

SLM

Sogitec's Support Lifecycle Management (SLM) approach meets the need of manufacturers, equipment manufacturers and operators who want the best possible quality for both their products and their product support.

TOWARDS A COMPLETE AND UNIFIED SUPPORT MANAGEMENT

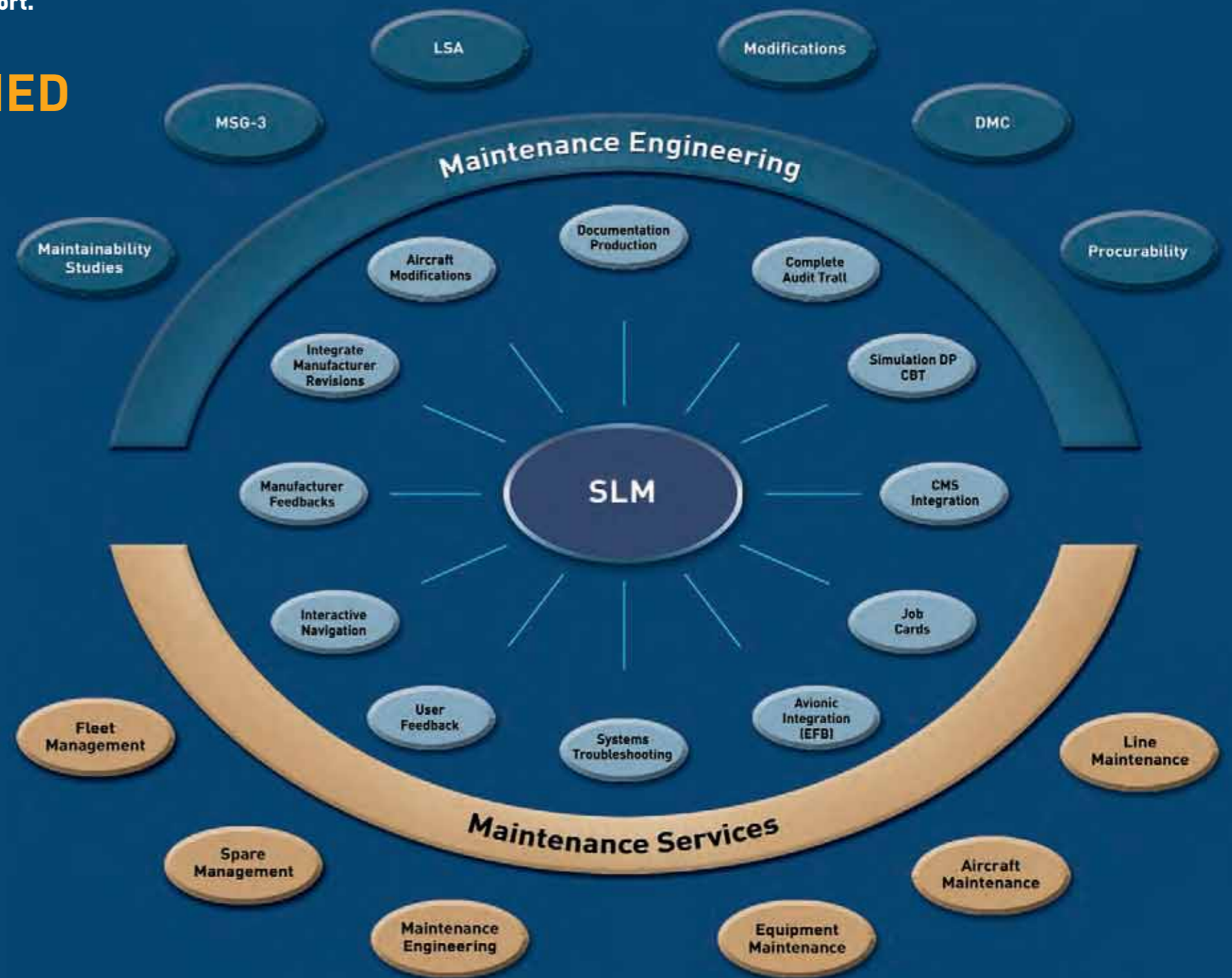
Sogitec develops technical support information and the related information systems. The SLM activity is part of a Product Lifecycle Management (PLM) approach that involves the manufacturer early in the engineering activities and, later in the process, the users for all the support activities connected with product use. The PLM is the essential vector of collaborative operation in the extended enterprise. It globally manages all the information relating to the product over its entire lifecycle: definition, production and use.

The SLM Corresponds to Specific Trades

Support engineering consists in designing support processes and the related information systems. To meet regulatory obligations and face an intense economic pressure, the manufacturers must design the support-related flows and processes at the beginning of a project: support engineering must be coordinated and consistent with the manufacturer's PLM approach. It begins with the definition of all the technical information necessary to use and operate the product and leads to the implementation of the support component of the information system.

Support engineering is located at the "junction" between the designer and the user of the product; it focuses on relations between product configuration management and support data management. Support includes activities connected with the product's lifecycle, in particular maintenance: maintainability, MSG3, LSA, procurability, maintenance and identification documentation.

Support also includes the elements necessary to use and operate the product: user's documentation, training, training engineering, training equipment (CBT, simulator), maintenance management. →



> Development

→ Support is an Homogenous Whole

Like production, support activities use the product design data flow. Some information from the manufacturer's PLM is processed with no manual intervention so as to be supplied to users (for example wiring diagrams), but the PLM and design documents mainly supply the data that will allow the different support specialists to provide original, coherent and accurate technical information. These activities are part of the global program processes; they share and produce their own information that carry the specific added value of the support trades such as the results of the logistics support analysis and maintenance and identification documentation, and this information is not necessarily re-used in design activities.

Furthermore, the lifecycle of this information and that of design data are asynchronous: the players and the pace of development differ.

Support Requires Specific Tools

Support information is not only a physical product; above all it offers validated, synthetic, didactical, standardized, and certified information usable by the various players. This information changes more often and for a longer period than the product it describes. It not only takes account of the changes made to the product (in particular changes occurring after the product has come into service such as accommodations, service bulletins) but also of the changes connected with the users of the product (such as their language, qualification level, tools, support resources).

Support activities have a strong impact on the safety and economic performance of the product. As a result, many organizations (DoD, ATA, AECMA, ASD, FAR, JAA, etc.) have issued specifications that have become industry standards and that also apply to other fields than aeronautics and defense industries. These specifications provide modeling of the maintenance, use, operation and training activities and impose that these activities have a high functional level. Their implementation is based on recognized, mature techniques that require few resources, mainly databases and information structuring (SGML/XML). Among the imperative support requirements in aeronautics, there are in particular:

- The durability of the content and of the updating processes that must be guaranteed for more than ten years,
- ATA 2200 and ASD S1000D specifications that rigorously standardize the "form and content" of support documentation,

The SLM approach proposed by Sogitec and consisting of a set of homogenous activities, requires specific trades, but also specific tools that allow the manufacturers and the associated equipment manufacturers to provide their clients with continuous improvement of the support they are expected. ■

CONSISTENCY BETWEEN DESIGN AND PRODUCTION

SLM is an integral part of the global PLM. However, the support activities have a different life cycle, specific constraints apply to input data and the related flows and the tasks connected with setting up SLM cannot be entirely synchronous with design activities.

For these reasons, it is often pertinent, in particular for products with a long life cycle, to deal with these specificities globally by grouping the support functions in an "SLM" entity that assures the consistency with the design and production functions.