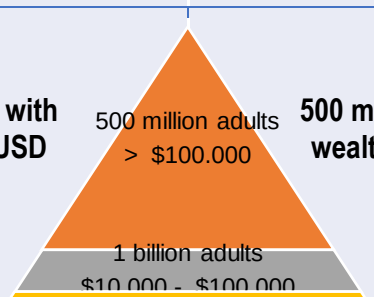
Our current economic model of unsustainable development is no longer sustainable

We have reached the limits of the planet, the time has come to adopt a resilient economic model. How to foster the transition at www.smart-up.org

	Think about this	and this	The problem	Big Data solution	Alternative solution
Economic	 **1 liter of gasoline = 0.97 USD in 2016**[1]	 **1 liter of beer = 1.5 – 9.5 USD in 2016**[2]	**Gasoline is 2 – 10 times cheaper than beer** Gasoline or natural resources pricing is too low due to lobbies and subsidies	*Big data and technology can accurately **identify sources** of more and cheaper oil*[3] *so that we can continue to exploit non-renewable energy*	*We must include **social and environmental costs** in evaluating the true price of natural resources*[4]
	 **1 BOE = 1.600 kWh**[5] **BOE: Barrel of Oil Equivalent**	 **1 human = 0.8 kWh per day**[6]	**1 BOE = 60 USD**[7] **= 2.000 man days** This explains how we can afford exponential growth and shows the detrimental impact when oil reserves are exhausted	*Big Data and AI can predict **energy need**[8] and **optimize usage**[9] so that energy demands are met efficiently with no waste*	***Renewable energy** sources such as Bioenergy, Geothermal, Hydropower, Solar, Wind, etc is both environmentally friendly and will be cheaper*[10]
Environment	 **1 ton coal equivalent (TCE) = 30 GJ produces 1 ton of chemical fertilizer**[11]	 **Industrialized agriculture requires 200 million tons of chemical fertilizer per year**[12]	**1,600 TWh, equivalent of annual total primary energy supply of Thailand**[13] Industrialized agriculture is too polluting and too dependent on fossil fuel	*IoT, remote sensing images, Big Data, and AI can improve **precision agriculture** for higher yield with less inputs*[14]	*Blockchain technology can be applied for **supply chain** so that products and its inputs are traceable throughout the food chain, reducing pollution from fertilizer and transportation*[15]
Digital & Transport	 **2 tons, 14 liters/100 km Rare earth metals Terabytes of data on server**[16]	 **1 ton, 6 liters/100 km No rare earth metals No data server**[17]	**1 smart car = 2 regular cars** Autonomous cars are more polluting due to the increased energy consumed, material used and data generated	***Autonomous public transportation** can reduce environmental and digital footprint per passenger compared with private vehicles*[18]	***Cycling** instead of using cars or public transportation is less polluting, healthier and more economical*[19]
Social	**3.5 billion adults with wealth < 10.000 USD 7.6 trillion USD 2.7% of global wealth**	 **500 million adults with wealth > 100.000 USD 240 trillion USD 86% of global wealth**[20]	**3.5 billion individuals will require more resources to reach the wealth level of 500 million** How can it be realized with limited natural resources?	*We should set up regulatory framework to **limit resources consumption** besides increasing efficiency from the use of Big Data, AI and technology*	*Sustainable development should focus on **sustainable consumption and production**[21] instead of increased consumption for all*

"It is therefore clear that in a world where fossil fuel is limited and global warming is underway, the current pattern of exponential growth is an impasse. Man must seize this opportunity to apply Big Data and Artificial Intelligence to good use because they constitute an unprecedented chance to improve knowledge management. We can then optimize and reorient our growth model while respecting people and the planet better. We have no choice otherwise our unlimited growth will increase and accelerate our energy consumption, pollution and therefore the inequalities between the rich and the poor". We can employ Internet of Things to harvest Big Data for AI to increase the efficiency of our activities but we must do so with precaution and a legal framework so that all negative externalities are included in the final price and that our development is sustainable.

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