

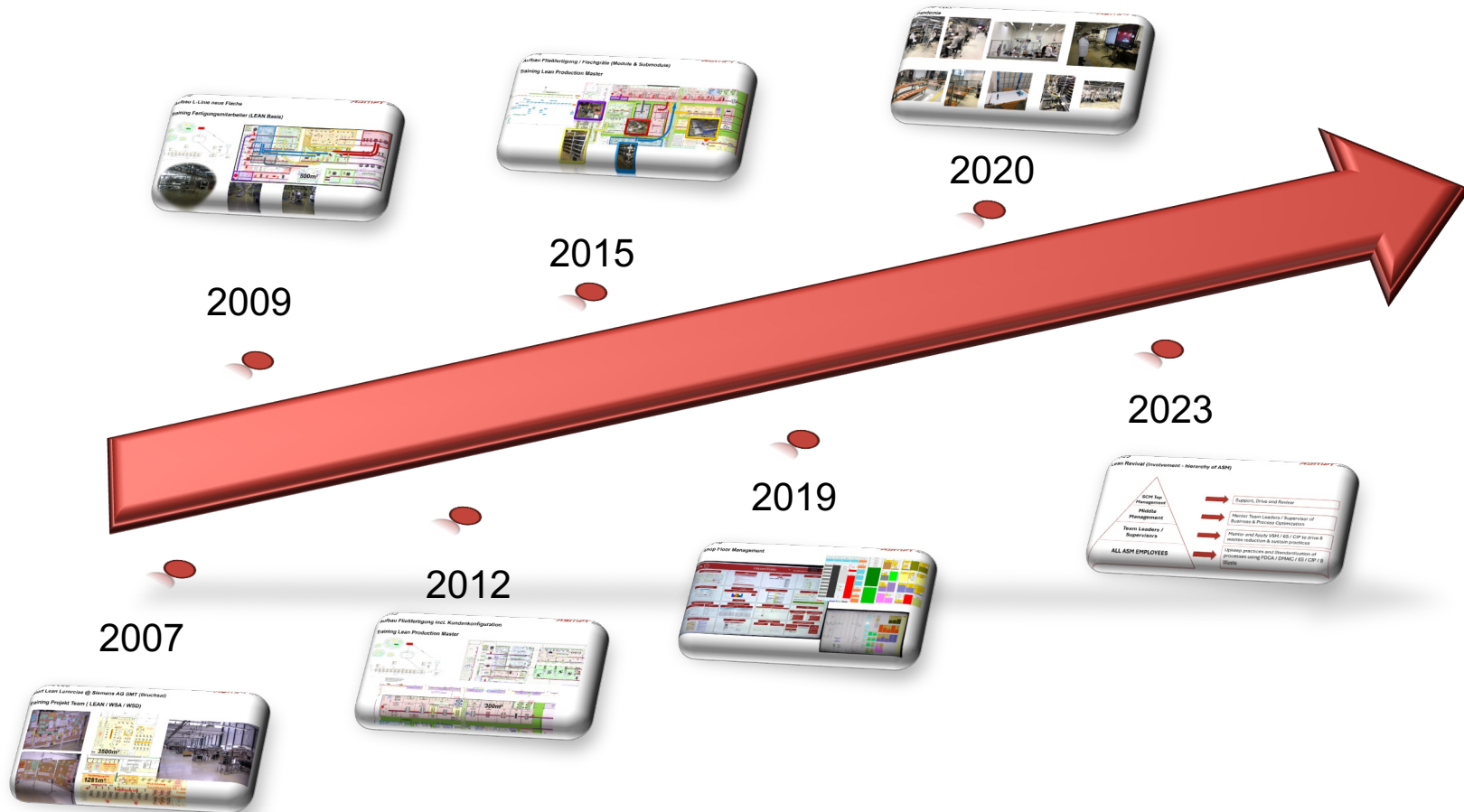
ASMPT enabling the
digital world

ASMP T SMT Solutions



LEAN Revival

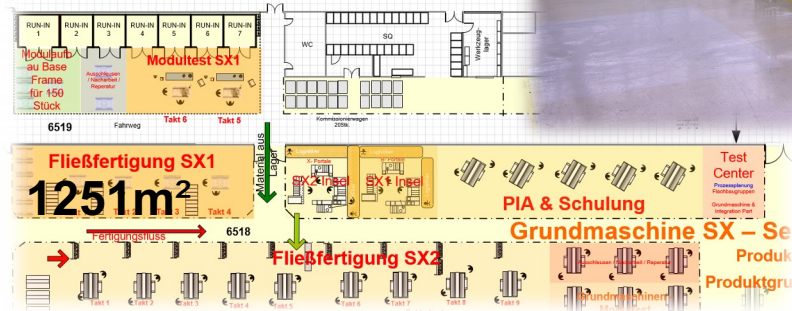
Historie



2007/2008

Start Lean Lernreise @ Siemens AG SMT (Bruchsal)

Training Projekt Team (LEAN / WSA / WSD)



2008

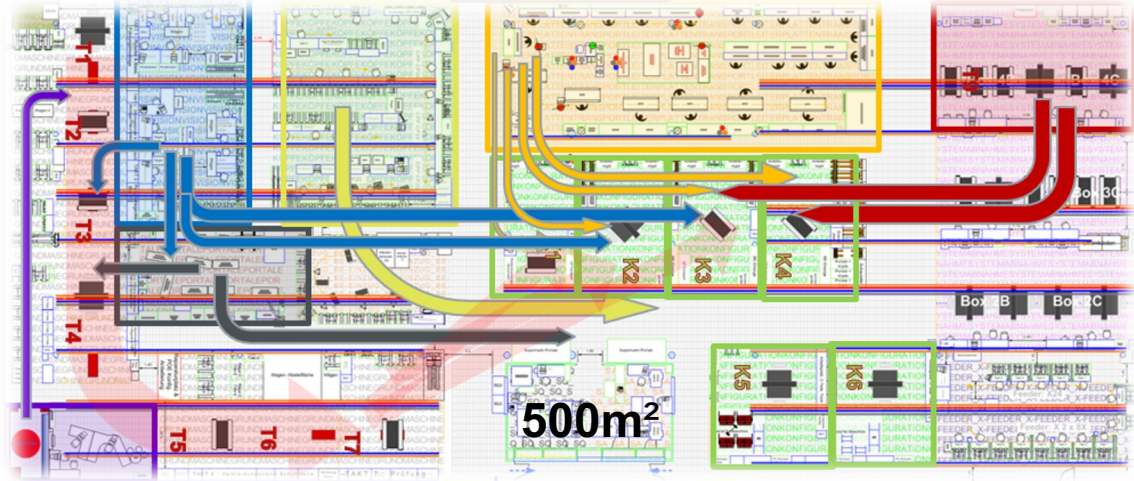
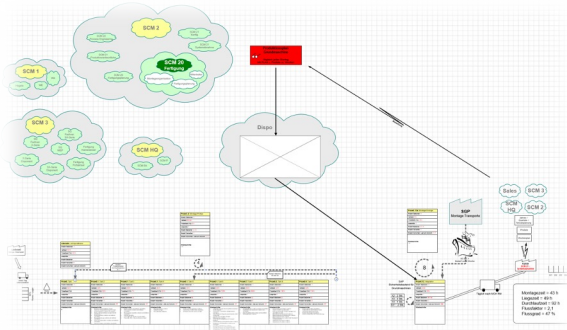
Transportmittel



2009

Aufbau L-Linie neue Fläche

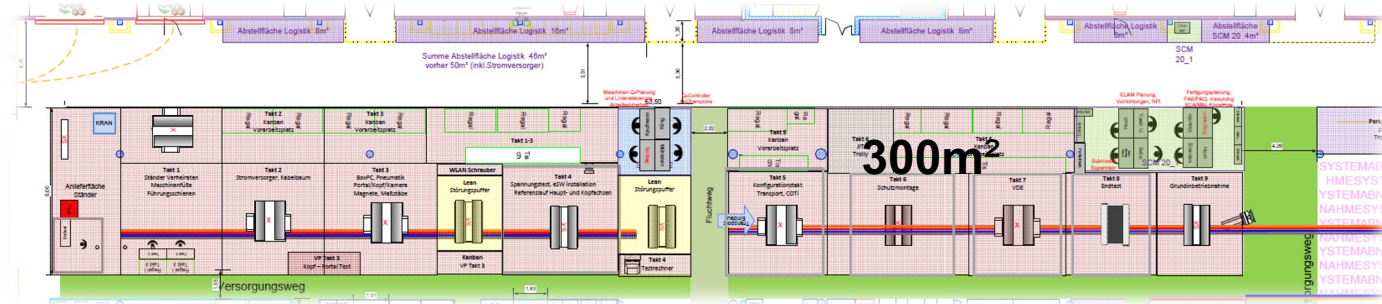
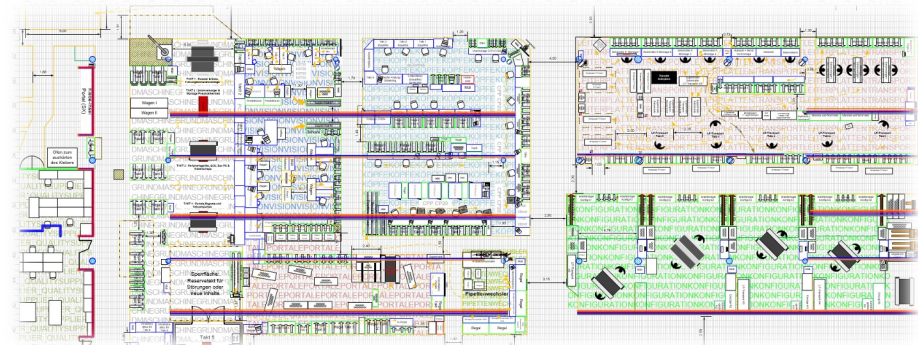
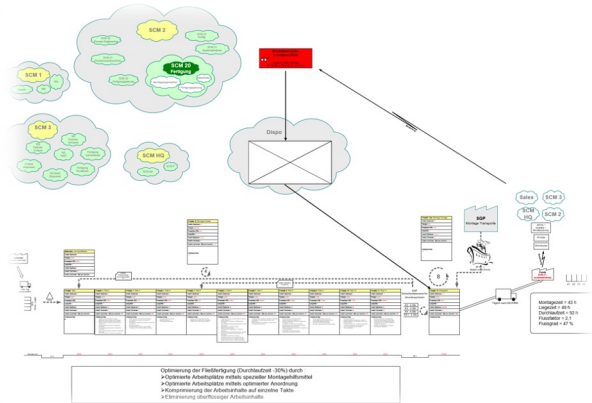
Training Fertigungsmitarbeiter (LEAN Basis)



2012

Aufbau Fließfertigung incl. Kundenkonfiguration

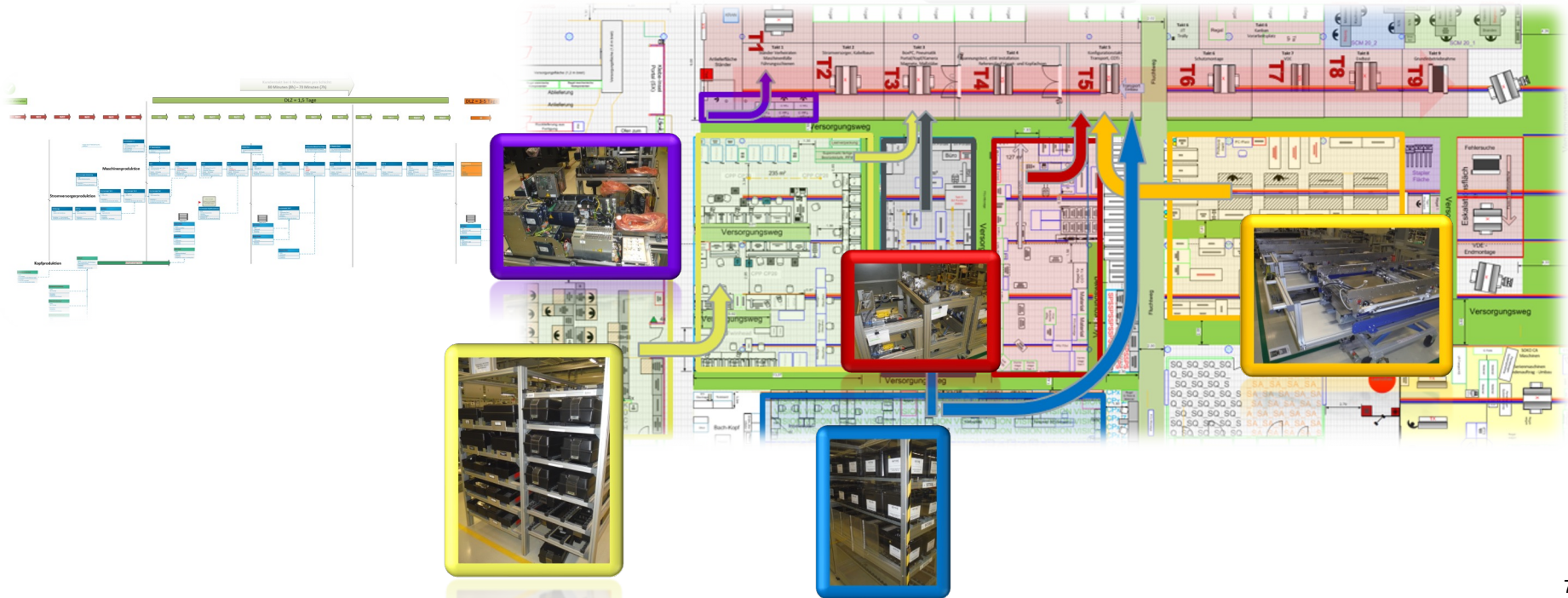
Training Lean Production Master



2015

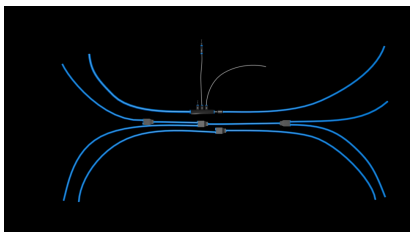
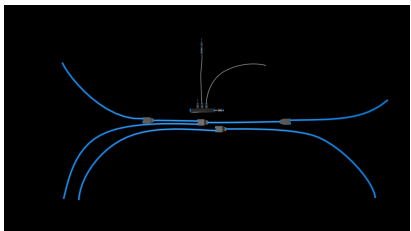
Aufbau Fließfertigung / Fischgräte (Module & Submodule)

Training Lean Production Master



2018

Smart Lean



Video assembly

100% Quality



Smart worker guidance

2018

Smart Lean

ASMPT enabling the digital world

100% Quality



Intelligent torque wrenches

Picking Material



2018

Smart Lean

Picking Material



Pick-to-Light

Ergonomics



Chairless Chairs

2018

Smart Lean summary

Context-based
Worker guidance



E-Learning VR/AR



Automatic material
delivery (i.e. AIV)



Automatic
Bookings
(Material,
Assembly time)

Guidance
and quality
control
via vision
systems

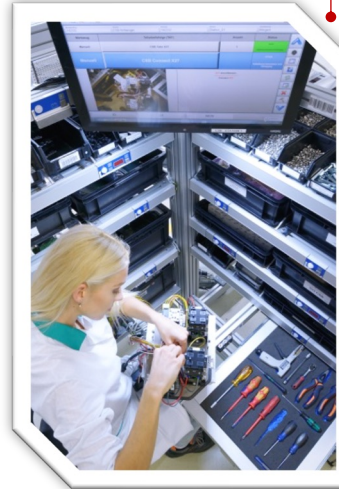
Smart tools for quality
and process control

Collaborative robotic

Digital shop floor
Management

Downtime
Management /
Micro stops

Individual adjustment of
the workplace / lightning
(i.e. through worker-ID)



2019

Start Analog zur Digitalisierung (Shop Floor)

grün $\rightarrow 0$, gelb $\rightarrow 1$, rot $\rightarrow \geq 2$

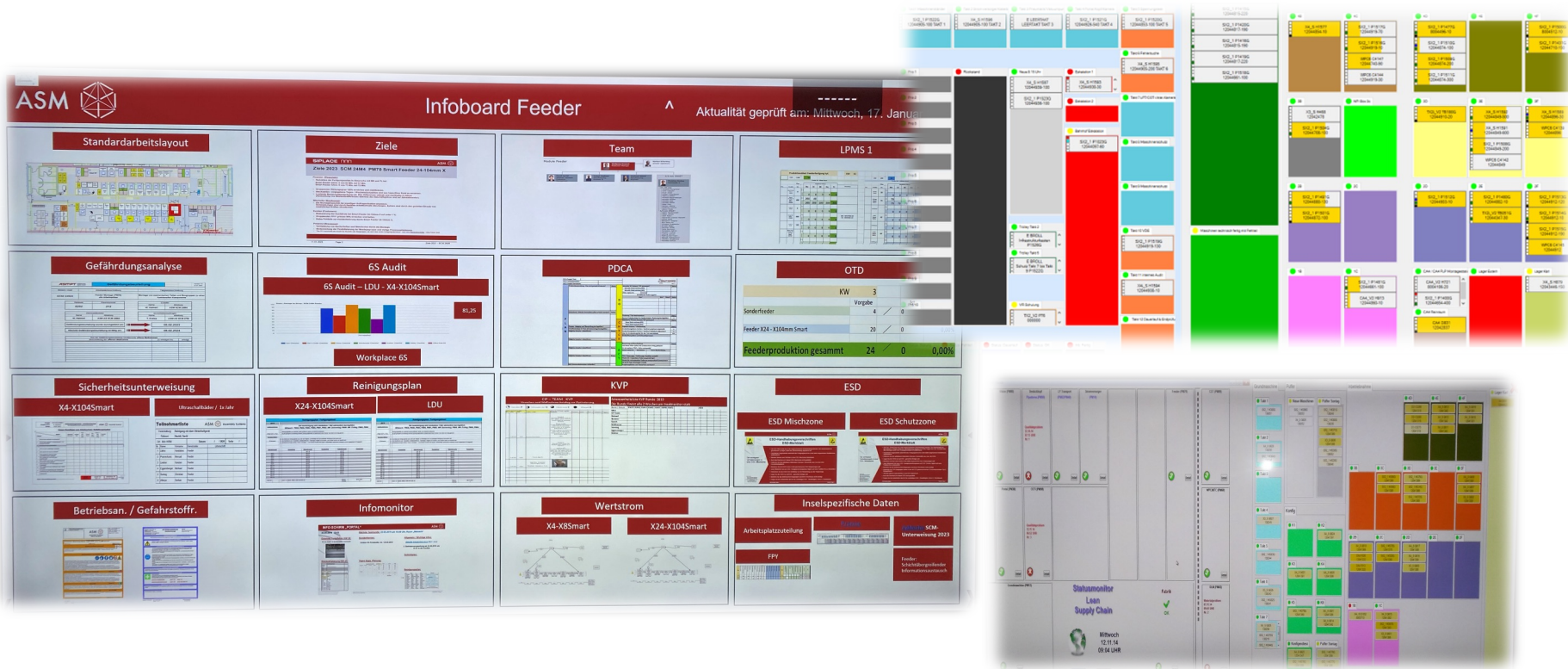


	Datum	Maschinenapp	Fertigstellungsdatum	Abweichung	Abweichung freigegeben	Abweichung	Abweichung
1	10.02.16	T10	TB2075	Der volle Pneumatik schlauch war falsch verlegt. Er gehört höher den Blum.	Takt 7		
2	10.02.16	X45	H932	Der Schlauch an der Elmo Pneumatik war nicht richtig gesteckt.	Takt 7		
3	10.02.16	T10	TB2065	Stecker 108 war falsch gesteckt. Er war auf 123 gesteckt.	Takt 7		



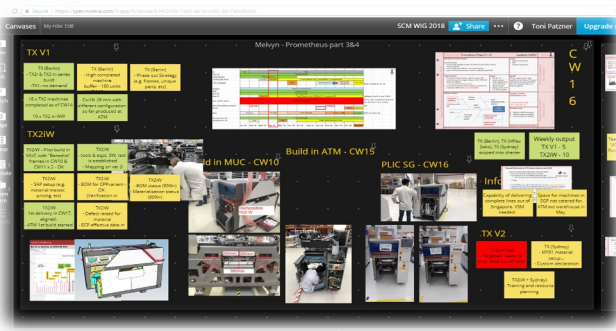
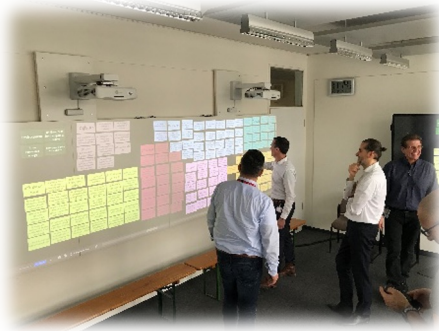
2019

Shop Floor Management



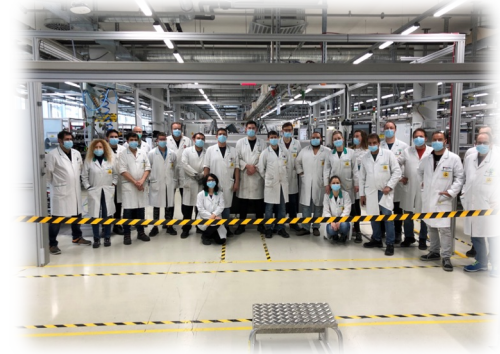
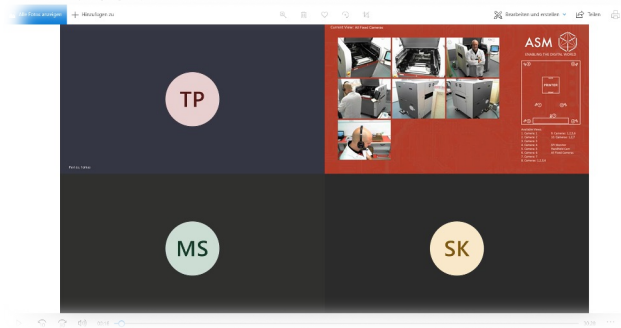
2019

Start Analog zur Digitalisierung (global WS und Management)



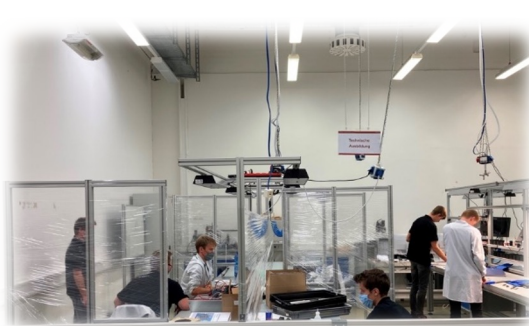
2020-2022

Pandemie



2020-2022

Pandemie

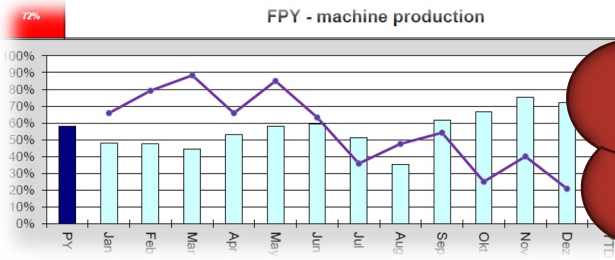


- Beginn Optimierung der Fläche
- Optimierung der Fertigungsprozesse
- Optimierung Kanban
- Supportprozesse
- Verbesserungen immer digital
- Standards in Englischer Sprache
- Fehler / Probleme dokumentieren
- Shopfloor (teilweise abgehängt → Kommunikation)
- Problemlösungen kurzfristig vs. Nachhaltigkeit

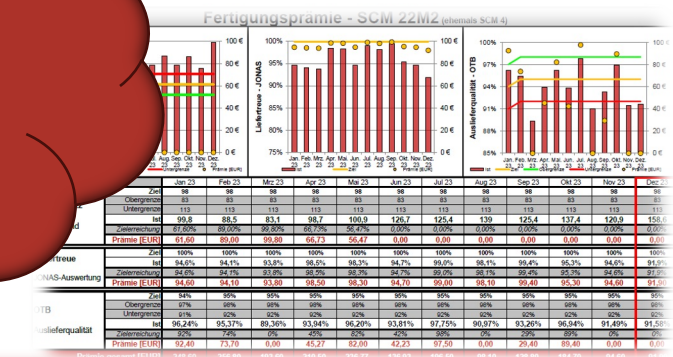
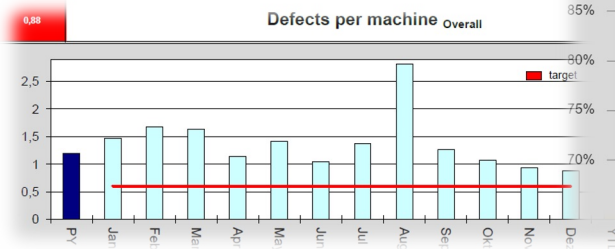
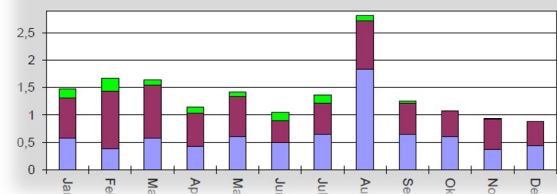
Wertströme analog → digital → analog



Nachhaltige Problemlösung

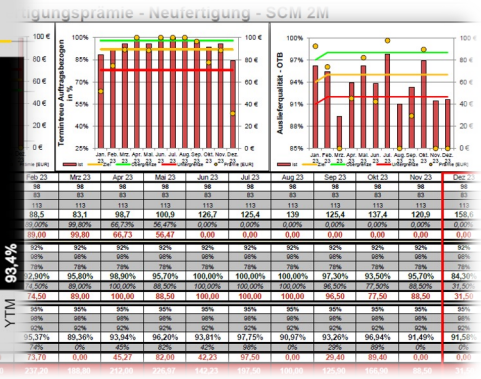
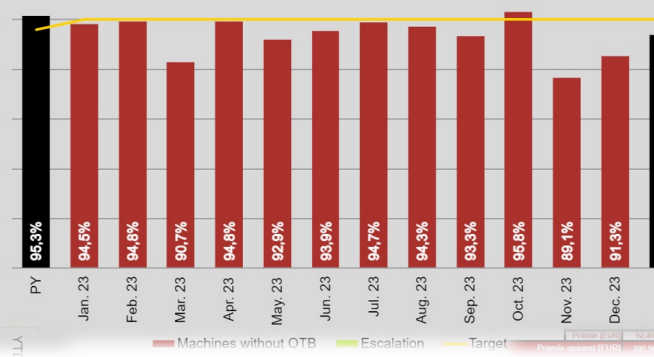


0,88 Defects per machine Overall >>> self-inflicted / supplier related / R&D



OTB of Printer and Placement

Out of the Box - Printer and Placement



ASMP enabling the digital world

[illegible]

LEAN

- # SCM Operational Excellence Program
- DATA:** deliver transparent, reliable, accessible data with "one version of the truth" for all KPIs.
- PEOPLE:** strengthen our Employee Development by establishing a SCM Training Academy, developing new ways of working and implementing an employee progression matrix.
- LEAN:** Create a proactive sustainable LEAN DMA culture! Training in LEAN tools/methods w/ focus on problem solving techniques! Drive improved efficiencies enabled by direct & indirect Shop-floor management, ownership w/ high frequency data driven activities.
- MATERIAL:** Deliver a transparent, reliable and resilient material flow based on an agreed demand, which meets the quality, cost and on time delivery requirements of our customer.

Lean Revival

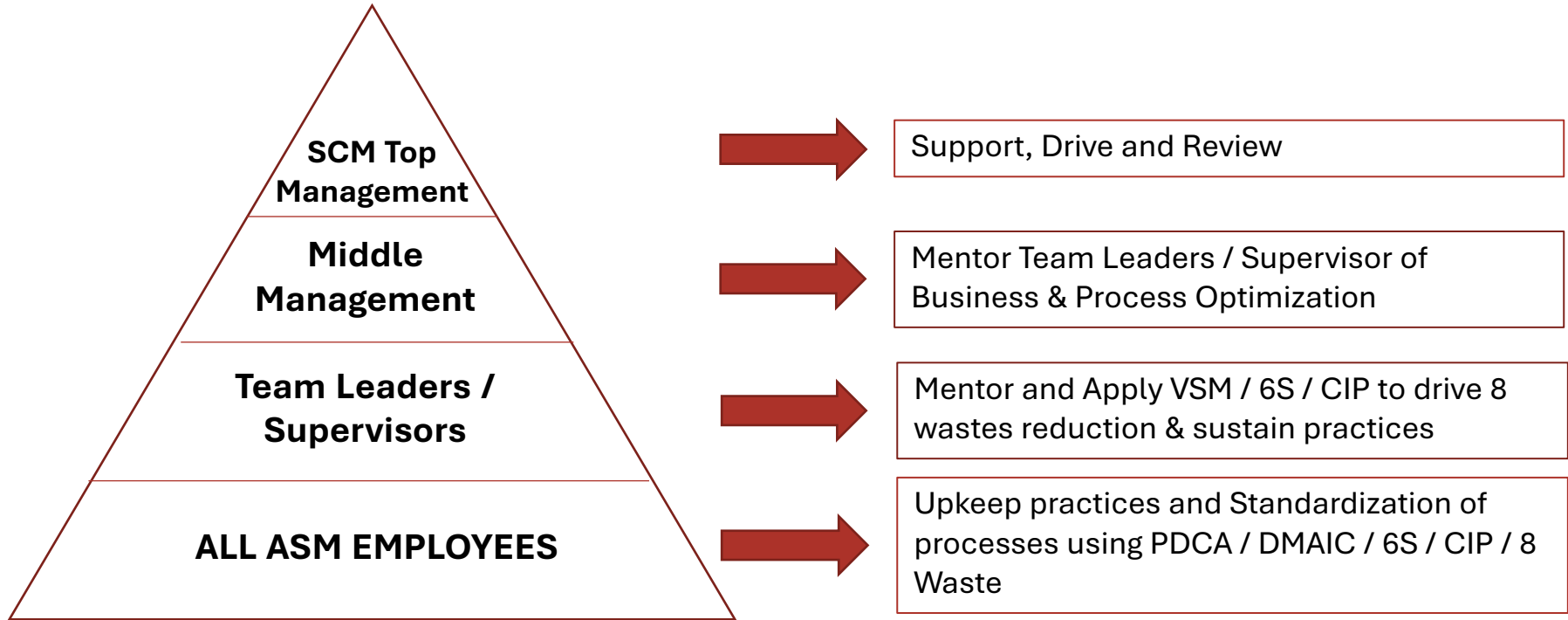
VISION:

“Develop a Lean, Quality & Continuous Improvement DNA Culture at ASMPT to support Operational Excellence”

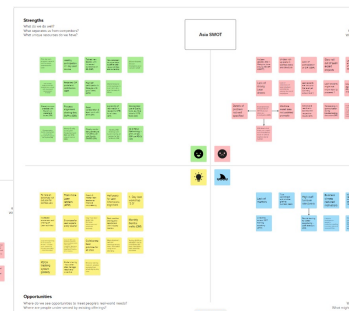
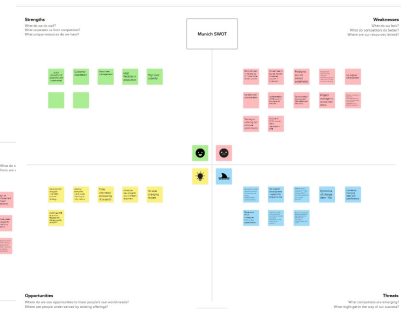
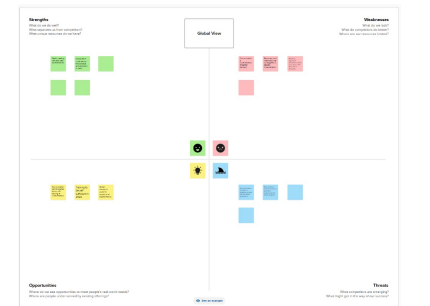
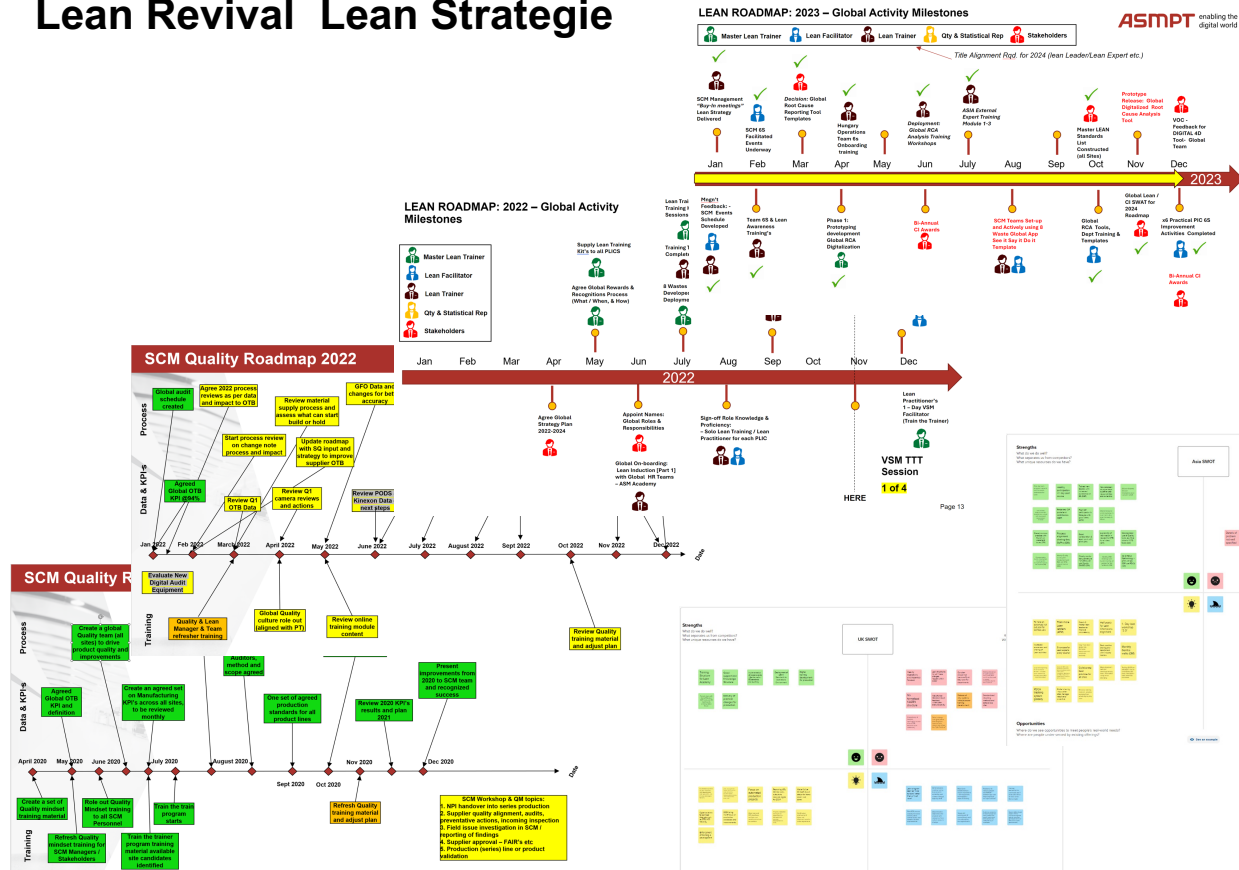
MISSION:

“Ensure each ASMPT Site is Fully Supported and knowledgeable in the use of Lean Tools, Quality & standard techniques”

Lean Revival (Involvement - hierarchy of ASM)



Lean Revival Lean Strategie



2023

Lean Revival ASM Lean Academy

ASM Lean Academy

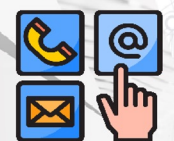
Path: ASMPT Control Landing Pages; SCM; ASM Lean Academy

[EQMS Audit Tool](#) - [Document Search](#) - [SharePoint](#) - [Organisation Chart](#) - [Raise IT Helpdesk Call](#)

Lean Academy



[Click below for Site Contacts:](#)



[Click below for full programme](#)
Including training videos, templates and more



[Click below for Lean Academy User guide:](#)



[Click below to book a session](#)



[Click here for Global Templates](#)

[Click here for Global Standards](#)

ASMPPT

SIMPLE PROBLEM SOLVING TOOL (SPST)

20-000000-000000-000000-000000

PROBLEM STATEMENT

CAUSE AND EFFECT MATRIX

ROOT CAUSE ANALYSIS

PREVENTIVE ACTION PLAN

DATE: 20-00-00

BY: 000000

REVIEWED BY: 000000

DATE: 20-00-00

REVIEWED BY: 000000

Click here for full programme including training videos, templates and more

EQMS Audit Tool - Document Search - SharePoint - Organisation Chart - Raise IT Helpdesk Call

Please click on each module for more information

ASMPT Lean Academy Library

Module Communication Topic (45 min)	Module Communication Topic (45 min)	Module Communication Topic (45 min)
1. DMAIC Improvement Cycle - Define	19. Calculating Cpk	37. Performing an ANOVA Test (1 way & 2 Way) Part 1
2. DMAIC Improvement Cycle - Measure	20. Calculating Ppk	38. Performing an ANOVA Test (1 way & 2 Way) Part 2
3. DMAIC Improvement Cycle - Analyse	21. Calculating a 2 (Sigma) Score	39. Test for Equal Variances
4. DMAIC Improvement Cycle - Improve	22. Calculating DPMO & Dppm	40. Mood's Median Test
5. DMAIC Improvement Cycle - Control	23. Cook's Sensitivity Index for ANOVA Printing & Placement	41. 2-Sample Sign / Wilcoxon Test
6. Sigma Six at ASM	24. Performing a Continuous Data Process PPR	42. 2-Sample Proportion Test
7. The 3 Principles of Lean	25. Performing a Type 3.1 Reliability Study	43. Chi Square Test for Association
8. Understanding the 8 wastes & value added	26. Performing an Assessor Agreement Analysis	44. Chi Square Goodness of Fit Test
9. Standard Work at ASM and Takt Time Demand	27. Basic Pareto Charting	45. Introduction to DoE
10. ASMPT 80 Reporting	28. Using Graphical Displays	46. Choosing & Analysing a Factorial DoE Model
11. Cause and Effect Diagram	29. Understanding Histograms	47. Response Optimiser Tool & Introduction Centre Point
12. Cause and Effect Matrix	30. Graphical Interaction & Multi-variance Plots	48. Response Surface Modelling (RSM)
13. Using the PDCA Cycle	31. SPC Charts for Continuous data	49. Simple Linear Regression
14. Performing a Process PPR	32. SPC Charts for Attribute data	50. Multiple Regression
15. Introduction to TQM Process Mapping	33. Introduction to Regression Testing (Continuous Data)	51. Binary Logistic Regression
16. Basic Statistical Tools	34. Introduction to Regression Testing (Continuous Data)	52. Steady State Prediction Modelling & COPQ
17. Basic Statistical Tools	35. Introduction to Regression Testing (Continuous Data)	53. Accelerated Life Testing Principles
18. Basic Statistical Tools	36. Introduction to Regression Testing (Continuous Data)	54. Reliability & Error Proofing
19. Basic Statistical Tools	37. Introduction to Regression Testing (Continuous Data)	55. Design for Manufacture Principles (DFM)

6S AREA ACTIVITY CHECKLIST:



AREA: _____

CHAMPION: _____

SET IN ORDER

LFD. NR.	INFORMATION:	BEISPIEL:	DATUM:
5	Die Lage der Werkzeuge und Geräte ist klar und übersichtlich nach dem "SHADOW BOARD Prinzip" angeordnet		
6	Die Böden sind markiert, um die Standorte von Geräten zu kennzeichnen, z. B. Hubwagen, WIP, Wertstoffe, usw. ASM-Farbstandards anwenden		
7	Schreibtischbereiche, gemeinsam genutzte Schränke, Akten und Ordner sind ordentlich angeordnet und aufgeräumt. (Siehe Set-Vorlage)		
8	Schreibtischbereiche, gemeinsam genutzte Schränke, Akten und Ordner sind ordentlich angeordnet und aufgeräumt. (Siehe Set-Vorlage)		

Please select location for training



Rest of world
(Coming Soon)



Weymouth
[Click Here To book](#)



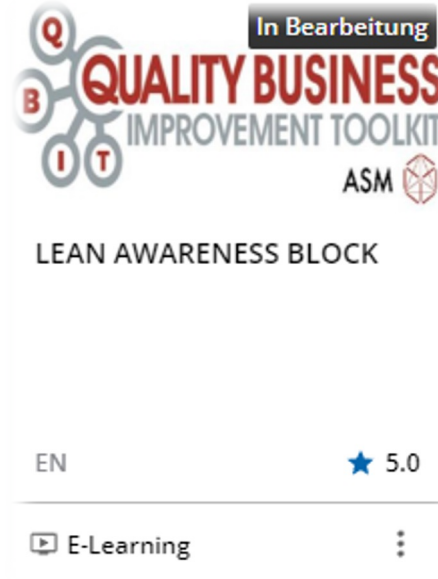
Munich
(Coming Soon)



Singapore
(Coming Soon)

2023

Lean Revival ASM Academy (onboarding)



2023

Lean Revival (setup global)



Lean Champion and expert Trainings

The Lean Champions (Asia)



Experts drawing the VSM



Toll gate review with champions



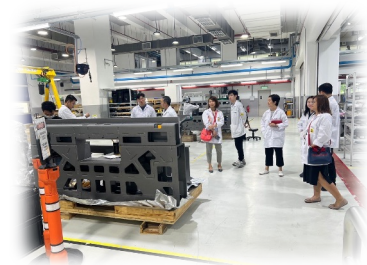
2023

Lean Revival (setup global)

Lean 1-day workshop Asia/5 Whys



Joint Asia Gemba for VSM



CIP roll outs



2023

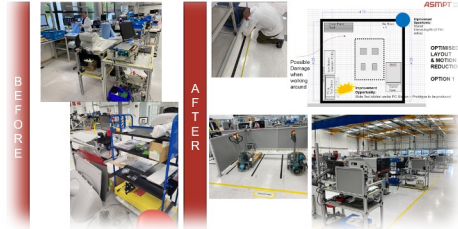
Lean Revival (setup global)



KAIZEN KPI: Trolleys Standardisation & Labelling



KAIZEN KPI: Floorspace & Layout Improvement

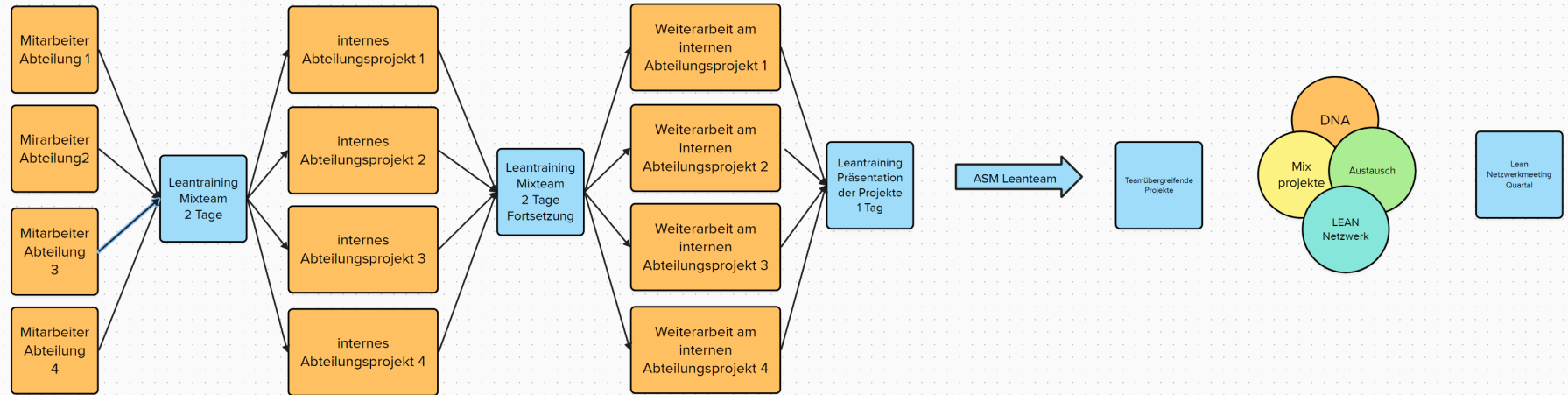


2023

Lean Revival Nachhaltige Problemlösung



Lean Revival Nachhaltige Problemlösung



2023

Lean Revival Nachhaltige Problemlösung

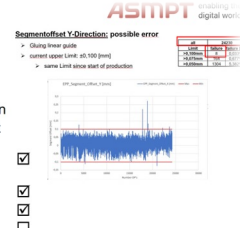
Example Project RCA Tool Michi



Lean Project
Testregime ZTU-DP

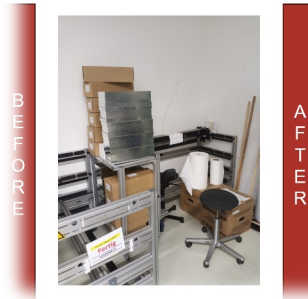
Vorgehen:

- Verifikation der „gefühlten“ Problematik durch Daten
- Datenauswertung der Teststanddaten verifiziert den Eindruck, dass bei Test sehr selten die Führung/Klebung Schuld ist
- Absprache: sowohl Vor- Führungsklebung als auch nach Klebung sind Tests notwendig
- Anpassung des WST und des Testregimes
- Umsetzung in zukünftigen Testständen – on going



Page 5

Example Project RCA Tool Alex



Example Project RCA Tool Duro



2023

Lean Revival Lean Basis Schulung Abteilung

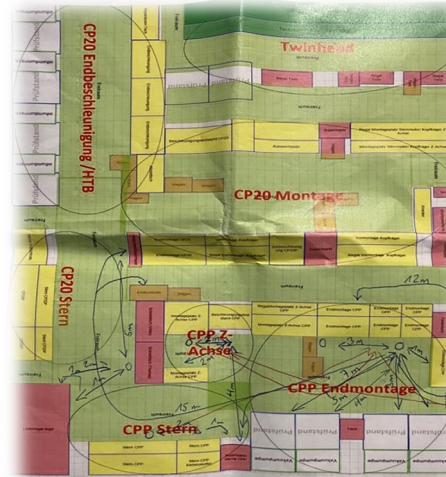
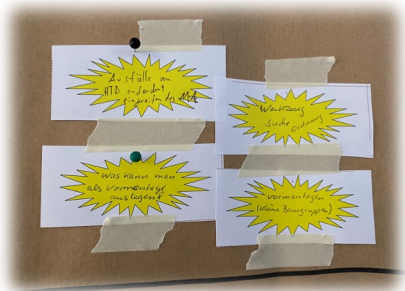
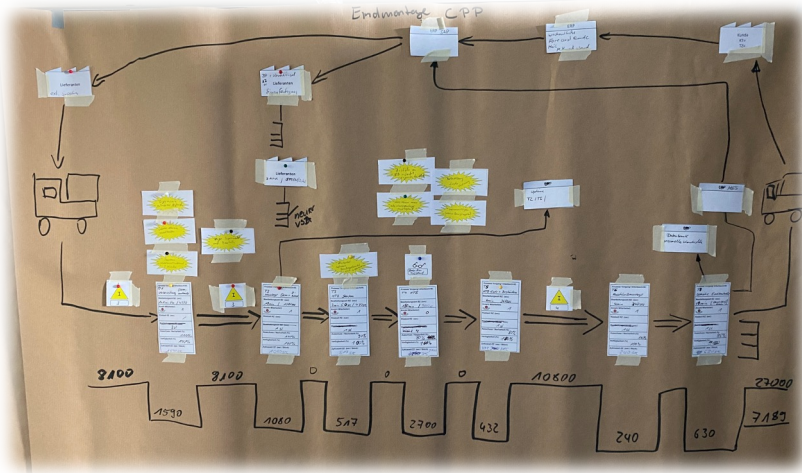
„one piece flow (LEGO Helikopterspiel)

„Sehen Lernen“ Mudawalk

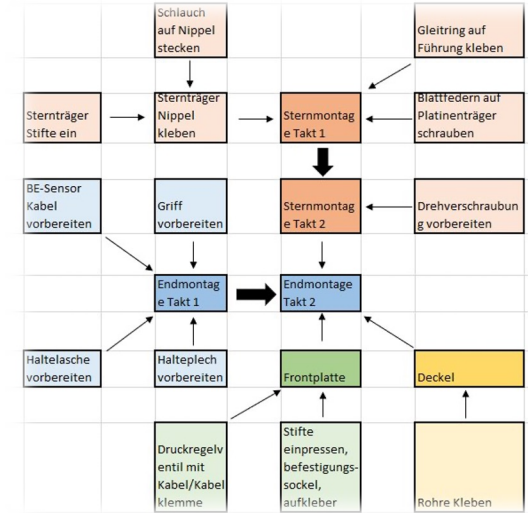


2023

Lean Revival

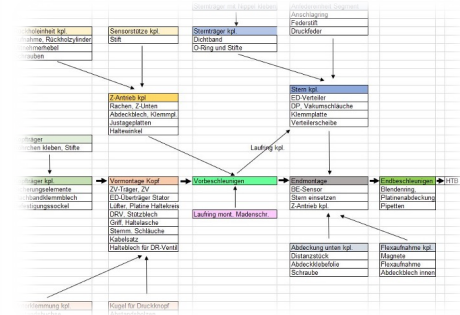
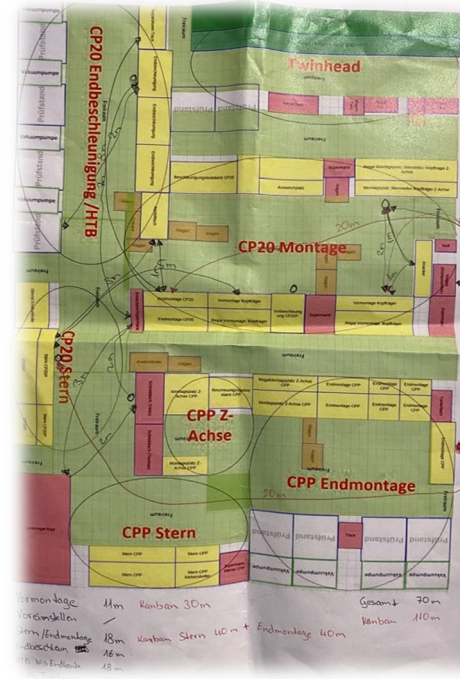
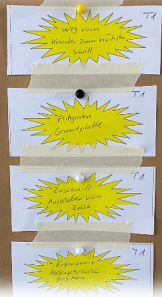
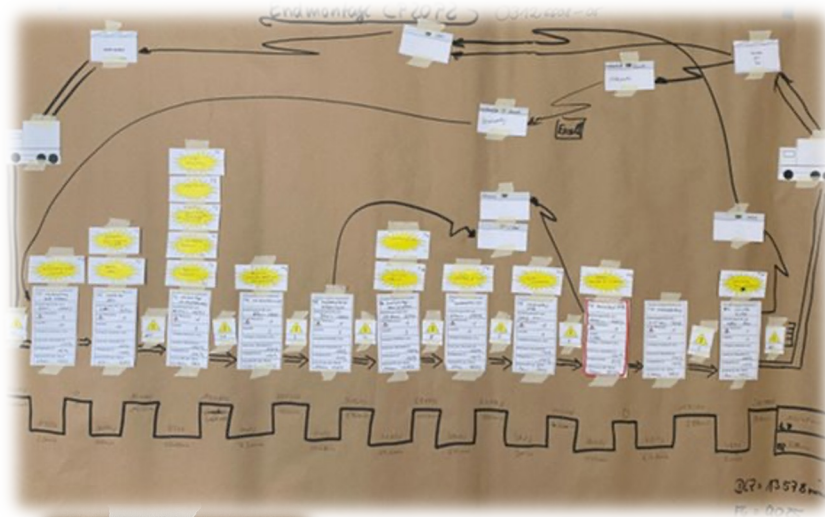


Stirn 6m - Kablen 40m
 2-Achse ges. 14m - Kablen 28m
 Endmontage 78m → Pfeile + fittige Kopf Liefen 30m
 Kontrollle 14m - Kablen 14m
 2100 + Kablen 52m / 2210m



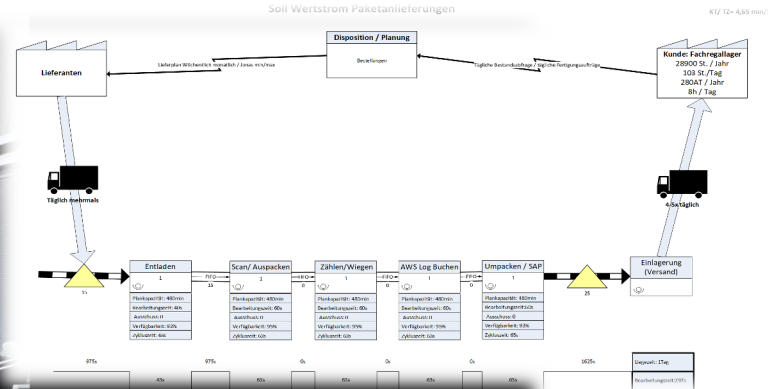
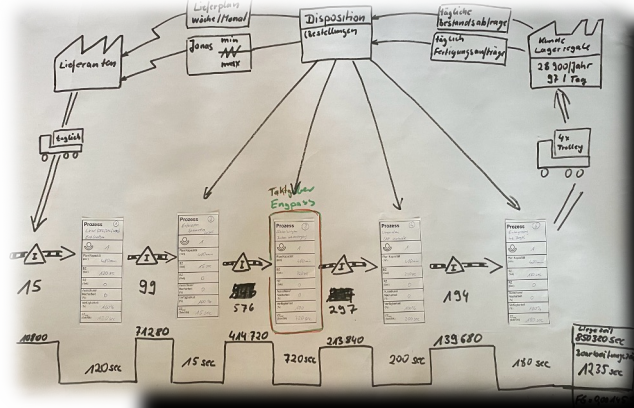
2023

Lean Revival



2023

Lean Revival



Lean Revival Zusammenfassung





ASMP T enabling the
digital world



The background of the slide is a 3D rendering of a modern manufacturing facility, likely a semiconductor or electronics factory. The scene is filled with various pieces of industrial equipment, including large storage racks, assembly lines, and testing stations. The entire scene is overlaid with a digital aesthetic, featuring glowing blue lines, binary code (0s and 1s) floating in the air, and a complex circuit board pattern on the right side. The lighting is predominantly blue, creating a high-tech, futuristic atmosphere.

Thank You!

All information and illustrations in this presentation are provided “as is” and without any warranties of any kind, whether expressed or implied, including but not limited to, implied warranties of satisfactory quality, fitness for a particular purpose and/or correctness.

The contents of this presentation are for general information purposes only, do not constitute advice, and are subject to change without notice.

ASMPT therefore makes no warranties or representations regarding the use of the content, details, specifications or information contained in this presentation in terms of their correctness, accuracy, adequacy, usefulness, timeliness, reliability or otherwise, in each case to the fullest extent permitted by law.

Please contact ASMPT for the most current information. Any specific performance features and/or capabilities will only be binding if contractually agreed upon.

All product names are brands or trademarks of ASMPT or other suppliers. Unauthorised use by third parties may violate the rights of their owners.