

Lucy Engel





Lucian Engelen

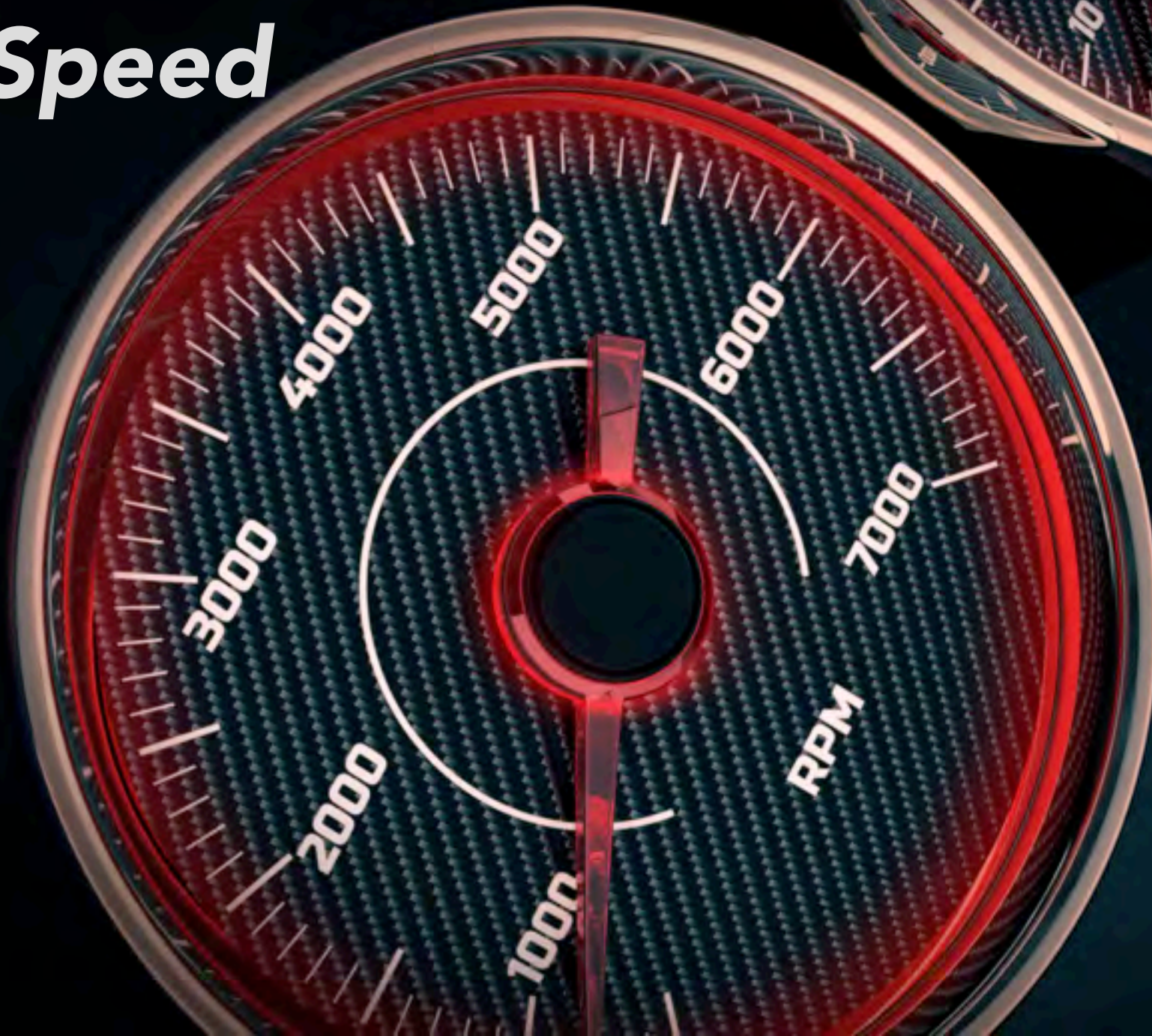
Challenges



Lucian Engelen
President & CEO

Speed

Lucien Epstein



Choice



Lucian English



Lucian Engler

B

C

D

**ON
DEMAND**

SETTINGS

GUIDE

MENU

**WE ARE
EQUAL**

Lucian Engelen



Lucia Engler



With doubling healthcare demand, shortage of skilled personnel, increasing burn-out rates, decreasing budgets and patients becoming empowered, there is **no way** this is sustainable.

Healthcare will implode!

Lucia Engle



Lucia Engler
Executive Coach

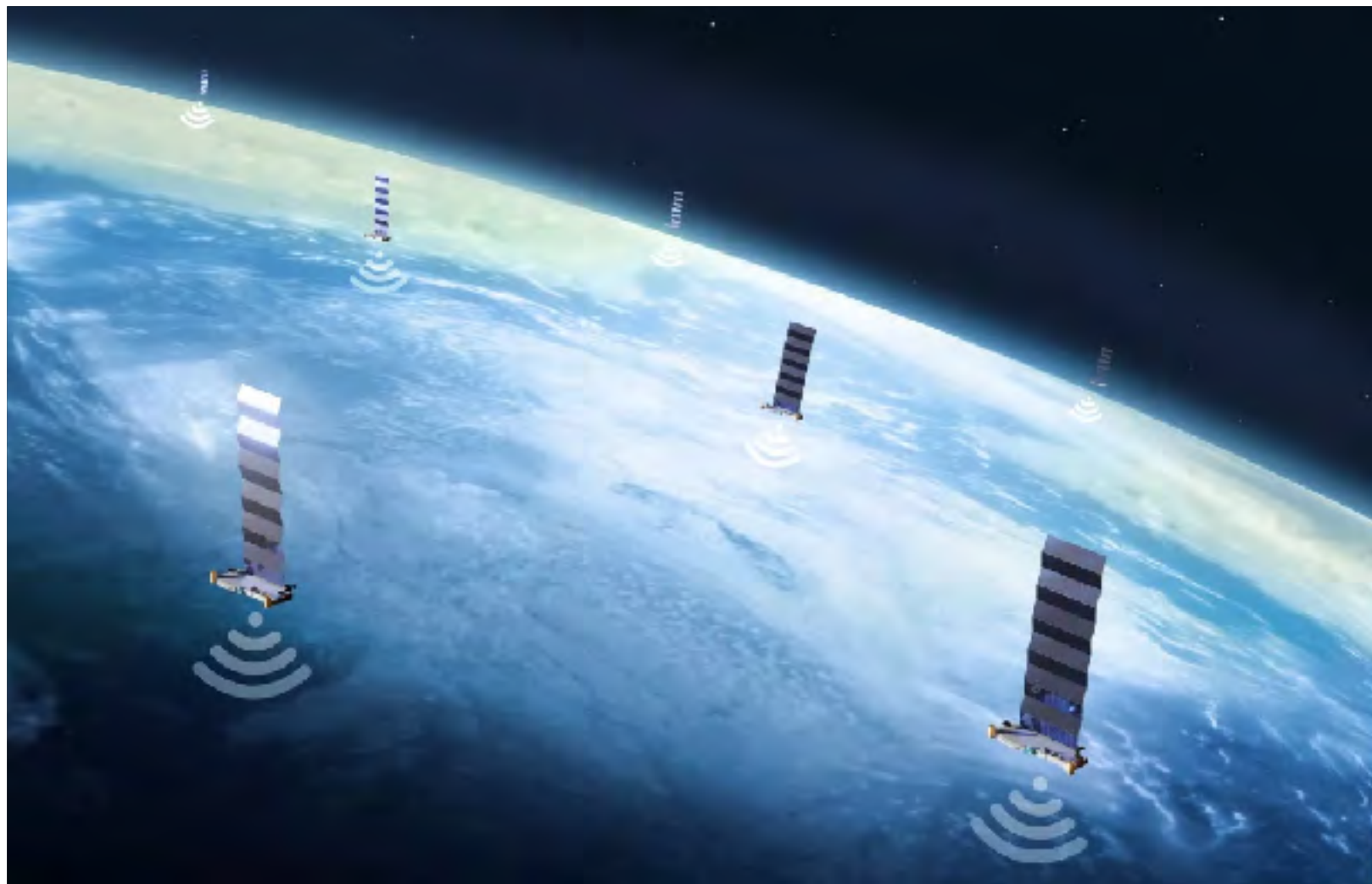


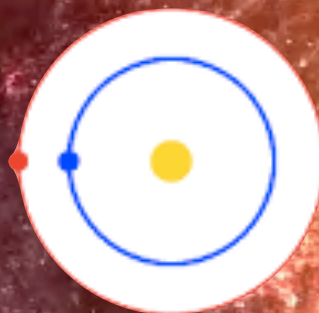
Mykhailo Fedorov
@FedorovMykhailo

Starlink — here. Thanks, @elonmusk

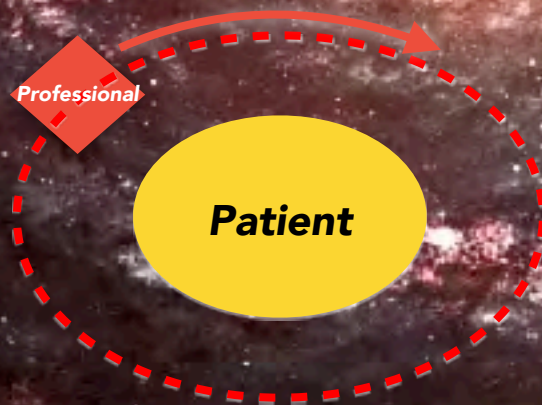
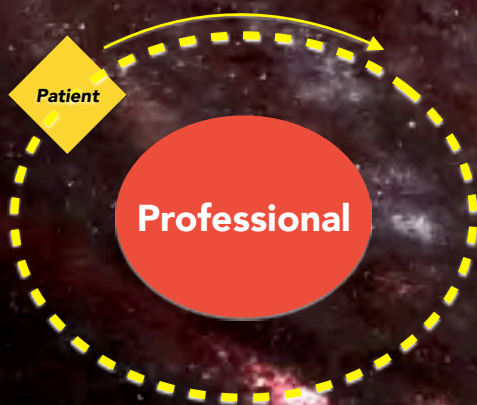


12:13 PM · Feb 26, 2022 · Twitter for iPhone



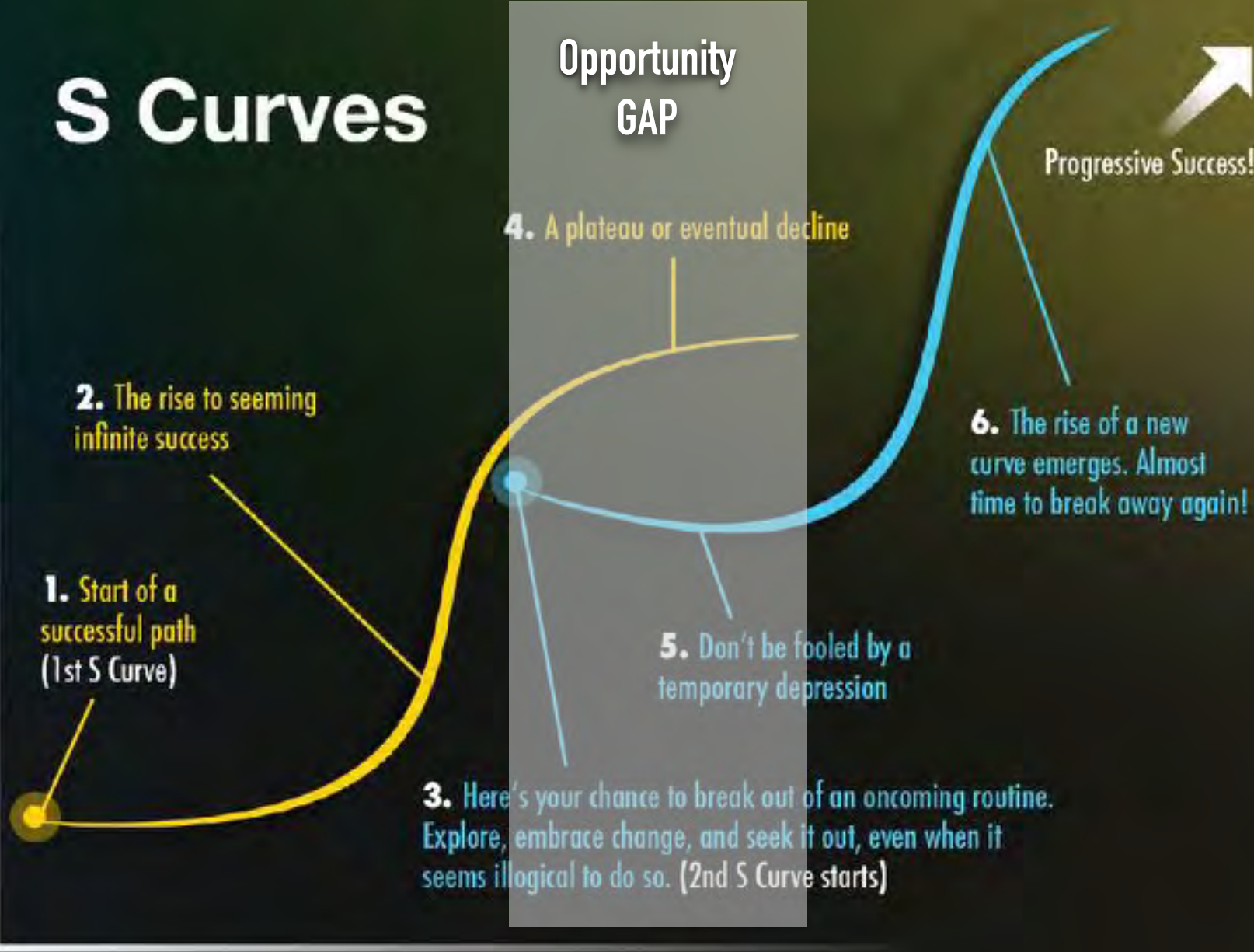


Health(care)'s Copernican moment



S Curves

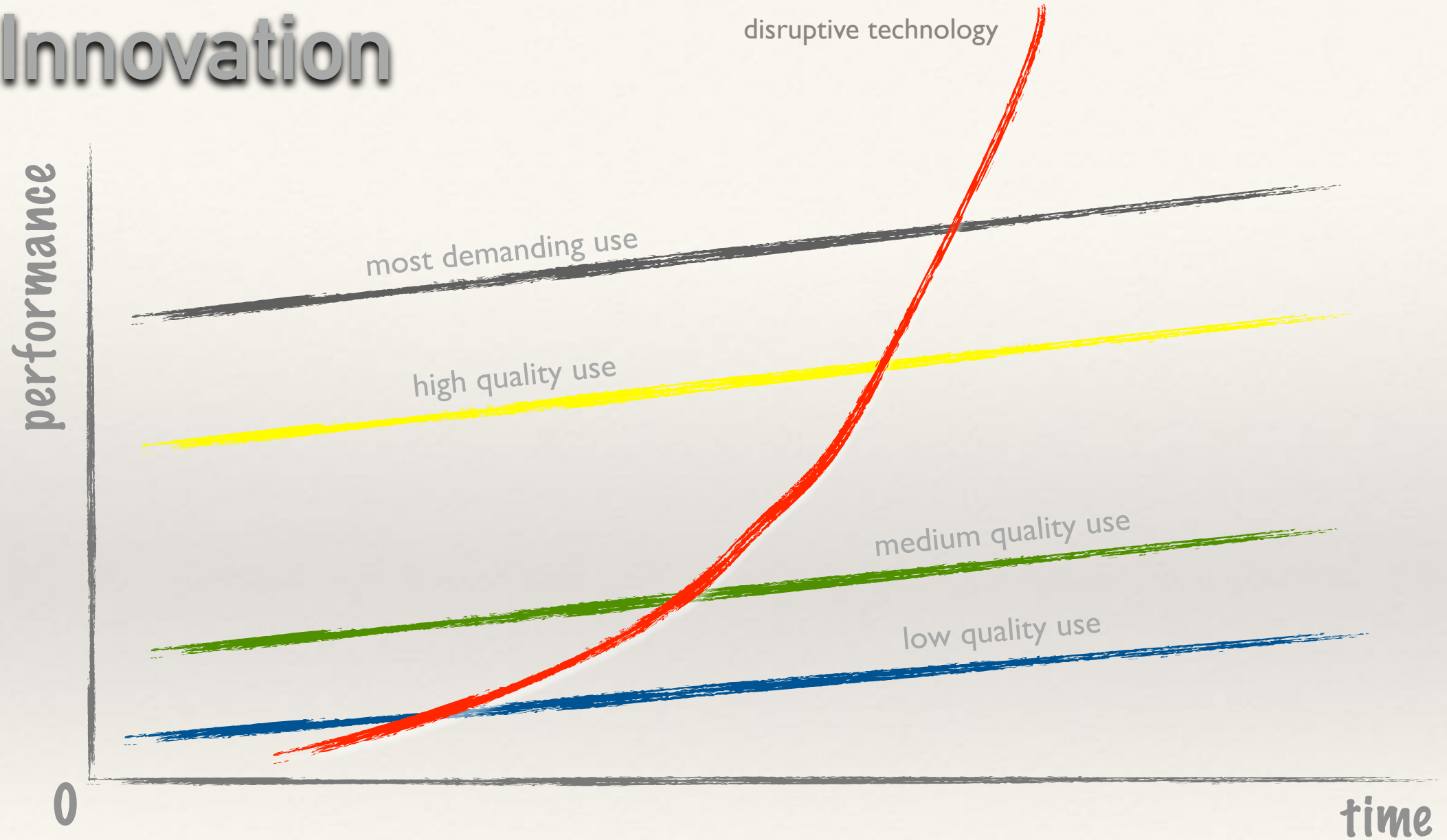
Progress



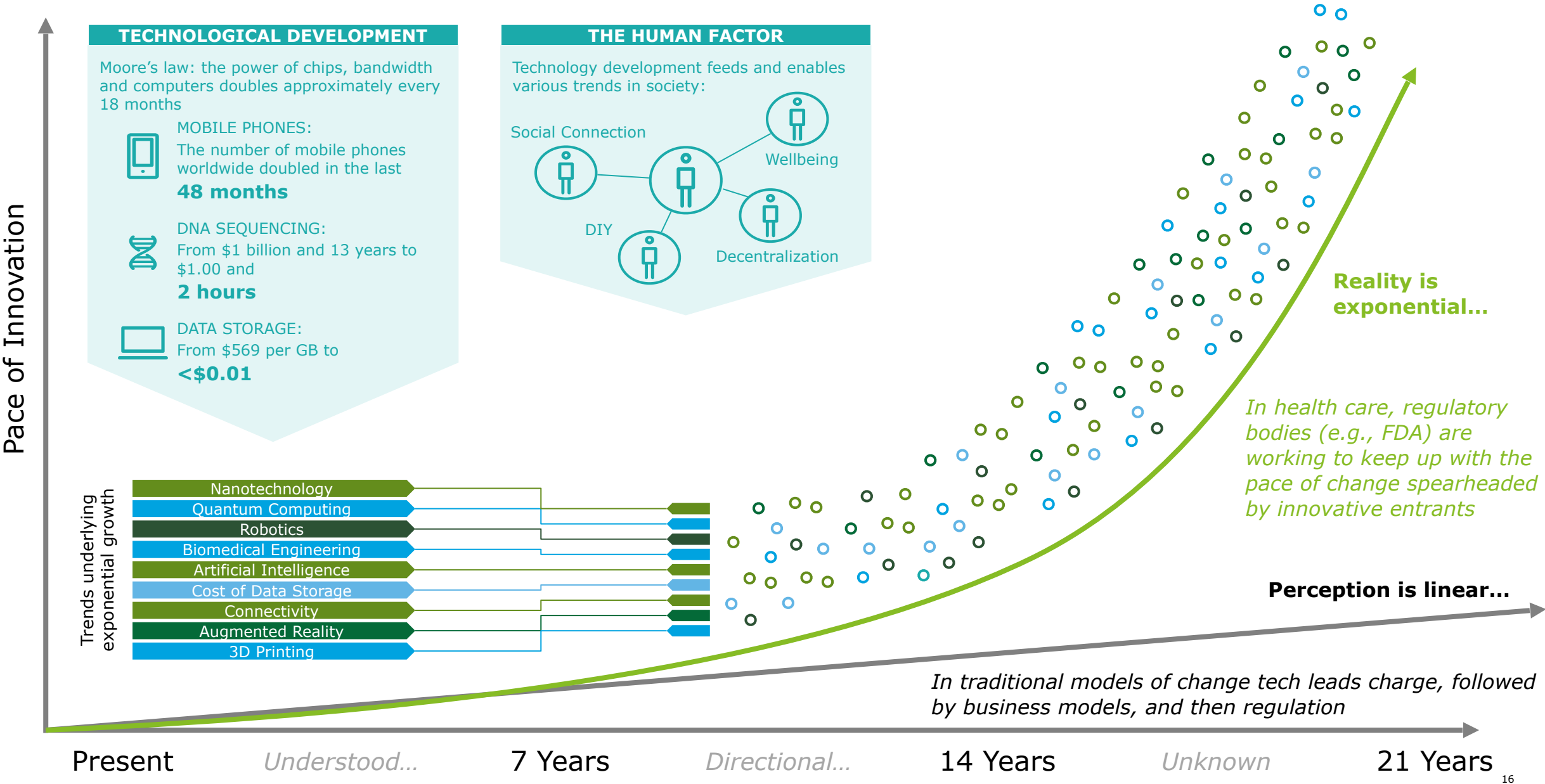
Time

Lucian Engle

Innovation

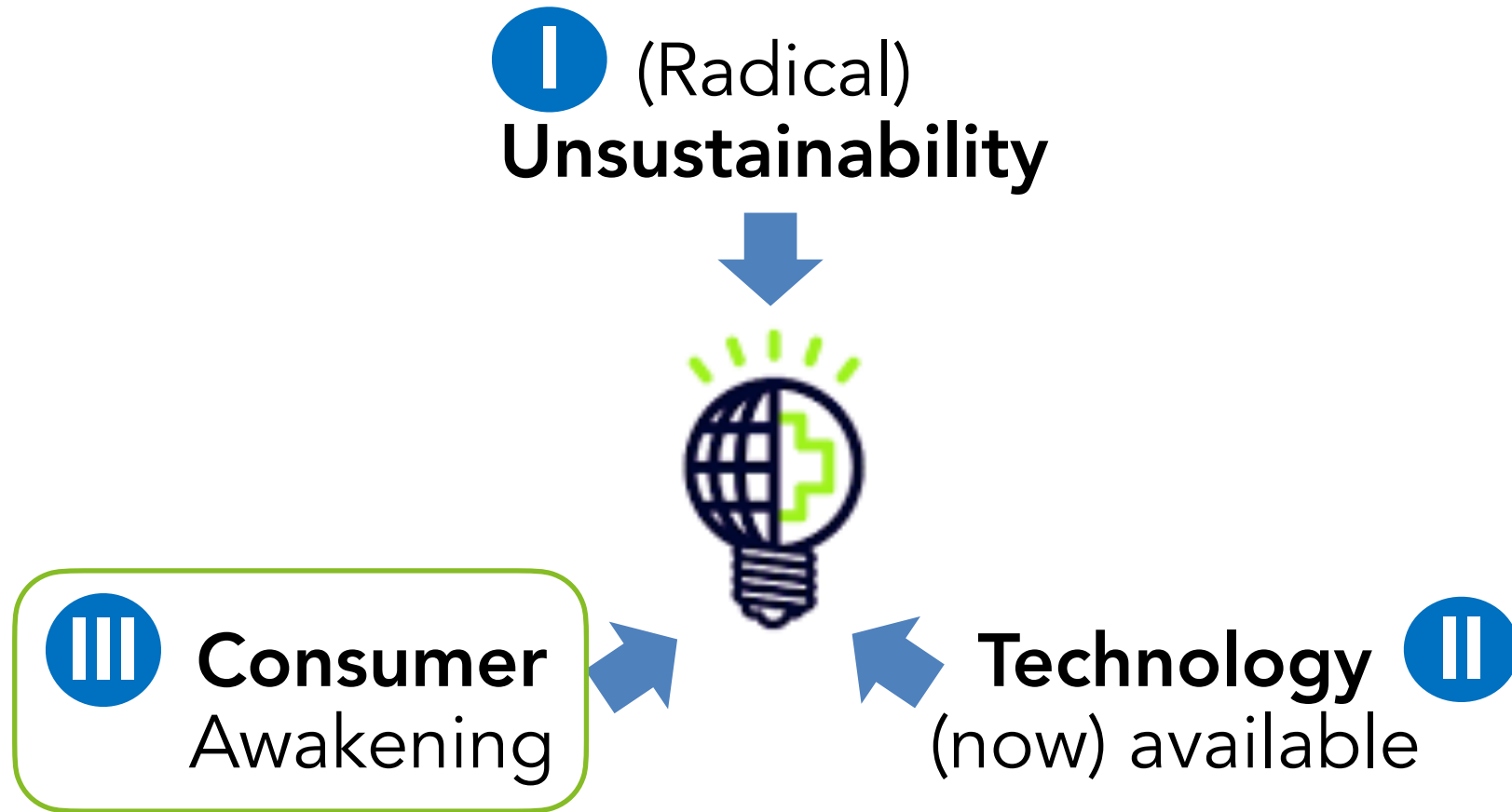


Exponential change will accelerate the pace of disruption



Lucian Engler





The Innovation Imperative: 3 Forces

RESTAURANT MENU

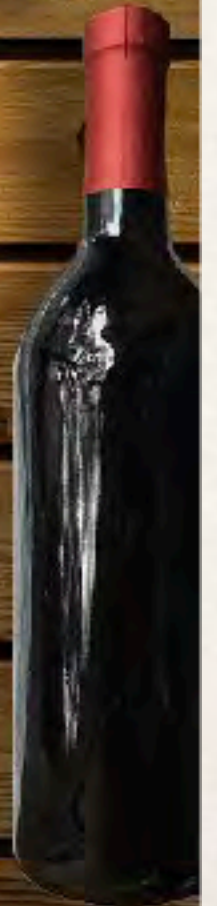


APPETIZERS

When people talk
about us when
we're not at the table :
we are on the menu

Health(care)

Lucien Engelen

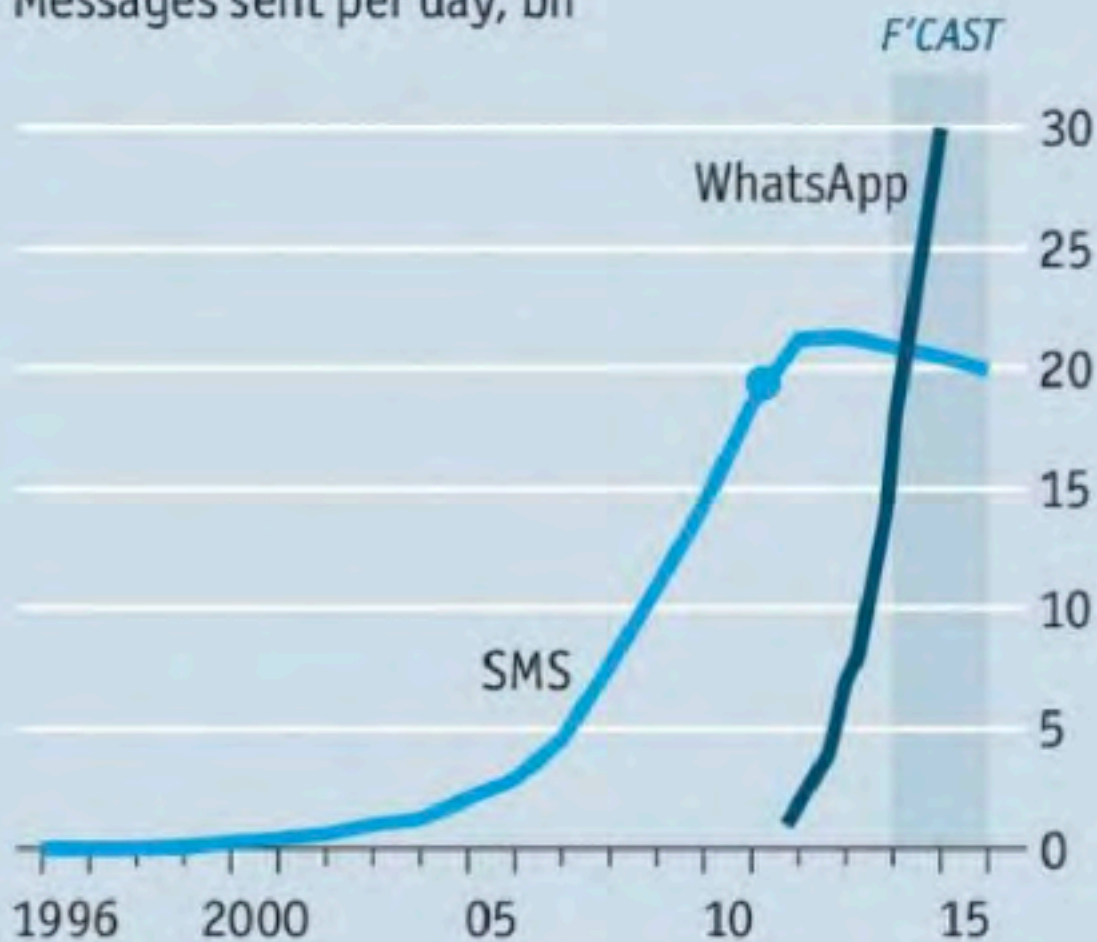






OMG, RIP txt

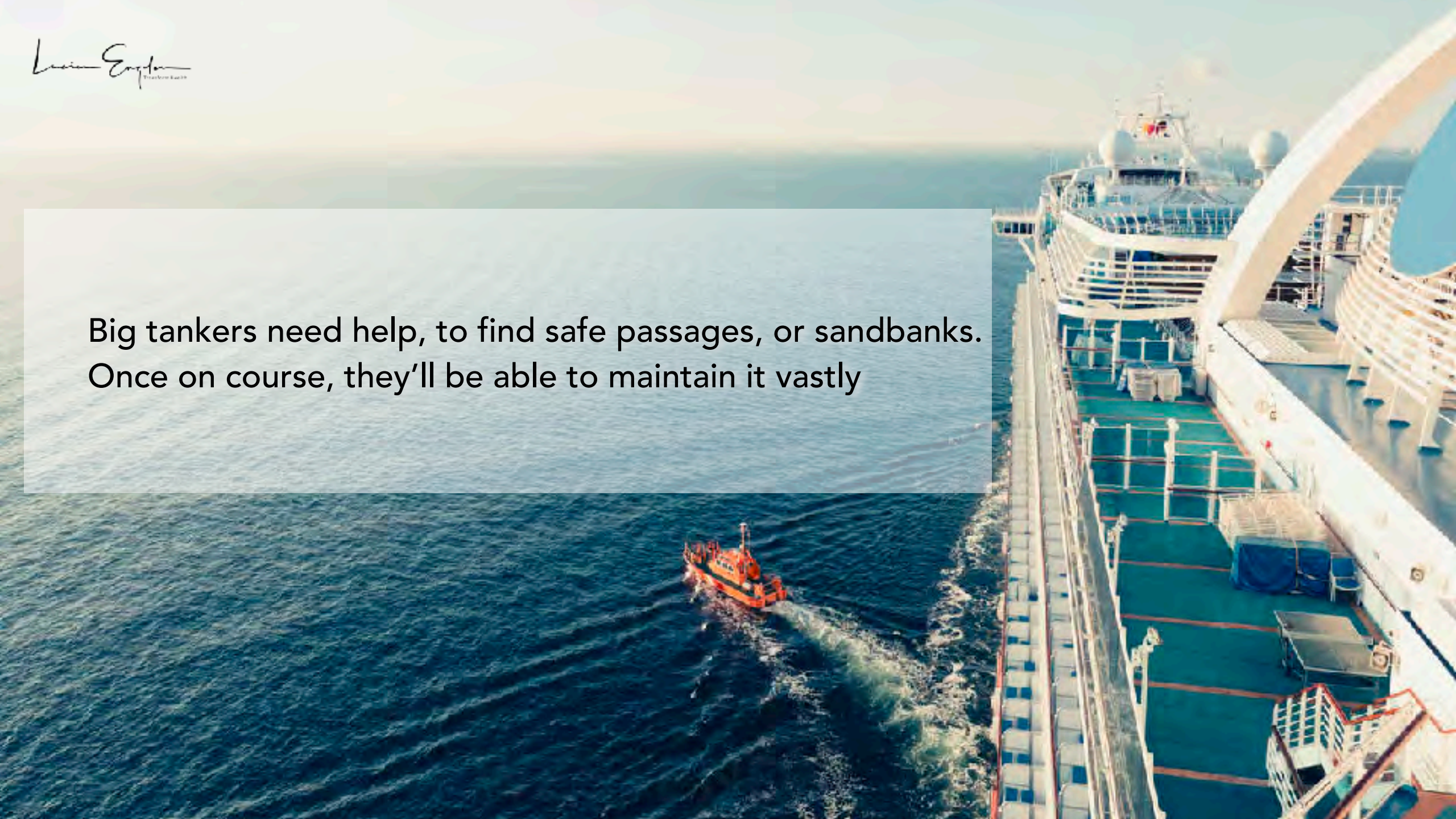
Messages sent per day, bn



Sources: Portio Research; a16z

The
Future
will fool
history

Big tankers need help, to find safe passages, or sandbanks.
Once on course, they'll be able to maintain it vastly





Lucien Engelen
Transform Health

CEO Transform.Health

Strategist Health(care) Innovation for :

- Deloitte Center for the Edge (Global / not employed, non-commercial)
- Vodafone Ambassador Centers for Health (Global)
- Laurentius Medical Center (Roermond, NL)
- HIMSS (Chicago, USA / moderator / consulting)
- Speaker (Global)

Faculty Singularity University Exponential Medicine (Silicon Valley USA)

Part of initial group Global LinkedIn Influencers (Global)

Part of inaugural group The Washington Post brandstudio (NYC, USA)



Deloitte.





Digital transformation is making the world a lot smaller

Health(care) has become a software business...

Health is becoming a software business...

Interface

/ˈin-tər-ˌfās/
noun

Lucian English

Proximity

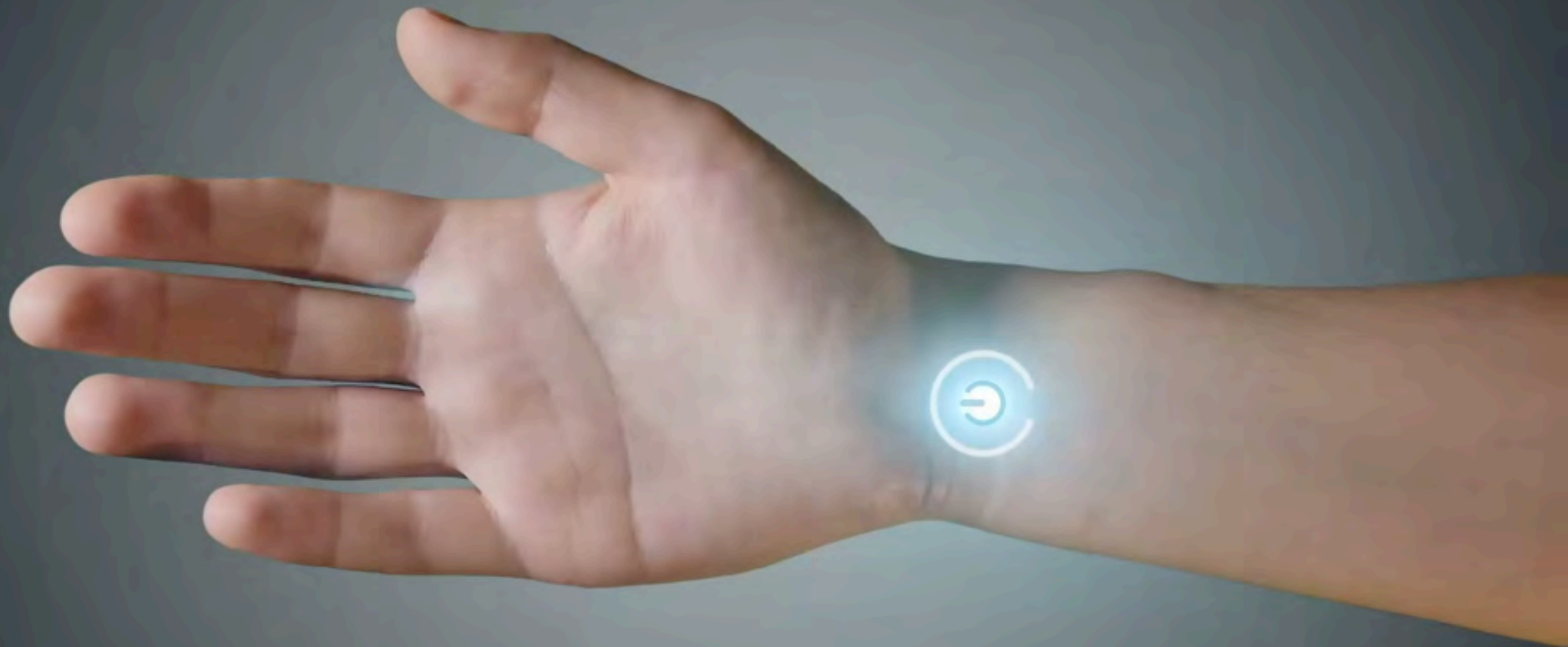
/prɒk'sɪmɪti/
noun

Lucian English



Crossroads

Lucian Engelen



Digitisation




User-interface



User-experience

Lucia Engelen
Transformation

A close-up photograph showing a person's hand inserting a white debit card into a black payment terminal. The card has a gold chip and the word "debit" is visible. The terminal has a keypad with colored buttons (red, yellow, green) and a small display screen. The entire scene is set on a light-colored wooden surface. The text "Digital payments" is overlaid in a large, bold, grey font across the middle of the image.

Digital payments

Digital Shopping



Lucia Engle

A person in a dark suit and light shirt is holding a black smartphone in their right hand. The phone screen shows a digital boarding pass with the flight number 'EZY 5378', origin 'LHR', and destination 'JFK'. It also displays a QR code and a blue airplane icon. In their left hand, they are holding a red passport. The background is blurred, showing what appears to be an airport or travel agency setting.

Digital Traveling

Lucian Engelen



We have become a
DIGITAL

Let's not become the
DIGITAL

O₁ U₁ T₁ S₁ I₁ D₂ E₁ R₁

Island-thinking

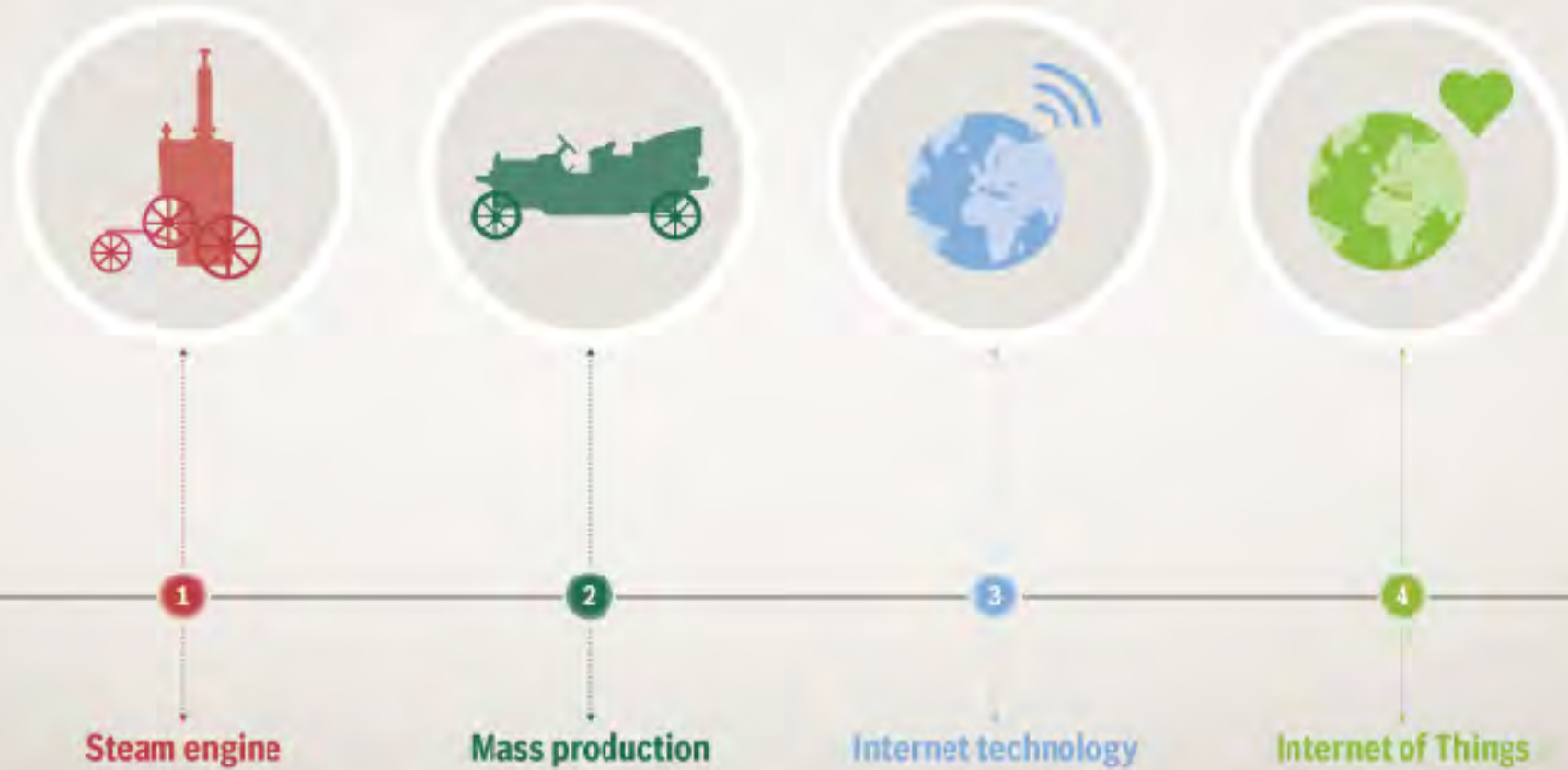
Lucian Engelen
The Art of Thinking

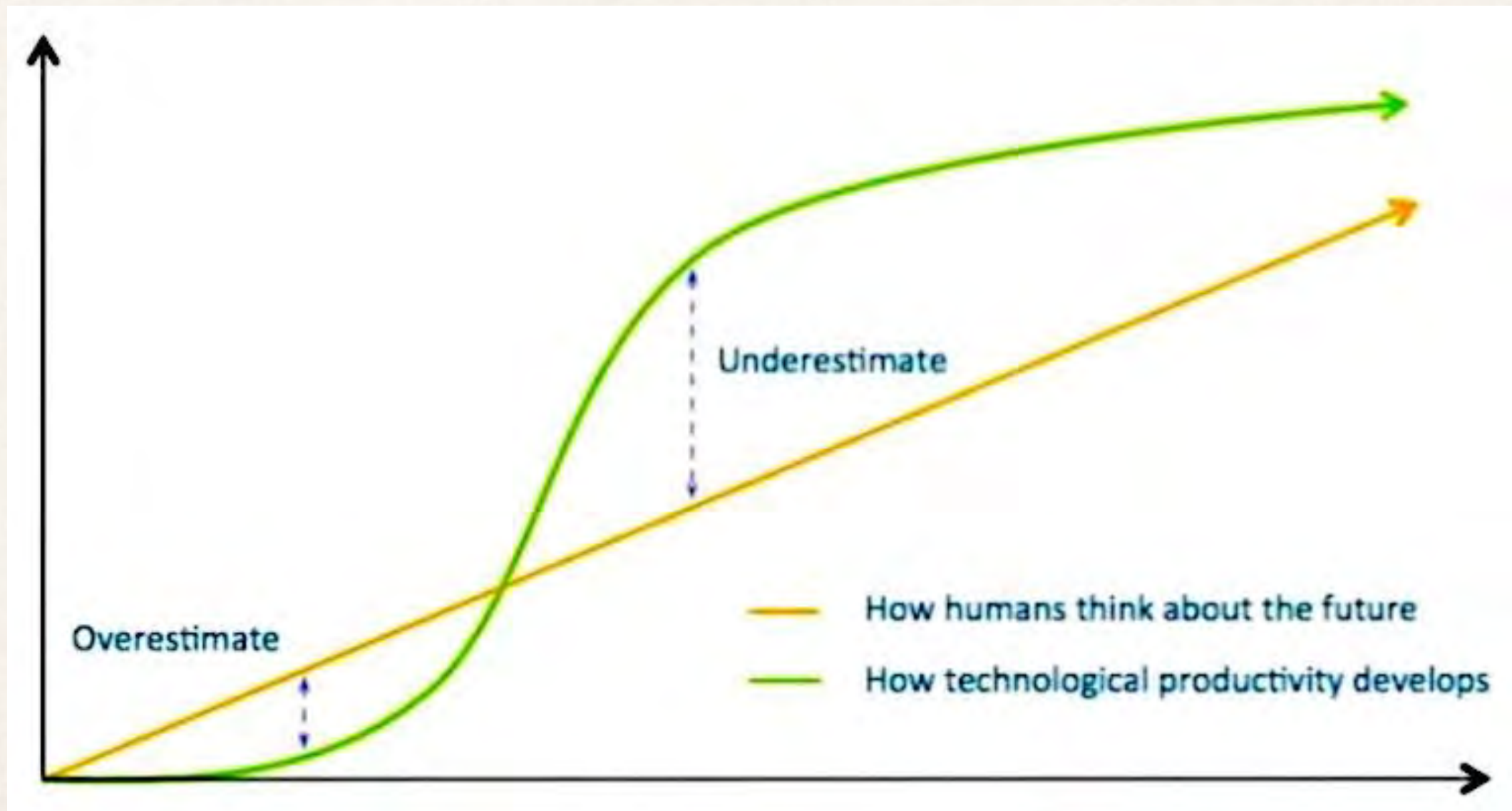


Digital Only.

FOURTH INDUSTRIAL REVOLUTION

Lucien Engelen
Teacher





From patients' perspective: Healthcare for 80% is blunt logistics



Lucian Engle



Travel

Park

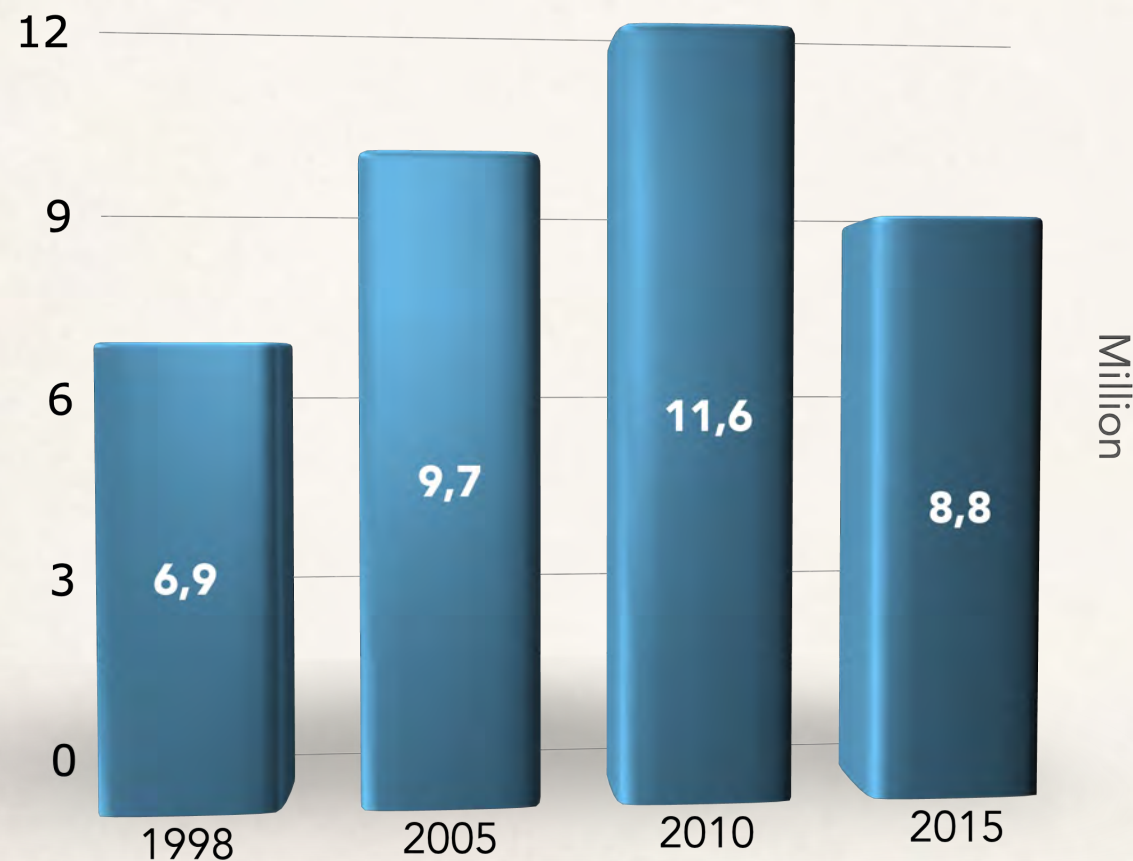




Wait

FIRST-time outpatient visits

These are ~33% of all outpatient-visits



2015 :

Outpatient-visits **8,8M**

Patient-movements $8.8 \times 2 = \mathbf{17,6M}$

Mean distance nearest hospital ~5,3 km

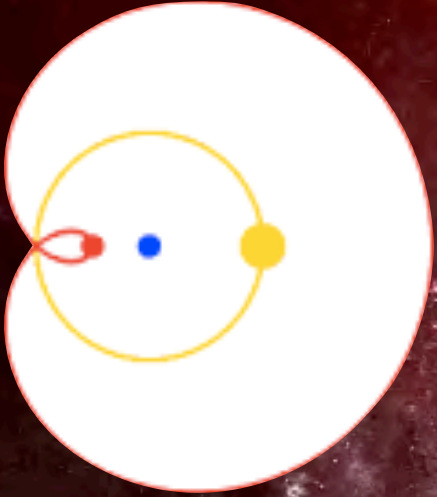
Total **91** MILLION KM /year

ONLY for 1st outpatient-visits

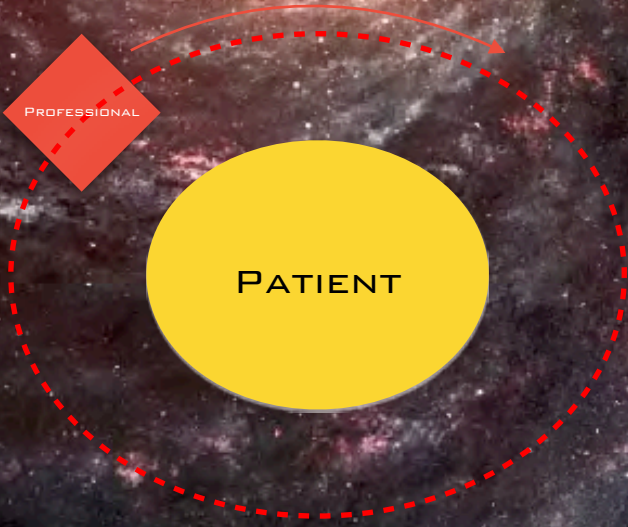
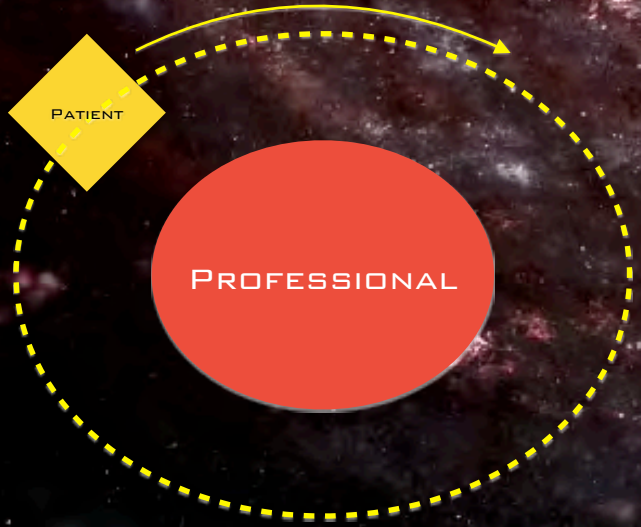
From patients' perspective: Healthcare is 80% blunt logistics



Lucian Engle



Health(care)'s Copernican moments



Proximity

/prɒk'sɪmɪti/
noun

nearness in space, time, or relationship.

Lucian English

from ~~'Hospital'~~ to 'Home'



from 'Hospital' to 'Phone'



Transform Health

Front door clinic

Lucian Engle



WAT KAN IK VOOR U DOEN?

WAAR IS HET VOOR?

HOE WERKT HET?

WANNEER BEGINT DE WERKING?

Sint Maartenskliniek Apotheek

+31 034 - 9699677

maartensapotheek@sintmaartenskliniek.nl

INSTELLINGEN

GESPREK BEÏNDIGEN

Maartensapotheek

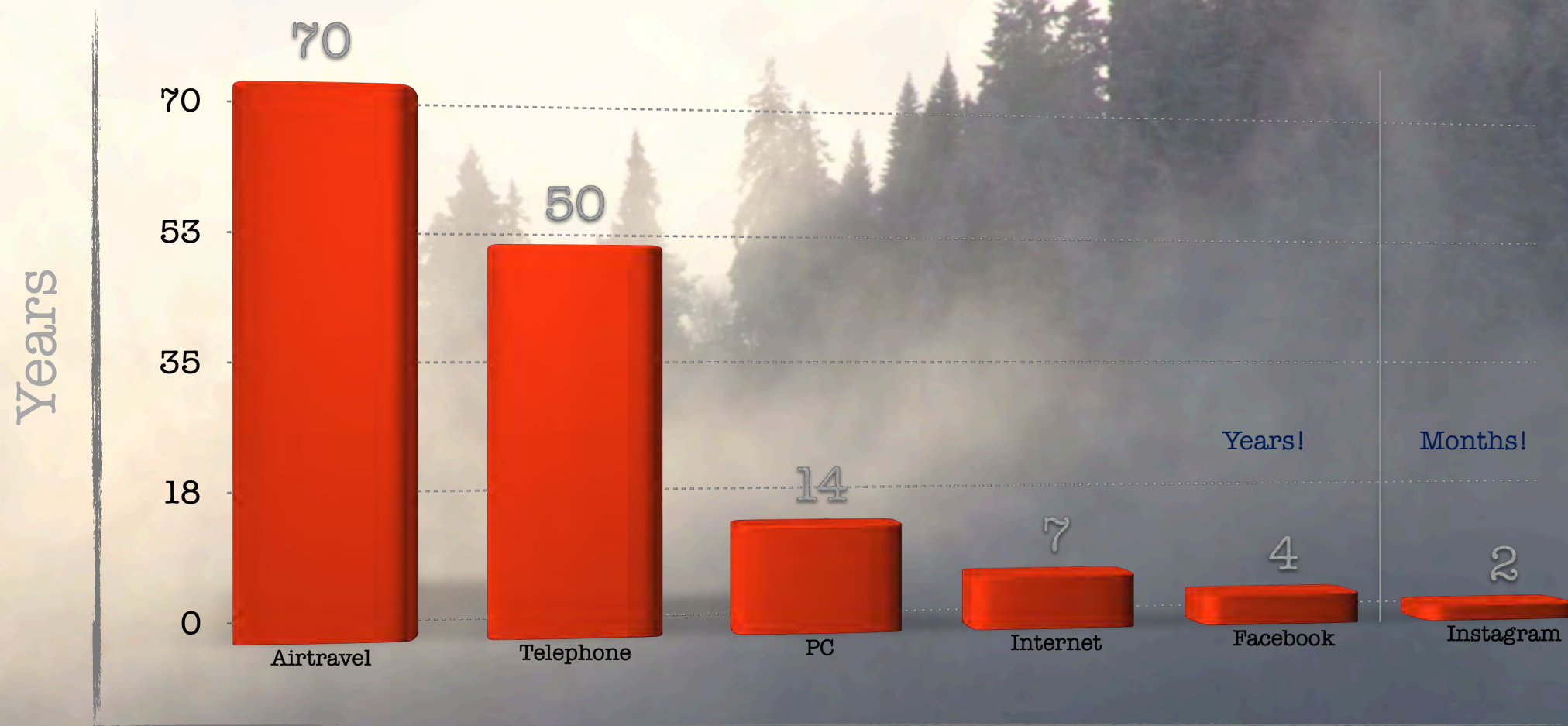
HOUD DE SPATIEBALK INGEDRUKT OM TE PRATEN

3

Digital Humans

Lucia Engelen

Years to reach 100 Million people





5



Lucia Engle

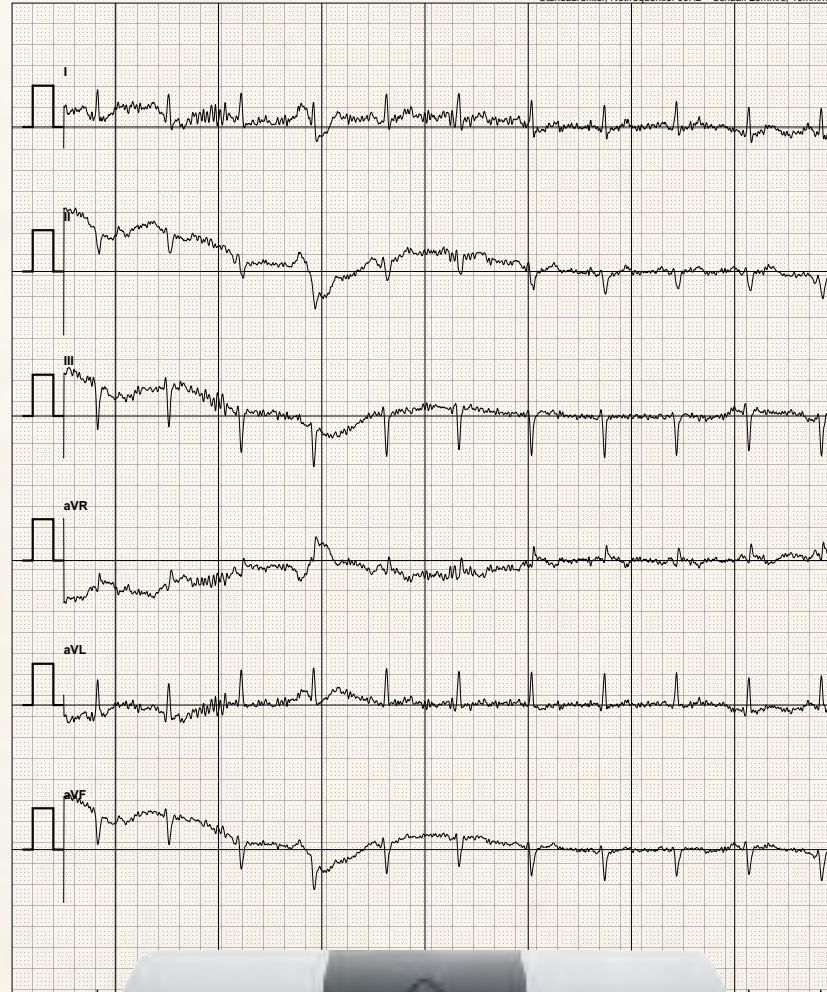
Patiënt::
Geregistreerd:
Hartfrequentie:
Duur:

Lucien Engelen, 02-07-1962 (57jaar)
woensdag 6 november 2019 om 16:24:48
85 BPM
30s

Directe analyse: Normaal
*Directe analyse wordt uitgevoerd bij afleiding I.

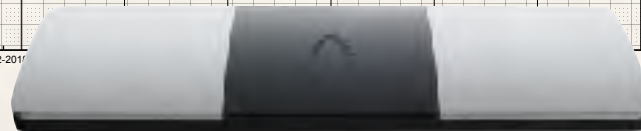
Kardia

Standaardfilter, Netfrequentie: 60Hz, Schaal: 25mm/s, 10mm/mV

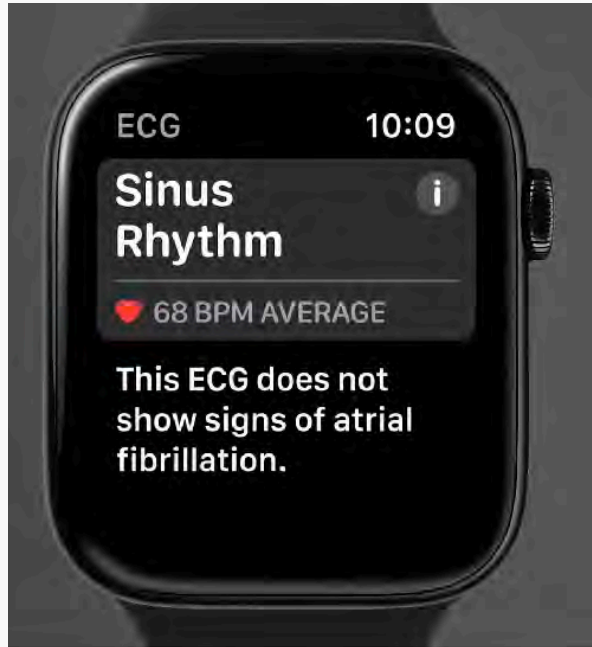


(c) Copyright 2012-2011

Pagina 1 van 4



Lucien Engelen
Trainer Kardia

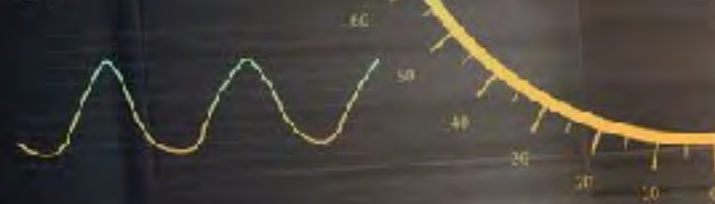


Shoulder Abduction

RANGE GOAL:
180°

CURRENT RANGE:
131°

REPORT:



VIEW 3D

115°

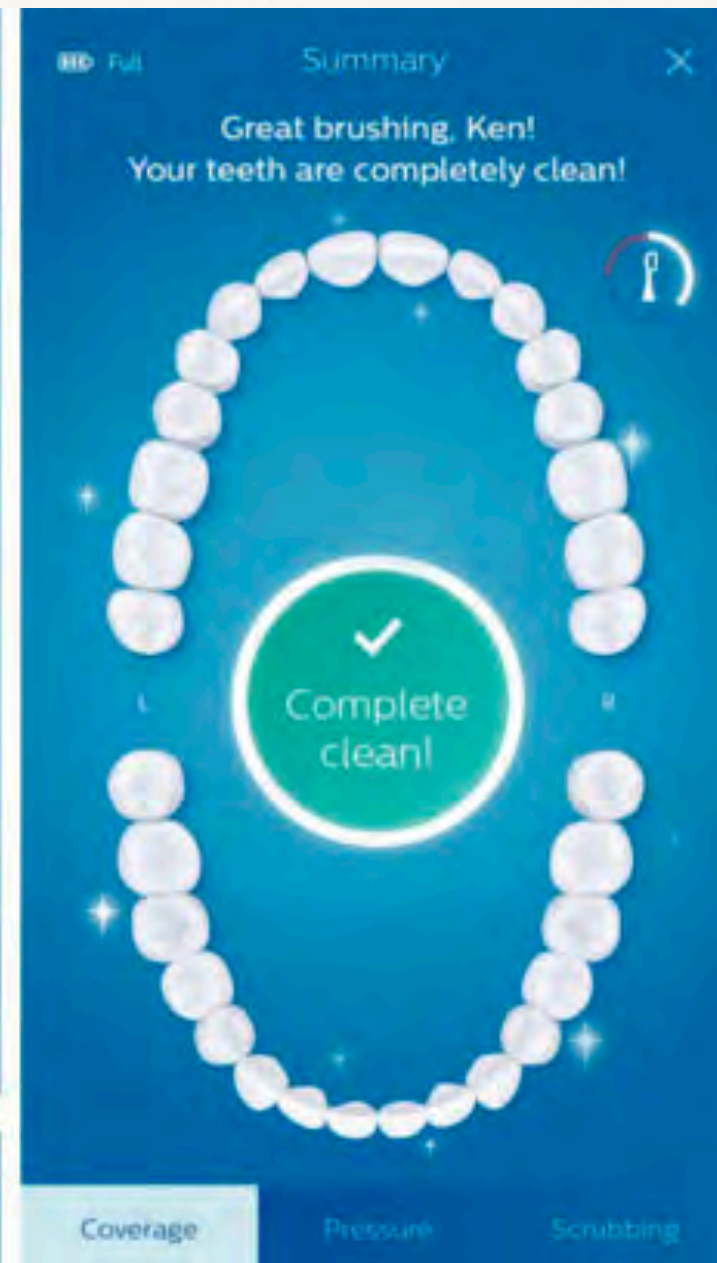
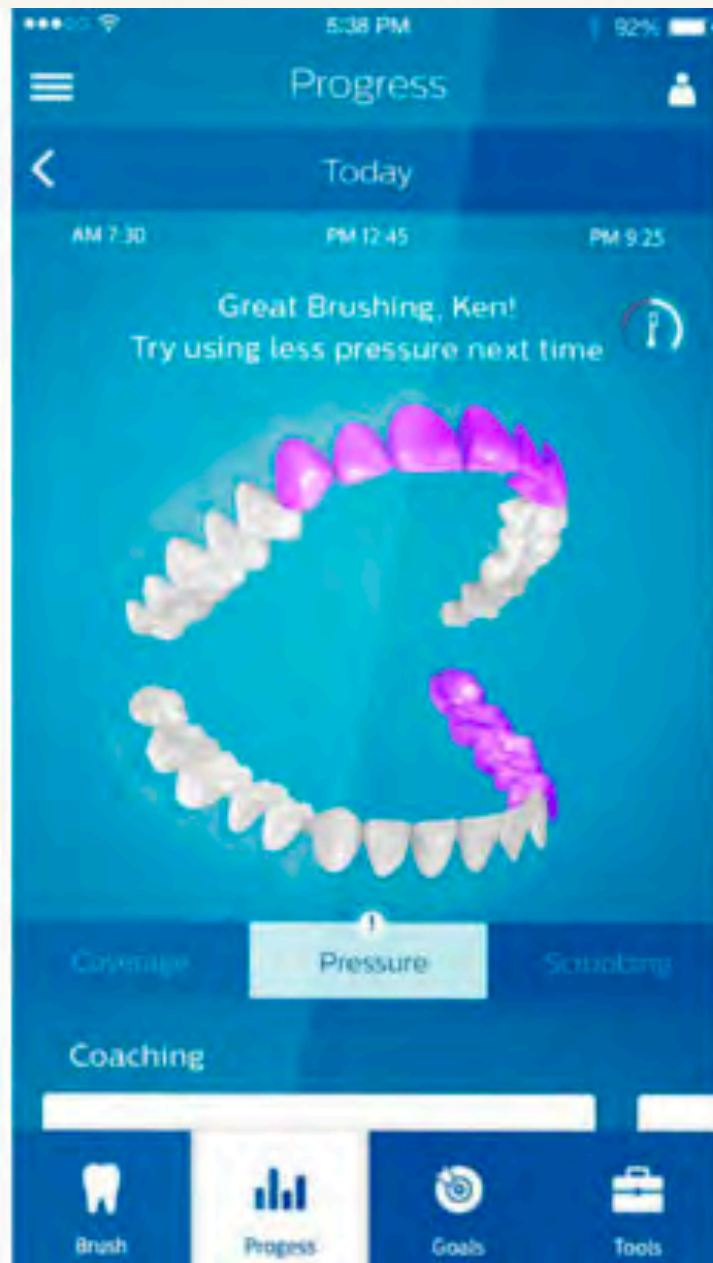
ACTIVE RANGE

SHOULDER ALIGNMENT

2°

SPINAL ALIGNMENT

0°





Apple's AirPods Pro Can Now Function Like a Hearing Aid



DAVE LECLAIR [@davegleclair](#)

OCT 7, 2021, 9:58 AM EDT | 1 MIN READ



Framesira/Shutterstock.com



LIFE VITALS IN CLINICAL PATIENTS

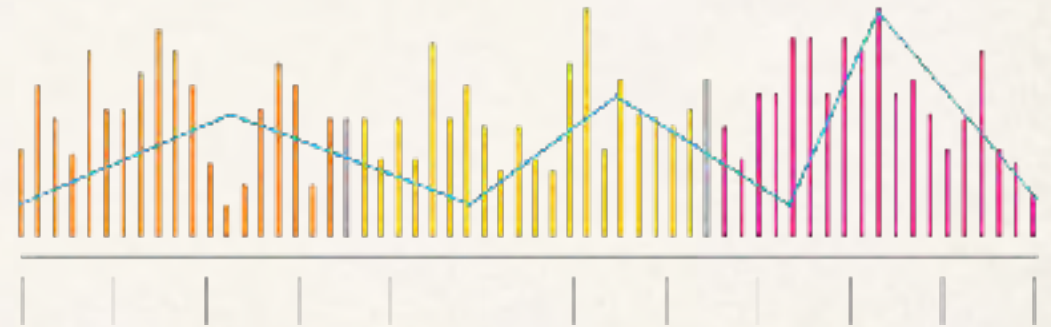
LEAN MONITORING



Health data now



*... when they need to be
Continuous & Proactive*



*From three times daily to
24/7 continuous monitoring*

Lucian Engle
The Future of Health

**CONTINUOUS
MONITORING**

**WITHIN
walls of hospital**



**REMOTE
MONITORING**

**OUTSIDE
walls of hospital
WITH alarming**



**HOME
MONITORING**

**OUTSIDE
walls of hospital
Collecting data**

**Monitoring based on data collected from devices. Application with questionnaires are out of scope definition monitoring*



65

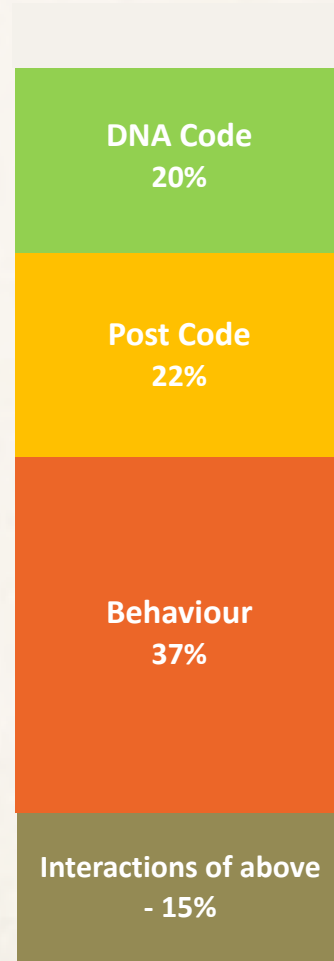
“For years we have been ‘pregnant’ of
digital health, and now
—during this impressive pandemic—
it came to life, through an
acute c-section”

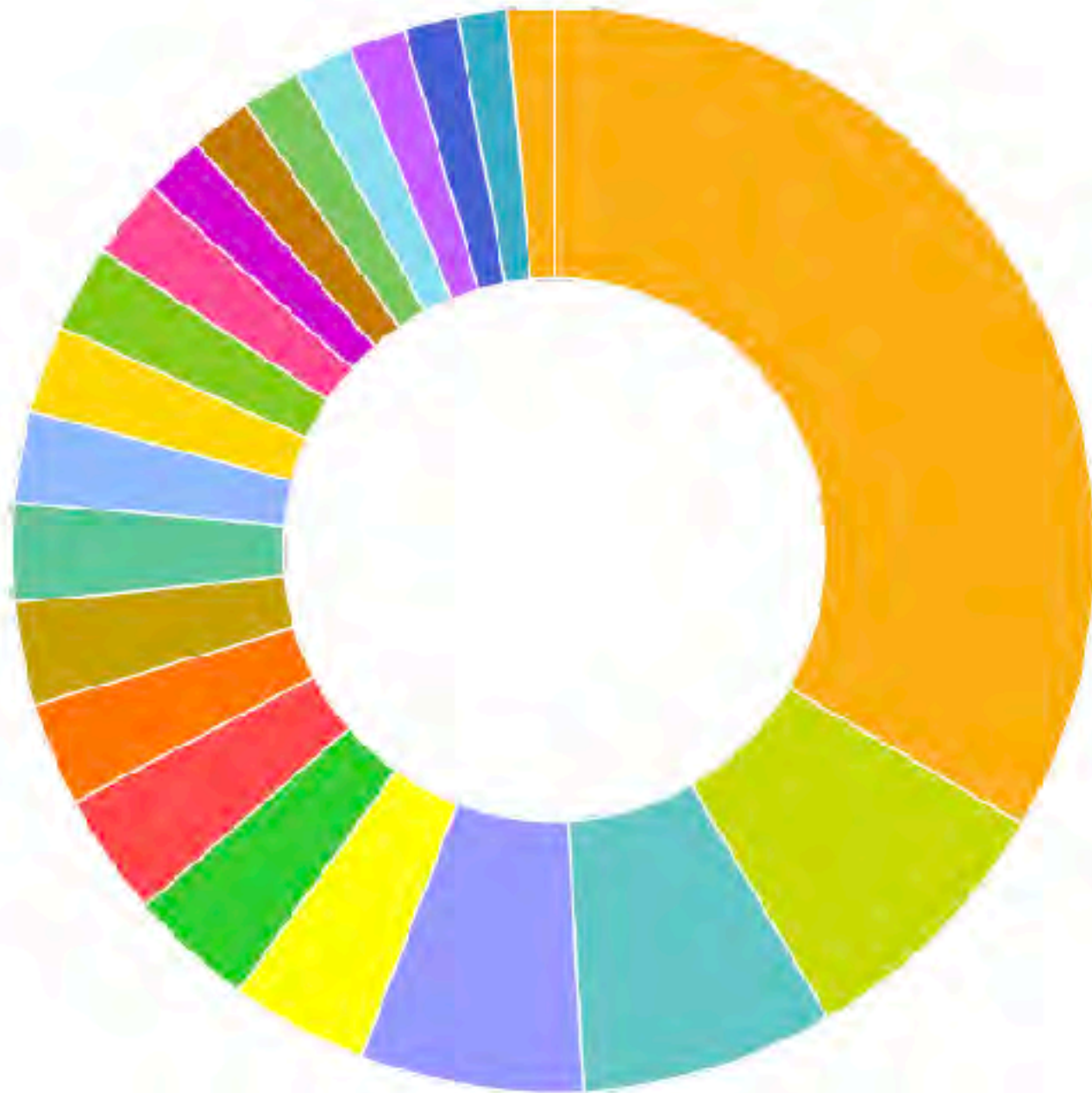
Lucian Engeler
TRANSFORM. HEALTH.

Drivers of health

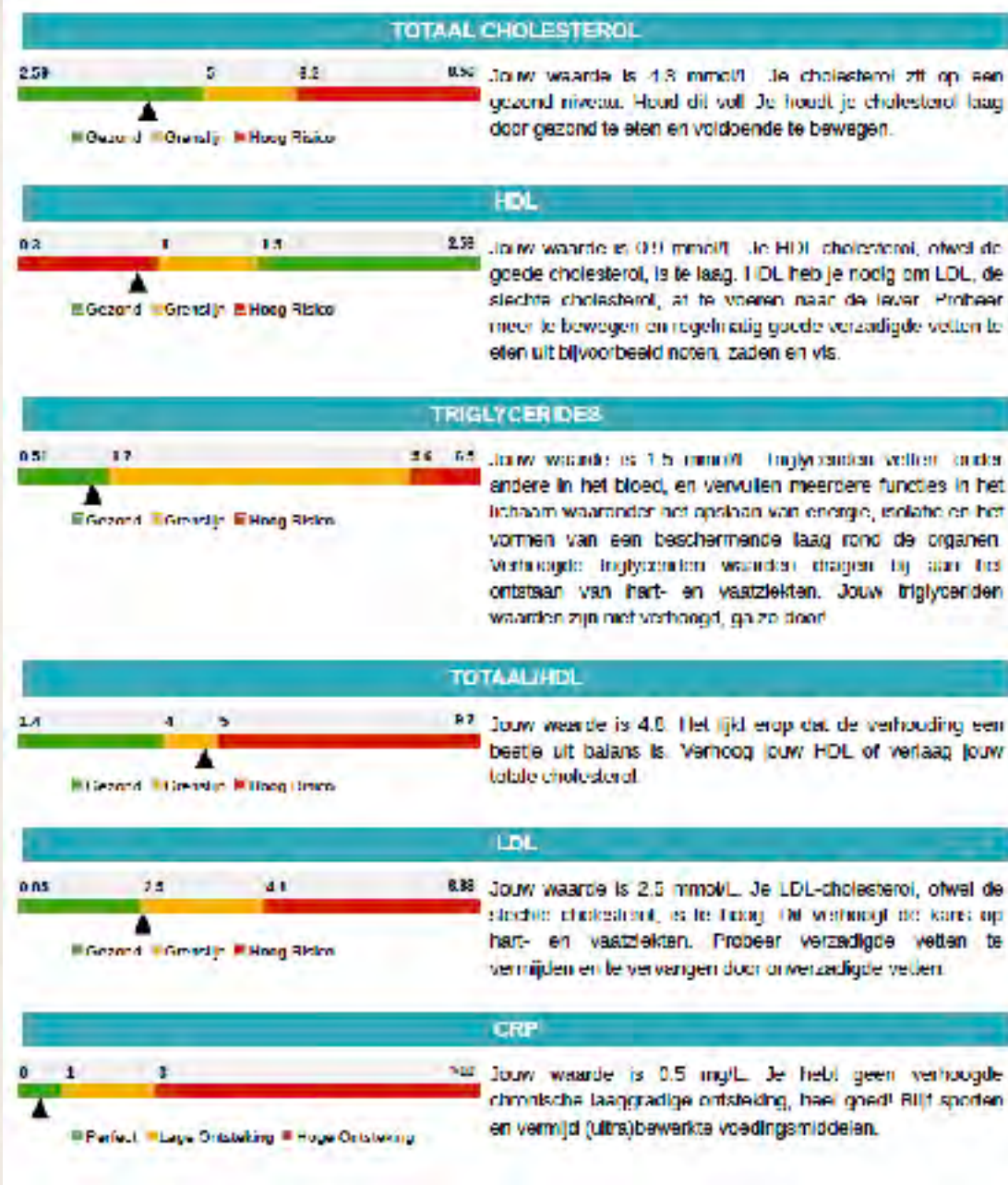
Where we invest

*Where
health is
created*



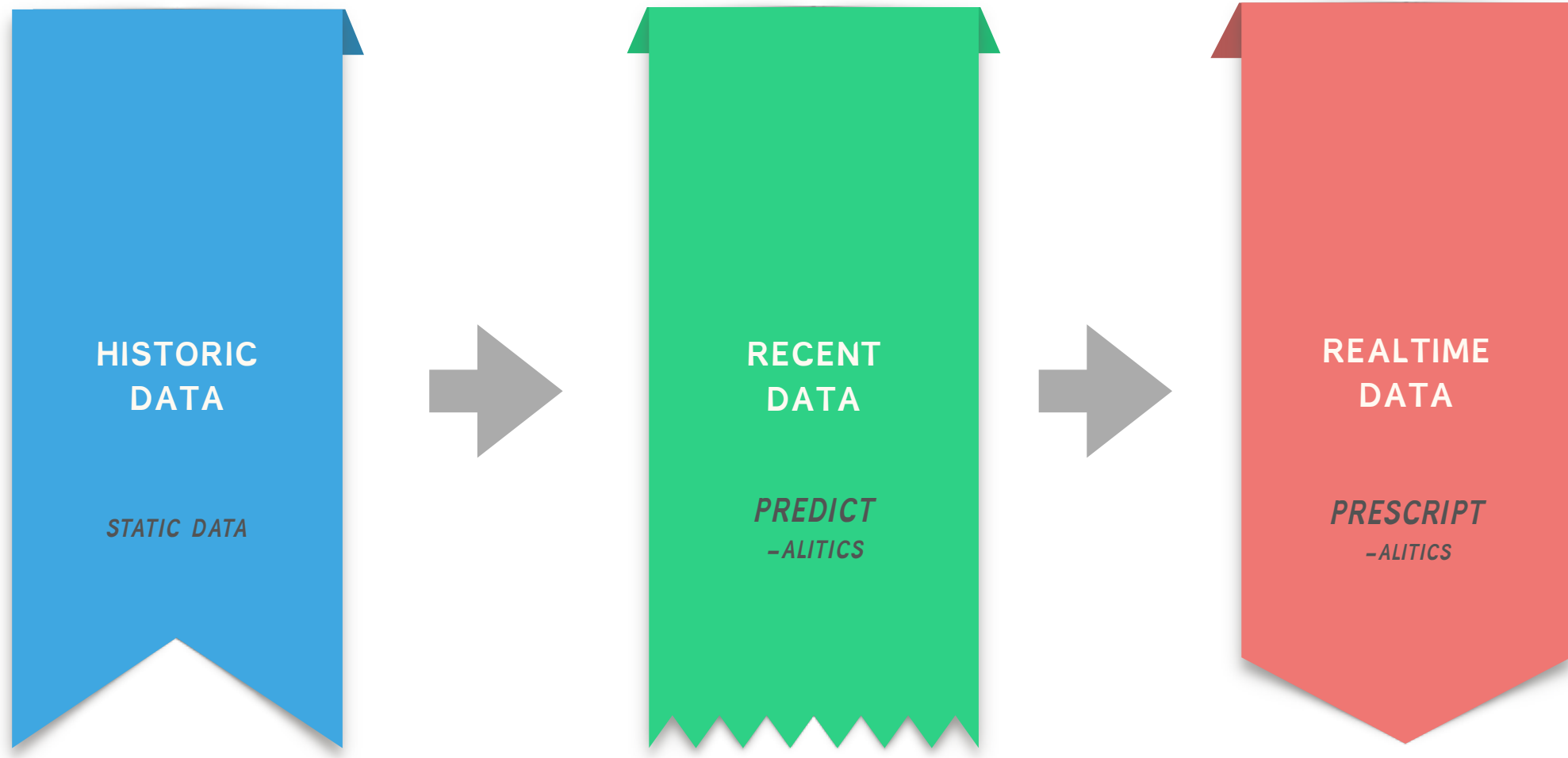


- Bacteroides vulgatus* (25.9%)
- Parabacteroides distasonis* (6.3%)
- Bacteroides uniformis* (5.9%)
- Faecalibacterium prausnitzii* (5.1%)
- Blautia wexlerae* (3.2%)
- Parasutterella excrementihominis* (2.9%)
- Akkermansia muciniphila* (2.9%)
- Eubacterium rectale* (2.4%)
- Cyanobacterium enrichment* (2.4%)
- Bacteroides cellulosilyticus* (2.3%)
- Bacteroides ovatus* (2.1%)



Lucien Engelen

New data segway?



New segway?

REALTIME
DATA

PRESCRIPT-ALITICS



Access to care 6%

DNA Code
20%

Post Code
22%

Behaviour
37%

Interactions of above
- 15%

AMTAL	CHGRIJNING	PRIS	BEMAG
	AN BOND NR	1,00 E	
1	BRAND	0,83	
1	WSTATHIELD	1,09 E	
1	AN EXC PIZZA	2,09 E	
2	EXC PIZZA	2,77 E	
1	GLORIX BLEEK	1,35	
1	FOOTJANAR	8,39 E	
1	FOOTJAN KIT	8,39 E	
4	ALPAC	2,24	
2	L'ON LUND	0,84	
2	KETTLE CHIPS	1,79	
2	RY WORTLEN	1,45	
3	BRAND	2,10 E	
2	FOODS	2,59	
1	SMEELVORST	1,40	
3	AN LP SPET	2,59 E	
3	FRANK COISS	0,84	
3	FOOD LIT	0,90 E	
0,225kg	MAKLANDER	0,61 E	
1	ZAKKE HEEVE	1,99	
1	AN LP SANFRA	2,59 E	
1	AN AVOCADO	0,49 E	
1,015kg	KINTPRUIT	4,75 E	
30	SUNCTAM	41,77	
PRONIS	AN BROODLI	-0,46	
PRONIS	KETTLE	-1,79	
PRONIS	HUMUS	-2,59	
PRONIS	PIZZA	-3,04	
PRONIS	L'ON KOFFIE	-2,45	
BONUS	AN AVOCADO	-0,50	
BONUS	ALPAC	-4,40	
BONUS	KINTPRUIT	-0,91	
BONUS	GEBOIR VORT	-1,45	
BONUS	KAN	-0,00	
BONUS	COURGETTE	-0,18	
BONUS	MAKTOBEL	0,30	
BONUS	GLORIX	-1,35	
BONUS	BRAND	-1,42	
BONUS	LP BROOD	-2,64	
UW VOORDEEL		32,05	
UW VERBODEN			
UW VERBODEN			

Different receipt

Based on **personal profile**,
activity & **intake**.

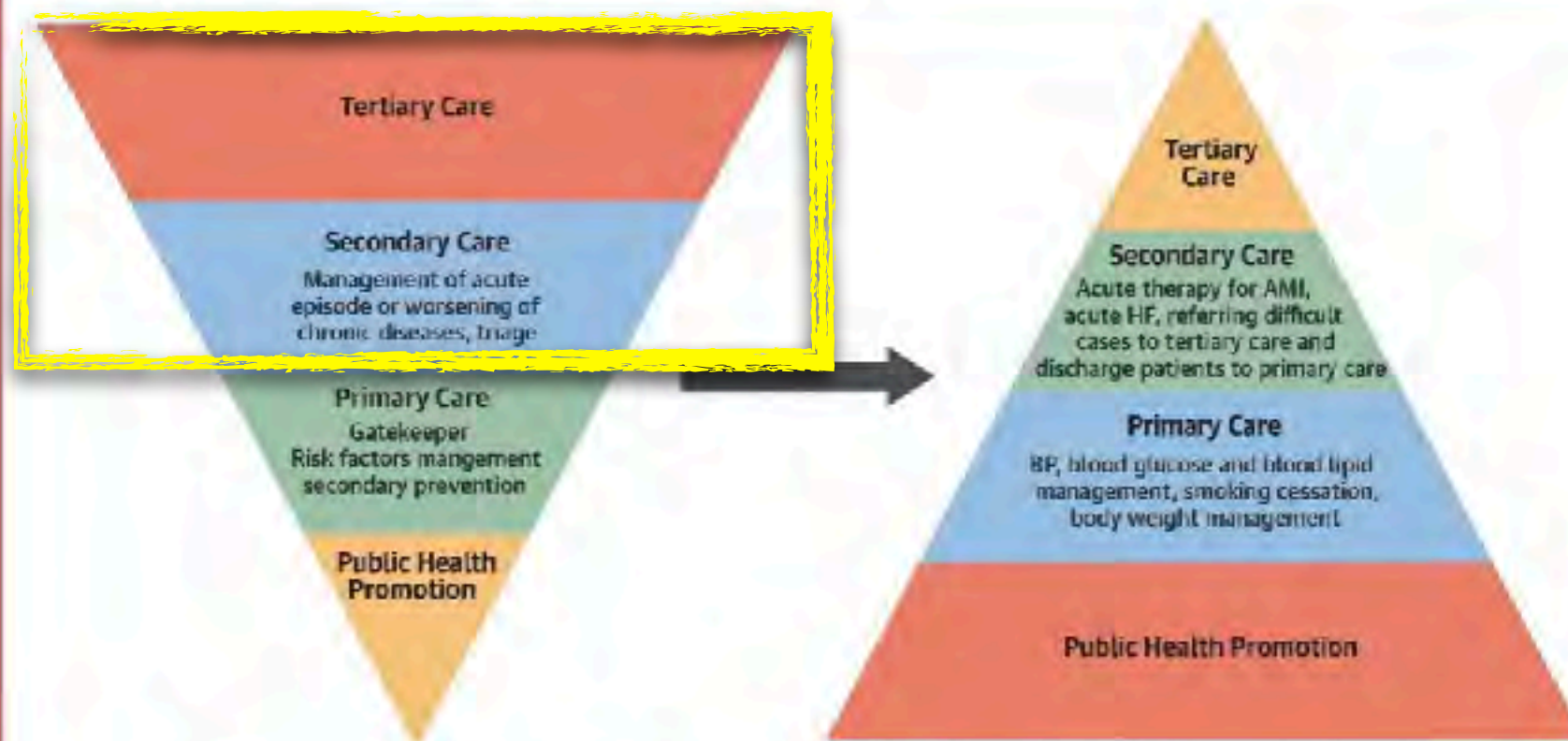
Lucien Engelen
Trainer Eindhoven

Linking the Future of Health

Lucien Engelen
Transformation

Future of Food	Future of Work	Future of Mobility	Future of Finance	Future of Retail	Future of Medicine
<ul style="list-style-type: none"> • Personalised • Insight driven • Biome-based • Preventive • Prescriptive • Activity based 	<ul style="list-style-type: none"> • Who • What • Where • AI Impact • More creative • Gig-economy • Flexible (care) • Mental Health • Safe housing 	<ul style="list-style-type: none"> • Delocalise • De-stress (valet) • Exercise • Flexible • Predictive • Shared assets • Increase travel distance 	<ul style="list-style-type: none"> • Debt lowering • Insight driven • Education • Preventive • Affordable housing 	<ul style="list-style-type: none"> • Consumerism • Retailisation • New players • Online • Insight driven 	<ul style="list-style-type: none"> • Personalised • Delocalise • Democratize • Digital • Insight driven • Prevention • Prescriptive AI

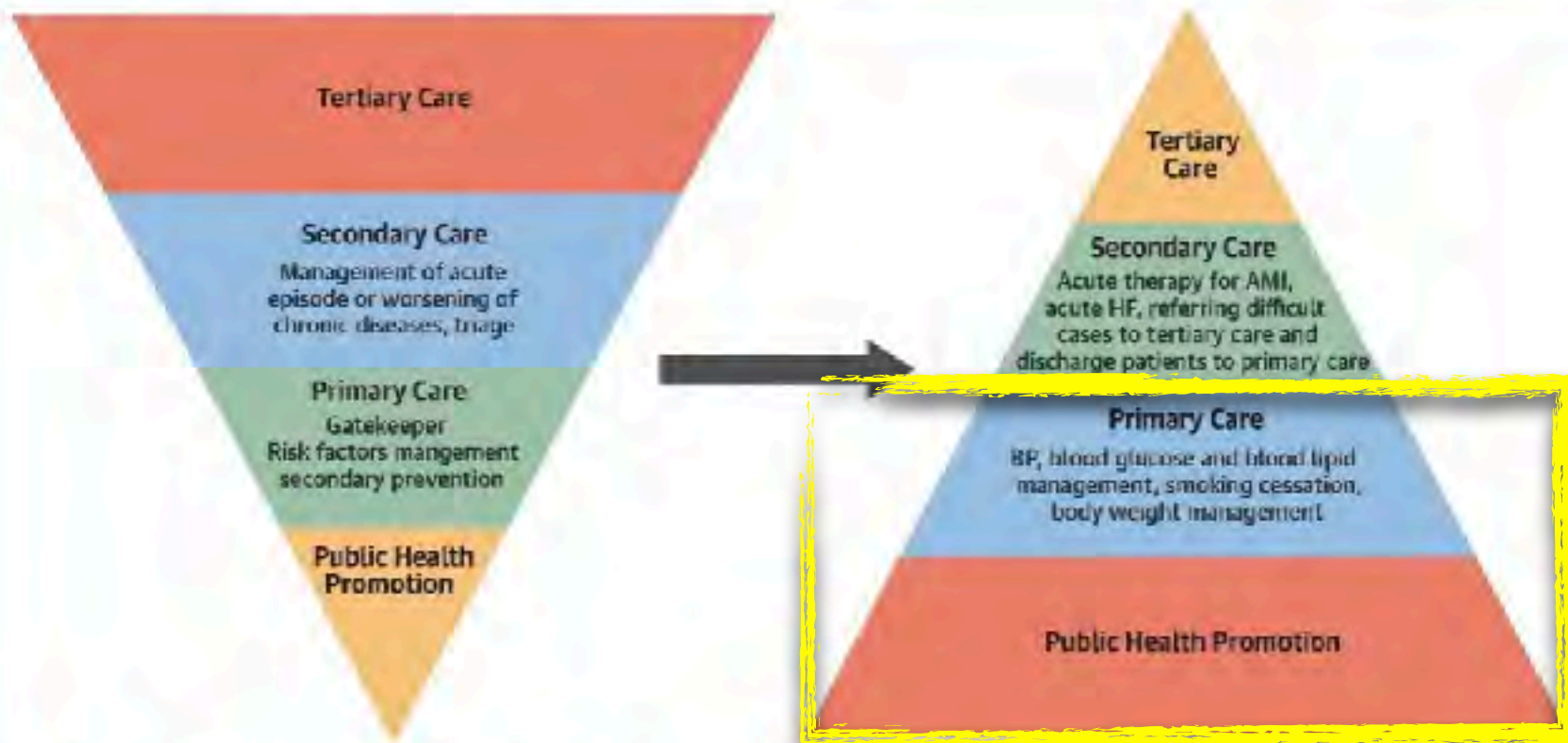
CENTRAL ILLUSTRATION: Flipping the Inverted Pyramid of China's Health Care System for Better Cardiovascular Care



Du, X. et al. J Am Coll Cardiol. 2019;73(24):3135-47.

Xin Du et al. JACC 2019;73:3135-3147

CENTRAL ILLUSTRATION: Flipping the Inverted Pyramid of China's Health Care System for Better Cardiovascular Care



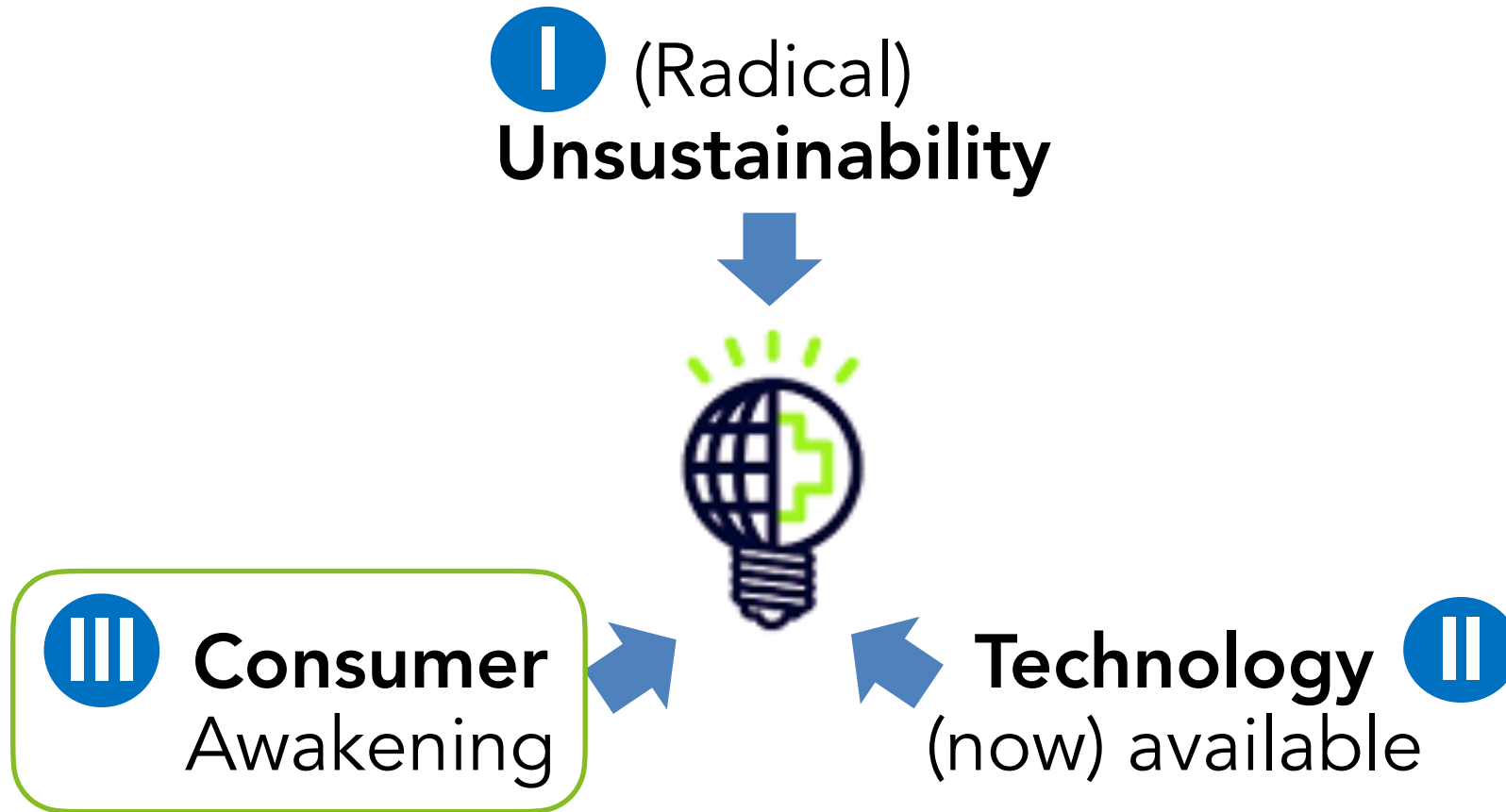
Du, X. et al. J Am Coll Cardiol. 2019;73(24):3135-47.

Xin Du et al. JACC 2019;73:3135-3147





The Innovation Imperative: 3 Forces



Are we ready ?





NEW AMSTERDAM

BREAK THE RULES. HEAL THE SYSTEM.

**HOW
CAN I
HELP?**

Lucien Engelen
Transform Health



amazon go

The image shows the interior of an Amazon Go store. In the foreground, there are four white, self-service checkout stations with green arrows indicating the flow of traffic. The background features wooden walls and shelves stocked with various products, including snacks and beverages. The Amazon Go logo is visible on the wall.

Retail

Pickup

Online Orders

Services

Returns | Money Services

Shop a million more items on
Walmart.com
Order online. Free pickup here



Happy
to Help!

 **Money Services**
Cash a check
Send money
Pay a bill

Delocalized Democratized Digital Dollars



Kills 99.9% of good ideas*

**The other 0,1% are mere accidents...*



Big tankers need help, to find safe passages or sandbanks.
Once on course, they'll be able to maintain it vastly

Even when the course would be wrong ...

