



Dear Member,

The following document is being circulated for vote at CENELEC level :

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<i>c.c</i>	: -
<i>CCMC comment</i>	: -

CCMC general remarks :

- The National Committees are invited to check carefully the validity of the proposed implementation dates and Directive(s).
- Superseded documents are withdrawn at the dow of the new EN/HD or at the publication date of the new TS/TR.
- If the above project is submitted simultaneously to the IEC voting procedure in the framework of the IEC/CENELEC co-operation agreement (parallel procedure) you will receive the text of the document from the IEC Central Office. Should your vote be different in IEC and CENELEC, a detailed technical justification shall be sent to the CCMC, with copy to the IEC Central Office.
- If the above project is an amendment circulated to withdraw special national conditions and/or A-deviations from a standard the National Committees are invited to check their national situation regarding the same standard and to inform the CCMC of any change, with a copy to the Secretary of the relevant Technical Body. There is no possibility to vote through the usual online voting system.

Yours sincerely,

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**65/617/CDV****COMMITTEE DRAFT FOR VOTE (CDV)
PROJET DE COMITÉ POUR VOTE (CDV)**

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Also of interest to the following committees Intéresse également les comités suivants		Supersedes document Remplace le document 645/577/CD 65/586A/CC	
Proposed horizontal standard Norme horizontale suggérée <input type="checkbox"/> Other TC/SCs are requested to indicate their interest, if any, in this CDV to the TC/SC secretary Les autres CE/SC sont requis d'indiquer leur intérêt, si nécessaire, dans ce CDV à l'intention du secrétaire du CE/SC			
Functions concerned Fonctions concernées <input type="checkbox"/> Safety Sécurité <input type="checkbox"/> EMC CEM <input type="checkbox"/> Environment Environnement <input type="checkbox"/> Quality assurance Assurance qualité			

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Titre :

Title : IEC 62890 Ed. 1.0: Life-cycle management for systems and products used in industrial-process measurement, control and automation

Note d'introduction

Introductory note

**ATTENTION
VOTE PARALLÈLE
IEC – CENELEC**

L'attention des Comités nationaux de la IEC, membres du CENELEC, est attirée sur le fait que ce projet de comité pour vote (CDV) de Norme internationale est soumis au vote parallèle.

Un bulletin de vote séparé pour le vote CENELEC leur sera envoyé par le Secrétariat Central du CENELEC.

**ATTENTION
IEC – CENELEC
PARALLEL VOTING**

The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) for an International Standard is submitted for parallel voting.

A separate form for CENELEC voting will be sent to them by the CENELEC Central Secretariat.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Industrial-process measurement, control and automation –
Life-Cycle-Management for systems and components**

FOREWORD

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International Standard IEC 62890 has been prepared by IEC technical committee 65: Industrial-process measurement, control and automation.

The text of this standard is based on the following documents:

FDIS	Report on voting
65/XX/FDIS	65/XX/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,

- 51 • replaced by a revised edition, or
52 • amended.
53

54 The National Committees are requested to note that for this publication the stability date is 2018

55 THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED AT
56 THE PUBLICATION STAGE.

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IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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INTRODUCTION

In today's automation applications, an increasing divergence of the life-cycles of components, devices and systems in comparison to the life time of overall plants is evident. The increasing functionality of components, the advancing development of electronics and the innovation dynamics inherent to hardware and software are continuously shortening the life-cycle of individual automation components. Certain semiconductor components are only manufactured for a short period of time, for example, and subsequently abandoned.

By comparison, the time in use of automation systems is considerably longer. Moreover, there are considerable differences depending on the industry sector. The time in use of a production line in the automobile industry is usually identical with the period of time in which a new model is manufactured which is around 7 to 8 years today. By comparison, the operational life of a process plant in the chemical industry is typically some 15 years, while up to 50 years may be reached in the case of oil and energy, and power plants. In spite of the considerable differences between the time in use of plants and the product life-cycles, the operation of the overall plant or system is to ensure across the entire time in use of the plant - both in terms of functionality, as well as in terms of economic considerations.

Increased utilization and integration of plant process data from automation systems towards enterprise and asset management systems has caused technology dependencies between hierarchy layers. A more uniform way of dealing with life-cycle management between these layers and vendors/manufacturers is essential with respect to plant regularity, operability and security aspects.

Consequently, this necessitates different strategies to maintain the availability of the plant, which extend to sophisticated migration strategies. As a result, considerable demands are made on the delivery capacity of automation products and spare parts, as well as the provision of services, such as maintenance and repairs. For example, when the planning of a new plant envisages the usage of a newer version of an engineering system, the producer have to ensure that this newer version can also be employed for older products and systems already in use in the existing plant, and may have to develop upgrades accordingly. To an increasing extent, this calls for close cooperation between the partners along the value chain.

The presented situation illustrates that mastering these conflicting characteristics of Life-Cycle-Management will become increasingly significant in automation, not least in the ongoing discussions between end users and manufacturers as well as manufacturers and suppliers. The interaction between global, legal and technical aspects - including demands for high functionality and efficiency, as well as the influence of IT technologies in automation - helps to demonstrate the scope of this topic.

In response to this situation this document is defined. It is comprised of basic, complementary and consistent models and strategies for Life-Cycle-Management in automation. These generic models and strategies are then applied to various examples.

Consequently, this document represents a consistent general approach, which is applicable to automation in various industrial sectors. The economic significance of Life-Cycle-Management is a recurring theme of this document. The definitions of generic models, terms, processes and strategies form an indispensable foundation for a joint understanding between plant users and manufacturers and between manufacturers and suppliers regarding Life-Cycle-Management.

Proactive Life-Cycle-Management focuses on the selection of robust components, specifications, and technologies that consequently have long-term stability. The proactive approach includes the application of this set of generic reference models in the development of standards in order to be able to efficiently ensure sustainable interoperability and compatibility.

110 1 Scope

111 This International Standard establishes basic principles for Life-Cycle-Management of
112 products and systems focused on industrial-process measurement, control and automation.
113 These principles are applicable to various industrial sectors. This standard provides
114 definitions and reference models related to the life-cycle and the life time of a product, and is
115 applicable to hardware and software of automation products and systems. It defines a
116 consistent set of generic reference models and terms. The key content of definitions are:

- 117 – Life-Cycle-Model;
- 118 – structure model;
- 119 – compatibility model.

120 This document also describes the application of these models for Life-Cycle-Management
121 strategies. The content is strongly focused on technical aspects concerning the design,
122 planning, development and maintenance of automation products and system and the
123 operation of the plant in addition to existing, predominantly market-oriented approaches.

124 The definitions of generic models and terms regarding Life-Cycle-Management are
125 indispensable for a common understanding and application by all partners in the value chain
126 such as plant user, product and system producer, service provider, and component supplier.

127 The models and strategies described in this standard are also applicable for related
128 management systems, i.e. MES and ERP.