What's happening to transport?

We're at a watershed moment overlooking a new transport horizon like the 49'ers who were on their way to find gold for their better world.

It's on our lips, pandemic, climate and hi-tech impacts are all around and in addition legislators and new revolutionary transport providers make it both necessary and attractive for us to change how we consume/provide/manage our transport. Our new era is now heralded by dozens of allied technological infrastructures that are combining for transport. Transport in built-up areas will have to change radically in next five to ten years or we face public unrest and economic disruption, e.g., Dublin, Cork, Limerick and Galway.

In short we are witnessing our 'transport big bang'. The real changes 'disruptions' to transport that many desire were aspirational until now, because the means to achieve them were simply not technologically possible. Google maps, smartphones, internet monitoring, etc., are but the trail finders of our new transport era.

To realise what is happening I want to take you now to an overview of what the disruptions are. Disruptions essentially occur when new products or services create new markets and at the same time either dramatically transforms or destroys existing industries - it's really about creating new markets and it doesn't care about your existing marketplaces.

Usually a market disruption, represented by an S-curve graph, starts slowly and then within a short number of years covers almost an entire market. From 1900 to 1913 internal combustion engine based transport took 11% of the horse transport market and then wham to 81% by 1923. What's interesting is that this explosive disruption growth S-curve happened in just 10-years and it took place while a mega new car, oil and road infrastructures had to be built from scratch and during a war and a global pandemic. Sea port infrastructure for containers S-curve happened phenomenally fast too from almost nothing to 80% over 14 years and changed the map of where the world's largest ports are now located.

Experts on the inside usually don't totally get disruption, they dismiss it as not going to happen or suggest it may take a long time and so on and so forth. Change is an anathema to human nature, we can all think of many more markets and industries that looked indestructible but weren't , like AT&T. In 1985 AT&T hired McKinsey and asked them one question what's going to be the adoption rate of this new thing called mobile telephony, they forecast one million wherein the real outcome was 109 million after 5 years later. So what happened changed the players in the phone industry. Another example is Nokia.

Pertinent to where transport is now. If you ask yourself why did the smartphone disruption happen in 2007 and not in 2005? It was because of convergence essentially of all the technologies that were necessary for a smart phone did not exist in 2005. They first became available in 2007. That year both Apple and Google came up with their smartphone operating systems. What is true of change is that it usually happens from the outside; neither Apple nor Google had ever built the phone before and now they own most of the worlds smartphone operating systems market. What was true in 2007 for smartphones is now true for transport in 2020.

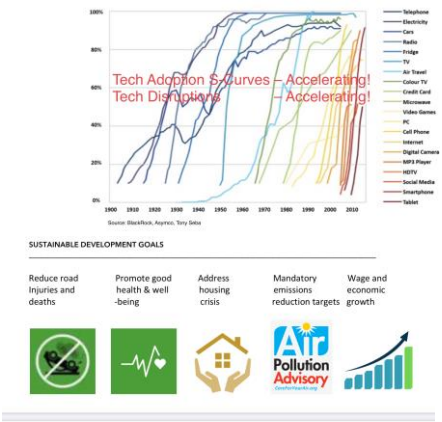
What's happening now in transport is brilliantly exemplify by Tesla and SpaceX; as for most disrupters the incumbents ignored Elon Musk. Large car manufactures and NASA ridiculed him, oil producers massively shorted his stock, etc. Now Tesla cars and trucks are, in fact, computers on wheels with accumulated big-data on advanced airplane type circuit boards and with cameras for eyes. Musk has also merged his three categories of space rockets into one reusable rocket type. His fully reusable rockets have flown many dozen of times, his capsules are built by Tesla can even re-enter earth without a heat shield (that's combined technologies for transport working together) and his rocket cargo volume capacity is 850 cubic metres which is more that thirteen large forty-foot sea shipping containers. Astoundingly, Musk also says that rocket fuel and hydrogen will soon be extracted from air carbon dioxide and water by solar power.

Simply said, almost all forms of transport are now on a new combined technological S-curve change 'big bang'. Within ten years, the internal combustion engines will be a thing of the past as could also be some long-haul passenger and cargo jets with Sydney by rocket from anywhere in less than two hours. Smart phones and all that goes with them hit their S-curve base in 2007. Our new transport era has just hit it's S-curve base and it's 2020.

Cormac Rabbitt
Chairman Metro Dublin

Bio.

Cormac Rabbitt is a former Chairman CILT Ireland Eastern Section. He has track record of taking initiatives that helped influence the Irish Government to alter and to proceed with of motorways as against dozens of town and village by-passes. His work on the realignment of significant sections of national roads away from helped to be delivered them at considerably lower costs them ahead of their listed position. He also played a pioneering role in developing plans that influenced the Irish Government's decision to develop metro in Dublin. In 2000 2000 supported by a Japanese consortium he presented to the Government Cabinet Committee on Infrastructure and PPPs his metro plan which influenced the Government's decision to proceed with a metro. Cormac is again interested in building a metro in Dublin and in Cork. Interested parties can contact him at info@MetroDublin.ie @MetroForDublin



SECOND ARTICLE

What should we be doing?