

# Workers' awareness context in Italian 4.0 factories\*

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## Abstract

The study of the co-evolution of processes of technological innovation and the resulting organisational changes has been a topic of interest since the first appearance of the idea of division of labour and specialisation in Adam Smith's works. The major phases of organisational change are in fact the result of 'waves' of technological innovations attributable to the various industrial revolutions. Nowadays, a new potential technological paradigm dubbed 'Industry 4.0' is shaping the manufacturing output of USA, Europe, and China, particularly in the automotive/engineering industry. With reference to the latter, the present research contribution aims at investigating, by means of field-work research activity, the degree of openness of the awareness context of workers and their intervention authority on the production process within three factories in the so-called Italian 'Motor Valley'. Together with state-of-the-art 4.0 technology adoption, these firms exhibit different organisational practices ranging from the Japanese Toyotism (Cesab-Toyota), to a mix of Taylorism and co-determination (Ducati), up to the example most akin to the German '*Mitbestimmung*' (Lamborghini). This technological wave is fostering the process of making the production system lean. Our findings corroborate the presence of a hybrid process of Industry 4.0 adoption, reflected into a hybrid process of workforce empowerment.

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