

The EFNMS Maintenance Body of Knowledge

Antoine Despujols-October 2022



The European Federation of National Maintenance Societies (EFNMS), non-profit organisation gathering the National Maintenance Societies (NMS) of 24 European countries, has undertaken the development of a Maintenance Body of Knowledge (BoK). It contributes to the EFNMS mission to develop the maintenance profession and create a European maintenance culture.

To present the BoK content it is important to consider maintenance in its landscape and especially its relationships with three other domains in which it plays a leading role (fig. 1).

Coordinated with other processes (design, acquisition, production, etc.) maintenance contributes to physical assets management to increase competitiveness. By acting on the

items' reliability and maintainability and on the logistic support, it participates in risk management to prevent failures which can have severe consequences.

By keeping assets in good condition during their life cycle, maintenance brings environmental, economic and social benefits and is an essential pillar for

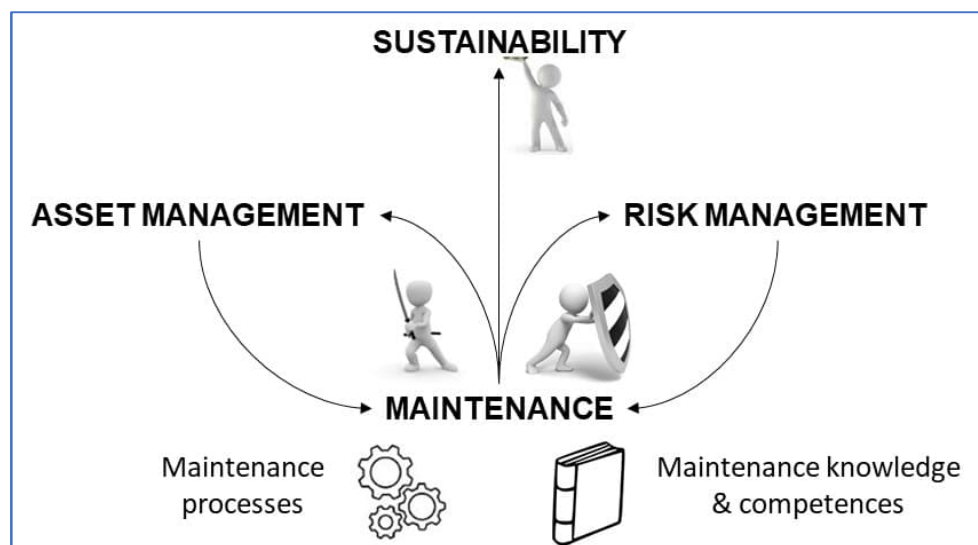


Figure 1: The Maintenance Landscape

The objective of the EFNMS BoK is to define the landscape, scope, and the content of maintenance, so that this area is better understood, better identified and its importance within organisations is more clearly apparent. It is based on the European maintenance standards and in particular those describing the maintenance process (EN17007) and the qualification of maintenance personnel (EN15628).

sustainability. The BoK must therefore contain knowledge on these areas and their relationship with maintenance.

Maintenance is a process, i.e. a set of actions, requiring knowledge to be performed. Thus, it is from the actions that we must start to identify the necessary knowledge for people

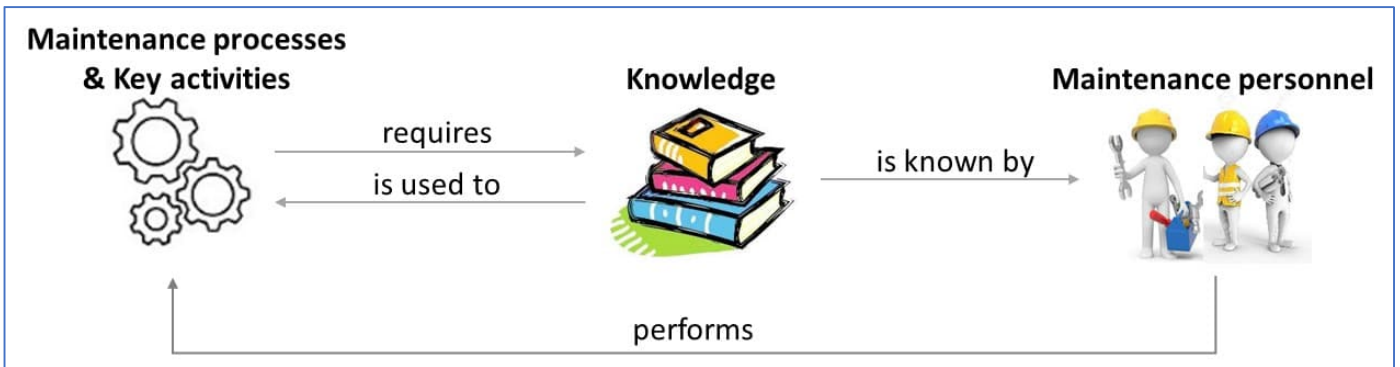


Figure 2: Relationships between maintenance processes, knowledge and personnel

involved in maintenance (fig. 2). The EN17007 standard, which describes the maintenance processes, forms the basis of this work, and allows knowledge to be structured according to its use. These thus become more concrete and directly linked to their implementation.

The BoK mainly focuses on know-how although other knowledge and competences are also essential and should be carefully assessed when looking for qualified personnel (e.g., manual skills). The know-how is established from maintenance subjects related to industrial issues (e.g., "Life cycle management", "Maintenance & sustainability", "Education and training in maintenance", "Occupational risks in maintenance", etc.), methods and techniques

(e.g., "Total Productive Maintenance", "Fault Diagnosis", "Root Cause Analysis", "Maintenance KPI", etc.), areas of knowledge and practices (e.g., "Work preparation & scheduling", "Budget control", etc.).

Over 75 subjects have been listed. EFNMS launched a call for experts to write short and didactic texts, easily understandable by non-specialists. These texts are collected in a booklet (fig. 3) which gives a general and introductory description of maintenance with a bibliography containing references for readers who want to know more.

This BoK is a collaborative document intended to be regularly supplemented, updated and improved under the supervision of a Reading committee. Its ambition is to constitute a living reference that clearly explains the maintenance content and its relationship with other processes, and thus contributes to the development of maintenance for the benefit of stakeholders (see EFNMS website to participate).

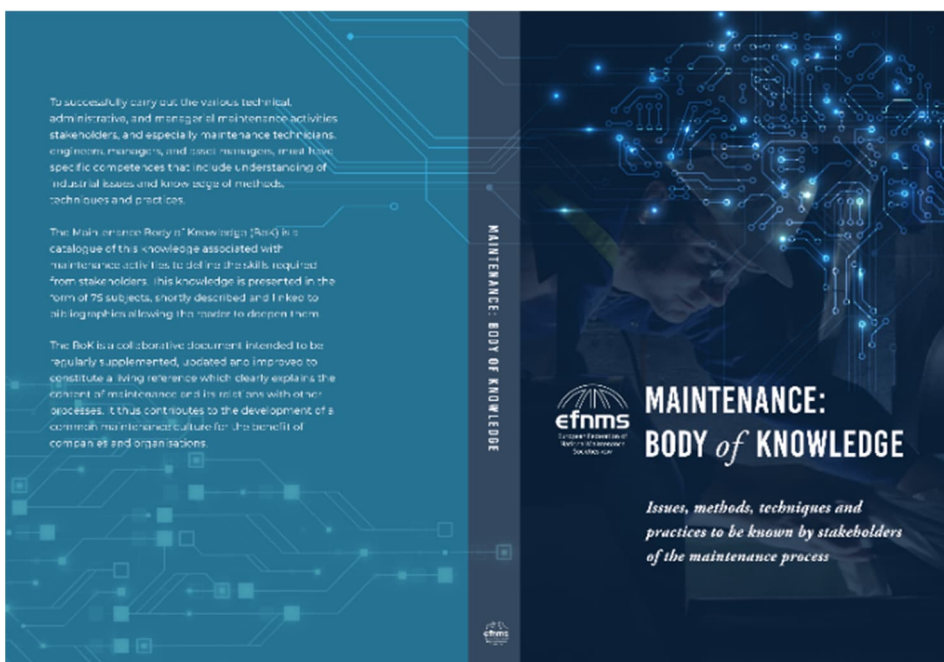


Figure 3: The EFNMS BoK Booklet