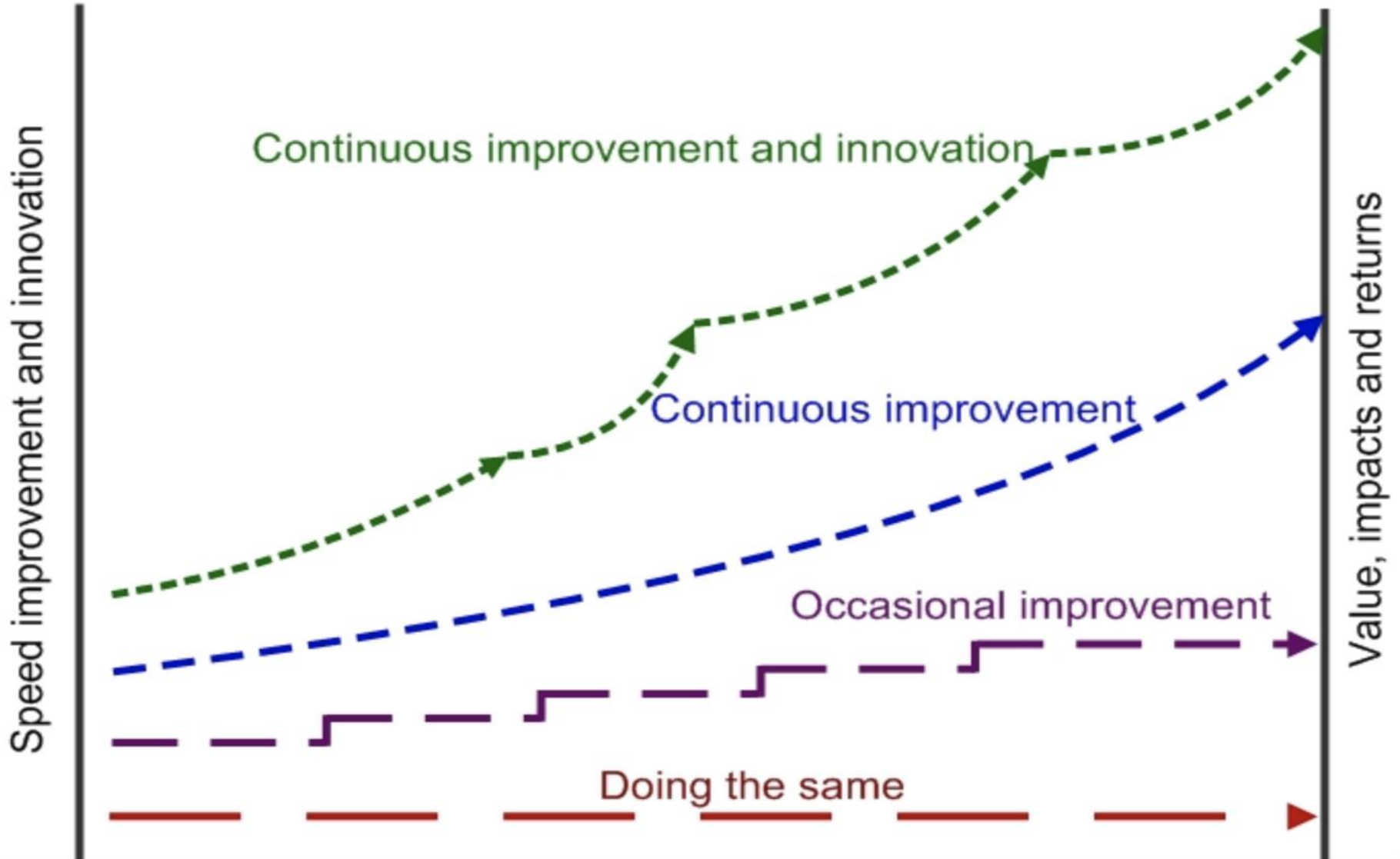




Gift Mphefu, Pr.Eng.

ENGINEERING INNOVATION & TECHNOLOGY



Increased utilization of advanced information technology (such as CAD systems) and communication systems has created important opportunities for innovation in the global production and delivery of engineering services.

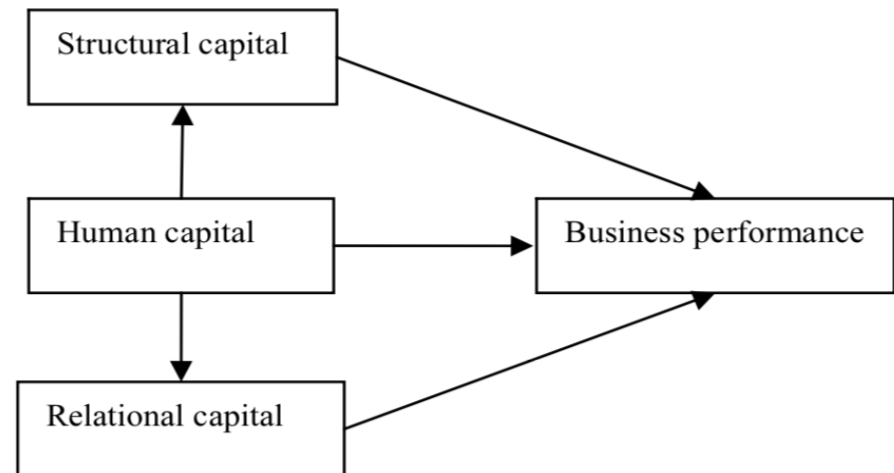
(Baark, n.d.)



- Engineering consulting industry belongs to the knowledge - intensive business;
 - for which the most important asset is intellectual capital (Huang & Hsueh, 2007);
- The core competence of engineering consultants is their ability to apply scientific and technical knowledge - mostly in a combined form of technical calculations and knowledge of design based on extensive experience.

Definition: Intellectual capital refers to the summation of all knowledge and capabilities of every employee that brings about performance and creates wealth for the enterprises;


- Intellectual capital is divided into:
 - human capital;
 - structural capital;
 - and relational capital:



Definition:

Innovation is the implementation of a new or significantly changed product or process. A product is a good or a service. Process includes production or delivery, organisation and marketing processes.

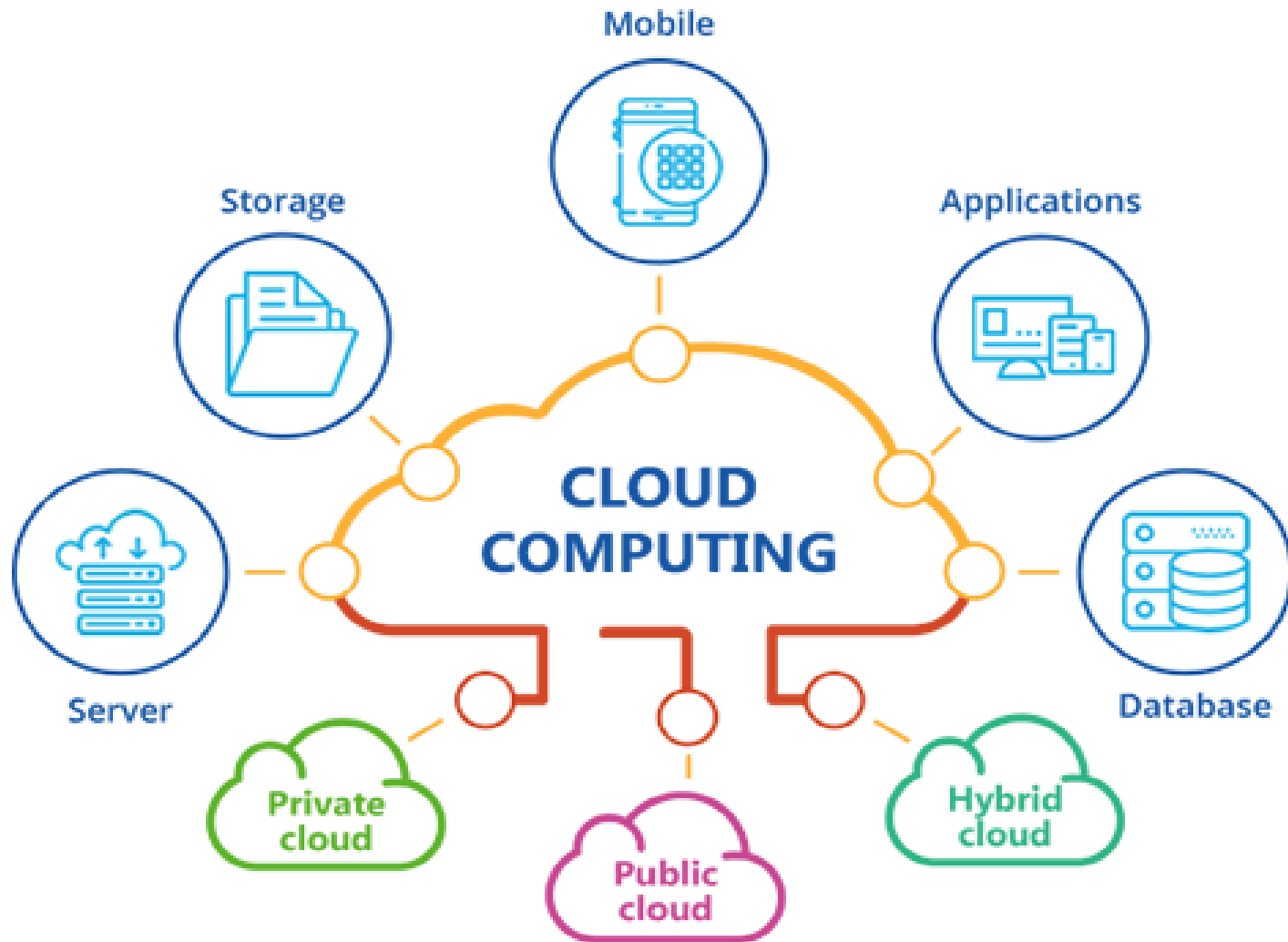
(Gault, 2018, p. 619)

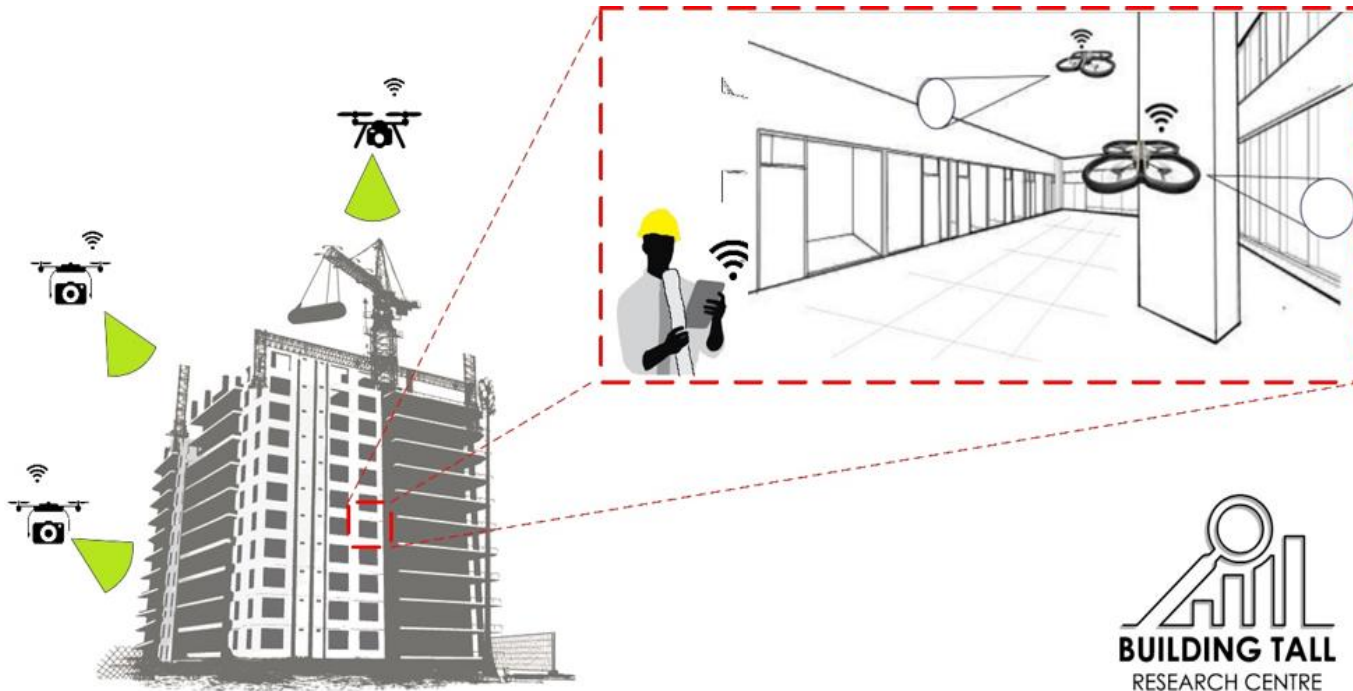


- Three major categories of innovations:
 - new products (services related to design, specifications, data, etc. for a project);
 - **new processes (a change in the way that such services are produced);**
 - **and new delivery methods (a change in supplier-client interaction).**

(Baark, n.d., p. 12)

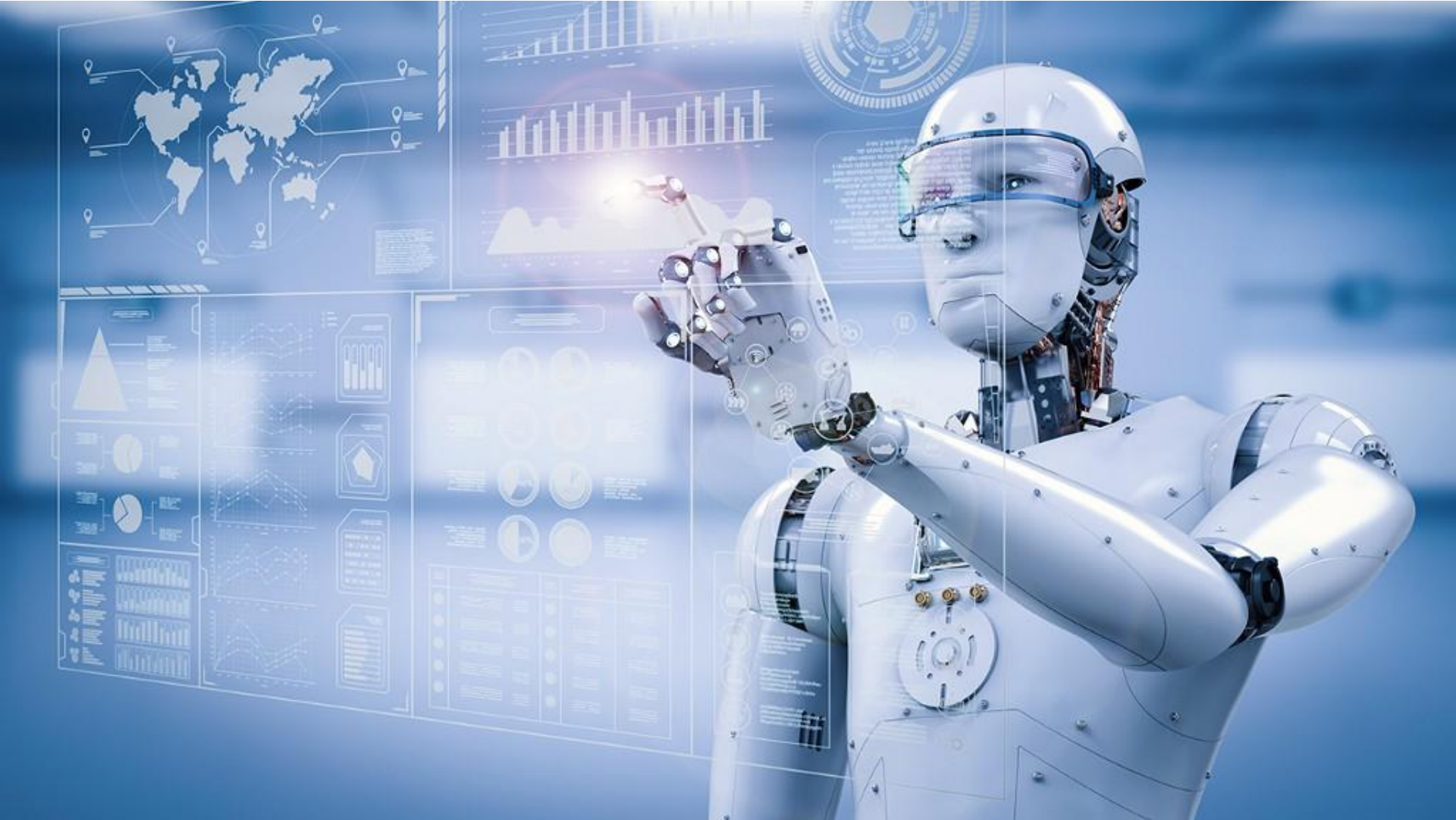
Interesting Engineering Industry Trends





BUILDING TALL
RESEARCH CENTRE





- The influence of service innovation on competitive advantage and business performance has increased;
- Engineering firms must constantly consider revising their service offerings and service processes to survive in their market;

(Ryu & Lee, 2017)

Thank you