

## Forms of innovation that can support 'doing more with less'

*'We need to become both more frugal and more creative, to innovate while doing more with less. This is what we call "frugal engineering.'*

Carlos Ghosn, Chairman and CEO, Renault-Nissan Alliance (writing for [LinkedIn](#))

Source: (Accessed 28/07/2015)

### Frugal Innovation

"Frugal innovation is the ability to "do more - and better - with less." It is a breakthrough growth strategy that enables companies to develop high-quality products and create more business and social value while minimizing the use of vital resources such as energy, capital and time. **Once the preserve of companies in developing markets, frugal innovation is now being adopted by global enterprises, large and small.** It is not only a game-changing business strategy but also a new frame of mind – one that perceives resource constraints as an opportunity, not a liability."

Source: <https://globalvaluechains.org/concept-tools>, emphasis added (Accessed 28/07/2015)

"Frugal innovation is distinctive in its means and its ends. Frugal innovation responds to limitations in resources, whether financial, material or institutional, and using a range of methods, turns these constraints into an advantage. Through minimising the use of resources in development, production and delivery, or by leveraging them in new ways, frugal innovation results in dramatically lower-cost products and services. **Successful frugal innovations are not only low cost, but outperform the alternative, and can be made available at large scale.** Often, but not always, frugal innovations have an explicitly social mission."

Source: <http://www.nesta.org.uk/publications/our-frugal-future-lessons-india%C2%92s-innovation-system> (Accessed 28/07/2015)

### Reverse Innovation

"When a multinational corporation learns to generate successful innovations in emerging markets and then exports that knowledge and those innovations to the developed world, new business possibilities suddenly burst forth."

Source: <https://hbr.org/2012/04/a-reverse-innovation-playbook> (Accessed 12/08/2015)

### Disruptive Innovation

"describes a process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually displacing established competitors."

Source: <http://www.claytonchristensen.com/key-concepts/#sthash.9INuQNgJ.dpuf> (Accessed 28/07/2015)

### **Open Innovation**

“A business concept developed by Henry Chesbrough which encourages companies to acquire outside sources of innovation to order to improve product lines and shorten the time required to bring products to market, and to market or release internally developed innovation which does not fit the company's business model but could be effectively used elsewhere.”

Source: <http://www.businessdictionary.com/definition/open-innovation.html#ixzz3jB5923nw>  
(Accessed 18/08/2015)