



# An Understanding On Green Swans

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# AGENDA & OBJECTIVES



## Agenda

- Intro
- What and Why Green Swans
- Revolusi Industri & Disrupsi
- Exponential Sustainability

## Objectives

Memahami dan mampu mengantisipasi dan beradaptasi dengan perubahan-perubahan yang luar biasa cepat (eksponensial) yang akan terjadi dalam waktu dekat ini.

## AN INTRO

- John Elkington is the coiner of the “Triple Bottom Line” (Then 3P) and is seen as the Godfather of sustainability.
- Elkington is most focused on the failure of capitalism, which the Green Swan book discusses the intersection of capitalism, democracy and sustainability.
- He wrote this in 2019 and, I would think, some ideas may be changed in light of the events of the past two years.
- Our economy urgently needs re-orienting in a green direction, with governments, businesses and civil society taking on—together—ambitious green missions. John Elkington’s Green Swans,
- Paradigm-shifting innovation breakthroughs, point the way to this brighter future.”
- This book is a great guide to the changes under way.
- “to guide us through the business, social and environmental transformations we need en route to a regenerative future”
- It’s also a template for exponential change toward the distant goal of a sustainable future for all.

# WHAT & WHY GREEN SWAN ?

Swans have long been symbols of beauty, elegance, and effortlessness. But this extraordinary bird also symbolizes the potential for change and, in particular, for transformation

## Green Swan

The Green Swan is a symbol of radically better times to come.

## Black Swan

(Introduced By Nassim N. Taleb)

"Black Swan," referring to unpredicted—and generally unpredictable—events driven largely by negative exponentials

Think about the 2007–2008 market crash or the 2011 Fukushima nuclear disaster in Japan.

Black Swans, from Nassim Nicholas Taleb whom John Elkington "riffs from", describes very, very unlikely events that coordinate to destroy a system and thus in betting on the bust, one makes massive, massive returns.

## Gray Swan

"Gray Swan," which are predictable and may have been predicted, but which when ignored for too long erupt in ways that can rock the world.

## Ugly Ducking

- "Ugly Ducklings," defined as embryonic innovations and trajectories that can take us in various directions—good, bad, or ugly.
- .... an early-stage concept, mind-set, technology, or venture with the potential to become either a Black Swan (often driven by "bad" exponentials) or
- Green Swan (driven by "good" exponentials). Its potential future evolution is very hard to detect early on, unless you know what you are looking for.

# PERJALANAN REVOLUSI INDUSTRI

## Pra Revolusi Industri ( < 1750 )

- Menggunakan tenaga hewan dan manusia
- Produksi secara manual

## Revolusi Industri 1.0 (1750 - 1850)

- Menggunakan tenaga uap dan listrik
- Produksi massal menggunakan mesin

Transformasi:

- Teknologi : produksi massal
- Sosial: pertumbuhan kota, dsb
- Ekonomi; distribusi kekayaan
- Budaya; keterampilan baru

## Revolusi Industri 2.0 (awal abad 20)

- Revolusi teknologi
- Penggunaan energi listrik
- Sistem ban berjalan dalam proses produksi

Teknologi baru (mobil, pesawat terbang, pesawat telepon, dll)

Manajemen yang efisien dan efektif

## Revolusi Industri 3.0 (akhir abad 20)

- Teknologi digital dan internet
- Komputer
- Robot
- Smartphone
- Software
- Sumber energi baru

Ruang dan waktu yang ada tidak lagi menjadi sebuah jarak

Bisnis menyesuaikan dan adaptasi

## Revolusi Industri 4.0 (Awal abad 2021)

- Software & internet
- Algoritma
- unsur kecepatan dan informasi.
- Berbagai teknologi yang tidak pernah terpikirkan, kini bermunculan.
- Ukuran perusahaan tidak menjadi jaminan, hanya kelincihan/kejelian yang dapat membuat perusahaan menjadi sukses..
- Contoh ; Go-jek, Grab, Airbnb, Uber, Ucademy,

# DISTRUCTIVE TECHNOLOGY

Sumber: World Economic Forum's Center for the Fourth Industrial Revolution

## Artificial Intelligence (AI) and Machine Learning:

- Mobil pintar, Gudang pintar, pakir pintar, mesin pintar merawat orang tua
- AI menjanjikan penyelesaian beberapa masalah yang dihadapi masyarakat.
- Tantangan AI : Gray dan Black Swan akan meletus, kehilangan pekerjaan, penggunaan data yang tidak etis dan melanggar moral

## The Internet of Things, Robotics, and Smart Cities:

- Perangkat yang terhubung satu dengan lainnya disebut Internet of Things (IoT), al:
- Teknologi bangunan pintar yang memantau dan mengelola penggunaan energi,
  - sistem mobil yang saling terhubung satu sama lain sehingga membantu mengantisipasi dan menghindari potensi tabrakan.
  - jaringan listrik, infrastruktur publik, kendaraan, rumah, dan tempat kerja dapat diakses dan dikendalikan dari jarak jauh

## Blockchain and Distributed Ledger Technology

- Desentralisasi dan penyimpan serta transfer informasi dengan aman.
- Powerfull dalam melacak transaksi. Mengurangi korupsi, meningkatkan kepercayaan, dan memberdayakan pengguna."
- Kemampuannya untuk mengurangi tingkat korupsi sangat disambut baik, namun harus diingat bahwa kadangkala manusia itu licik dan menggunakan kecerdikan untuk tindakan kriminal.

# DISTRUCTIVE TECHNOLOGY

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## Autonomous and Urban Mobility

- Autonomous vehicles (Mobil Otonom) memiliki potensi untuk meningkatkan keselamatan di jalan, mengurangi tingkat polusi, mengurangi kemacetan dan meningkatkan efisiensi lalu lintas.
- Perlu kolaborasi lintas industri, sektor, dan geografis untuk mengidentifikasi strategi terbaik dalam mempromosikan mobilitas otonom yang "aman, bersih, dan inklusif."

## Drones and Tomorrow's Airspace

- Pesawat tanpa awak, atau drone,
- Manfaat teknologi ini, seperti pengiriman paket, pengobatan jarak jauh, dan pemotretan kawasan tertentu.
  - Namun perlu diatur misalnya tentang, pengoperasian drone untuk daerah tertentu, kebijakan pengambilan data melalui drone, menata ulang sertifikasi pesawat, dan protokol pengiriman barang-barang medis.

## Precision Medicine

- Membuat diagnosis dan pengobatan penyakit pasien tertentu.
- Meningkatkan hasil pengobatan dan berpotensi menurunkan biaya.
- Efektivitas; berbagi data dan infrastruktur terkait.
- Mengintegrasikan pendekatan pengobatan presisi ke dalam praktek klinik.
- Perlu diatur pendekatan regulasi, penetapan harga dan penggantian biaya (refund) untuk diagnosa dan pengobatan.

# DISTRUCTIVE TECHNOLOGY

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## Digital Trade

Amazon (America), Alibaba (China), Rakuten (Jepang),

- E-commerce global sekarang menghasilkan teriliunan dolar setiap tahun dan terus berkembang secara eksponensial.
- Kebijakan perdagangan yang memberdayakan perdagangan digital lintas negara perlu digalakan.
- Isu sensitif: antara lain penghindaran pajak, perburuhan/kerja (HAM), dan menggerus usaha pusat perbelanjaan.

## Fourth Industrial Revolution for the Earth

Revolusi Industri Keempat untuk Bumi:

- Tantangan yang dihadapi lingkungan global seperti perubahan iklim, hilangnya keanekaragaman hayati, dan masalah kesehatan membutuhkan solusi yang tepat.
- Perlu dibangun dan diuji rerangka tata Kelola sehingga manfaat teknologi bagi lingkungan dan masyarakat dapat diwujudkan.
- Perlu dipahami dampak teknologi terhadap lingkungan di samping memitigasi kerusakan lingkungan.



# ALIGNING 10 BUSINESS FACTORS WITH GREEN SWAN CHARACTERISTICS

1

## **PURPOSE**

To support the Green Swan agenda, it must embrace and promote the necessary systemic changes

2

## **BUSINESS MODELS**

Must be designed to create value in ways that do not generate negative social and environmental problems for others. Must be designed with an eye toward the full impact spectrum and their potential for exponential scaling and replication.

3

## **PROFITABILITY**

A business's calculations of profitability must take into account the full range of negative (and positive) externalities and impacts created in the process.

4

## **GROWTH**

Green Swan growth is now urgently needed and will be for generations to come.

5

## **VALUE**

Green Swan value may be hard to calculate, but becomes more likely where societies and their economies embrace a vision of, and targets for, positive transformation.

6

## **IMPACT**

Getting better at measuring and valuing the negative impacts created by the businesses, markets, and economies. But we still struggle to master the task of predicting and valuing the positive impacts associated with Green Swan trajectories.

## ALIGNING 10 BUSINESS FACTORS WITH GREEN SWAN CHARACTERISTICS (2)

7

### LIABILITY

Fossil fuel companies for example, are under increasing legal pressure because of the costs of climate change. There will also be liability claims as Green Swan trajectories elbow aside incumbent industries, going both ways.

8

### MATERIALITY

Green Swan materiality assessments must take into account any opportunities for exponential upsides.

9

### GOVERNANCE

To expose the leadership teams to emerging and potentially exponential opportunities through participation in courses offered by the university or the learning journeys offered by the likes of Leaders' Quest.

10

### ASSETS

Will strand unsustainable assets, but they will also "float," or refloat, other types of assets, affording them radically new valuations. Such considerations are now surfacing in boardrooms and top team sessions in both the private and public sectors.

# EXPONENTIAL SUSTAINABILITY

What would the TBL look like in a future with increasingly Green Swan characteristics?

- Each dimension would be fully integrated
- Toward the regeneration of our economies, societies, and biosphere?
- A profound paradigm shift is now underway, toward a global mindset based on one-planet thinking.
- Its impacts will become increasingly evident in the 2020s and 2030s.
- Through this coming decade, our environmental, economic, social, human, and, above all, environmental challenges will be greater than at any time in recorded history.

## EXPONENTIAL MIGRATIONS



- .. if any city is a model for where Black Swan trajectories could take us, perhaps it is Jakarta, Indonesia's rapidly sinking capital.
- In a double whammy, Jakarta is pumping so much water from underground that, combined with rising sea levels, perhaps as much as 95% of its area could be underwater by 2050.
- The response? Indonesia has announced plans to move its capital to a new site in Borneo.



**TERIMAKASIH**