

Human Resources Development towards Sustainable Green and Circular Economy

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Quotations



Margaret Mead is an American anthropologist.

Quotations



"The environment and the economy are really both two sides of the same coin. If we cannot sustain the environment, we cannot sustain ourselves."

Prof. Wangari Maathai a Kenyan environmental activist and a Peace Nobel Prize Winner

Quotations



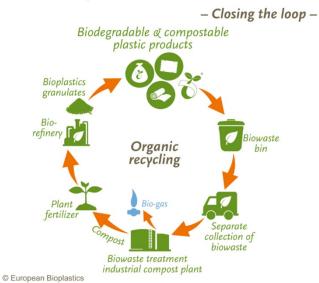
"You cannot protect environment unless you empower people"

Prof. Wangari Maathai a Kenyan environmental activist and a Peace Nobel Prize Winner



(1) Great Honor to be invited to this important conference. Welcome all the guest from oversea.

End-of-life options for **BIOPLASTICS**

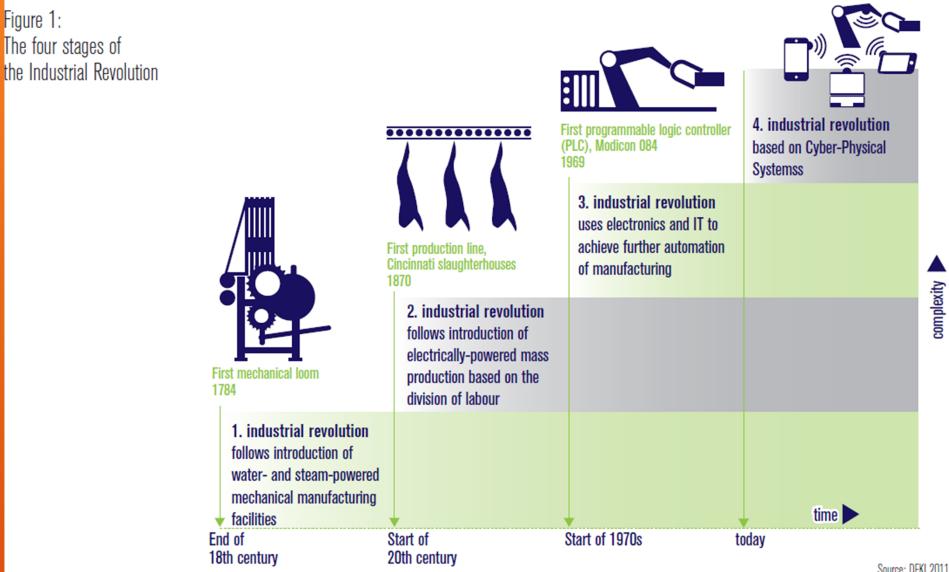


(2) I will talk about Human **Resources** aspects for Green and **Circular Economy** using Bio – Plastic as a case study.

(3) What is the Forth Industrial Revolution 4.0?

Figure 1:

The four stages of



Source: DFKI 2011

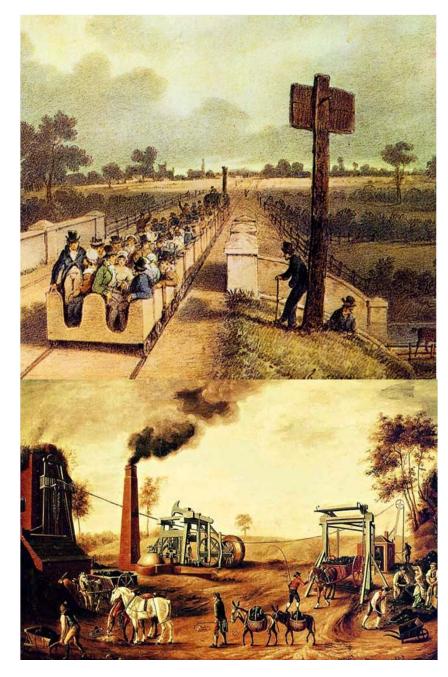




What is the Forth Industrial Revolution 4.0?

the definition from
Professor Klaus Schwab
the founder of world
economic forum in 2016
only 2 years.

First Industrial Revolution in 18th Century



First Industrial Revolution in 18th Century; - discover of steam engine by watt - transform human to machine, made it more productive - the start of industrialization from agriculture.

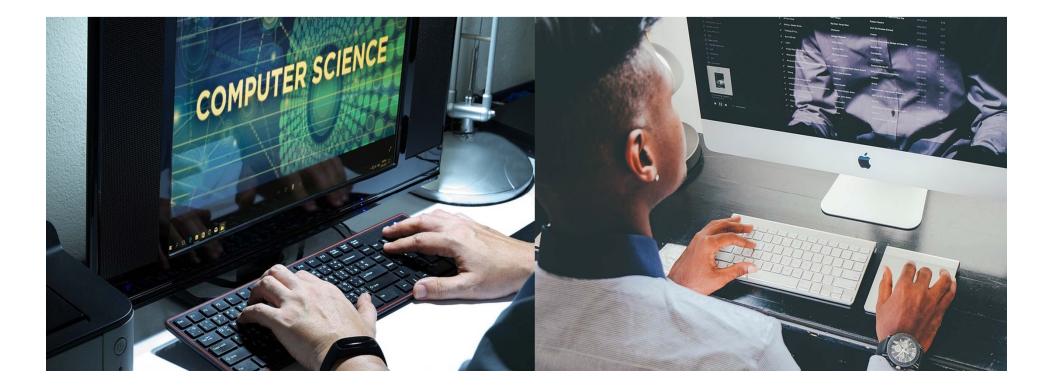
Second Industrial Revolution

Second Industrial Revolution between 1870 – 1914 expansion from steam engine to steel, oil and electricity including telephone.



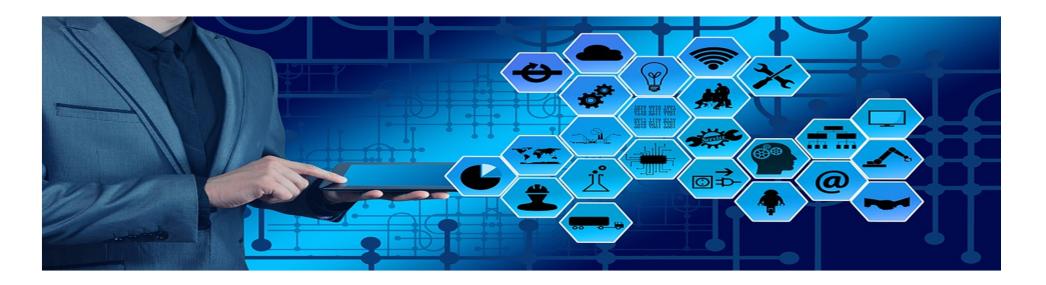
Third Industrial Revolution

Third Industrial Revolution – 1980 first stage of digital technology, internet, personal computer, search engines.



Forth Industrial Revolution

Forth Industrial Revolution expand and deepening the digital technology including robotics, artificial intelligence, nano - technology, quantum computing, bio – technology, internet of things, autonomous vehicles, etc.



(4) In this gathering of experts in Bangkok, Thailand. Please do remember the key is collaboration and networking among all stakeholders in society and at international level



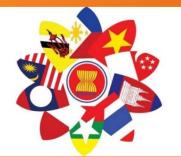




(5) **Because if you do not do that** there are forces such as economic **GDP** maximization, employment creation to oppose what we do. Imagine top leaders like **Trump rejects** climate change at expense of employment in order to gain political support.

(6) As we gather here to win the climate change war and the make sure that we have achieve 17 Sustainable Development Goals of UN



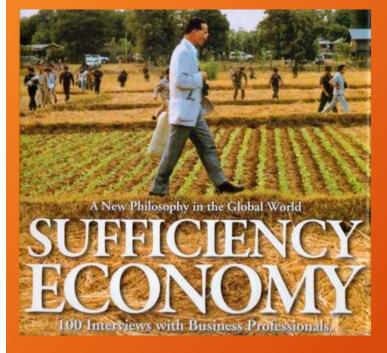


(7) I would like to report to the conference that **Thailand and ASEAN will work together** to eliminate garbage from the ocean, part of the garbage is the regular plastic which stay for hundred years and can destroy long term sustainable ocean. Soon number of fish will decline and human being are not able to eat.



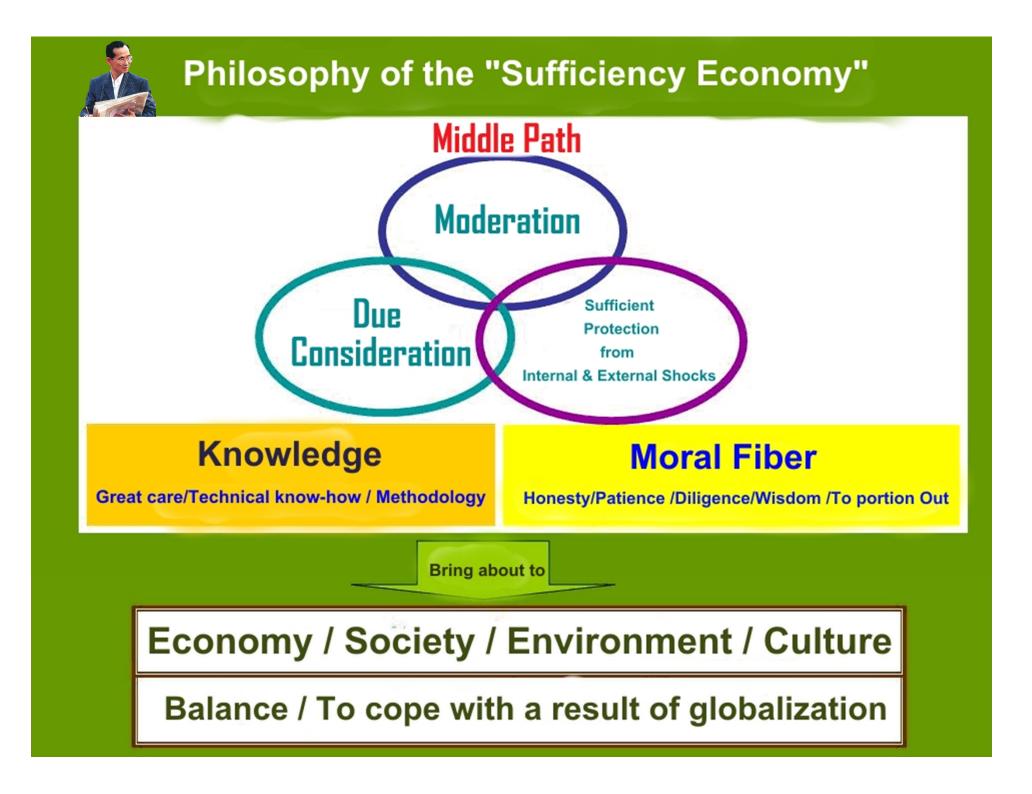


(8) In the world of **Social Medias**, we must work together to educate people all over the world to understand the key to preserve sustainability of the planet.





(9) Now as far as Human Resource **Development is** concerned, we must be aware of few important points. (9.1) In order to succeed in 17 UN Development Goals, we must use the King Rama 9 – mean of achieve the goals.

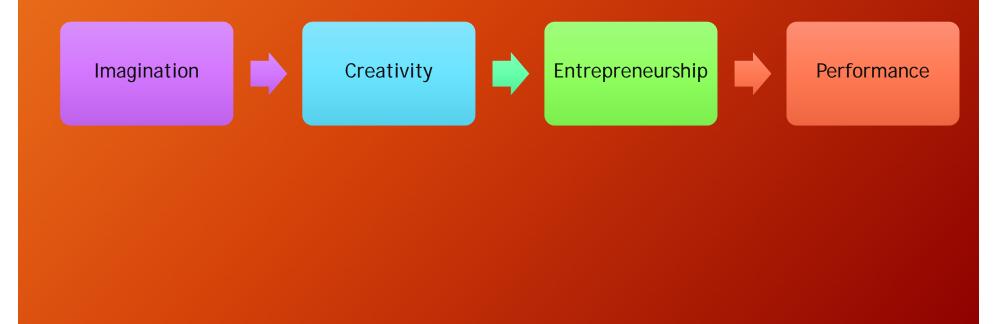


(9.2) I have 6 point's of Chira Way deal with Sustainable Development Goals also.

Chira's 6 factors Sustainable Development must

- 1) balance the short-term and the long-term benefits.
- 2) be environmentally friendly.
- 3) balance the morality, ethics and development.
- 4) be based on scientific thinking, analytical thinking, life-long learning and learning society.
- 5) benefit the majority instead of small groups of people
 () be calf relieved
- 6) be self-reliant

(9.3) **At Standford University** – In order to generate new discovery of innovations and sustainability, their educational system use the following approach.



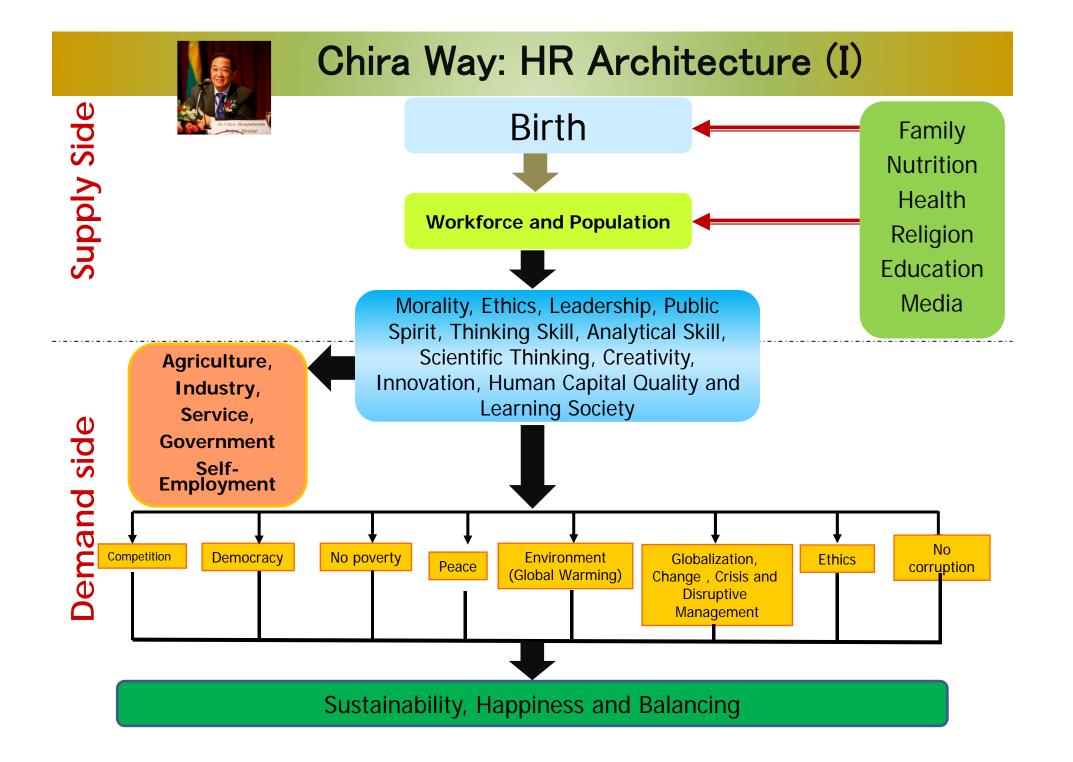
(9.4) I speak only in Thailand, we need Economy 4.0, Bio-Plastic is one of the product. So we must include in curriculum **"STEM Education"** S = ScienceT = Technology**E** = **Engineering M**= Mathematics But STEM is part of success, they need intangible quality in people to move biotechnology to be sustainable such as happiness at work.

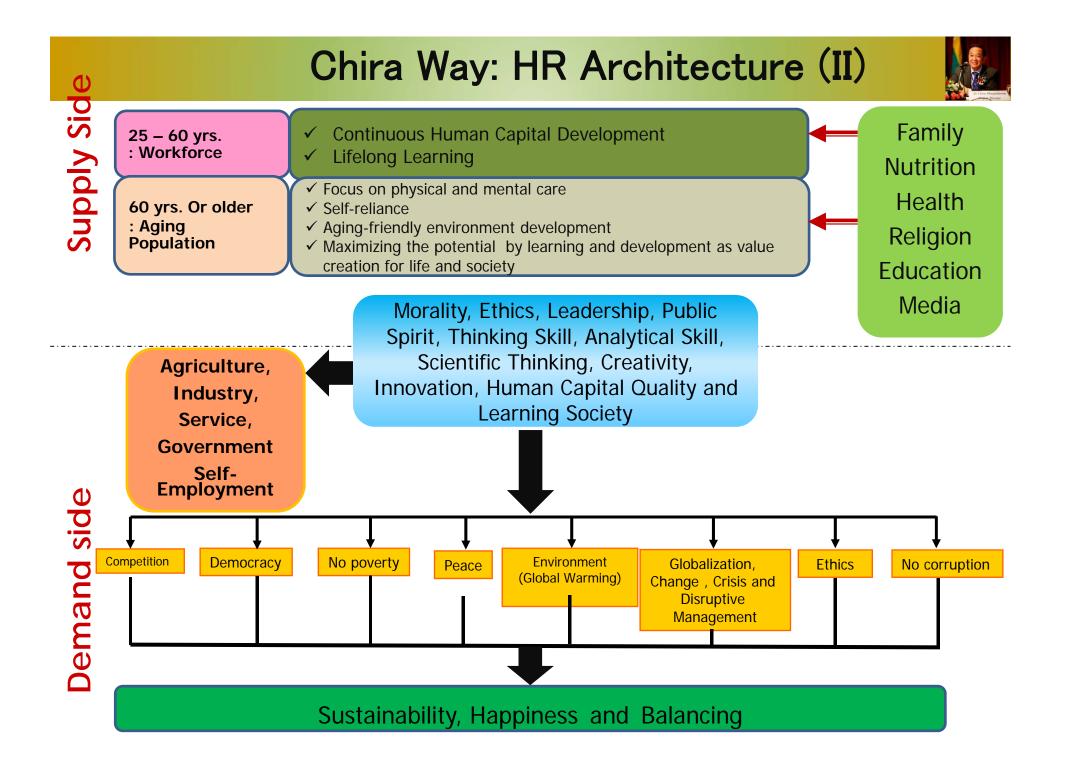


(9.5) Another aspect of Human Capital aspect in **Bio-Plastic is adjust** mindset to deal with the future. **Innovation is a long** process, you have to deal with pain and suffering and ready to fight again.

Finally, I want to leave you with 4 of my concepts; > HR Architecture **3 Circles Theory** > 8K's+5K's Theory > with the "HRDS"



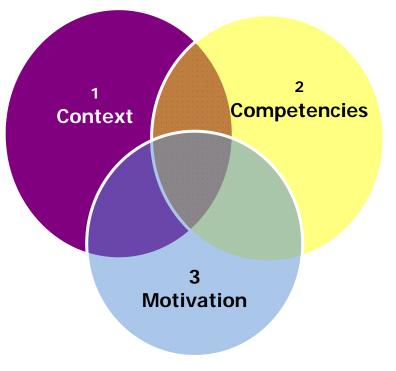




3 Circles Theory



For Human Capital Management & Development



8 K's Theory : basic in Human Resource Development



1)Human Capital 2)Intellectual Capital 3)Ethical Capital 4) Happiness Capital 5)Social Capital 6)Sustainability Capital 7) Digital Capital 8) Talented Capital

5 K's (New) Theory

: Human Resource Development in globalization



1.Creativity Capital
2.Knowledge Capital
3.Innovation Capital
4.Cultural Capital
5.Emotional Capital



HRDS

For People Management & Effective Teamwork

- Happiness
- Respect
- Dignity
 Sustainability



In which science and social science must be combine to make biotechnology successful at individual and companies must be have learning culture - never stop learning, curiosity and eager to learn is the key in successful Innovation.

Thank You



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Foundation for International Human Resource Development (FIHRD)

https://www.gotoknow.org/posts/422648