Journey into the future

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altran

Ages
Begin with the end in mind
Welcome to 2118
MUST do´s

Travelling the ages

Patterns shaping the future

Technologies and behaviours have shaped different common known ”ages”. Imagining future ages – what will they bring? Can we see a pattern? Who can see a pattern?

- Age of Manufacturing 1900 - 1960
- Age of Distribution 1960 - 1990
- Age of Information 1990 - 2010
- Age of the Customer 2010 –
    - Leading to journey to customer obsession, from experience to insights using todays enabling technologies

- What ages will come?
- How many ages will the next hundred years hold?

Alice laughed. “There’s no use trying,” she said: “one *can’t* believe **impossible** things.”

“I daresay you haven’t had much **practice**,” said the Queen. “When I was your age, I always did it for half-an-hour a day.

Why, sometimes I’ve believed as many as six impossible things before breakfast.”.

Lewis Carroll, Alice in wonderland, 1865

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Playing ”what if”

What if we had

- All available resources
- All available knowledge
- All available time

But lack the imagination to envision different futures?

What if we were true pioneers?

- Do we create an impossible VISION
- Do we take RISK
- Do we BELIEVE it can be done
- Do we create COLLABORATIONS
- Do we EXECUTE

Do we train ourselves in imagining?
Do we ever dream the impossible?
How do we treat people with ”crazy ideas”?

What if impossible is ”just a phase”

Bridges and megastructures built out of materials lighter than air.

Cloud connected cybernetic implants allow brain enhancements.

Small robots and systems that will be able to pest control any continent.

Faster than light communications

Flying around the world on solar energy

Organs for human transplant are being 3d-printed.

Nano robots that will act inside the body fighting diseases.

Flying cars

Talking to animals.

Example

Finding the cure for cancer

Cure for cancer worth $50 trillion

University of Chicago Press Journals, 2006-04-26

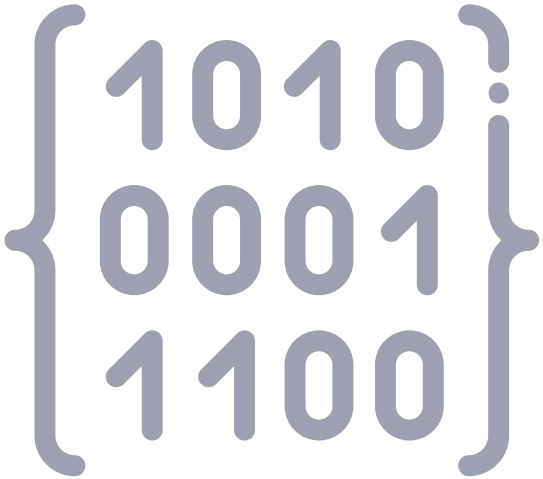
Big data

A human genome ~ 1.5 GB data

Humans on earth = 6,000,000,000

Humanity genome

- 9 000 000 000 GB
- Or 9 000 000 TB (Google held 1100 TB in 2013)
- Or 9 exabyte



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Storage costs

Antal	Benämning	Artikelnr.	Tillv. art. nr.	I lager	à pris	Radtotal
1	HP CARE PACK HW SUPPORT 4H 24/7 3YR - MSA2000...	5010521508	UV394E		25 999,00 kr	25 999,00 kr
12	 HP HD 450GB 2.5" 6G 10K SAS	5010485442	581284-B21		3 599,00 kr	43 188,00 kr
1	 HP P2000 G3 MSA FC DUAL CNTRL LFF ARRAY Lägg till allriskförsäkring (4 249 kr/st) Mer info	5010656555	AP845B		70 499,00 kr	70 499,00 kr

Totalt: 140,000 per 5 TB

Disks, cabinet & servrers

- 9,000,000/5 = 1,800,000 st storage modules
- 1,800,000 * 140,000 SEK = 252 bn SEK
- 900,000 servers * 50,000 SEK = 50 bn SEK

- Tutti: 300 bn SEK, **exkl VAT!**

Cabins

- 6 servers per cabin-> 450,000 cabins

APC NETSHELTER SX RACK 750X1200 42U

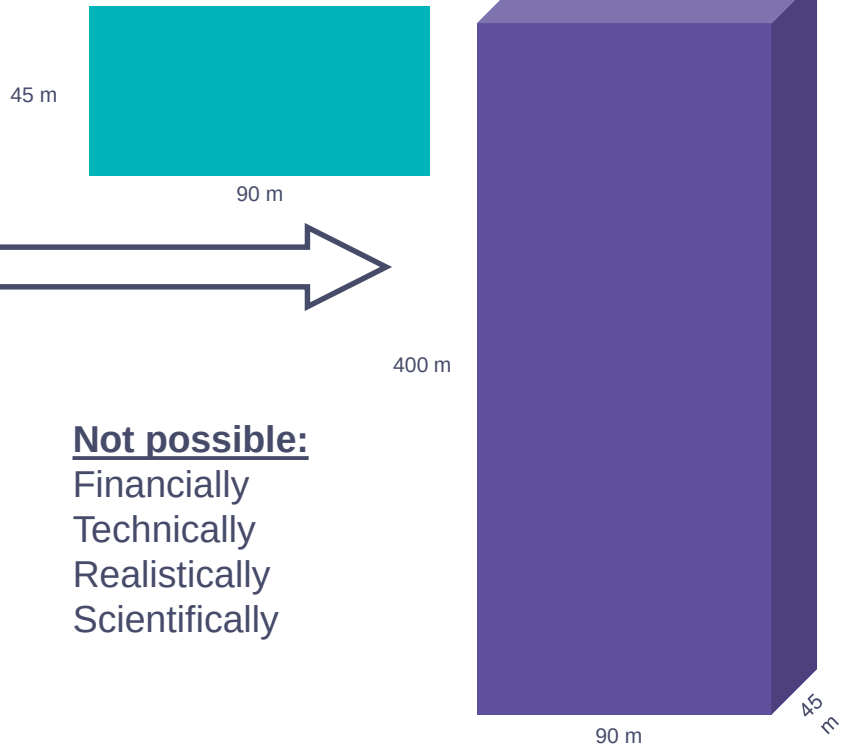
75 x 199,1 x 120 cm

Physical storage location

Football pitch: 45 m* 90 m

Length: 90/1,2 = 75
Width: 45/0,75 = 60 skåp
Per floor= 75*60 = 4,500 skåp
#Floors= 450,000/4,500 = 100

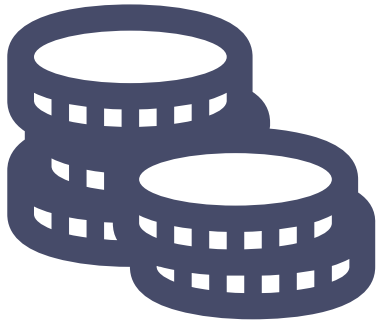
Height = 100 * 4 = 400 meter…



Not possible:
Financially
Technically
Realistically
Scientifically

So, what is the current cost today?

1981	a hard drive of 5MB	$3,500 = $700.000	per GB
1989	a hard drive of 40MB	$1,199 = $36,000	per GB
2000	a hard drive of 10,1GB	$175 = $19,70	per GB
2009	a hard drive of 1TB	$75 = $0,07	per GB



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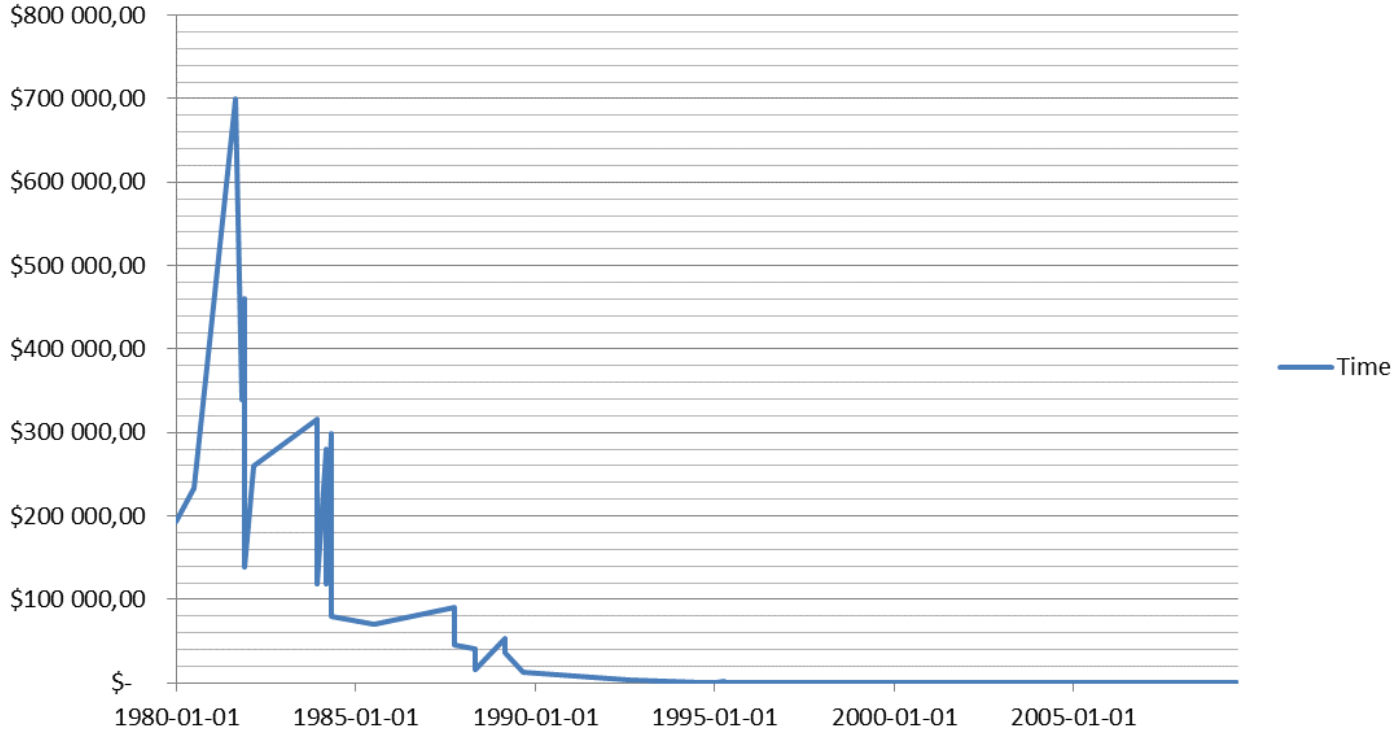
So, what is the current cost today?



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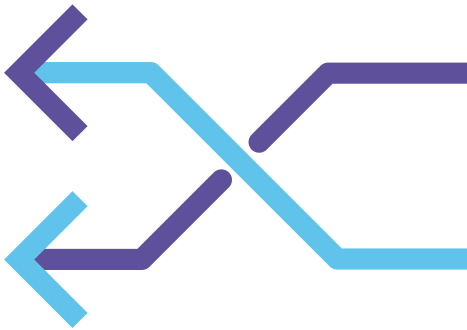
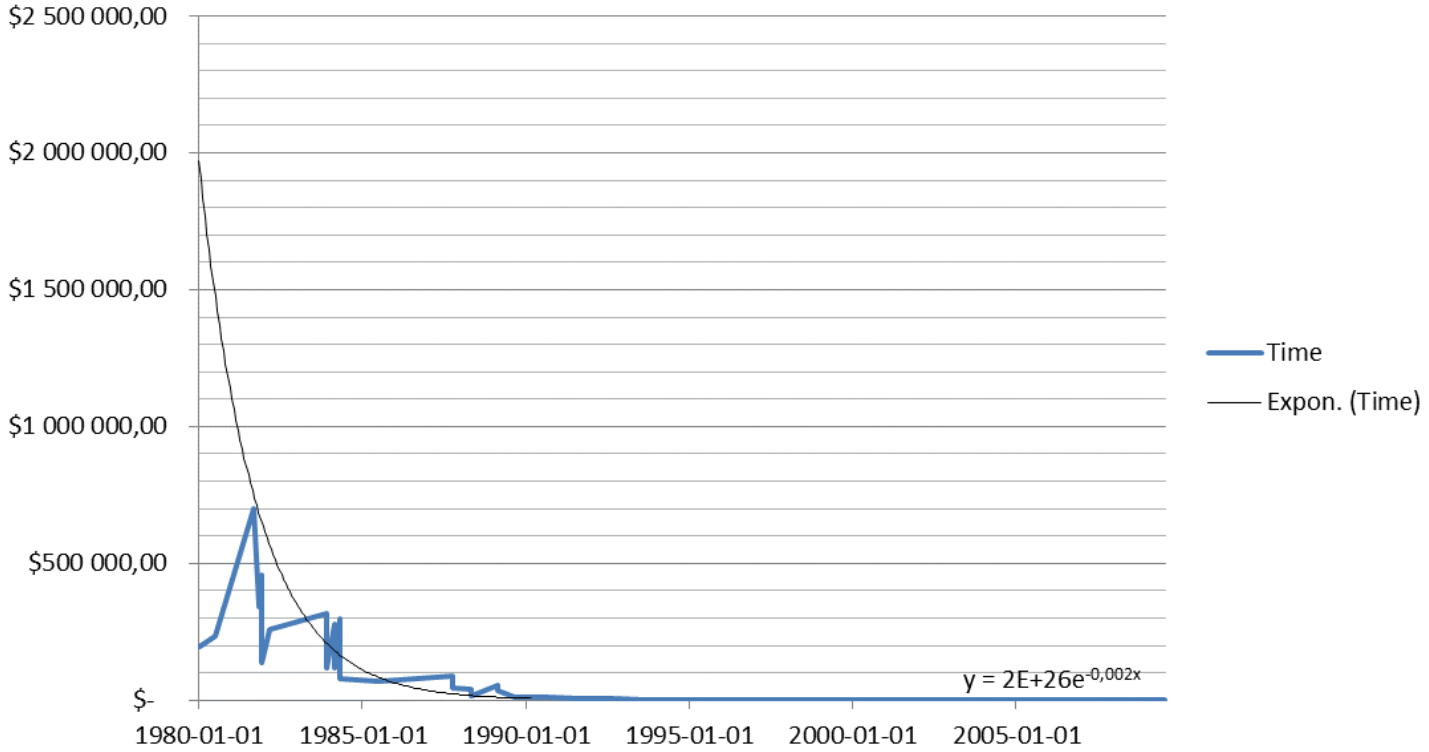
Where are we 2045?



$2e26^{-0,002*x} \rightarrow 2e26^{-0,002*2045}$

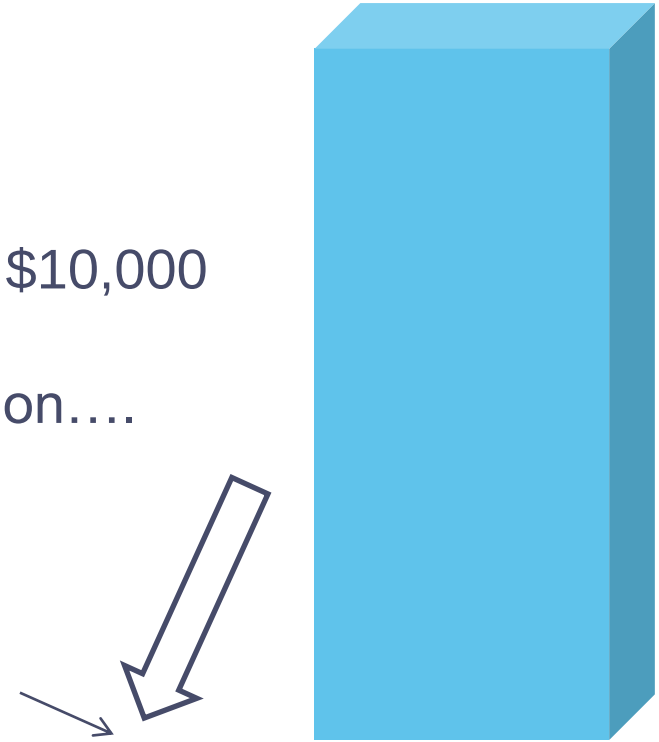
= $0,000001 per GB


$2 500 000,00
$2 000 000,00
$1 500 000,00
$1 000 000,00
$500 000,00
$-
1980-01-01
1985-01-01
1990-01-01
1995-01-01
2000-01-01
2005-01-01
y = 2E+26e-0,002x
Time
Expon. (Time)

State in 2045

1GB storage = $0,000001
1TB storage = $0,001
Humanity genome storage = $10,000

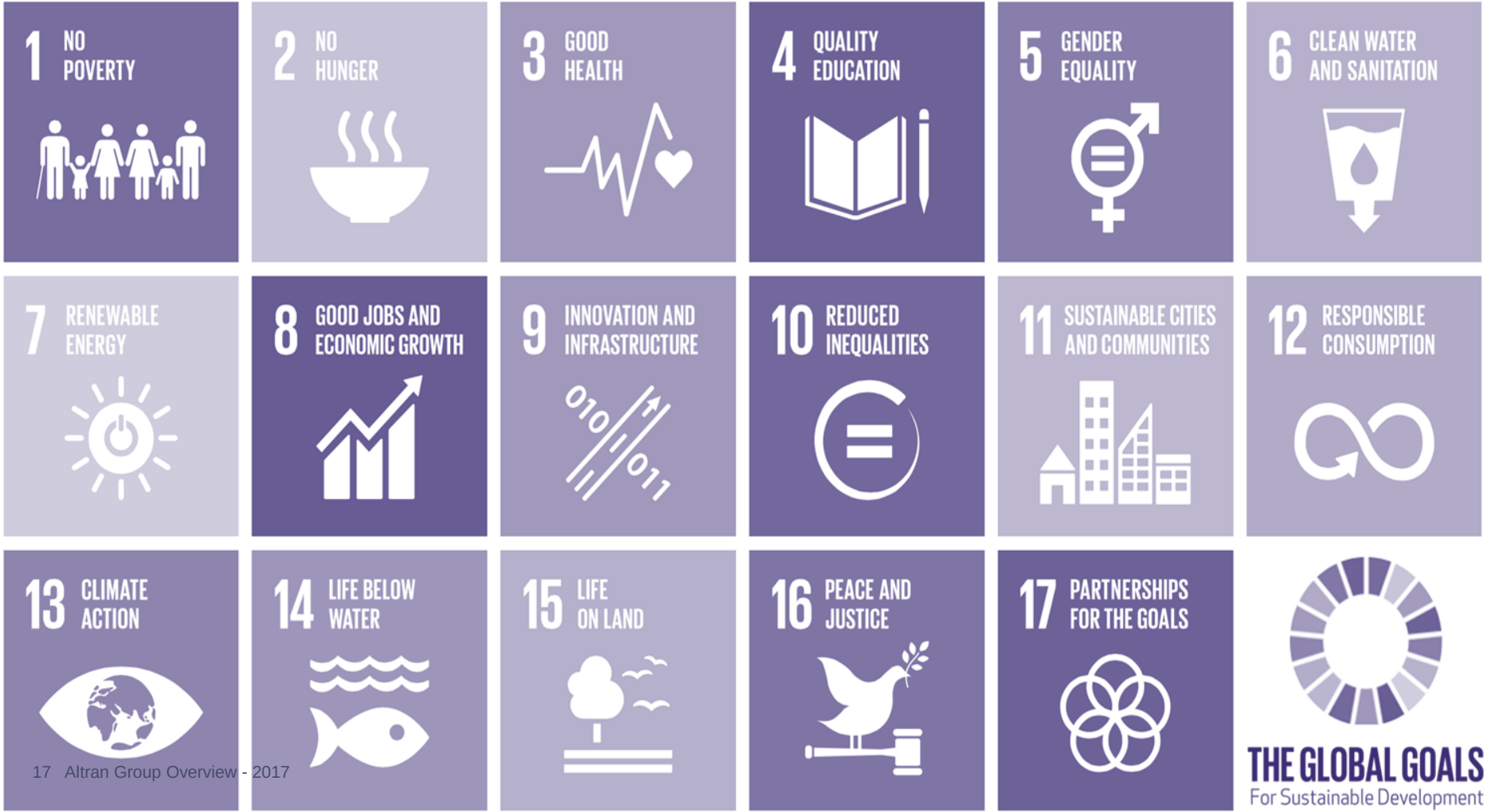
Size = High-end gaming station….



Much possible
Financially
Technically
Realistically

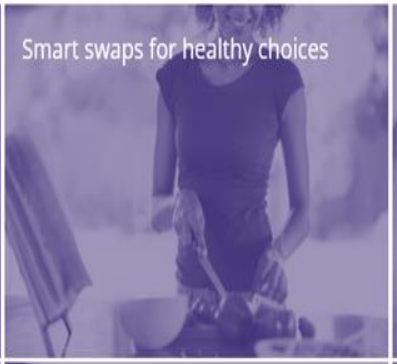
Unknown
Scientifically

Conclusion:
Focus on what will be your future differentiator


1 NO POVERTY
2 NO HUNGER
3 GOOD HEALTH
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 RENEWABLE ENERGY
8 GOOD JOBS AND ECONOMIC GROWTH
9 INNOVATION AND INFRASTRUCTURE
010 011
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE AND JUSTICE
17 PARTNERSHIPS FOR THE GOALS
THE GLOBAL GOALS
For Sustainable Development


Data keeps the city on track


New weapons in the war on cancer


Smart swaps for healthy choices


We sense your pain

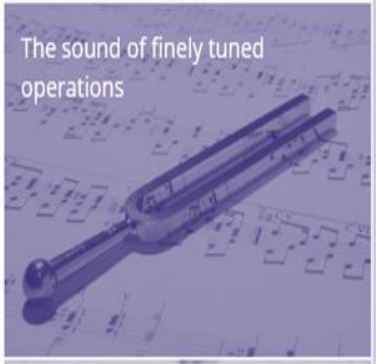

Painting with numbers


Smarter analytics = better services


Rise to the energy challenge


Planning the future with confidence


Getting it right every time


The sound of finely tuned operations


We don't waste water


Your health in safe hands

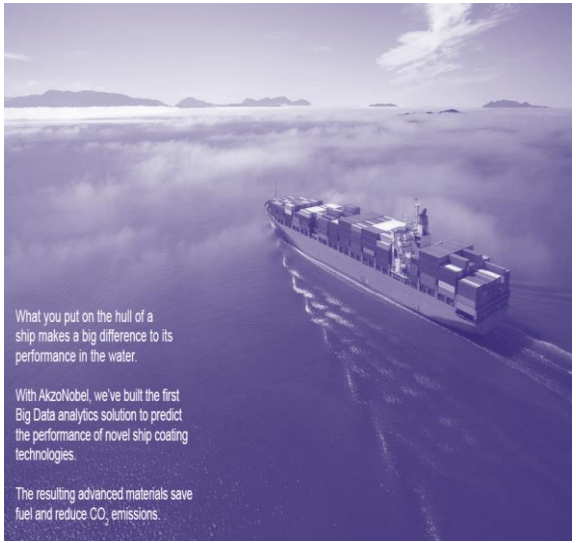

We understand the importance of being first

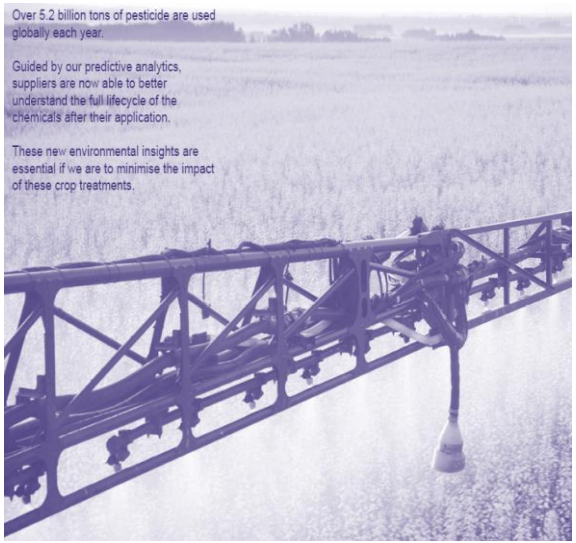

We love a green and pleasant land


Predicting global health risks

Improving the future?

Examples on applying enabling technologies





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Thinking in chain of events

Welcome to Year 2118

Flying cars deployed before air is regulated

Chaos as regulators can´t agree on what to regulate.

Ingested reality – impossible to tell from real world

Virtual and augmented reality moves inside the brain.

IKEA analytics prevents pandemic breakout

Who knows the most about us humans in mid-century.

Oldest human reaches 200 years

Body or mind, or both?

Mars strikes back

End of life as we know it

2018 2030 2040 2050 2060 2070 2080 2090 2100 2118

Humans given AI bot as companion at birth

A lifelong partner meeting your needs, training and personal development. Teaching cmpassion biggest success.

Products used less than 75% of their lifecycle are banned

Products impacting sustainability in draining resources or polluting are not used unless maximizing the use of it.

Antigravity disrupts space industry

First suggested by Arthur C. Clarke, traveling outside earth gravity now requires zero fuel, making it possible to colonize an earth orbiting ring.

Particle transportation makes global circular economy possible

Any one trades products for credits and ”ports them”.. Everything is for sale all the time.

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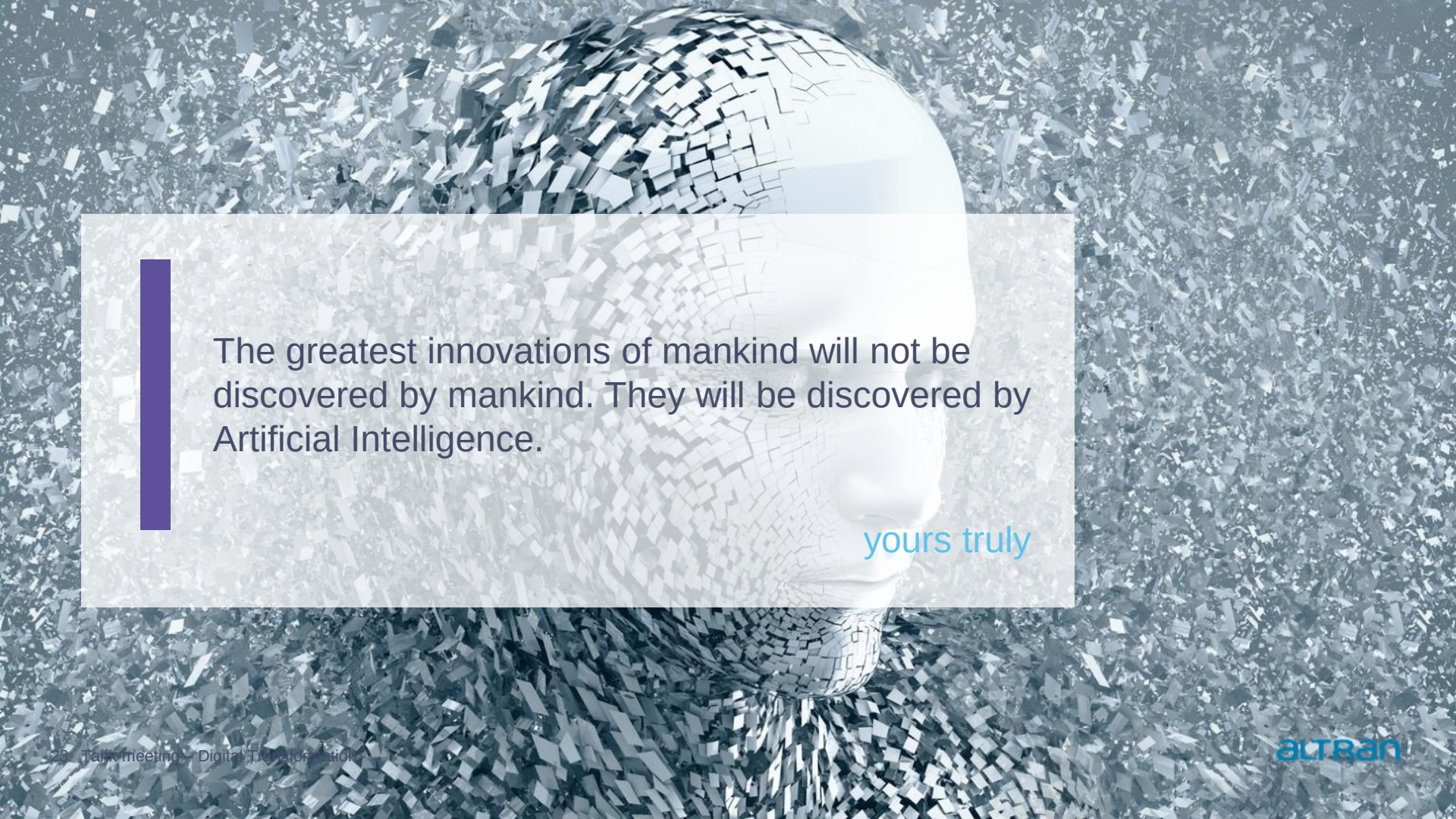
What started these inventions?

- Begin with the end in mind – applying enabling technologies
- A network of many partnerships?
- Behaviours and patterns?
- An ongoing quest to find value imagining different futures?


The greatest innovations of mankind will not be discovered by mankind. They will be discovered by Artificial Intelligence.
yours truly

Must do´s

Create a learning organization at all costs!

Experiment. Fail and learn. Facilitate ideation and training programs. Do design sprints. Make innovation part of your marketing att talent management programs.

Be open and attract partner networks!

Become the ecosystem if possible, or attract partners and suppliers that add their networks to your organization. Sharing the right information is key.

Challenge and re-assess strategies!

Stretch your visions, shorten your strategy documents. Re-evaluate and be open to critically re-assess your decisions. When the market change or disappear, be ready to adopt.

Thank you

Questions?

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