Industrial Ecosystems for Society Development:Lessons to be learned from Chinese Industrialization

Yongjiang Shi (UK)

Three main takeaways from my presentation:

Based on the Chinese industrialization experiences in the last 40 years, we have to develop a new framework for the new journey of industrial development. For the new framework, we need to remember three "IEs":

- Innovative Entrepreneurship to take advantage of established or latent business ecosystems and effectively and efficiently transform resource pool into industrial systems to create value
- Industrial Engineering to extend tradition Industrial Engineering from people oriented productivity towards wider range of resource efficiency improvement, particularly increase the efficiencies of energy and materials
- Industrial Ecology to use industrial symbiosis and circular economy principles to transform various types of wastes and by-products to value creation businesses and better manage the industrial symbiosis complex networks

It is more essential, however, to integrate the above three IEs together to tackle the industrial sustainable challenges. The following diagram depicts the integrated IE³ Framework.

