

A photograph of an industrial robotic arm, likely a pick-and-place machine, working on a circuit board. The arm is white and green, with a flexible black hose. It is positioned over a workbench with various tools and components. The background is a blurred industrial setting.

Early involvement for a successful market introduction

Hendri Kortman – Innovation Manager

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Electronic Manufacturing Services



System Supplier



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High tech assembly & quality

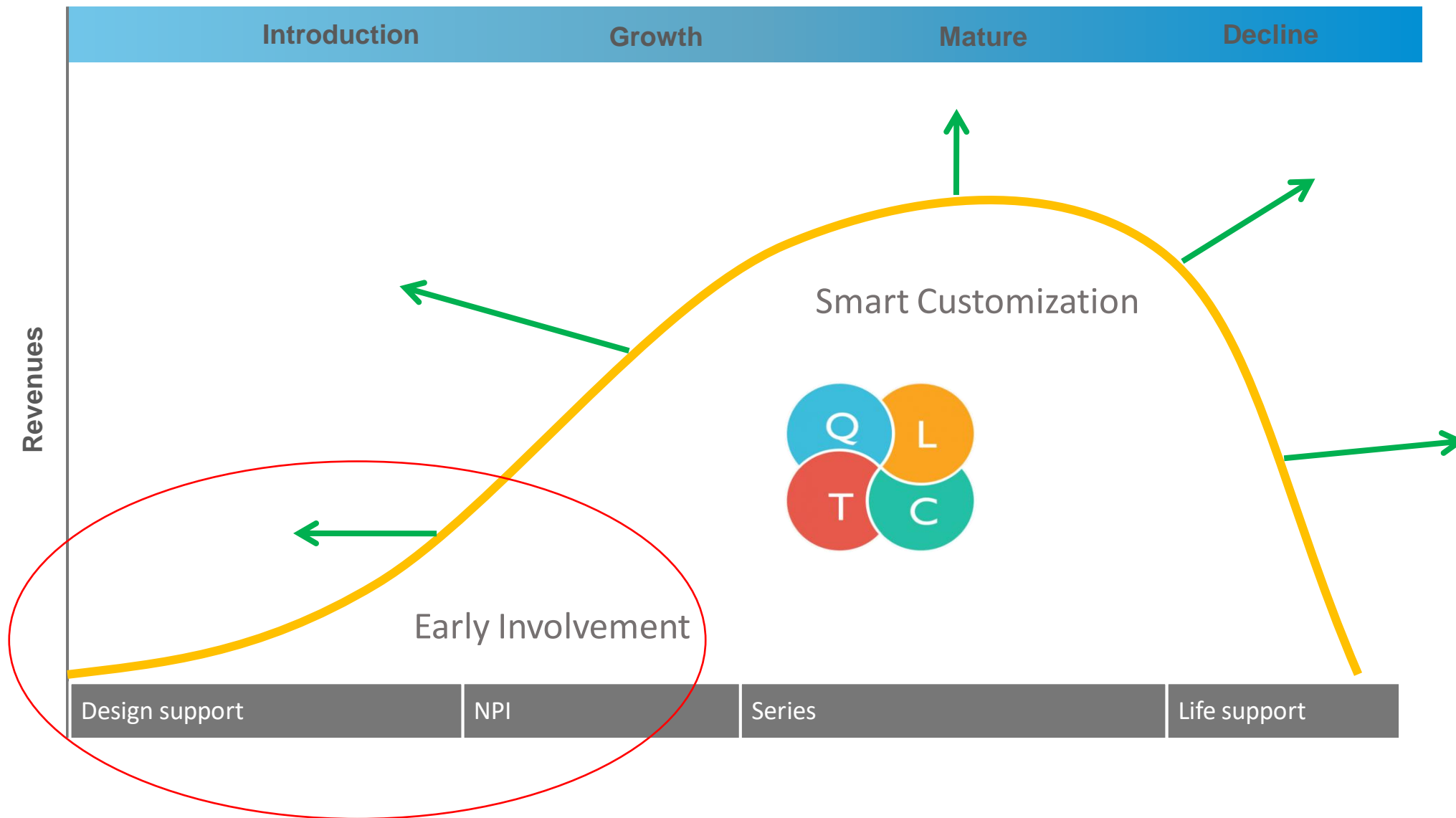
Certified:

- ✓ ISO 9001
- ✓ ISO 14001
- ✓ ISO 13485
- ✓ IPC-A-610
- ✓ AQAP 2120



- ✓ Work according OHSAS 18001, ISO14971 (risk management) & ISO 26000 (MVO)

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We enable your success

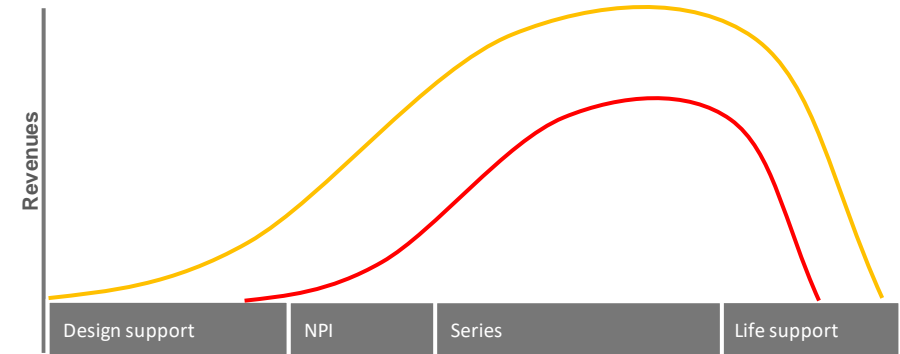


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Why early involvement?

- ✓ Avoid risks
- ✓ Avoid redesign
- ✓ Avoid re-certification
- ✓ Avoid delayed market introduction
- ✓ Avoid missed market share & revenues
- ✓ Keep the design stable during its lifecycle!



~~PROJECT
REDESIGN~~

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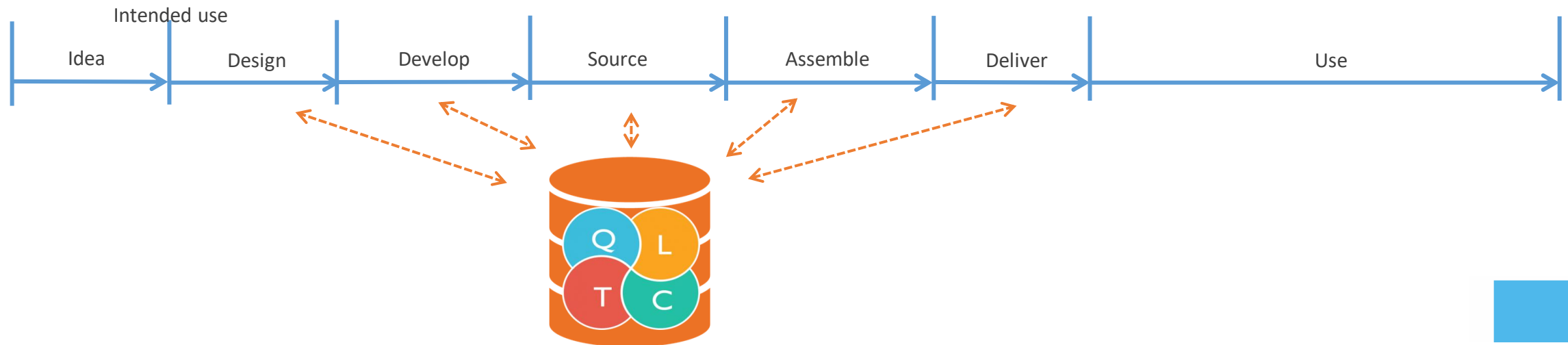
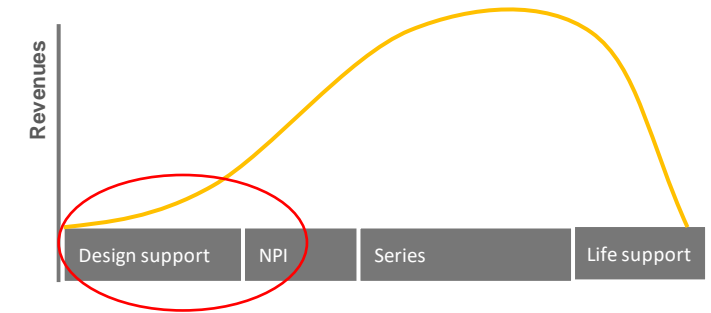


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How?

- ✓ Design for eXcellence (DfX) checks to identify and mitigate risks
- ✓ Quality, Logistics, Technology & Total Costs
- ✓ Ensure correct and efficient assembly & traceability



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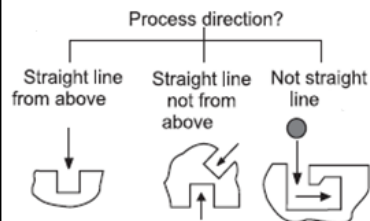
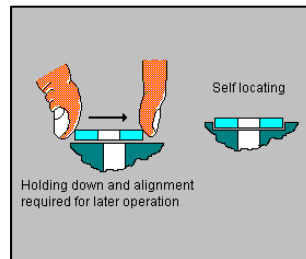
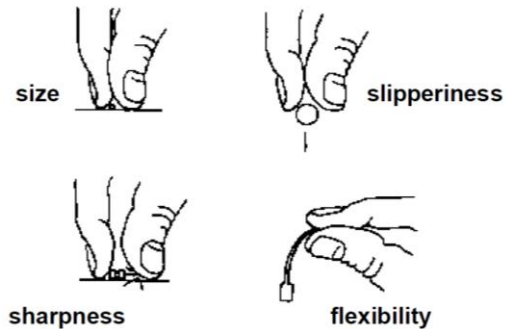
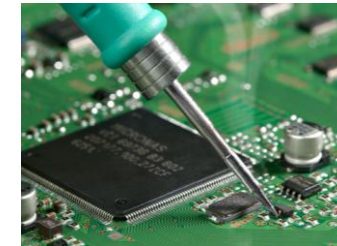
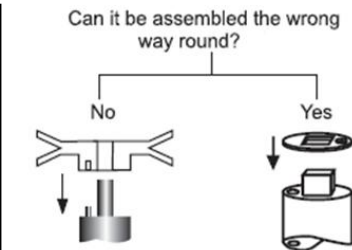
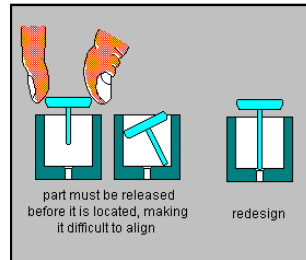
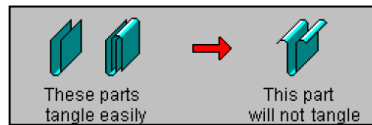
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What?



✓ Design for Assembly analysis



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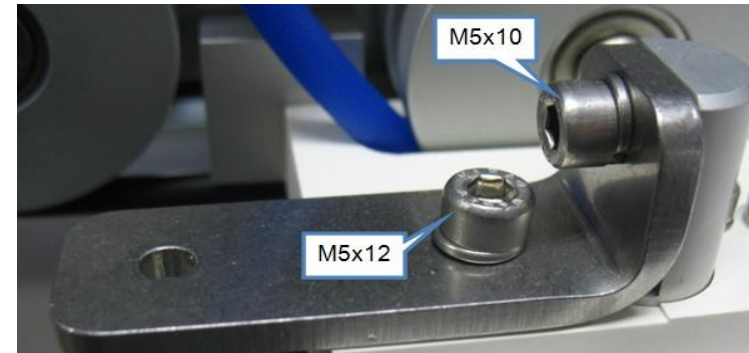
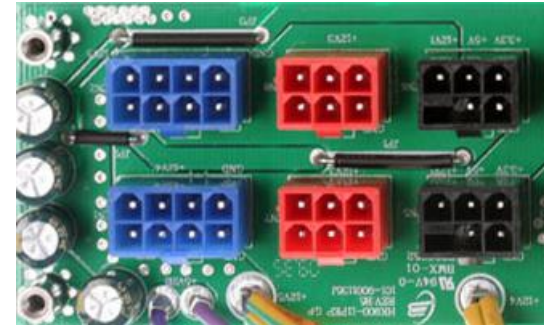
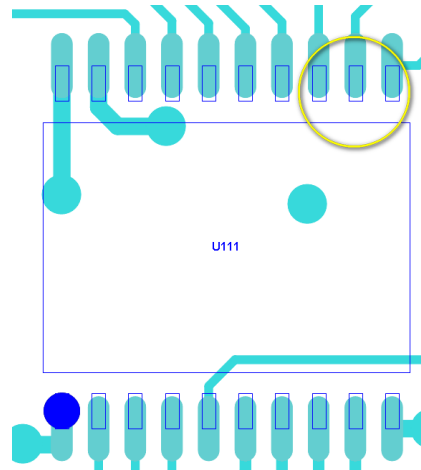
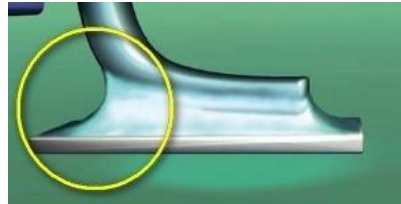
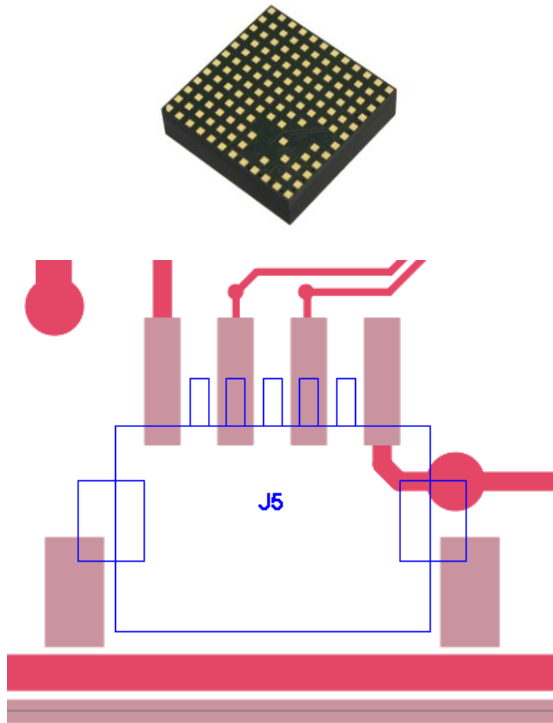


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What?

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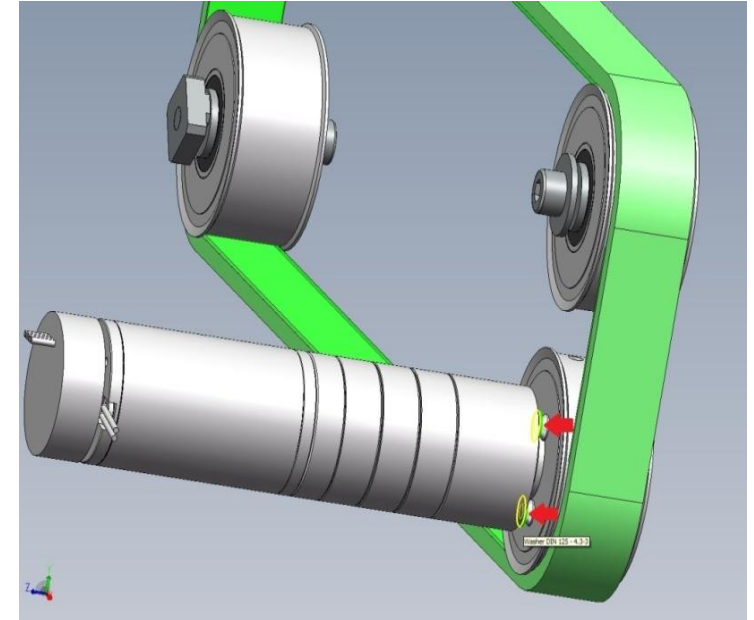
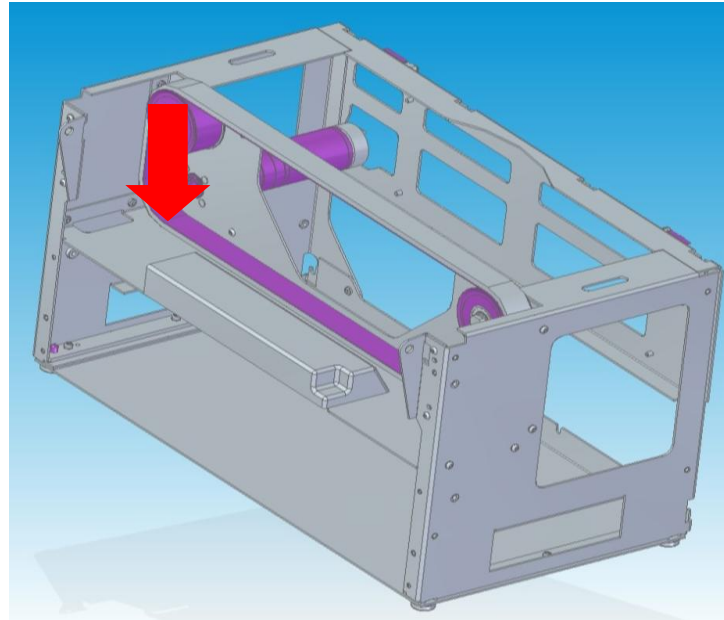


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What?

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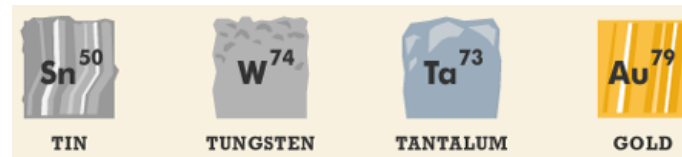
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What?



- ✓ Design for Environment / compliancy analysis
- ✓ Input for Technical Construction Dossier (TCD)



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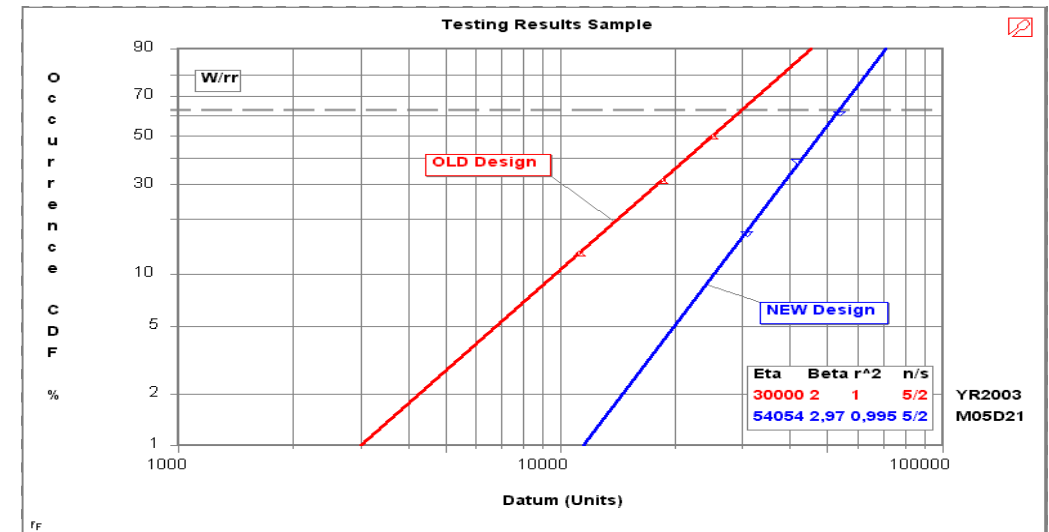
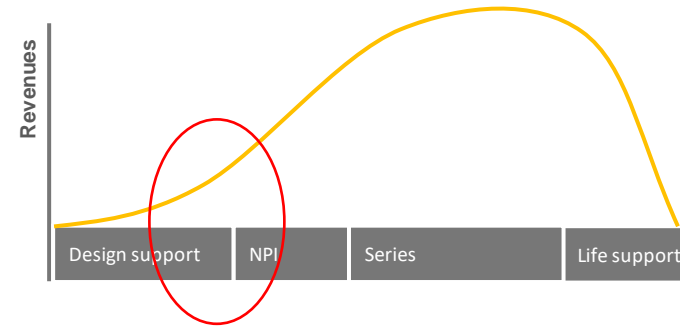


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What?

- ✓ Test for reliability
- ✓ Highly Accelerated Life Testing (HALT)
 - Testing for failure
 - Robustness
 - Define weak components for improvements
- ✓ Accelerated Life Testing (ALT)
 - Testing for life
 - Reliability
 - Predict lifetime



- ✓ Meer info? Seminar “Elektronica productie proces, design bepaalt TCO”

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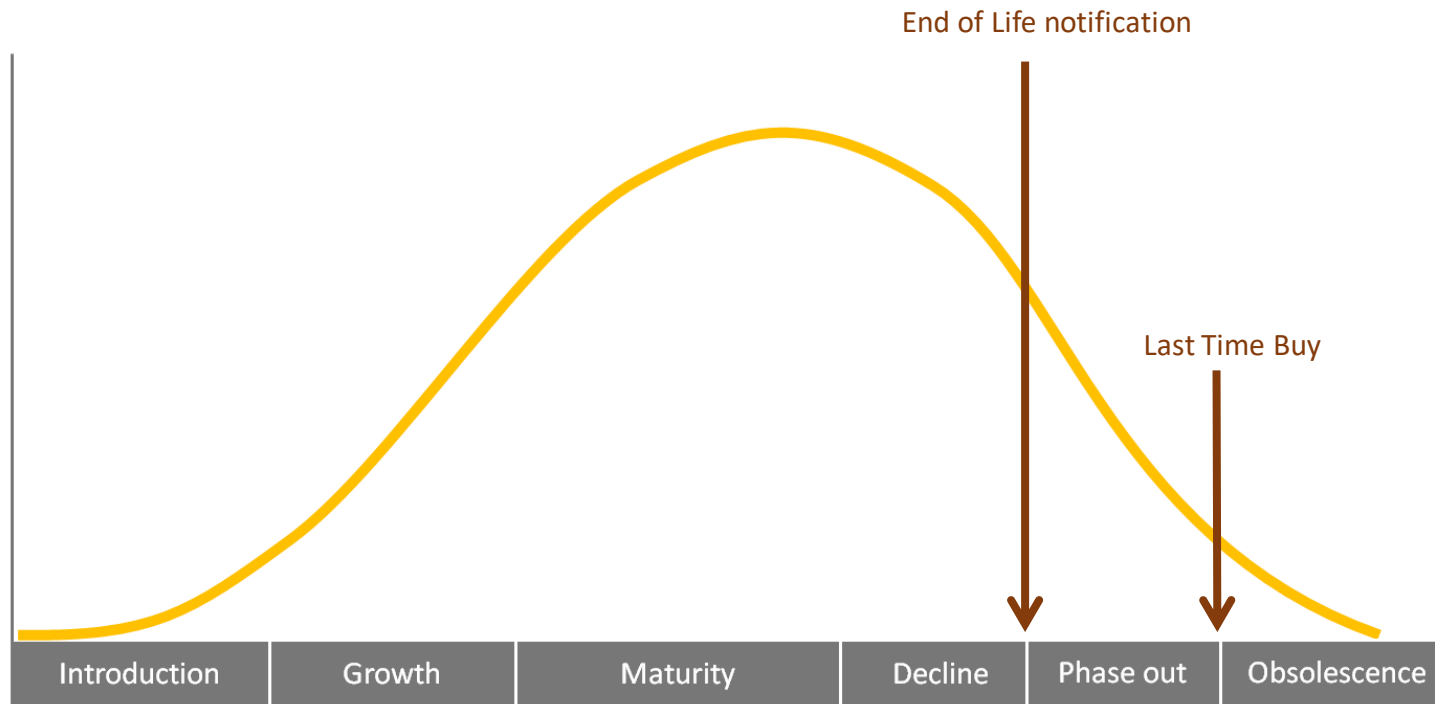
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What?



✓ Component Life Cycle monitoring



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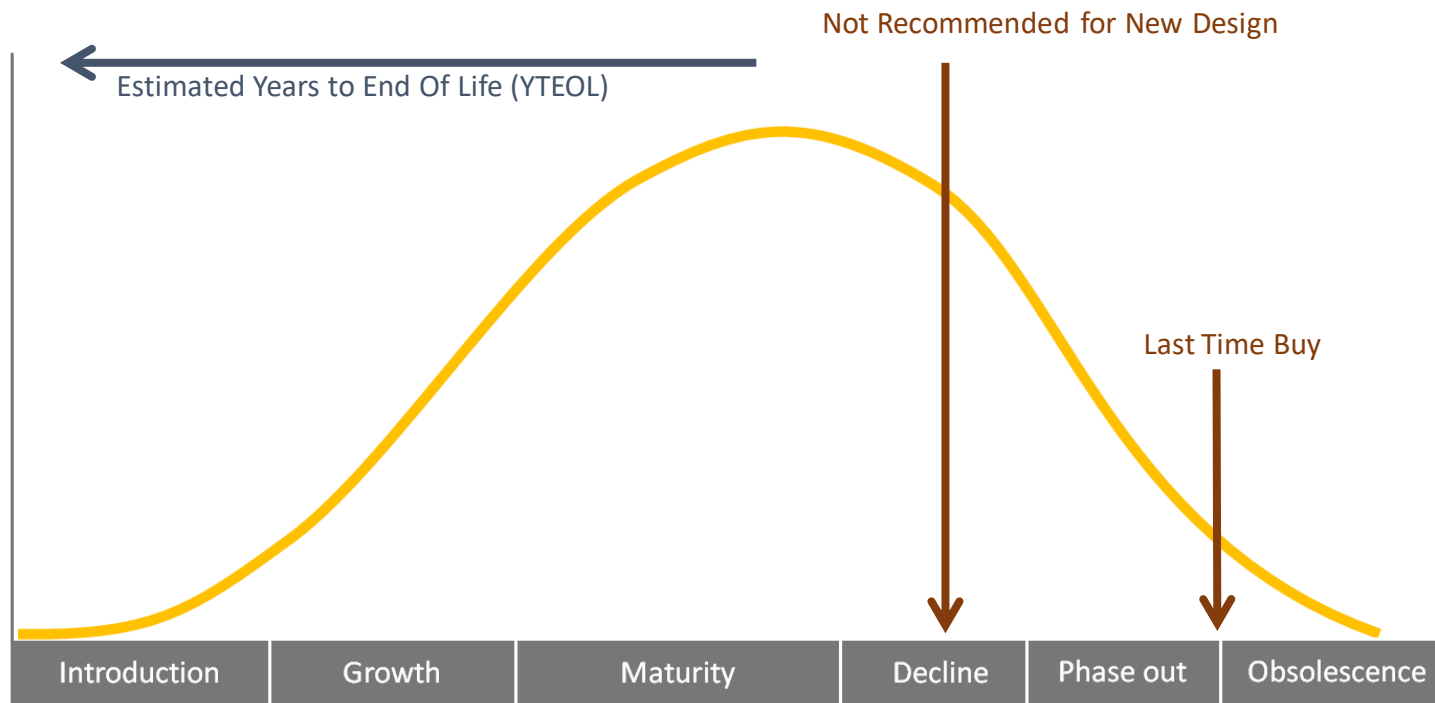
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What?



✓ Design for Supply Chain: Component Life Cycle prediction



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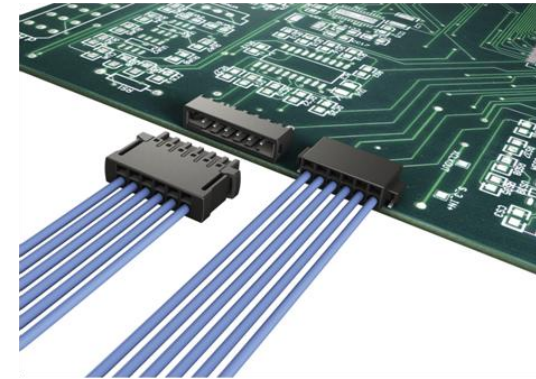
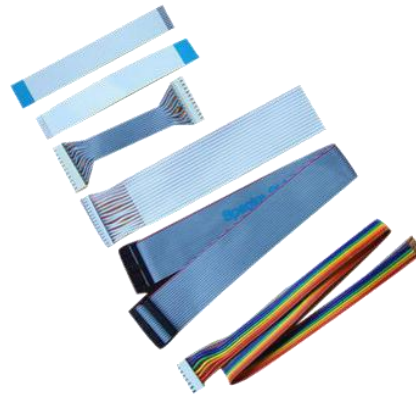
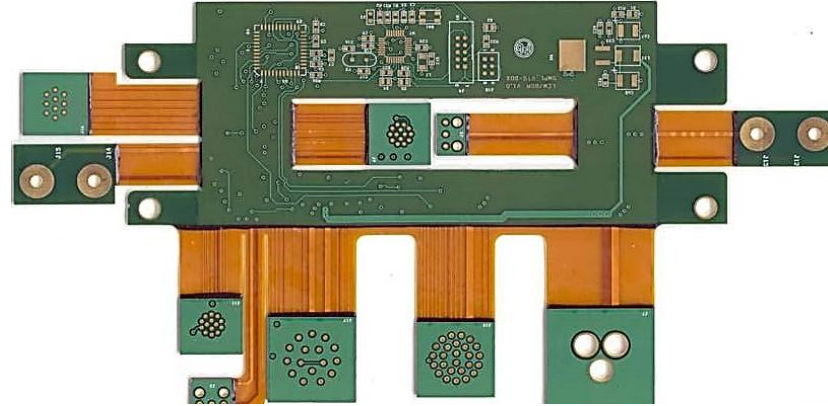


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What?

✓ Process & technology analysis



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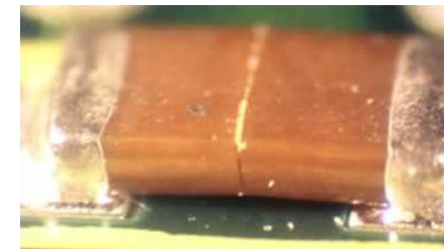
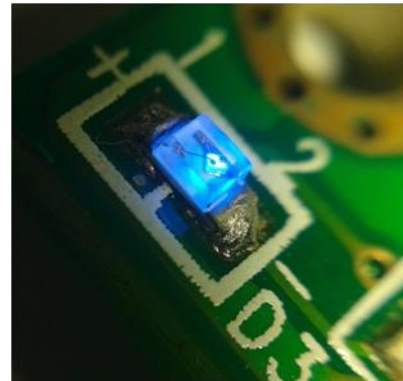
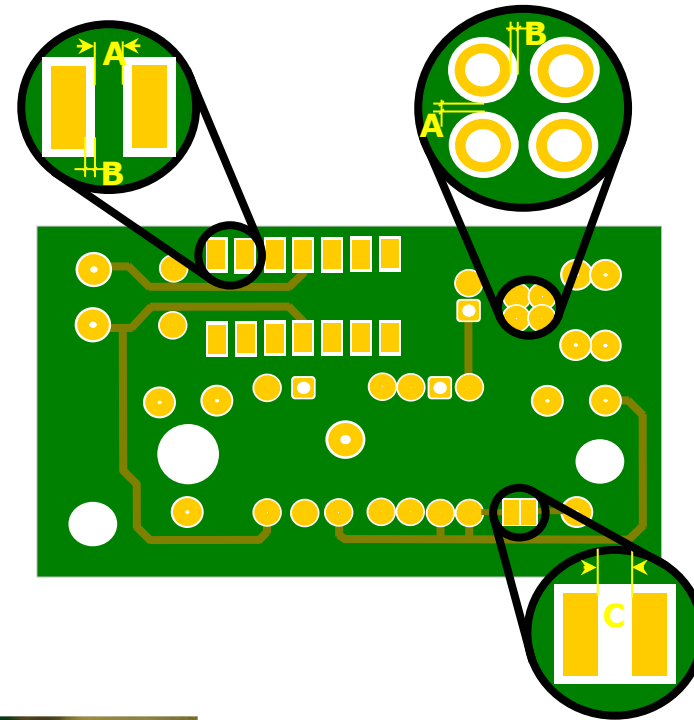
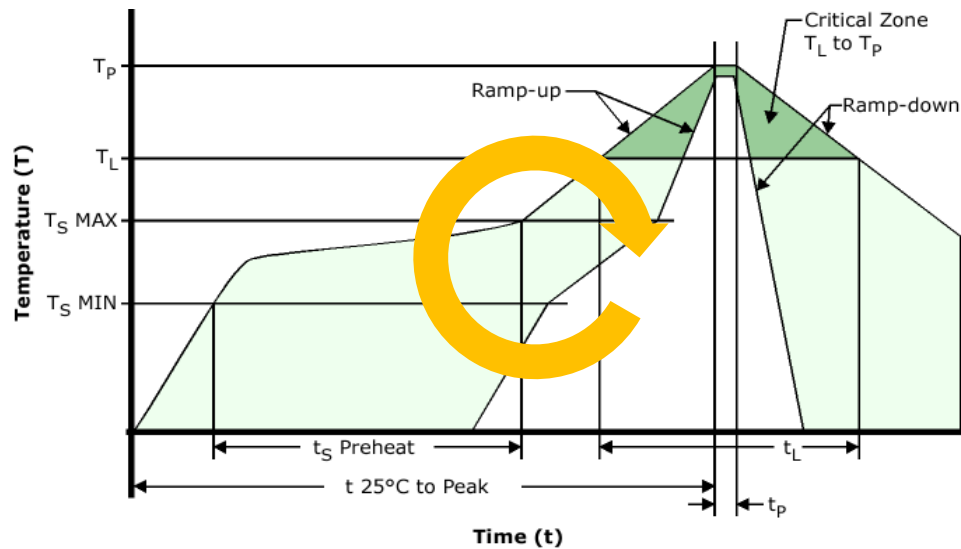


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What?

✓ Design for Manufacturing analysis



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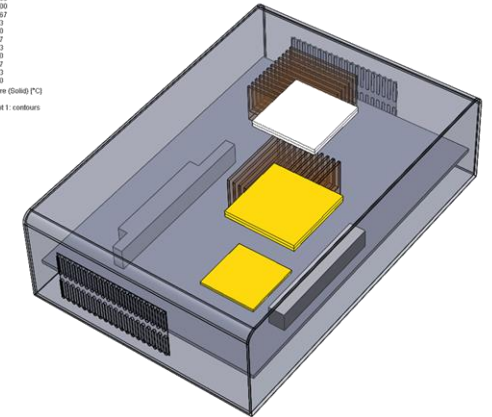
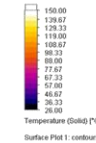
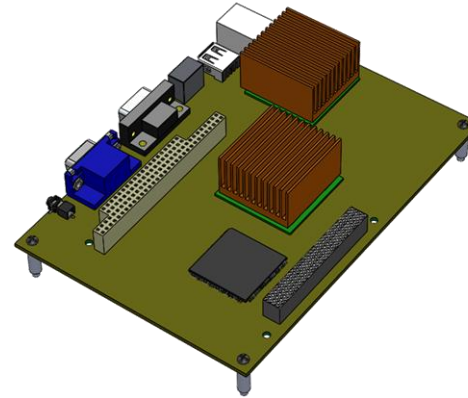
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What?

✓ Design for Reliability analysis

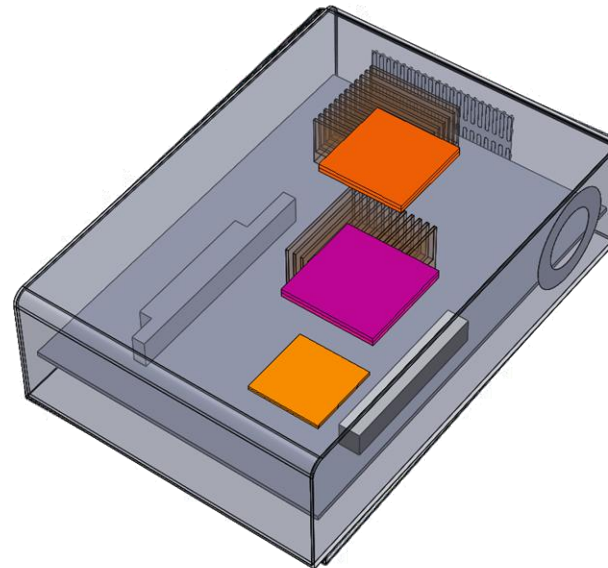


Zonder behuizing: max. 88°C



Natural convection: max. 150°C

With fan: max. 110°C



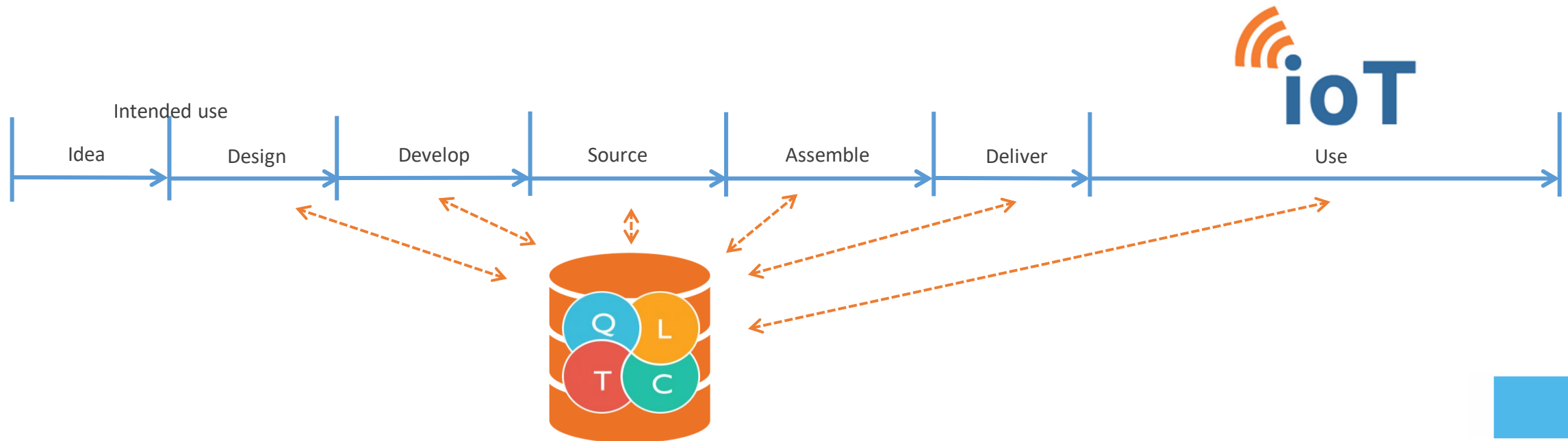
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Future

- ✓ Gather more and more product related data
- ✓ Analyze and use it to improve current and new designs and to provide service



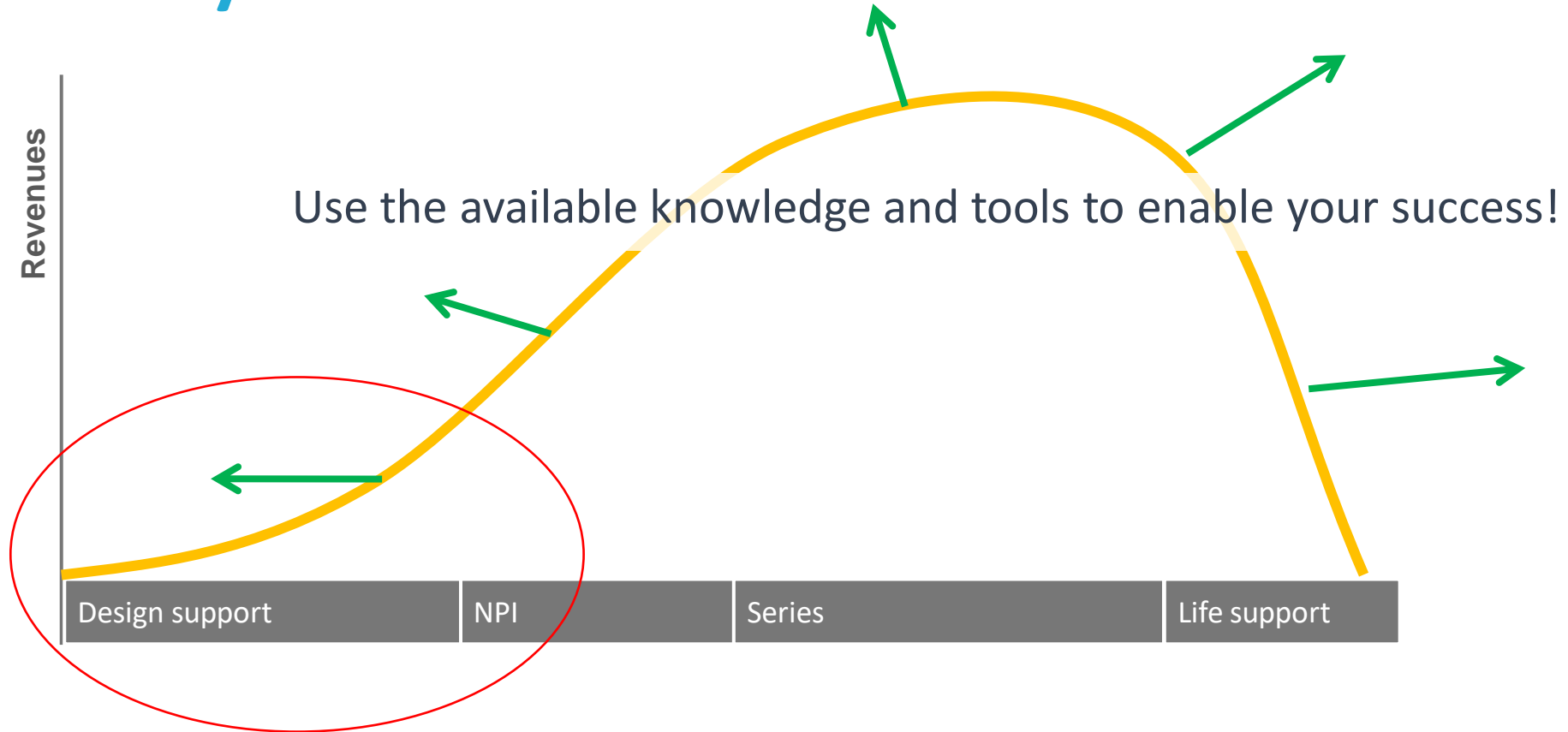
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Summary



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