UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE
CONFERENCE OF EUROPEAN STATISTICIANS
23 March 2022
ModernStats World Workshop 2022
27-29 June 2022, Belgrade, Serbia

Integrating technological advancements into a modernised statistical production process

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Abstract

Meeting new user needs on more detailed and coherent statistics as well as making use of new types of data sources requires us to modernise the statistical production process. A modernised process driven by design, data and metadata is sometimes referred to as "Statistical production 4.0". Making design changes for whole statistical areas in parallel with ongoing production means a need to be able to use a combination of parallel collection phases, process phases, analysis phases and dissemination phases at the same time. This can be seen as a cluster-based/interconnected view of the statistical production process. As a consequence of this, a more agile architecture is required to meet this change as well as to support the need for faster change. At the same time as we see this change, huge technological advancement has been made as part of the data science, machine learning, open source and cloud paradigms.

This paper will describe some of the ways these advancements can be used and integrated to meet the requirements for a more agile architecture to support Statistical production 4.0.

Keywords: The statistical production process, modernisation, GSBPM, architecture, CSPA, machine learning