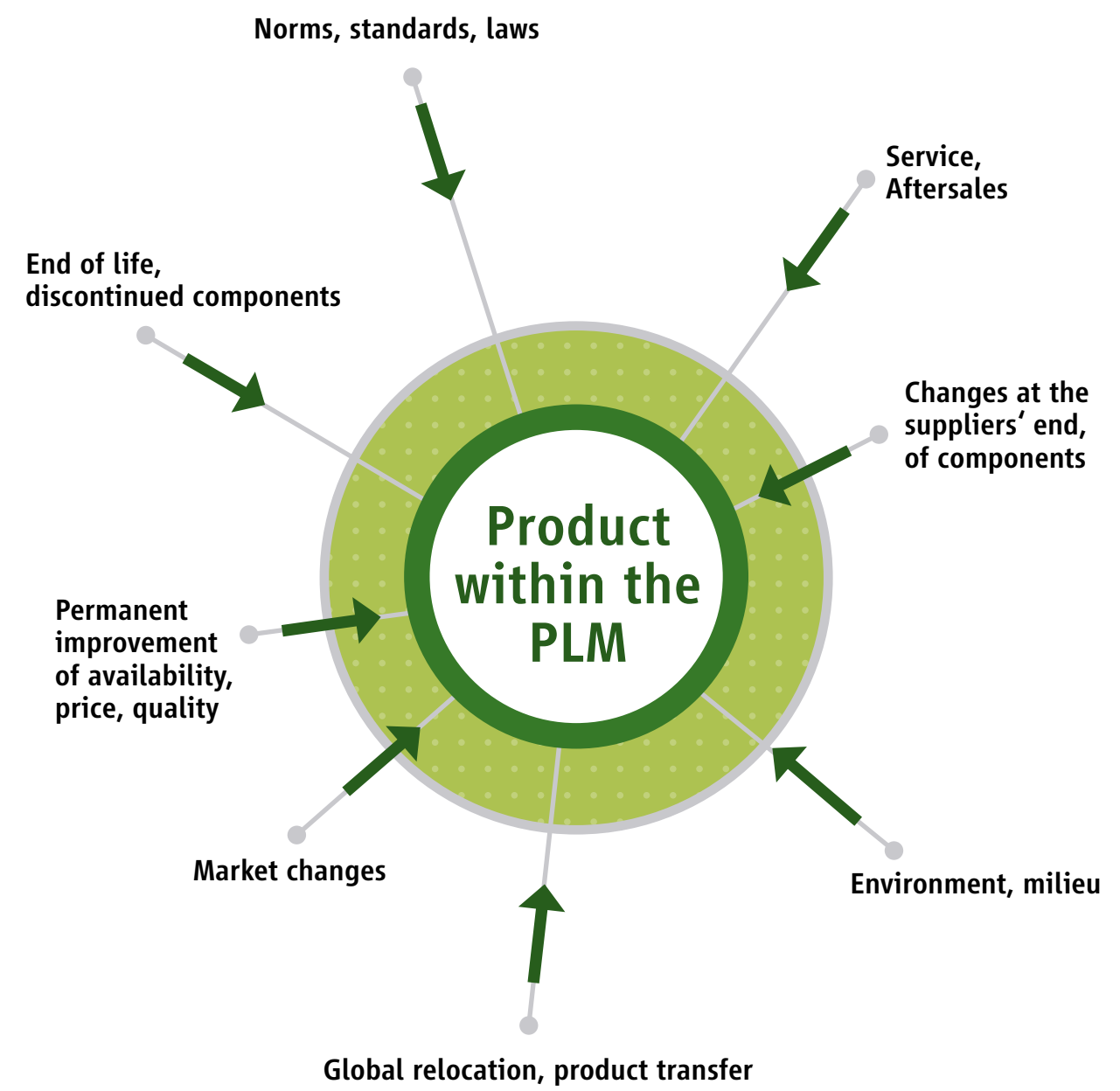


## Factors influencing the Product Lifecycle Model



## Members of the ZVEI initiative Services in EMS

- provide tailor-made services to suit the needs of their customers
- ensure the competencies required to fulfill the services
- are committed to quality and environment management
- determine the desired results and performance indicators together with the customer



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Last update: 2011. A list of the companies currently participating in the ZVEI initiative is provided on the internet under [www.zvei.org/services-in-ems](http://www.zvei.org/services-in-ems)



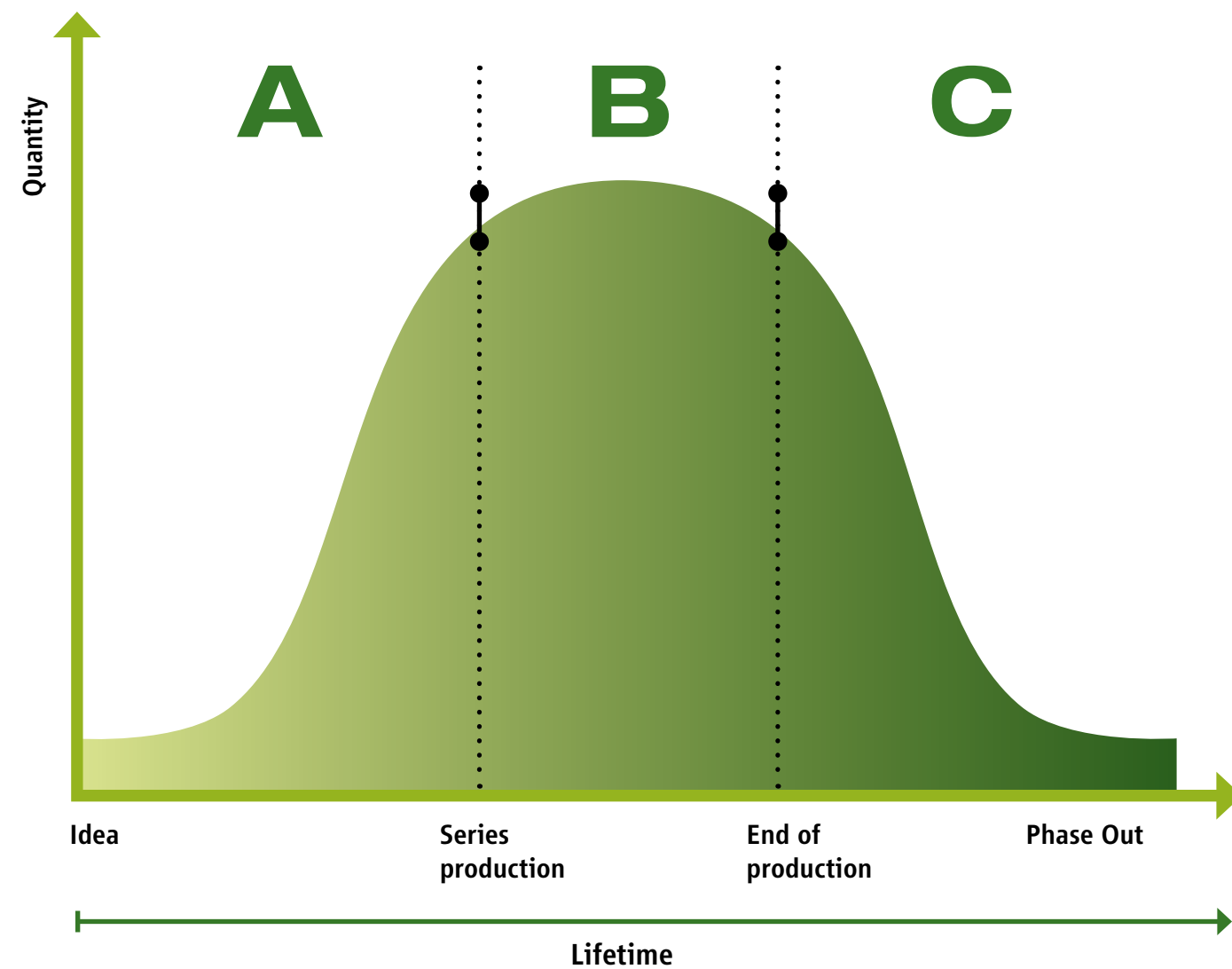
## PLM\* – Your electronics in safe hands



An initiative of the PCB and Electronic Systems Division within the ZVEI

# What is a PLM\* process?

We accompany the products of our customers from the initial idea all along the entire product lifecycle. Thanks to the PLM, your product is in good hands. Our expertise helps you to relieve your resources and reduce costs by creating synergies along all stages of the product lifecycle.



# Our Know-how – your added value in the PLM\* process



## A Product development

We support your product idea with individual solutions as your development and technology partner from development via NPI – New Product Introduction \* – up to start of production.  
\* see also the NPI folder by the ZVEI

## B Series production

We coordinate your entire material management in line with your requirements during production. By offering integral supply chain management, we also ensure an optimal flow of information and production. Our focus is on the continuous improvement of your processes and products in terms of flexibility, costs and quality while taking into account global capacities.

## C After sales and phase out

To enable you to fully concentrate on the introduction of the follow-up product, we develop the entire repair and spare parts concept for you and offer a comprehensive package (service, repair process, product phase out process, last-time buy, professional disposal) until the controlled phase out.

In close cooperation with you, we determine the optimal timing for the introduction of your follow-up product. Based on our experience, we work with you to proactively improve your product quality and thus offer continuous added value.

PLM* process functions	A	B	C
Check the requirements specifications and develop system specifications for product development	•		
Process risk analysis (e.g. FMEA)	•		
Mechatronics development (electronics, mechanics, software)	•	•	
Dfx (Design for Excellence)	•		
Develop packaging concept	•	•	•
Implement change process	•	•	
Product Data Management (bill of materials, drawing, software) including archiving	•	•	•
Archiving of hardware and software required for product development, series production and service along the entire product lifetime	•	•	•
Product validation, system validation, software validation	•		
Product release	•		
Quality planning and assurance (reporting, etc.)	•	•	•
Design and document product-specific tools and facilities	•		
Test planning, implementation of test equipment (hardware, software)	•		
Release of production process	•		
Release of repair and re-work process	•	•	•
Robustness validation	•	•	
Ensure material management (availability, quality, and price) including search for a second source	•	•	•
Product manufacturing	•	•	•
Design and implementation of supply logistics concept	•	•	•
Holistic traceability		•	•
Product and process improvement (availability, quality, price)		•	•
Product maintenance (hardware, software), upgrades		•	•
Product Change Notification (PCN) Management (changes on the part of the manufacturers)	•	•	•
Re-qualification testing		•	•
Keep and maintain product history file	•	•	•
Sufficient stocking in the event of discontinued products, components, etc.		•	•
Recycling and disposal		•	•
Repair service		•	•
Long-term warehousing (components, modules, devices, systems)			•
Ensure the availability of spare parts			•
Liquidation of all product-related stocks			•

