



On 11 December 2016, the Italian Government approved, inside the Budget Law for the year 2017, a development plan for industrial activities, called “Piano Industria 4.0.” This development plan highlighted investment in new machinery and enhancement in production plants, using some technologies now available which allow a full integration between OT and IT. One of the advantages for end users who invest in such new technologies now is a tax reduction in the years following the initial investment, which allows increases to their return on investment.

To achieve this, users must implement an interconnection between the productivity assets (for example, a machine, a plant, or an electrical cabinet) and the enterprise network, in order to bring together data from the factory shop floor with data from the manufacturing and scheduling systems of the factory. This kind of interconnection must be achieved according to what has been defined in the document called “Circolare 4/E”, issued on 30 March 2017 by the Italian Revenue Agency (Agenzia delle Entrate), pages 59 and 60:

<p><i>In order for an asset (machine, plant or electrical cabinet,...) [...] to be "interconnected" for the purpose of obtaining the (tax) benefit, it is necessary and sufficient that:</i></p> <ul style="list-style-type: none"><i>• It exchanges information, in an open and secure way, with internal systems (for instance, enterprise resource planning – ERP – systems, planning systems, product design and product development systems, remote monitoring and control, other machines inside the plant, etc.) and external systems (for instance, customers, vendors, other production sites, partners in collaborative design and development, supply chain, ...) through a document-specific, publicly available and internationally recognized connection (for instance TCP / IP, HTTP, MQTT, ...);</i><i>• It is uniquely identified in order to recognize the origin of information to ensure data security by using internationally recognized standards (IP address).</i>	<p><i>Affinché un bene [...] possa essere definito "interconnesso" ai fini dell'ottenimento del beneficio, è necessario e sufficiente che:</i></p> <ul style="list-style-type: none"><i>• Scambi informazioni, in modo aperto e sicuro, con sistemi interni (es. sistema gestionale, sistemi di pianificazione, sistemi di progettazione e sviluppo del prodotto, monitoraggio, anche in remoto, e controllo, altre macchine dello stabilimento,...) ed esterni (es. clienti, fornitori, altri siti produttivi, partner nella progettazione e sviluppo collaborativo, supply chain,...) per mezzo di un collegamento basato su specifiche documentate, disponibili pubblicamente e internazionalmente riconosciute (es. TCP/IP, HTTP, MQTT,...);</i><i>• Sia identificato univocamente, al fine di riconoscere l'origine delle informazioni per garantire la sicurezza dei dati, mediante l'utilizzo di standard internazionalmente riconosciuti (indirizzo IP).</i>
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ODVA states that EtherNet/IP® provides users with the network tools to deploy standard Ethernet technology (IEEE 802.3 combined with the TCP/IP Suite) for industrial automation applications while enabling Internet and enterprise connectivity. The Internet of Things is set to provide manufacturers with significant opportunity for innovation. To capitalize on this opportunity and be able to connect all devices – not just those connected to controllers – industrial users must invest in networks that supports the Internet protocol. Through its reliance on standard Internet and Ethernet standards, EtherNet/IP is the key industrial Ethernet network that is proven, complete and ready for the Industrial Internet of Things. EtherNet/IP is integrated into IEC 61158 and IEC 61784-1/-2.

Moreover, ODVA states that EtherNet/IP can fulfill the requirements and recognized international standards for interconnection as stated by the excerpt of the above “Circolare 4/E,” pages 59 and 60, which allows companies to benefit from the tax reduction which has been introduced by the Italian Government with “Piano Industria 4.0.”

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