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Mass customization value chain management

Part 1: Framework

bsi.

National foreword

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Foreword

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Introduction

Along with the generalization and popularization of Internet technologies, Internet of Things (IoT), flexible manufacturing technologies and modern logistics, individualized customization services have become embedded into all industrial and service sectors. Users can, by means of Internet platforms, determine and customize their own products upon their own demands. Mass customization is becoming a new mode in the manufacturing industry, and value chains will be ultimately driven by the users. Cooperation among enterprises is required by utilizing quick-response Internet platforms to provide a wide range of products and services in small lots to satisfy the users with various individualized demands.

From the user perspective, as the users directly interact with enterprises for customized products, they want to participate in the creation process of their individualized product and also to obtain or receive information about the progress of the product.

From the enterprise perspective, mass customization assists the enterprises in realizing the real-time and accurate understanding of the user's demands. Customized products increase the premium value of products for enterprises. Because of accurately estimated a priori information from customized product demand and requirements from the users, the enterprises can reduce or eliminate the inventory-related costs by appropriately conducting large-scale procurement or production.

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INTERNATIONAL STANDARD **ISO/PAS 24644-1:2023**

Mass customization value chain management —

Part 1: Framework

1 Scope

This document specifies a framework for mass customization value chain management, including the framework model, functions and information flow of mass customization.

This document does not describe interoperability at a system level or interoperability throughout the life cycle in detail.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
domain
functional area

[SOURCE: ISO 24097-1:2017, 3.1.2, modified — “in a policy assertion” has been deleted from the definition. The EXAMPLE has been deleted.]

3.2
information flow
transfer of information from an information-source-object to an information-destination-object

[SOURCE: ISO/IEC 16500-1:1999, 3.30]

3.3
interaction
exchange of information between a user and a system via the human-system interface to achieve the intended goal

[SOURCE: ISO 11064-5:2008, 3.20, modified — term "dialogue" was removed.]

3.4
mass customization
production mode that provides customized products and services according to the individualized demands of users with the cost and efficiency in mass production

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