
Smart manufacturing and opportunities for Official statistics, a focus on SMEs

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Abstract

In the framework of paradigm known as “Smart Manufacturing”, the objective of this work is to explore opportunities for Official statistics, in order to identify new sources for business statistics, increasing the efficiency of data collection processes, improving the quality of the data collected. Our attention concerns mainly SMEs, in relation both to their relevant role in economic and statistical systems of many countries and to their lower propensity to innovation. The proposed method starts from a review of the technical characteristics and functionalities of the most widespread advanced ERP platforms, by means of a set of structured interviews carried out, on a voluntary basis, with platform providers. Attention concerns notably the concept of AAS (Asset Administration Shell) as the basic element for the creation of a standardized digital representation of real “assets” and possibilities to realize a safe M2M statistical flow. In a first stage, the analysis of statistical requirements is limited to short-term business surveys. The following step concerns the selection of a small purposive sample of SMEs, considered “technology-ready” according to the information collected by ICT business survey and other informative sources (e.g. contact with industrial associations). The work will present progress of activity and first results.