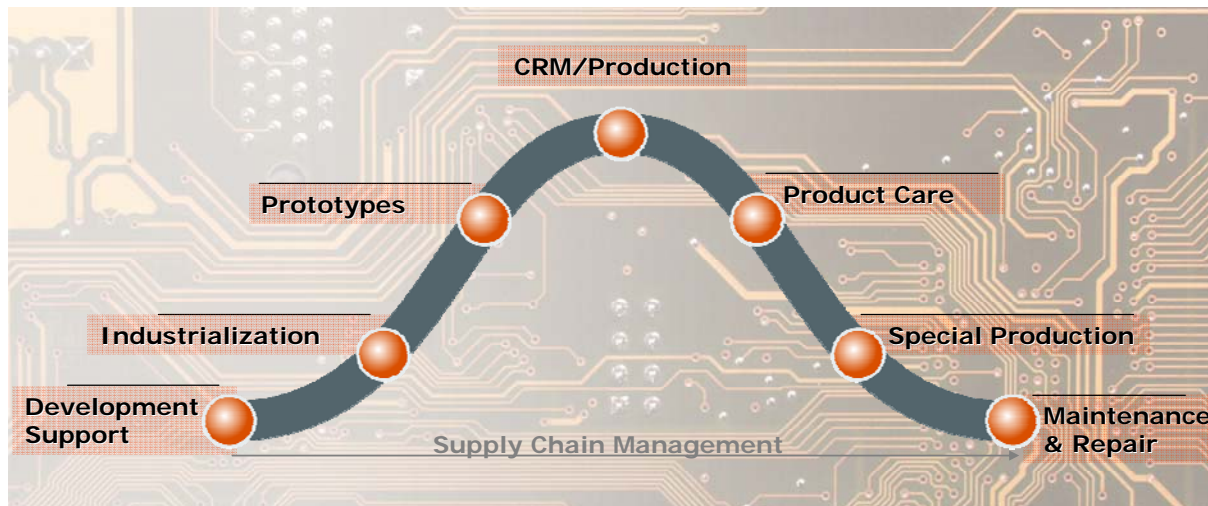


Thinking with Foresight Lowers Overall Costs



A professional Life Cycle Management through an EMS provider gives the customer a long-term benefit through continuous and pro-active care of his assembled boards and systems. Among other things he gains from an evident workload reduction, setting free core resources such as time, know-how and creativity.

What does a product need, and at what time, to deserve the rating «successful» at the end of its lifecycle? In order to answer this central question in the field of Industrial and Medical Electronics, where durability and safety are highly relevant, professional Life Cycle Management is increasingly required. Only with expert advice can overall costs be optimized, long-term obligations secured and obtained field experience be directly transferred into the development of new products.

Life Cycle Management (LCM), a buzzword that has been a long-running success since its introduction in 1966/67 by the economists Vernon und Hirsch. Providers of Electronics Manufacturing Services (EMS), operating in the persistent, complex and safety-conscious field of Industrial and Medical Electronics, notably promote this term, which describes the path from product development to serial production to After Sales Services (see figure). «However, what is understood under this term varies widely», says Christian Pabst, manager DSCM at Enics Switzerland.

For Enics, LCM means networking, managing and producing all the services a assembled board or system requires within its lifecycle. Pabst: «Farsighted thinking, combined with the continual care of their products and an acute reduction in workload, are the long-term benefits our customers profit from LCM.» The competitive advantages lie in lower overall costs, higher security regarding contractual obligations with end-customers and an immense gain in know-how, which is directly transferred into the improvement of successor products. But precisely how can these competitive advantages be realized?

Invaluable: customer benefits through LCM

For instance, an EMS provider devoted to an active LCM will use an assortment of standard components for the circuit design assembly. With this, the long-term availability of a second supplier and beneficial price competition, through bulk demands, is secured. This would not work without professional component management and continuous market observation. Life Cycle Management generally optimizes the New Product Introduction (NPI). But how fast and cost-effective the bridge between product development and introduction into the market is,

depends significantly on how well the various experts have worked together right from the beginning of the project, and on how well the production aspects have been considered.

«Another reason that makes LCM worthwhile for the customer is that experiences from field returns can directly and continuously be integrated into the development of successor products», explains Christian Pabst. LCM also allows further cost reductions and an improved image in the case of spare parts and/or substitute devices that are presumed to be available 20 or 30 years from now, because the end-customer has contractually been guaranteed this. Here Life Extension is the key word. «The services included in this make sure that a product or system does not have to be taken off the market because of discontinued components. Instead it can be repaired, maintained and re-produced at any time, or can meet new requirements through re-design», the Enics expert defines.

Evident: Service Network

«Enics' Life Cycle Management includes around 30 coordinated service packages», says Stefan Studerus, project manager for LCM at Enics Switzerland. This means a wide range of services, which make high demands on the provider (see «LCM checklist»). To achieve a successful Life Cycle Management it is essential that the EMS partner smoothly organizes and coordinates each of these services. This can only be accomplished by having all of the corresponding competencies available under one roof. For example, the development engineer can then communicate directly with the expert in maintenance when a question regarding Life Extension arises. The more straightforward the cooperation is, the better. A common corpo-

rate culture, geographical vicinity, transparent processes and readily available documentation build the basis for this structure. Further customer benefits in Life Cycle Management are the possibility to transfer internal corporate technologies to cost-competitive countries, or the use of a professional logistics chain.

Christian Pabst,
manager DSCM
at Enics Swit-
zerland:

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Trendsetting: LCM for complex systems

Many Original Electronics Manufacturers (OEMs) of demanding and safety-relevant industrial and medical electronics have already recognized the benefit a professional LCM through an EMS partner can bring and are making use of it. What kind of development can they expect? «The whole recycling of industrial products and systems will gain in importance and will generate new services», believes Christian Pabst. «And we are convinced that the demand for LCM for systems will strongly increase», adds Stefan Studerus. For the providers of these services this means that the complexity will continue to grow, especially when highly integrated systems, produced in a myriad of varying article configurations, are involved. An EMS company that has chosen to go for LCM will be able to expand its expertise in test development, mechatronics, embedded systems or concepts for After Sales Services.

«In the Life Cycle Management of systems, advantages such as an apparent reduction of interfaces, or a faster NPI, are even more obvious», the specialists stress, and both agree on their assessment of the future: «Most definitely the greatest benefit for the customer – today and tomorrow, for PCBAs and systems – lies in the fact that LCM through an EMS partner means a long-term disburdening of the demanding care that established products need. Core resources such as time, know-how and creativity are gained and can be invested into the development of new successful products!» •

Life Cycle Management Checklist

The ten core elements an EMS company must provide to guarantee a professional Life Cycle Management (LCM) are:

- LCM as a core strategy
- Customer-focused teams
- Professional project organization
- Well-structured processes (verified through approved, high-standard quality certifications such as ISO 13485)
- High employment rate of experts
- Experts from all lifecycle phases under one roof
- Disciplined care of documents
- Cultivation of the "direct" communication culture
- Clear and continuous documentation (verified through approved, high-standard quality certifications such as ISO 13485)
- Sound company background to guarantee long-term stability

Enics Switzerland
PO box/Austrasse, CH-5300 Turgi
www.enics.com
info@enics.com