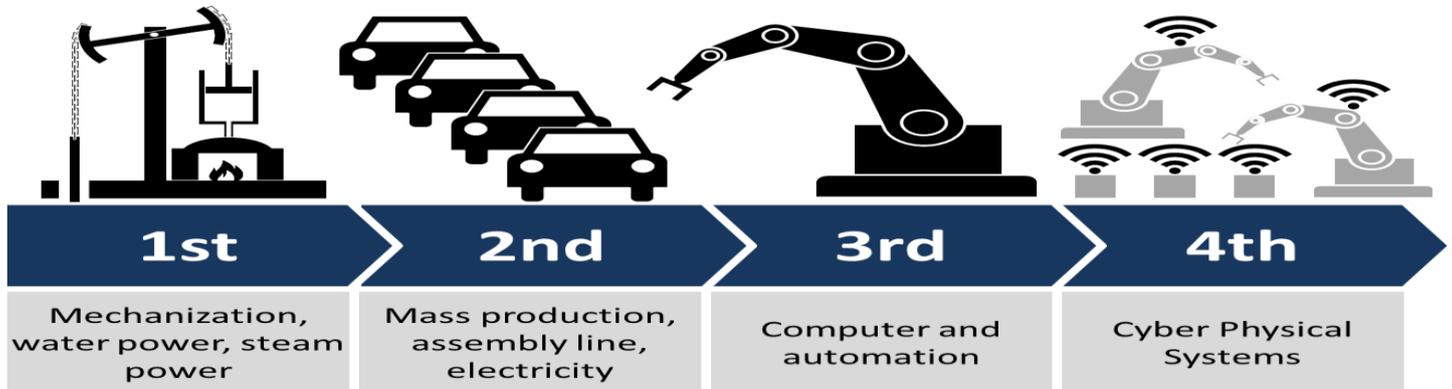


Managing Change

MMMA Newsletter for PF Asia May/June 2018 By Peter Fitch



As Panel Producers primarily using European (German) technology we are constantly told to prepare and embrace the coming technological revolution often labelled as “Industry 4.0”. But what does Industry 4.0 mean and what other ‘technology changes’ should we prepare for?

Let us first look at Industry 4.0. It is defined as the automation and data exchange in manufacturing technology and is commonly referred to as the 4th Industrial Revolution. This definition is meaningless as technology is always evolving and thus should not be defined as a revolution. However, what does make this more revolutionary is when it is also linked up with Artificial Intelligence and Fintech. This broader definition (below) has the potential to truly revolutionise industries and businesses.

- **Interoperability:** The ability of machines, devices, sensors, and people to connect and communicate with each other via the Internet of Things (IoT) or the Internet of People (IoP)
- **Information transparency:** The ability of information systems to create a virtual copy of the physical world by enriching digital plant models with sensor data. This requires the aggregation of raw sensor data to higher-value context information.
- **Technical assistance:** First, the ability of assistance systems to support humans by aggregating and visualizing information comprehensibly for making informed decisions and solving urgent problems on short notice. Second, the ability of cyber physical systems to physically support humans by conducting a range of tasks that are unpleasant, too exhausting, or unsafe for their human co-workers.
- **Decentralized decisions:** The ability of cyber physical systems to make decisions on their own and to perform their tasks as autonomously as possible. Only in the case of exceptions, interferences, or conflicting goals, are tasks delegated to a higher level.

The manufacturing of MDF is already fairly automated and many plants can claim that they are already at the stage of Industry 3.0 + as defined as an Automated Computer Controlled manufacturing process. The big changes will first come to the service sector where the way we do business will fundamentally change. Examples of these will be:

- Order Processing, Sales Contracts and Payment verification (Fintech and Blockchain).
- Warehousing (Machine Intelligence)
- Logistics (Autonomous Vehicles)
- Chain of Custody and Legalisation (Blockchain)

We will see the largest changes first in the retail, financial services and healthcare sectors, but these changes will affect the ways in which we do business. Other timber and furniture related businesses which are not as technologically advanced or as automated as the panel industry could initially struggle with these changes. To cope with the changes national workforces will need to be retrained education levels will need to be raised. If this is not done effectively then it could result in mass unemployment or stunted economic growth.

We think that this change is being driven from the US, Europe and Japan, but a closer look sees China is also embracing the change necessary for its changing (aging) demographics just like Japan. For example, AI-related industries are expected to generate up to 26% of its GDP by 2030 and China will lay claim to 40% of total worldwide robotic sales by 2019.

I believe that Malaysia has the potential to make the transition. By leveraging its established panel production industry and by transforming its thriving furniture manufacturing expertise. As China moves towards a consumer economy there will be more opportunities for Malaysian Furniture manufacturers to automate and embrace the new technologies, to lessen their dependence on 'cheap labour' and move to more Value Addition. A thriving, efficient and highly automated furniture industry in Malaysia is good for Malaysian Panel manufacturers too. We just have to make sure we keep one step ahead of our regional rivals.