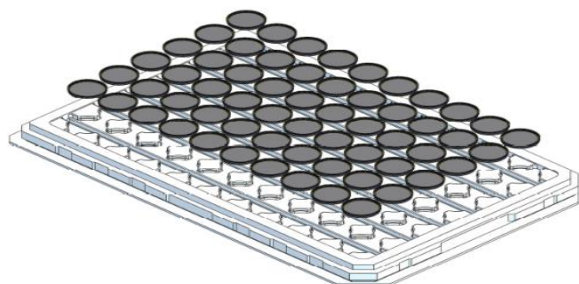
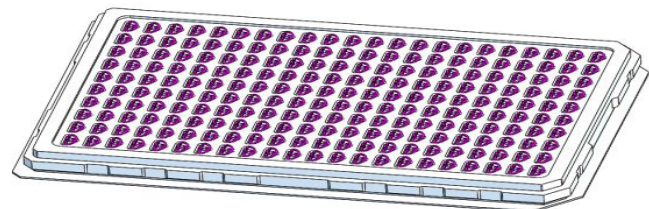
Case Study – Video Controller





Video Controller Part 545x365

Designed for full automation
14 different Trays
3mm White ABS
Trays are 31mm - 88mm



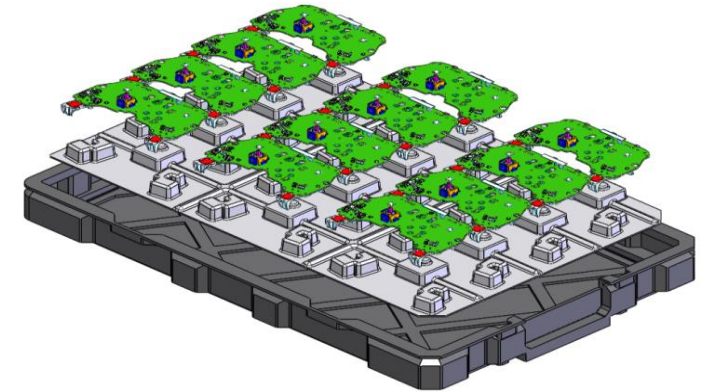
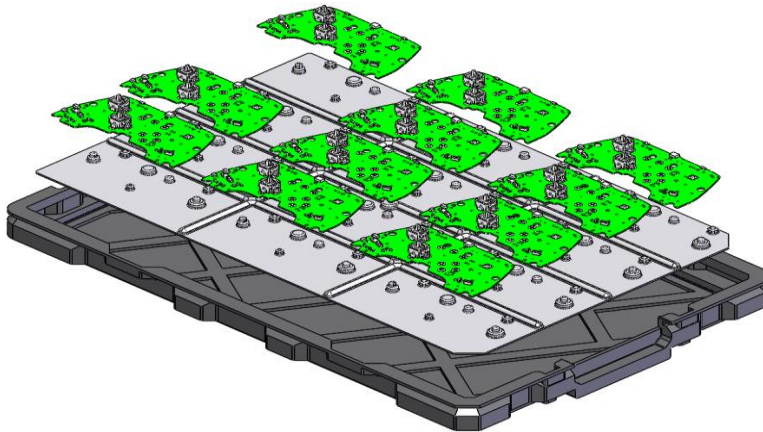
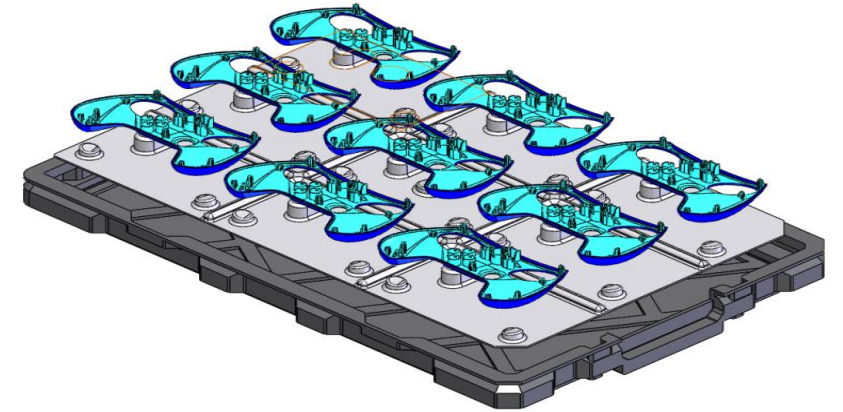
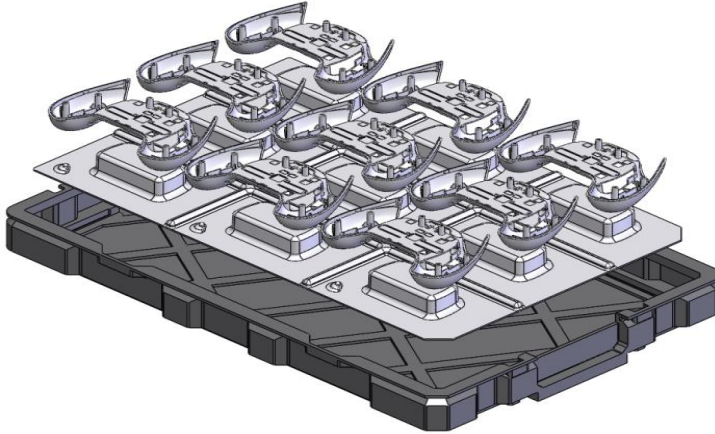
Video Controller 600x400

5 different inserts

Insert is 2mm White ABS

Tray is 4mm Black ABS

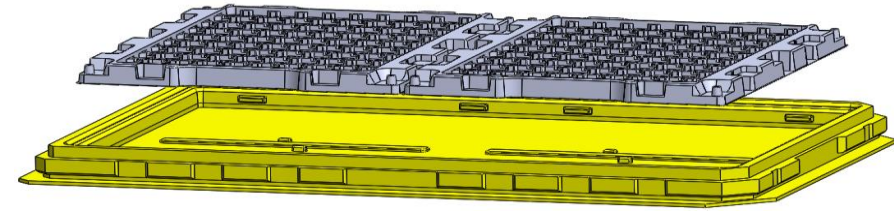
Trays are 51mm – 110 mm height



Expendable blister to Automation

Current State

- Small electric assemblies ship from China in thin wall expendable tray
- Repack required to support need for automated part feed

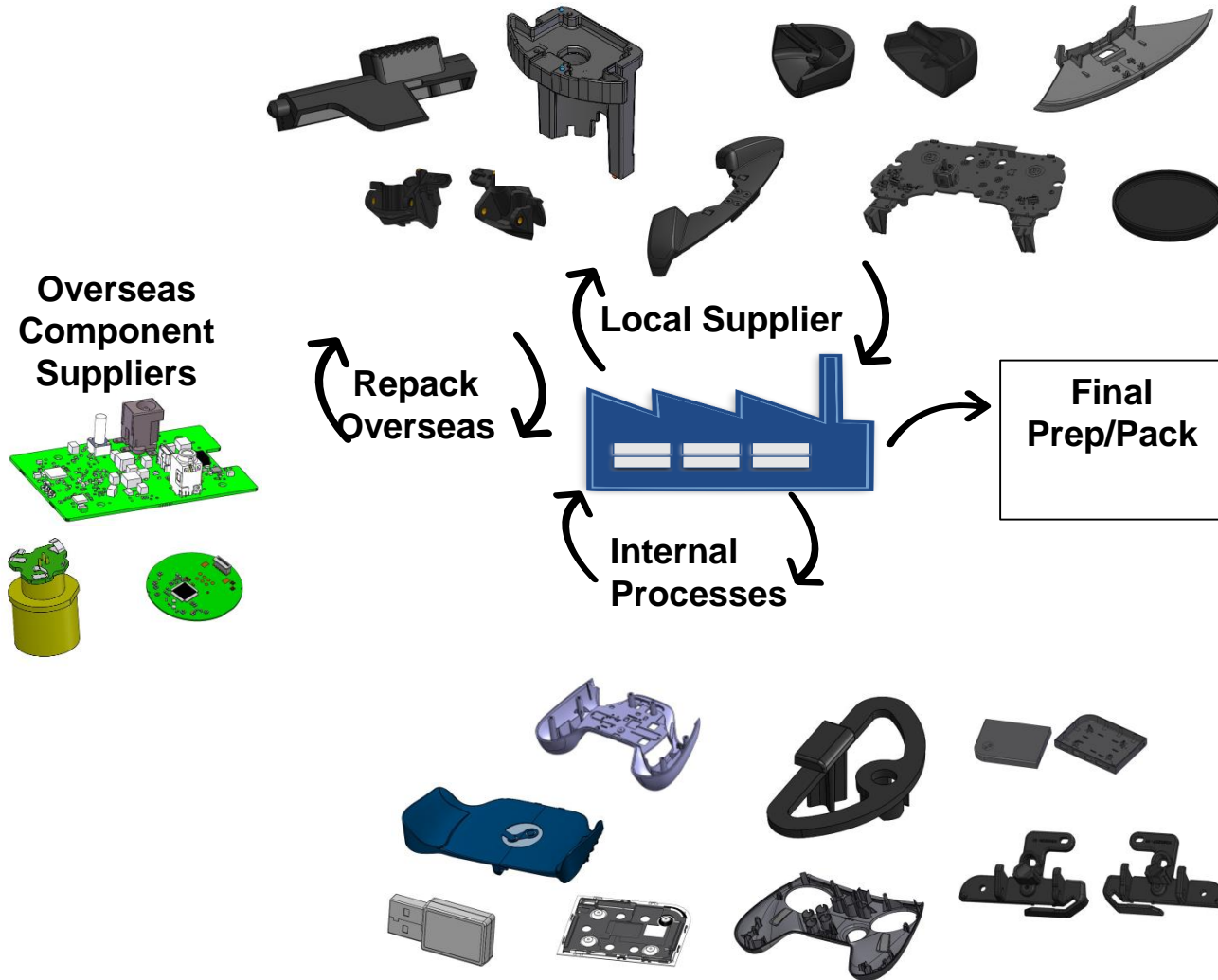


Utz Solution

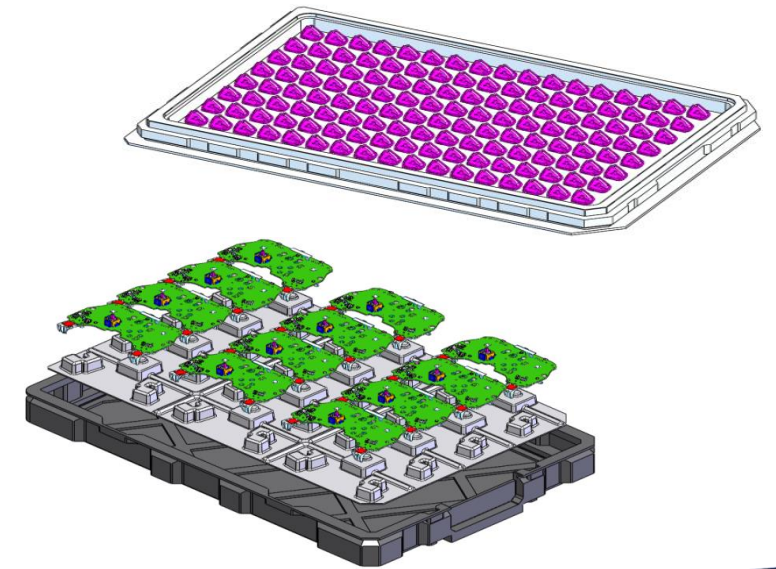
- Expendable tray loaded full on rigid TF tray – 2 up
- Pack operation automate directly from expendable tray
- Elimination of 3 Repack operators



Case Study – Video Controller



- 19 unique components
- 2 frame bases
- 3.5 months development time
- \$1.2M savings from standardization



Case Study – Video Controller



Lessons Learned & Things to Consider

- Think strategically
- Standardize both return
- Start the business case early
- Encourage direct communication between automation vendors / System Engineers and returnable solution provider
- Use discipline in the development process
- Develop the returnable transport device on the front side of your project

For more information:

Speaker email: Michael.Chiado@utzgroup.com

Website: www.utzgroup.com

Or visit MODEX Booth 8607

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