



Chief (im)patient Officer @Transform.Health

Health(care) Strategy & Digital Transformation Maven.

International Ambassador Nursing Innovation.

Speaker

Extremely (im)Patient, but makes things happen.

Faculty NextMed Health

Formerly known as Singularity University Exponential Medicine,
Silicon Valley USA, since 2011

Part of initial group Global LinkedIn Influencers

750.000+ followers & 150.000+ subscribers newsletter

Tyto Top 500 ranking

#1 Top HealthTech

#2 Top Business Leader in Tech (right after Richard Branson ;-)

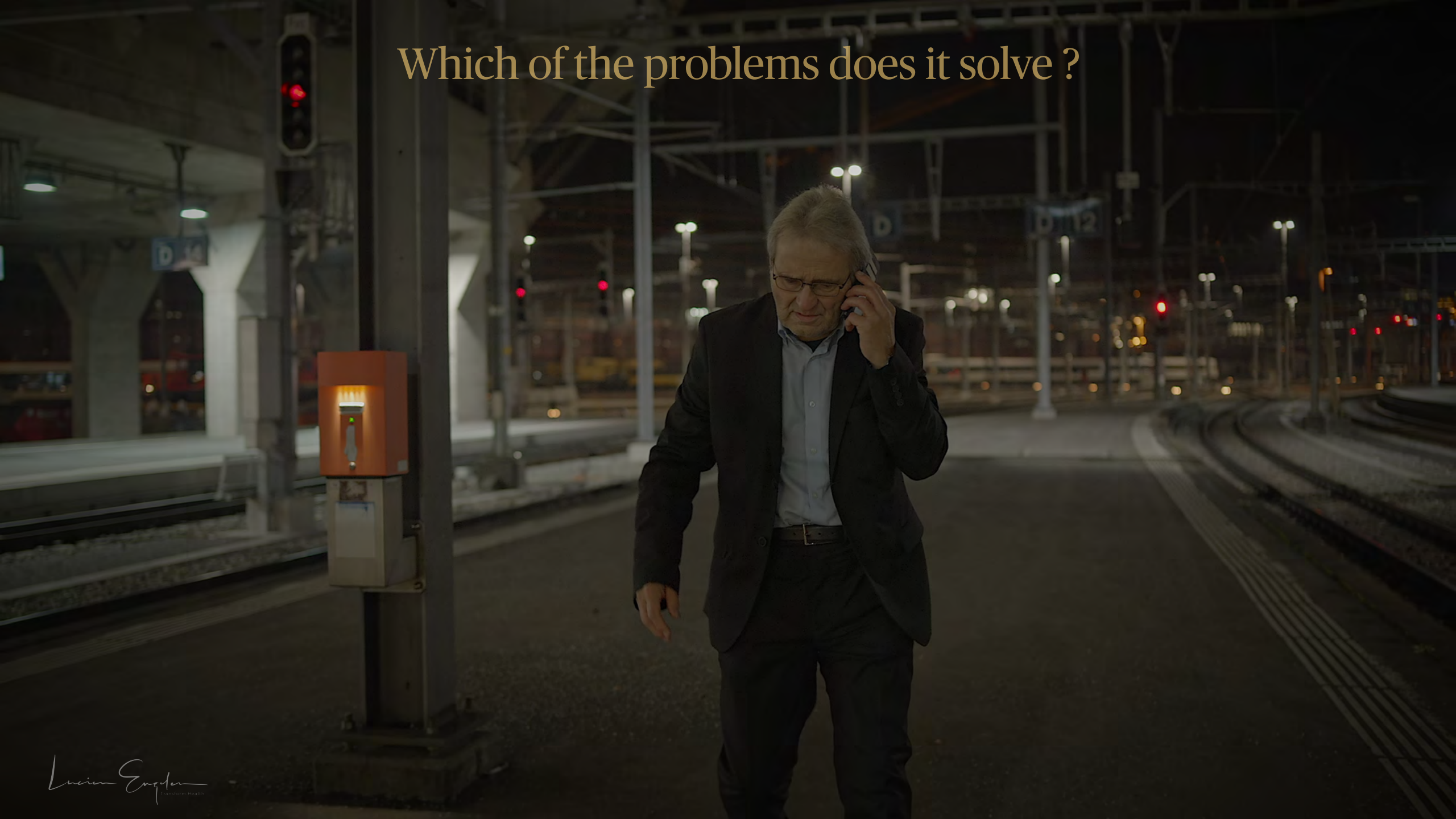
#4 Top Tech influencer overall



Deloitte.



Which of the problems does it solve ?





17:11
Lucian Engelen

T1-HK3 < 35.0

52

3G
Power

100

3.71
53

142/61

(88)

30

0
8
40

0.2 0.3

0.1

8

22.6

Т1
22.6
35.0

Источ: CO2





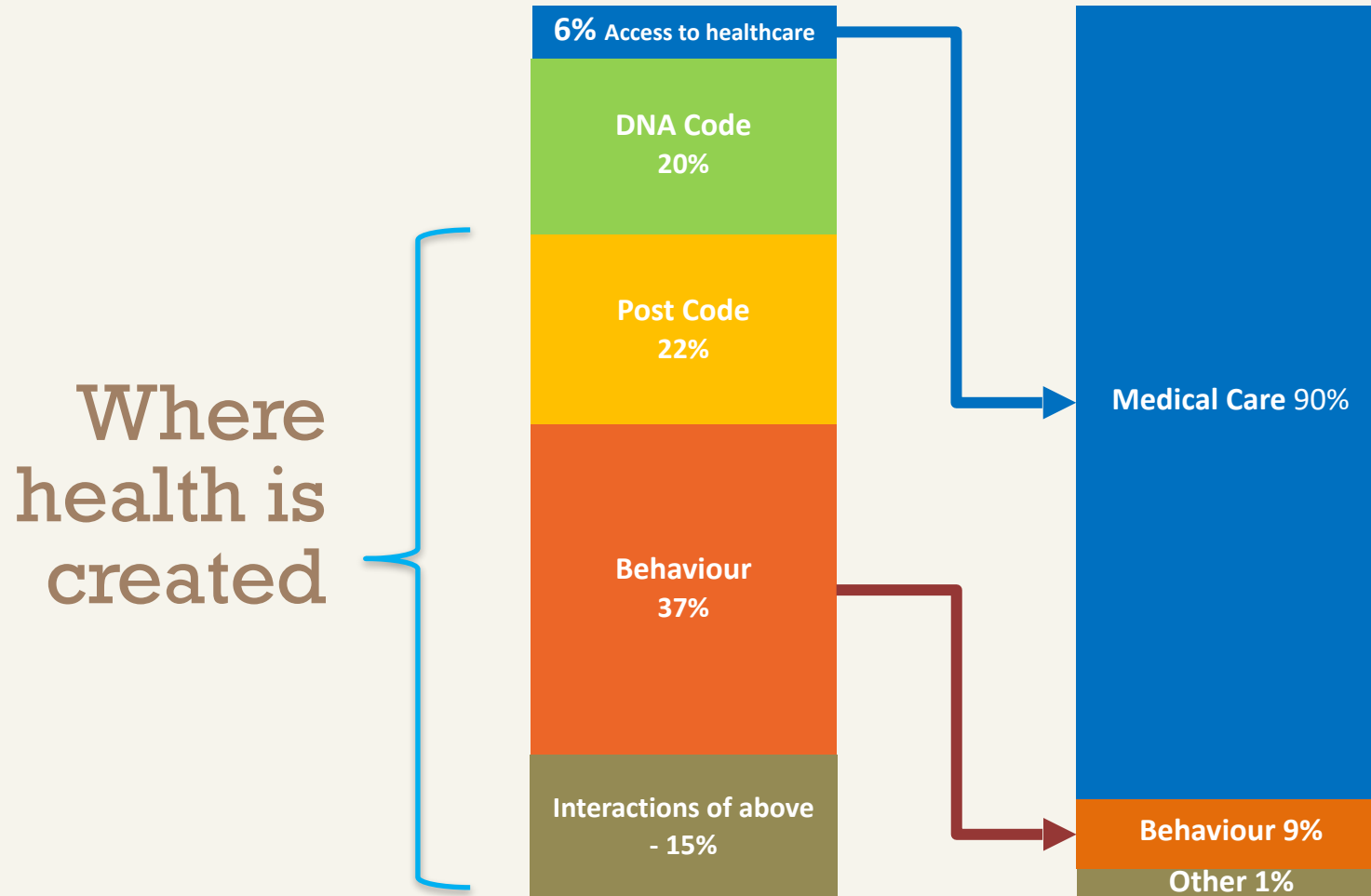
Lucian Engle

Lucian Engle
Transform Health

What is the percentage of
impact of health CARE
on health?

..%

Drivers of health Where we invest



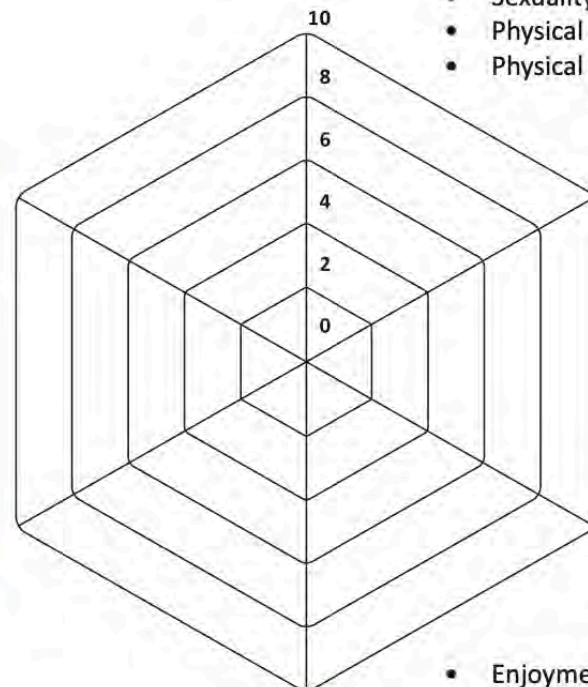
MY POSITIVE HEALTH

- Taking care of yourself
- Knowing your limitations
- Knowledge of health
- Managing time
- Managing money
- Being able to work
- Being able to ask for help

- Social contacts
- Being taken seriously
- Doing fun things together
- Having the support from others
- Sense of belonging
- Doing meaningful things
- Being interested in society



- Feeling healthy
- Feeling fit
- No physical complaints and/or pain
- Sleeping
- Eating
- Sexuality
- Physical condition
- Physical activity



- Being able to remember things
- Being able to concentrate
- Being able to communicate
- Being cheerful
- Accepting yourself
- Being able to handle change
- Feeling in control



- Having a meaningful life
- Having a zest for life
- Pursuing ideals
- Feeling confident
- Accepting life
- Being grateful
- Lifelong learning



- Enjoyment
- Being happy
- Feeling good
- Feeling well-balanced
- Feeling safe
- Intimacy
- Housing circumstances
- Having enough money



Lancet Commission on Investing in Health: Global Health 2035

The potential economic returns on health investments, can be as high as nine times the original investment



“The Effect of Health on Economic Growth: A Production Function Approach”

Concluded that a one-year increase in a population's life expectancy can lead to an increase in economic growth of around 4 percent.



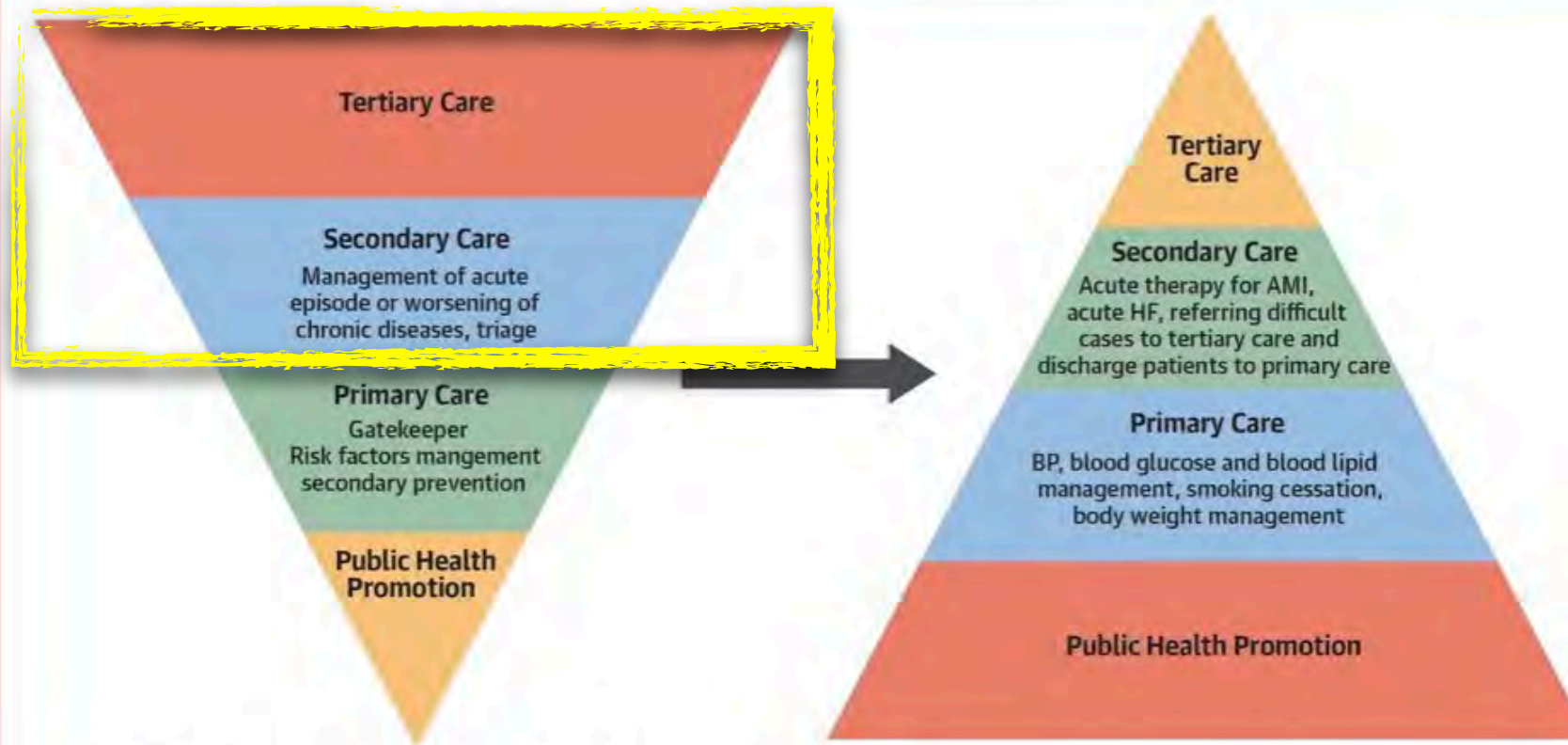
**DOCTORS DON'T
MAKE YOU HEALTHY.**

**TEACHERS DON'T
MAKE YOU LEARN.**

**TRAINERS DON'T MAKE YOU FIT.
COACHES DON'T MAKE YOU RICH.**

**AT SOME POINT YOU HAVE
TO REALIZE YOUR GROWTH IS
YOUR RESPONSIBILITY.**

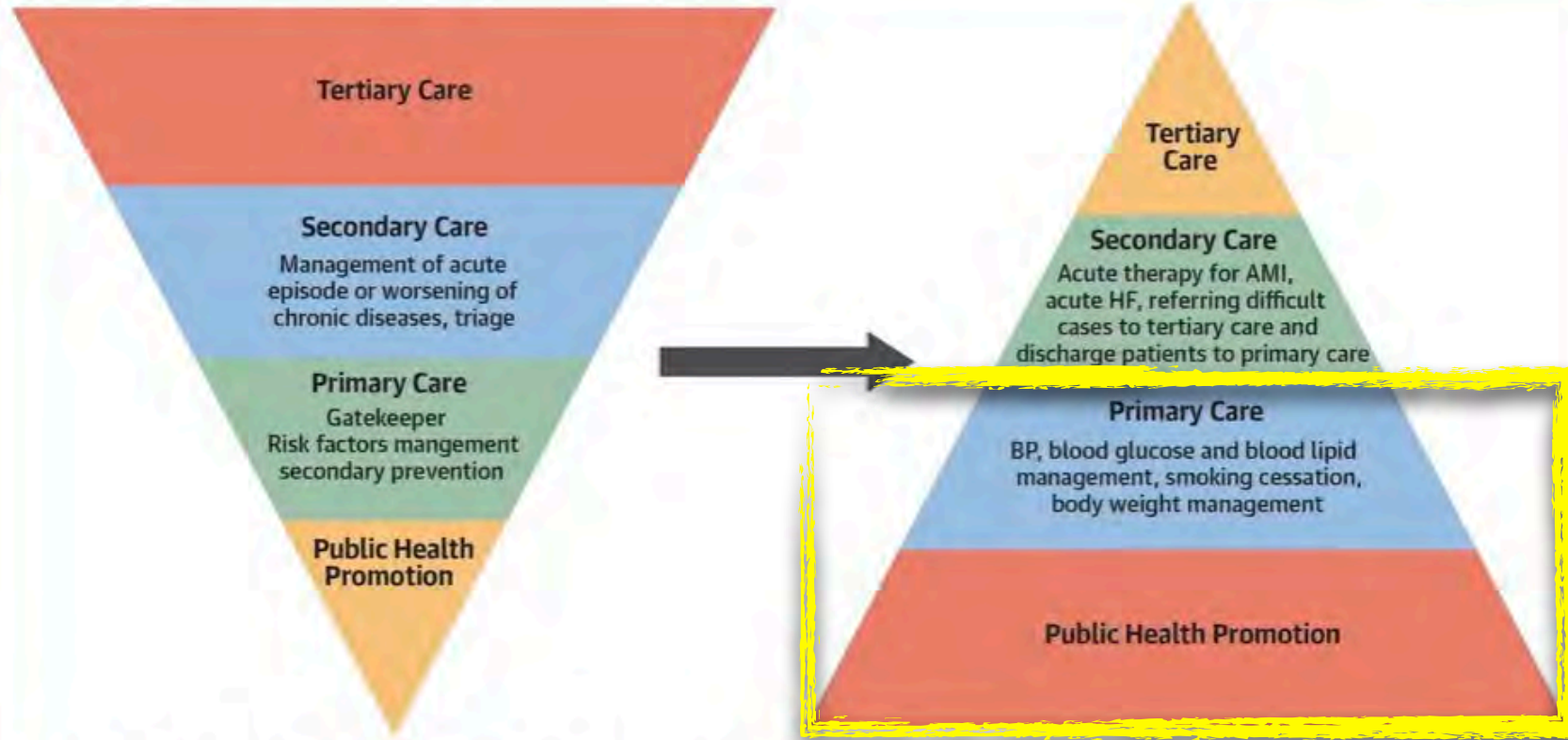
CENTRAL ILLUSTRATION: Flipping the Inverted Pyramid of China's Health Care System for Better Cardiovascular Care



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



Lincoln Engle
Transform Health

KTLA

CNN





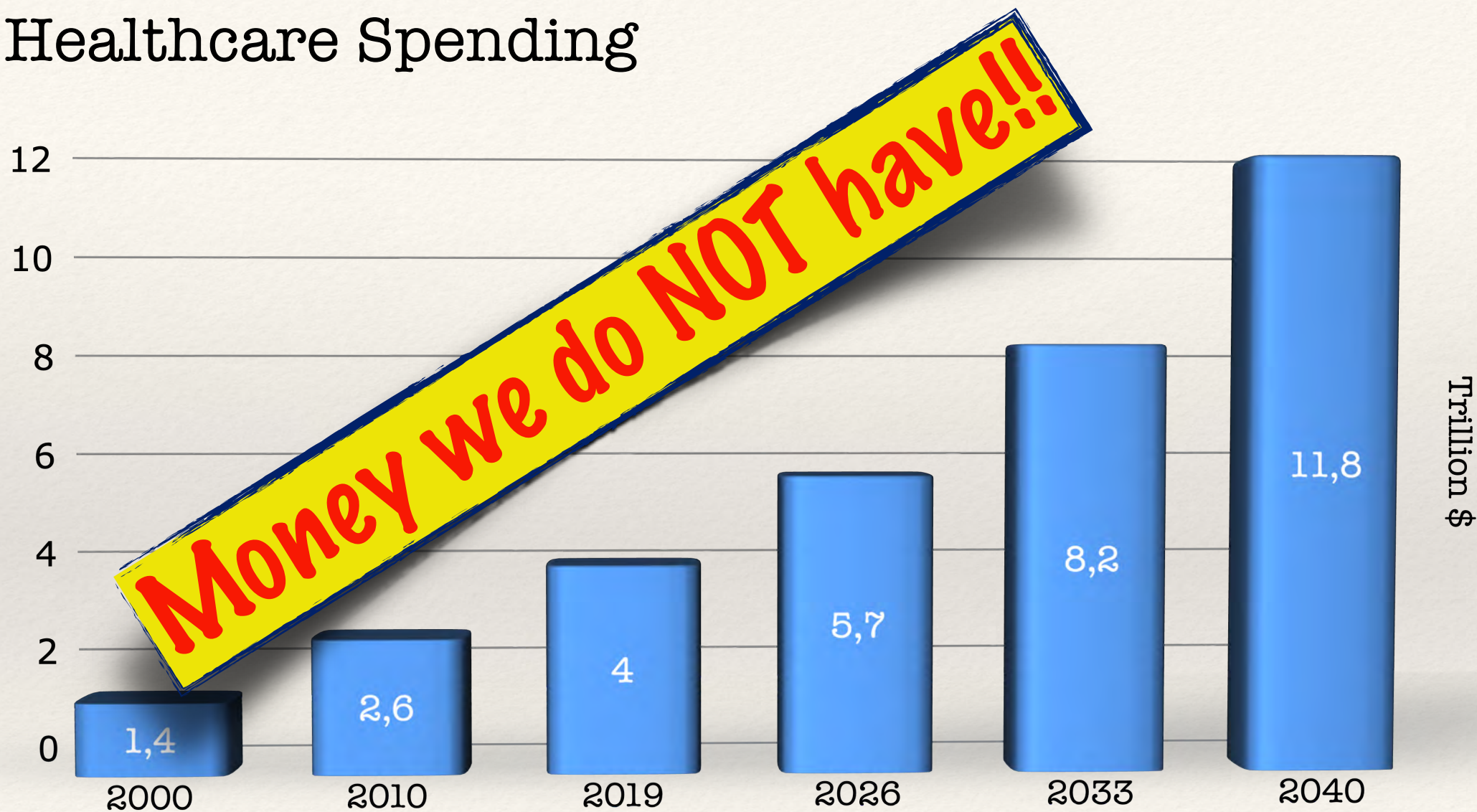
Unsustainable

The background is a dark blue-grey color with a complex pattern of glowing green and yellow lines that resemble circuit traces or data paths. Scattered throughout the background are various binary digits (0s and 1s) in a light green color, some appearing as small clusters and others as individual characters.

We are facing a new kind of Code BLACK

Lucian Engelen

Healthcare Spending



Workers in healthcare (NL)

2025



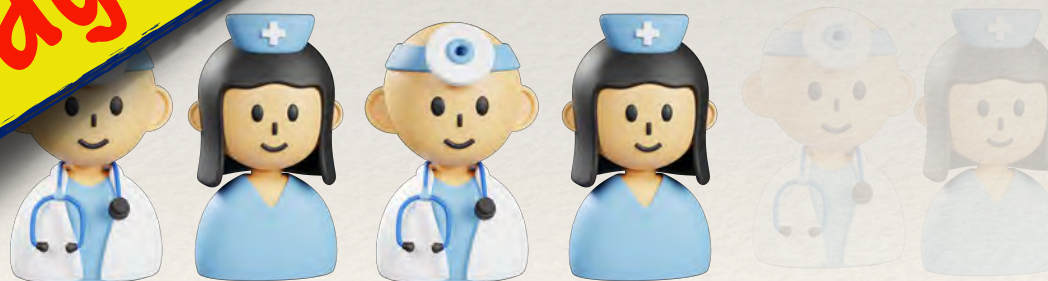
1:6

2033



1:5

2040



1:4

Colleagues we do NOT have!!

35%-54%
Nurses and Doctors

79% GP
Primary care physicians

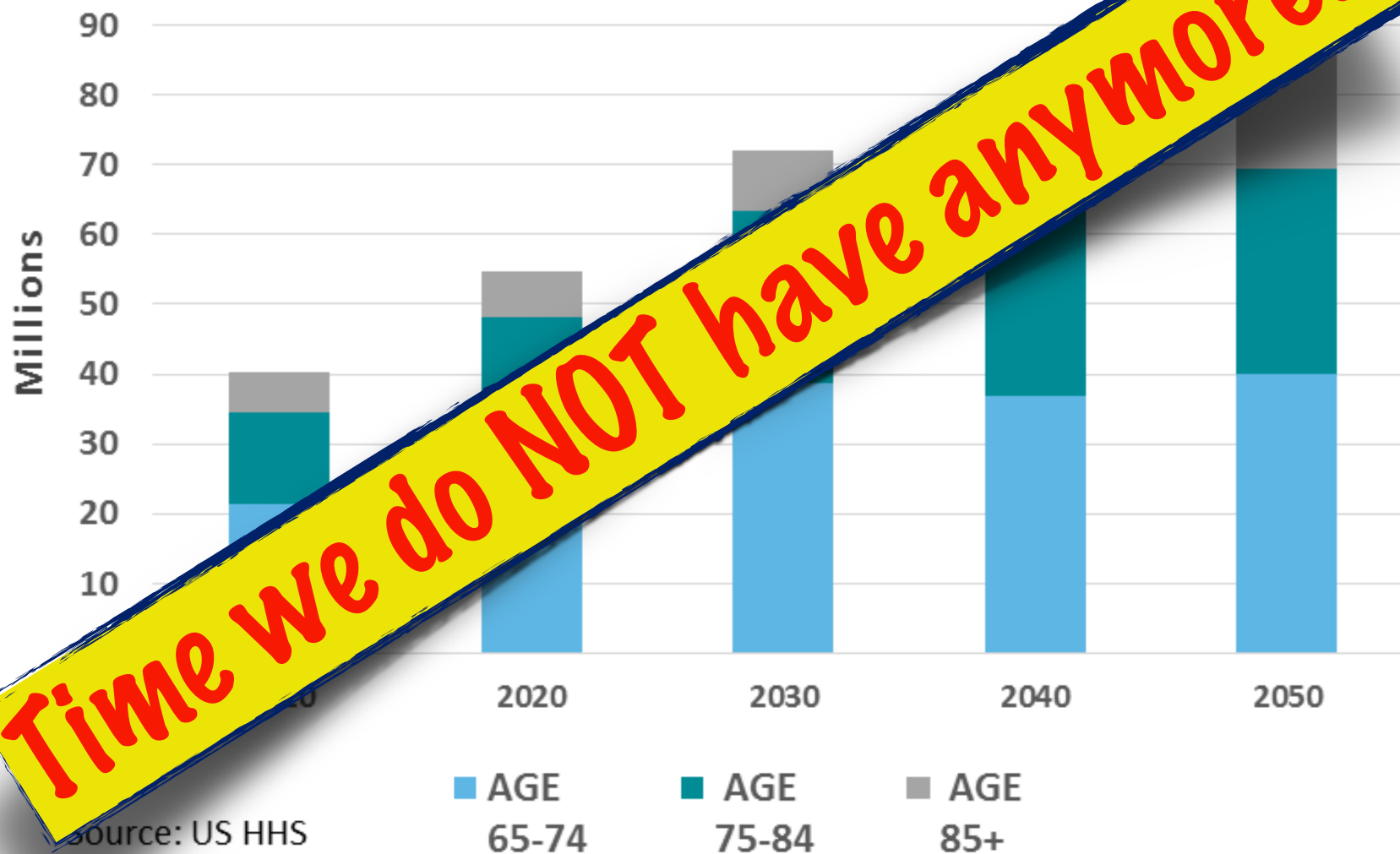


"... 1 in 3 doctors and nurses report depression and 1 in 10 experienced recently passive suicidal thoughts ..."

WHO MeND survey, with 90.000 responses

Steady Growth in Healthcare Demand

Older Americans are biggest care users -- and Medicare

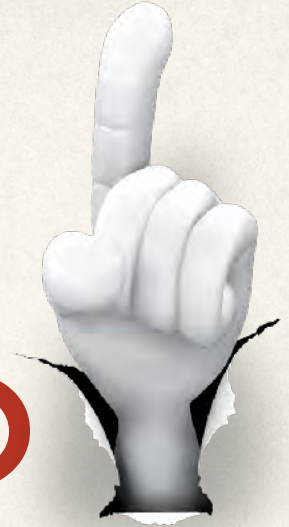


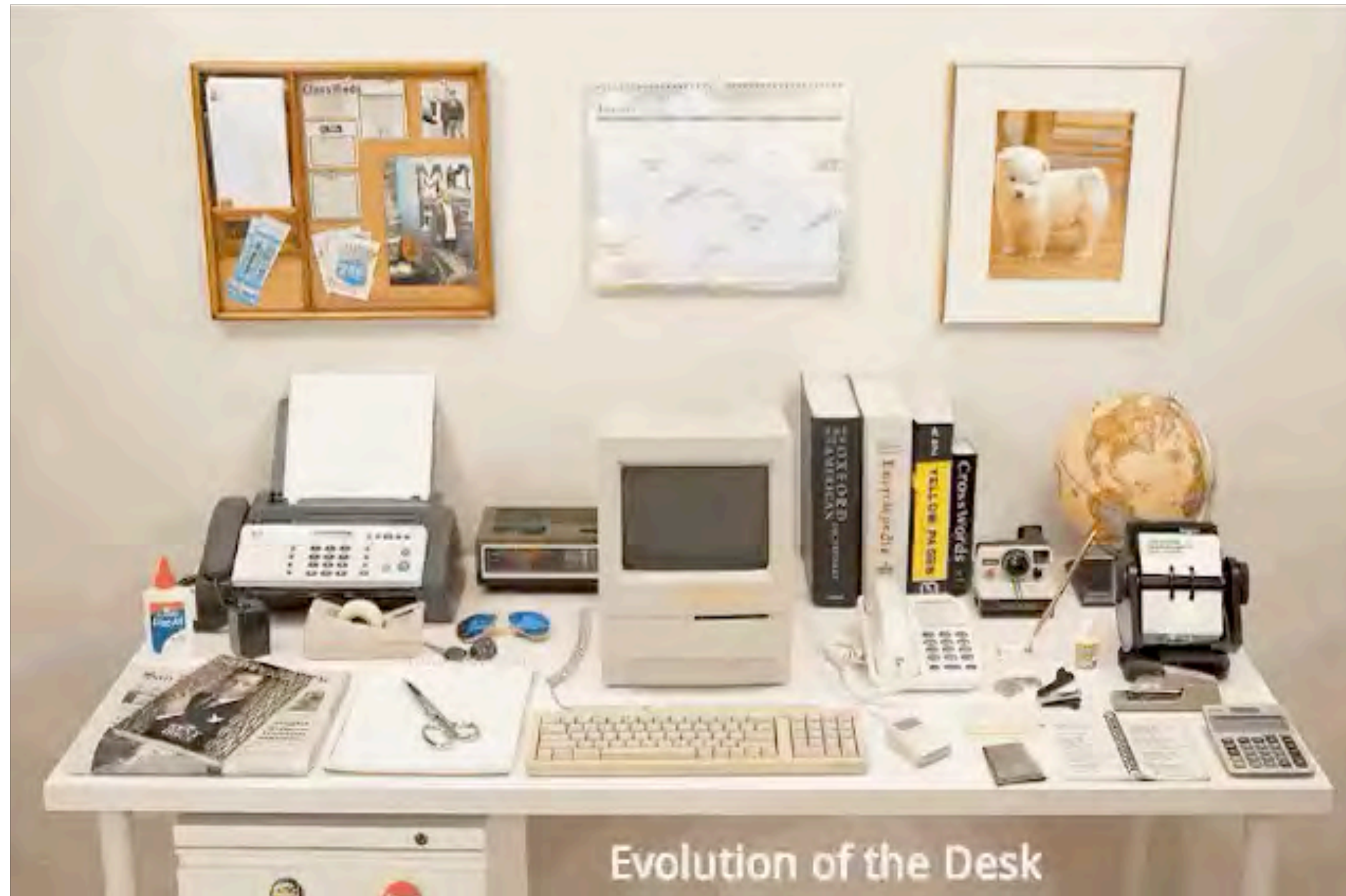


“
More healthcare ...
is not the solution for
the current challenges,
... more health is!”

The delocalization of health(care)

- 70%





Evolution of the Desk

From a hassle



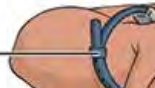
Continuous glucose monitoring

Possible display devices

Insulin pump



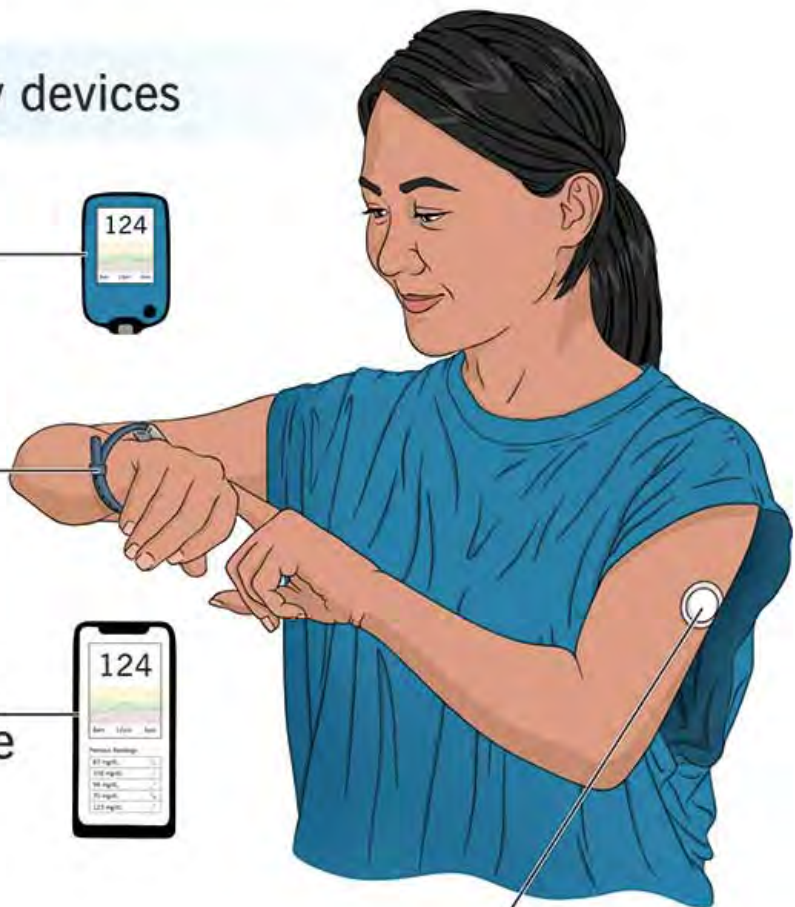
Smart watch



Smartphone or handheld device



Sensor

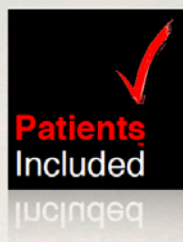


From a hassle
to a
Success-story
at scale

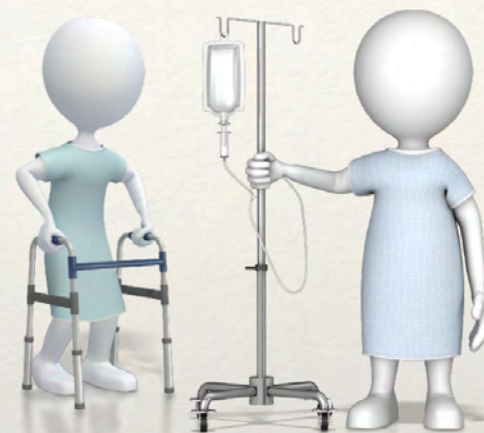
Innovation shift



För patients



With patients



By patients

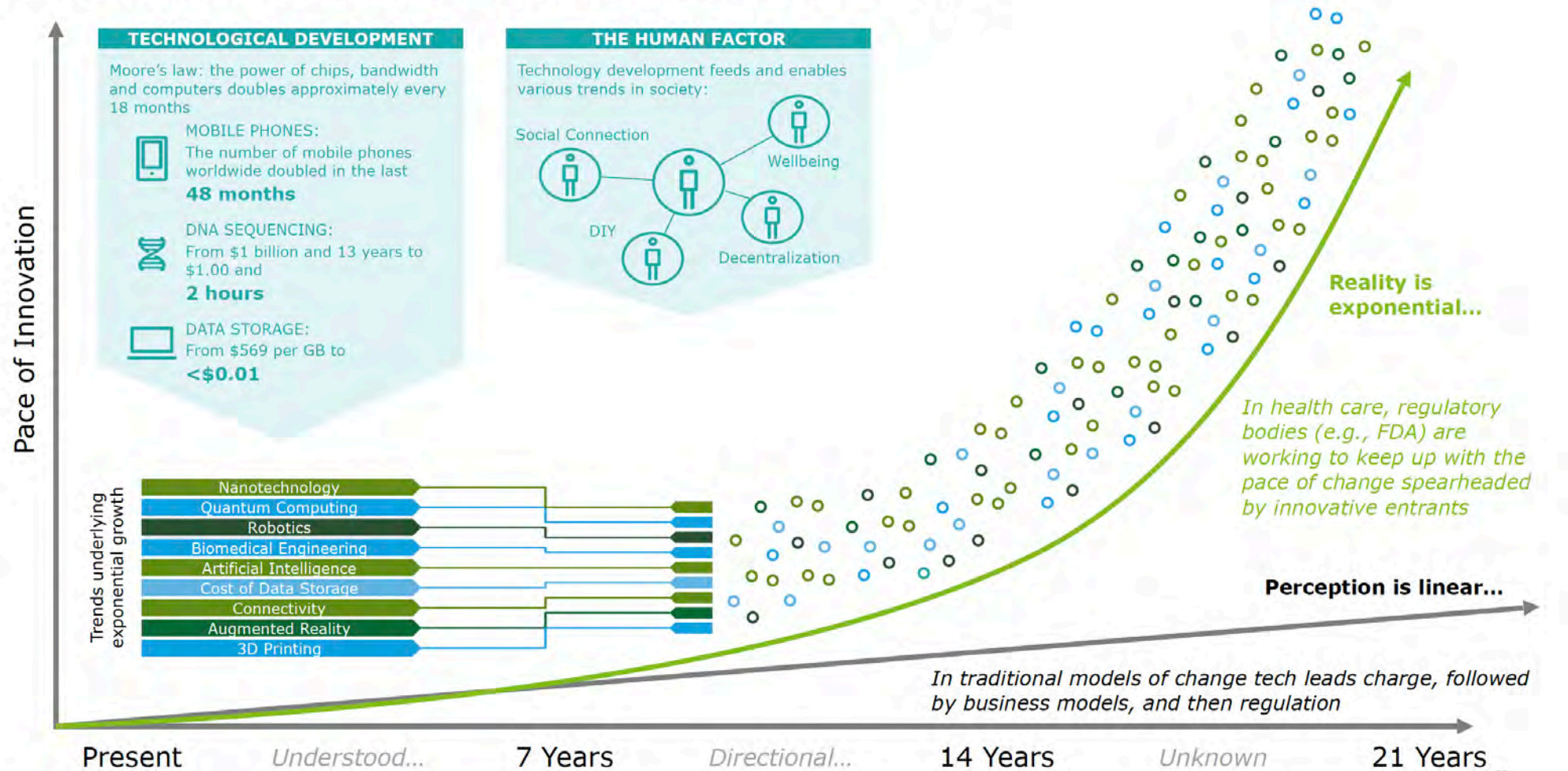


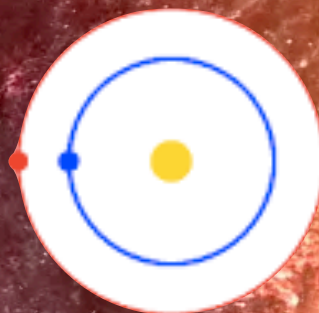
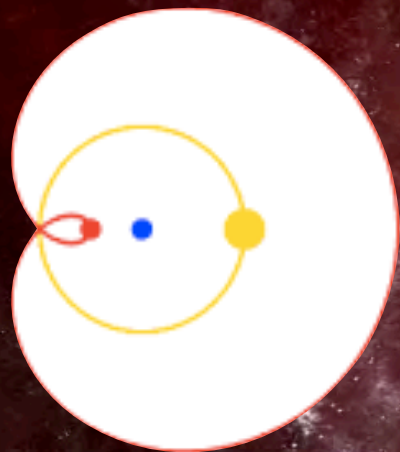
Patients
IncludedTM



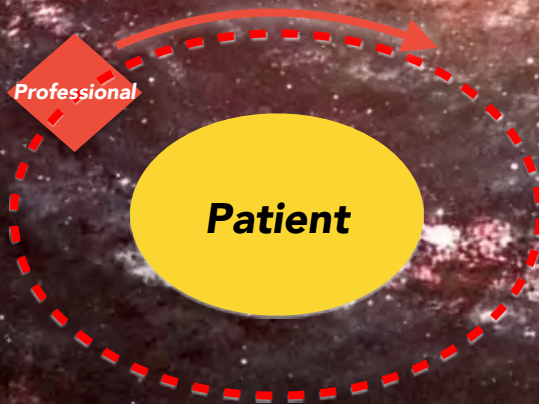
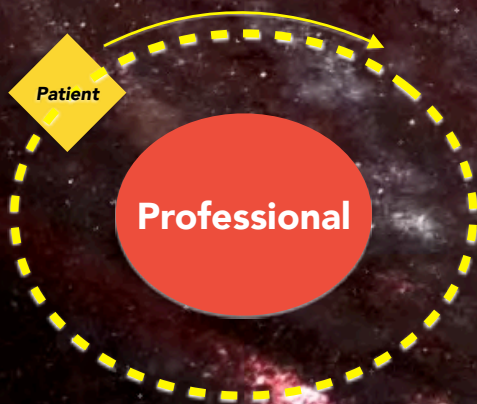
Nurse
IncludedTM

Exponential change will accelerate the pace of disruption





Health(care)'s Copernican moment



Nicolai
Copernicus
1500



Data, pattern recognition and AI will drive transformation

But this is no quick fix!

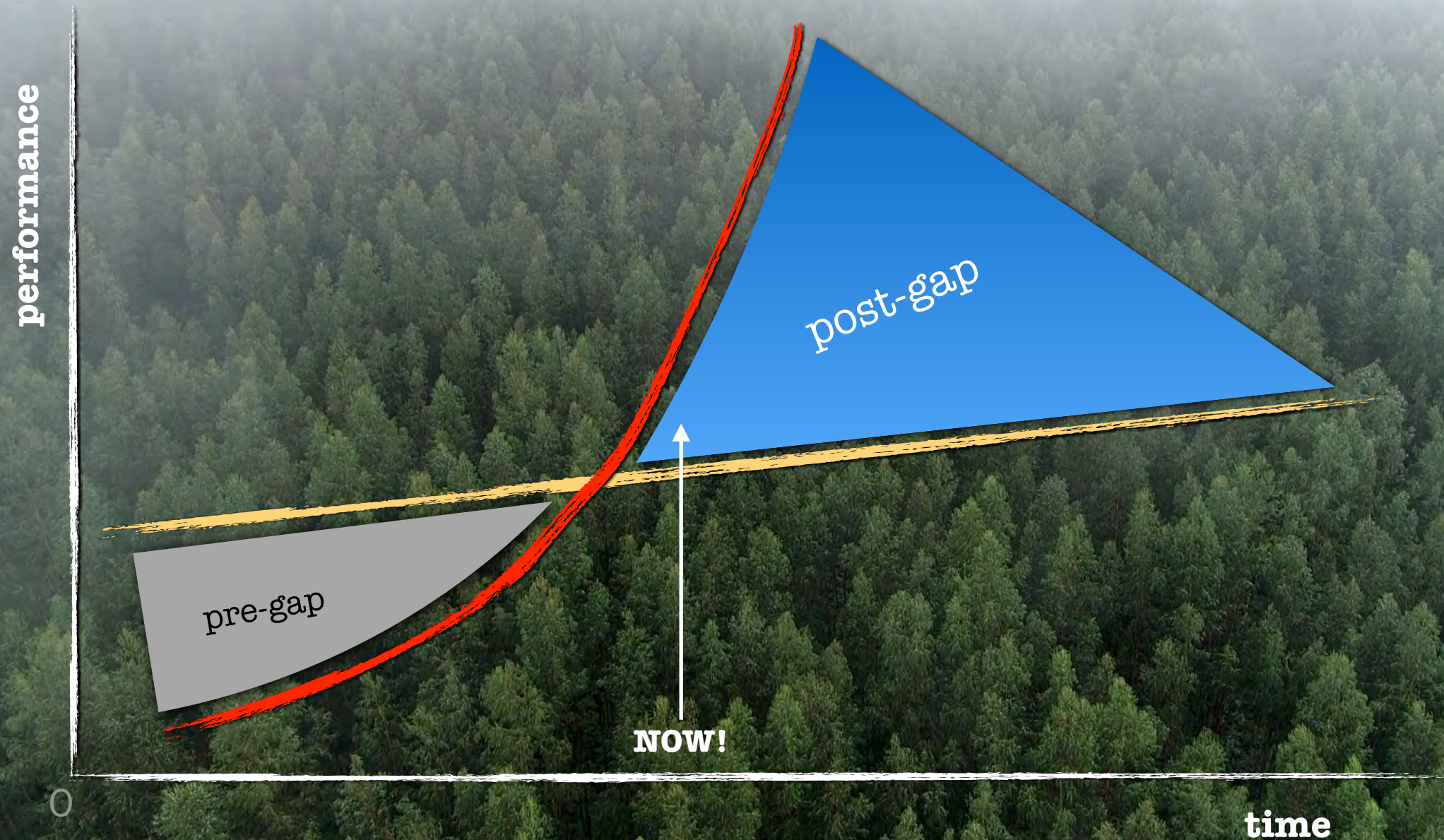
Personalised
Medicine



Personalised
HealthCARE



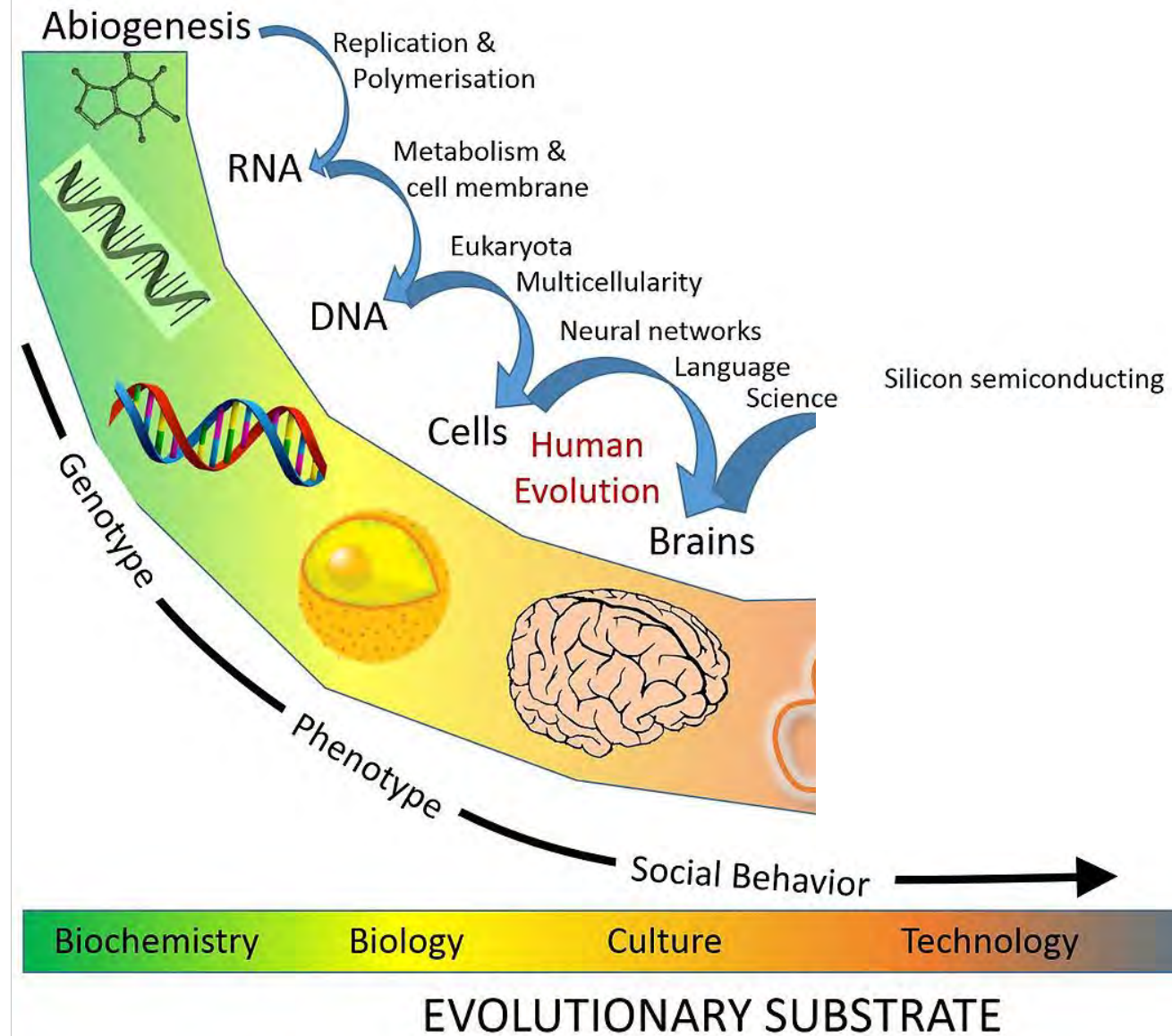
Personalised
Health





TECHN

Healthcare Transfo
Cutting-Edge Patie



based on: Gillings, M. R., Hilbert, M., & Kemp, D. J. (2016). Information in the Biosphere: Biological and Digital Worlds. *Trends in Ecology & Evolution*, 31(3), 180–189. <http://escholarship.org/uc/item/38f4b791>



5

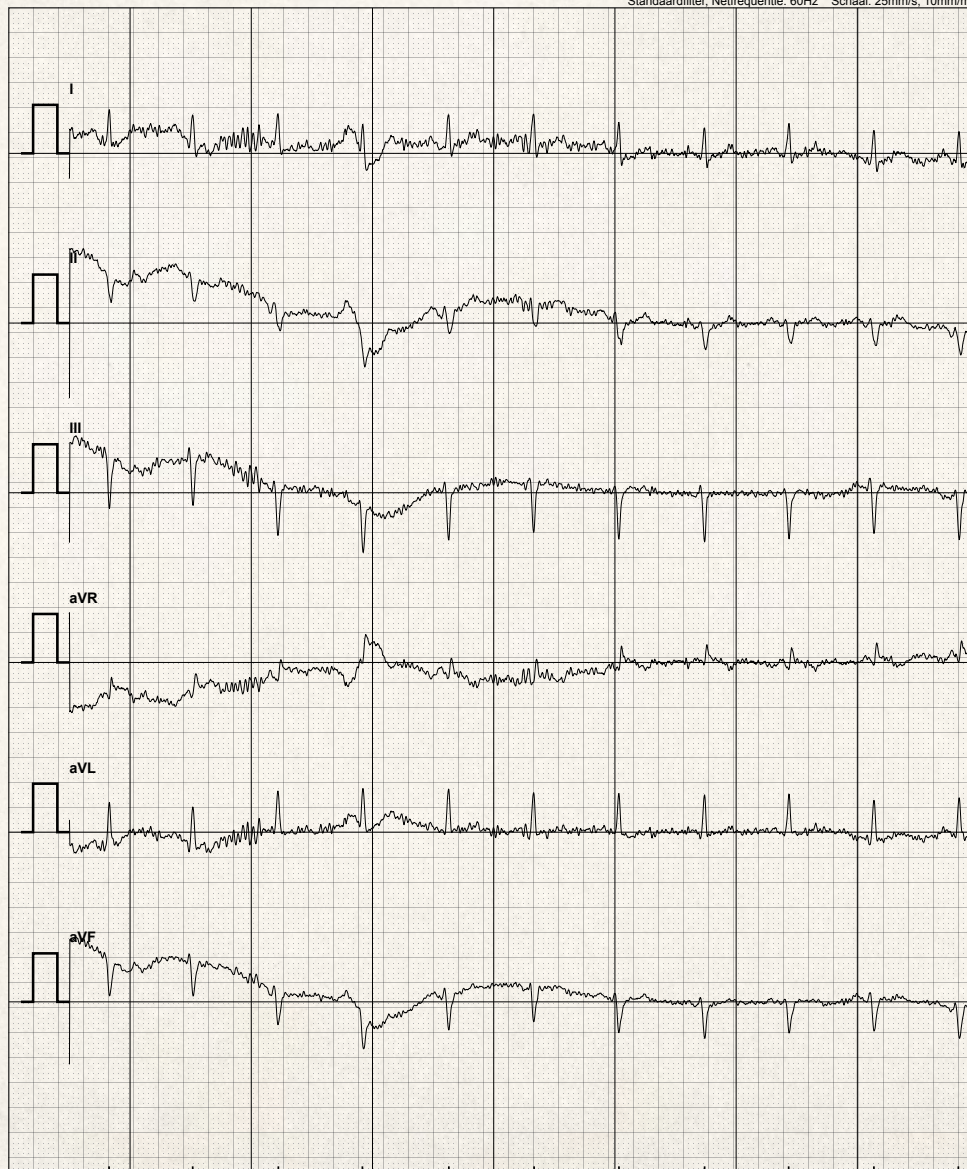


Patiënt: Lucien Engelen, 02-07-1962 (57jaar)
Geregistreerd: woensdag 6 november 2019 om 16:24:48
Hartfrequentie: 85 BPM
Duur: 30s

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

Kardia

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



Alivecor Kardia



Medical



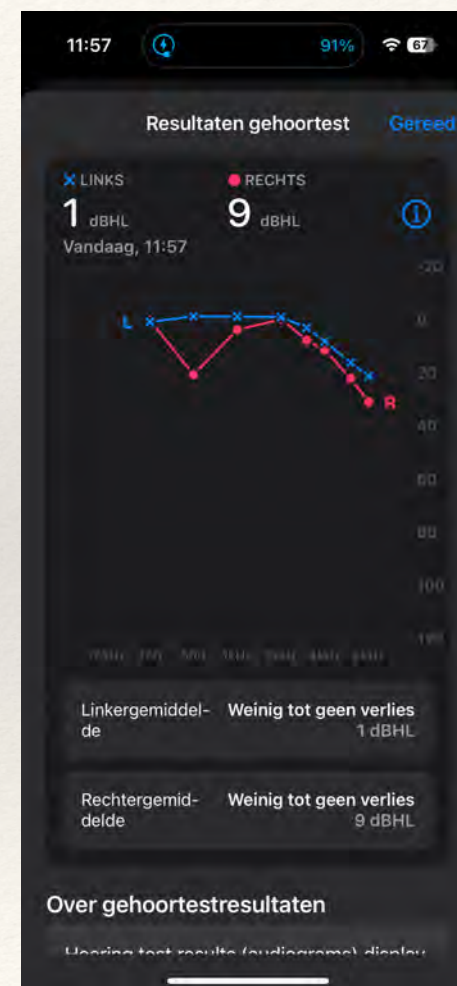
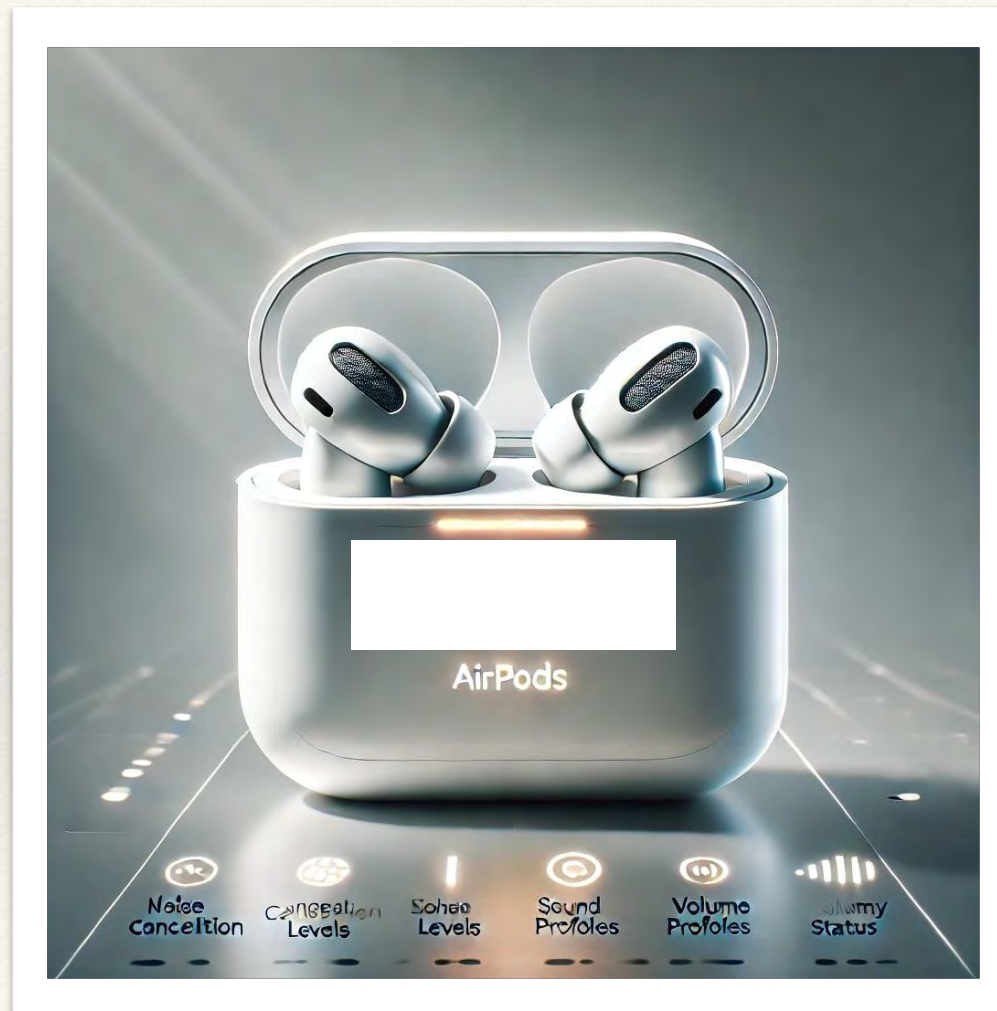
**Observational /
Consumerism**



Medical



Observational /
Consumerism

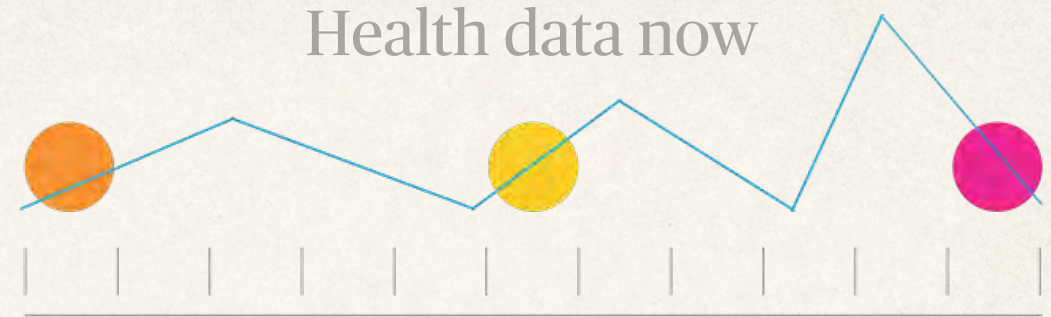


Live vitals in clinical patients

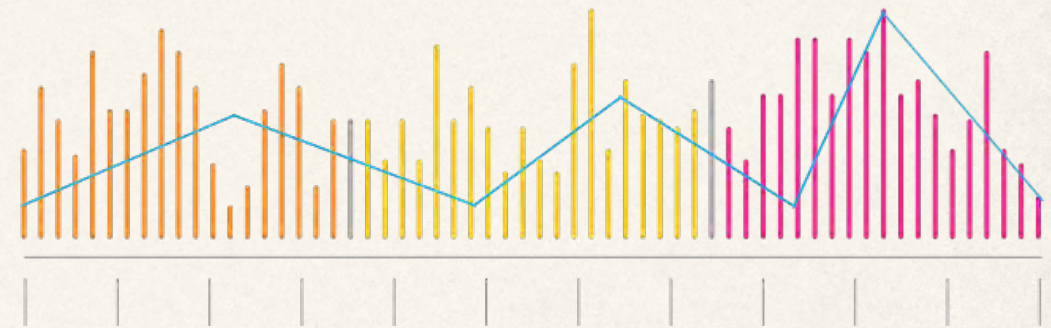
LEAN MONITORING

Life vitals of citizens

Lucian Engelen
Transform Health



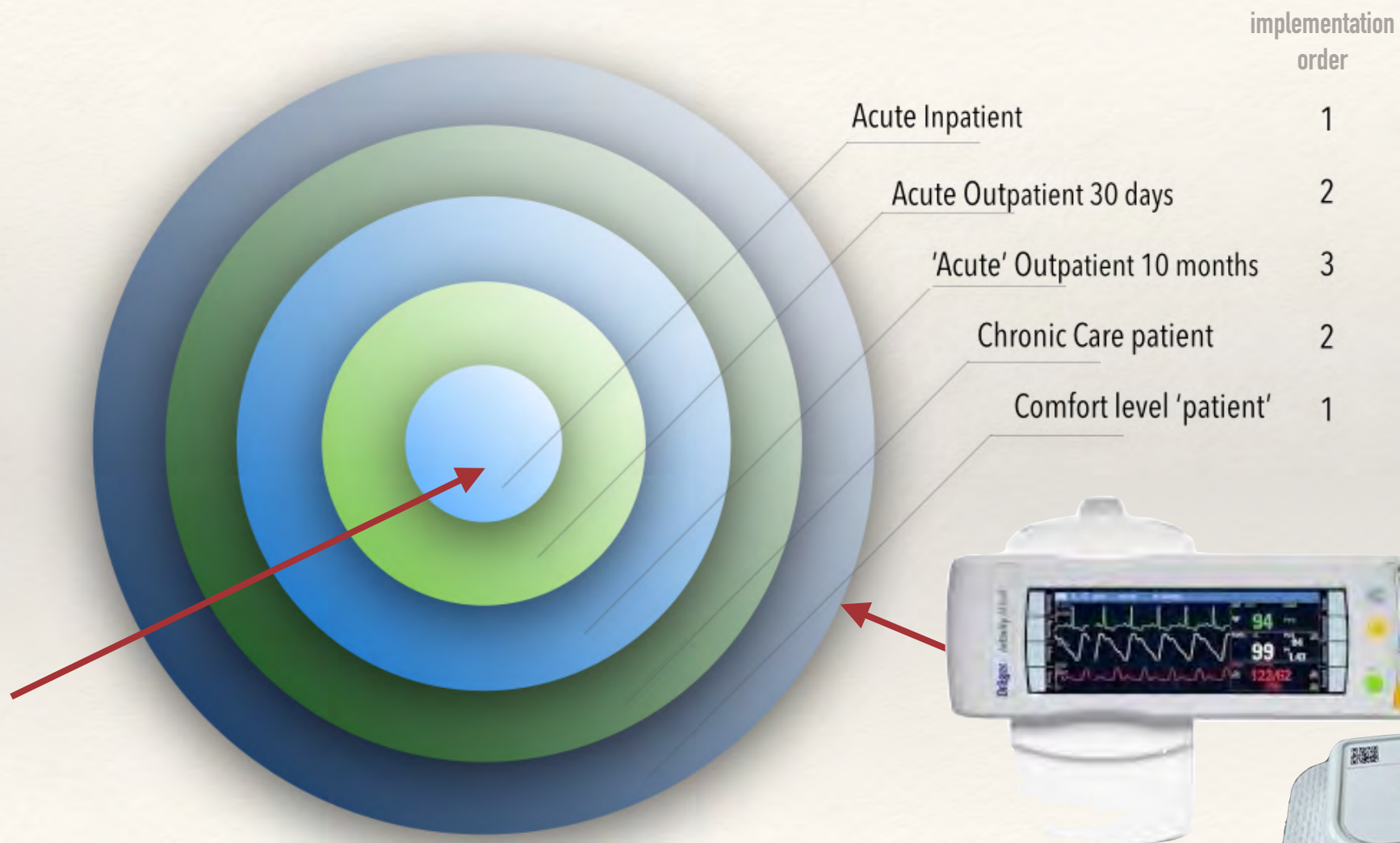
... when they need to be
Continuous & Proactive



From three times daily to
24/7 continuous monitoring
Anytime, Anywhere, Always

Virtual Institutions

Telemedicine & Telehealth & Telecare centers

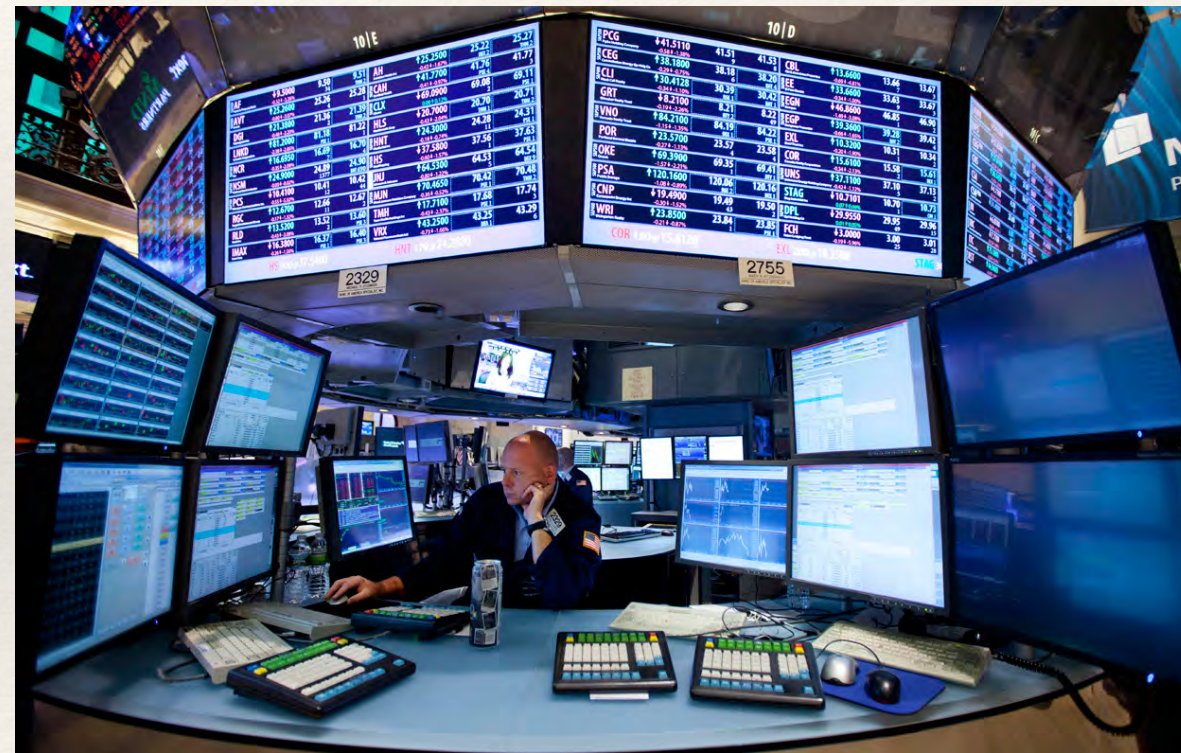


~~from 'Hospital' to 'Home'~~

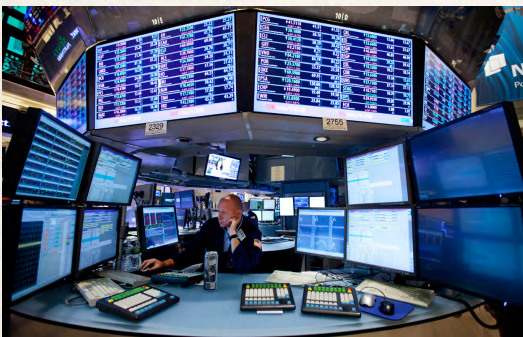


from 'Hospital' to 'Phone'

Healthcare will become a software branch.



has
Healthcare ~~will~~
become a
software branch.

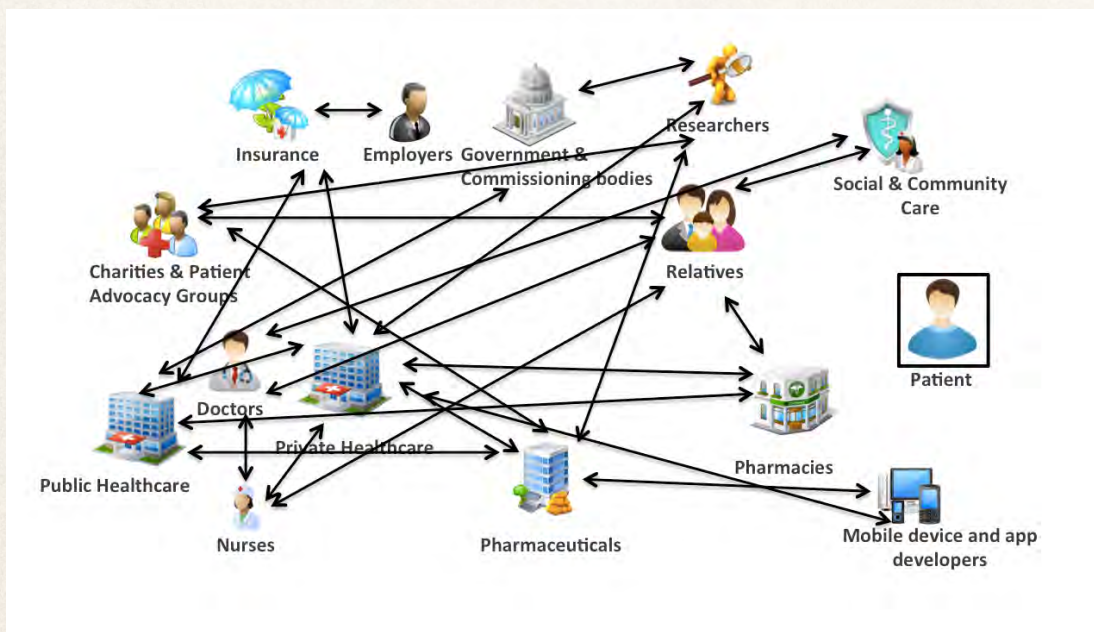


Radboud University Medical Center



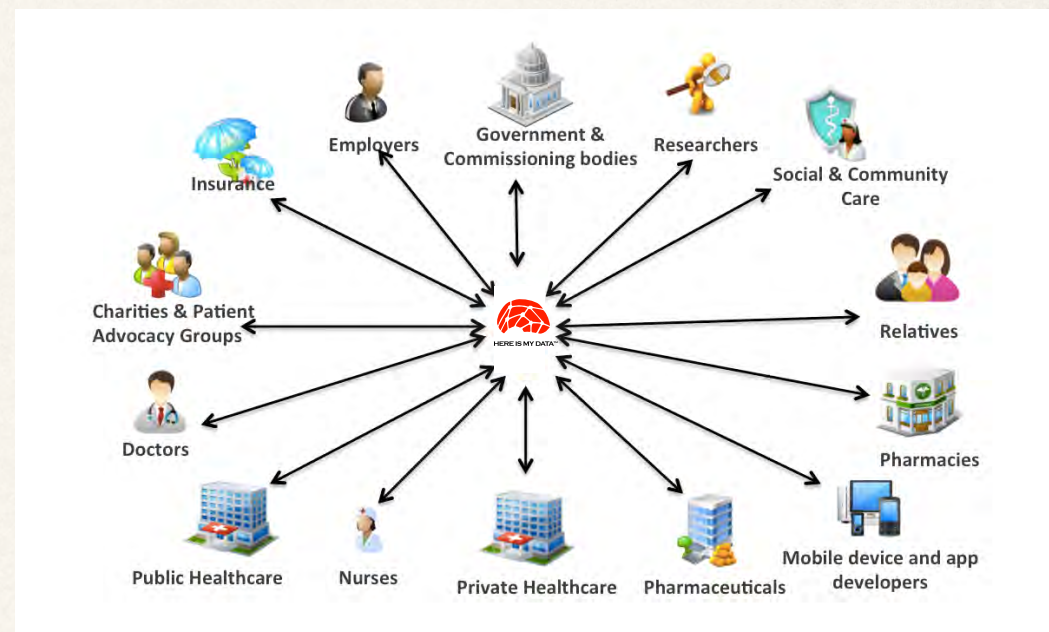
Patients able creating own n=1 communities

via HC IT systems



eGo

Via the patient



eCo









0 score
3 dagen geleden

98 spm
3 dagen geleden

21 brpm
3 dagen geleden

98,4 % SpO₂
3 dagen geleden

29,5 °C
4 dagen geleden

0 niveau
3 dagen geleden

Resultaten

Gebeurtenissen

Profiel

Apparaat

Familie

Configuratie bewaking

Dag

Week

Maand

Jaar

<

vr. 9 mei 2025

>

Q

Q

Q

Q

Q

Q

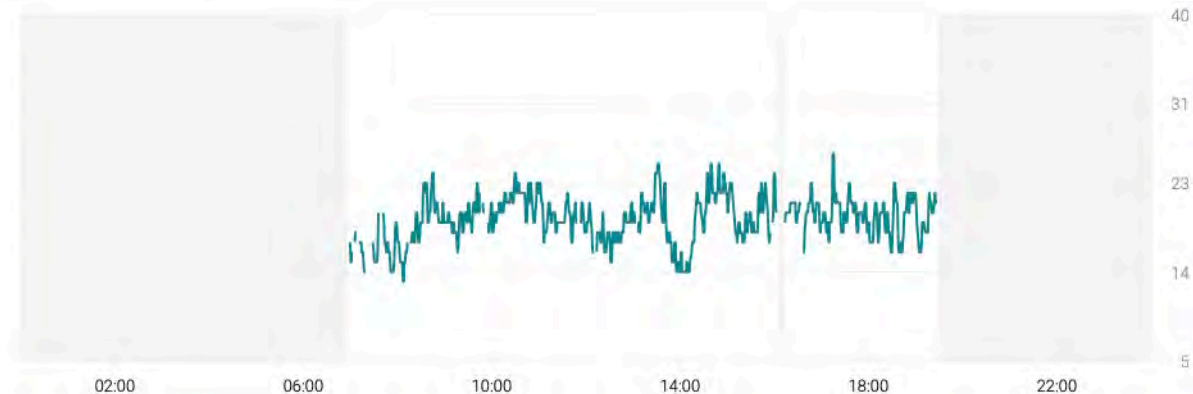
Polsslag (spm)

Apparaat niet gedragen



Ademhalingsfrequentie (brpm)

Apparaat niet gedragen







Health(care) is de-localizing ... so is it's data





Official Journal
of the European Union

EN

L series

2025/327

5.3.2025

REGULATION (EU) 2025/327 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 11 February 2025

on the European Health Data Space and amending Directive 2011/24/EU and Regulation (EU) 2024/2847

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Articles 16 and 114 thereof,

Having regard to the proposal from the European Commission,

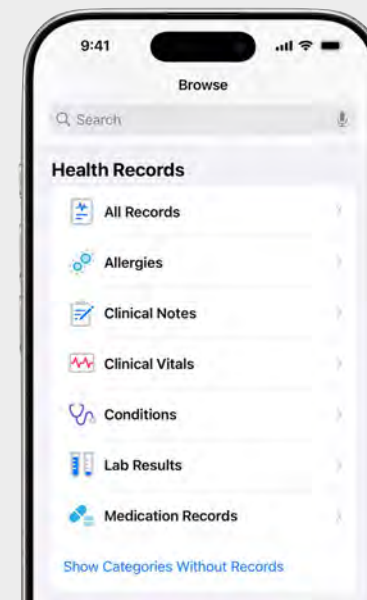
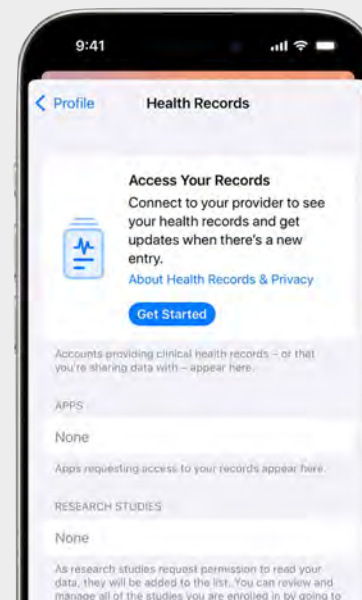
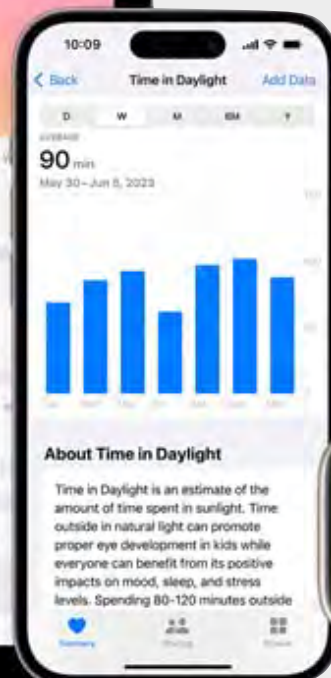
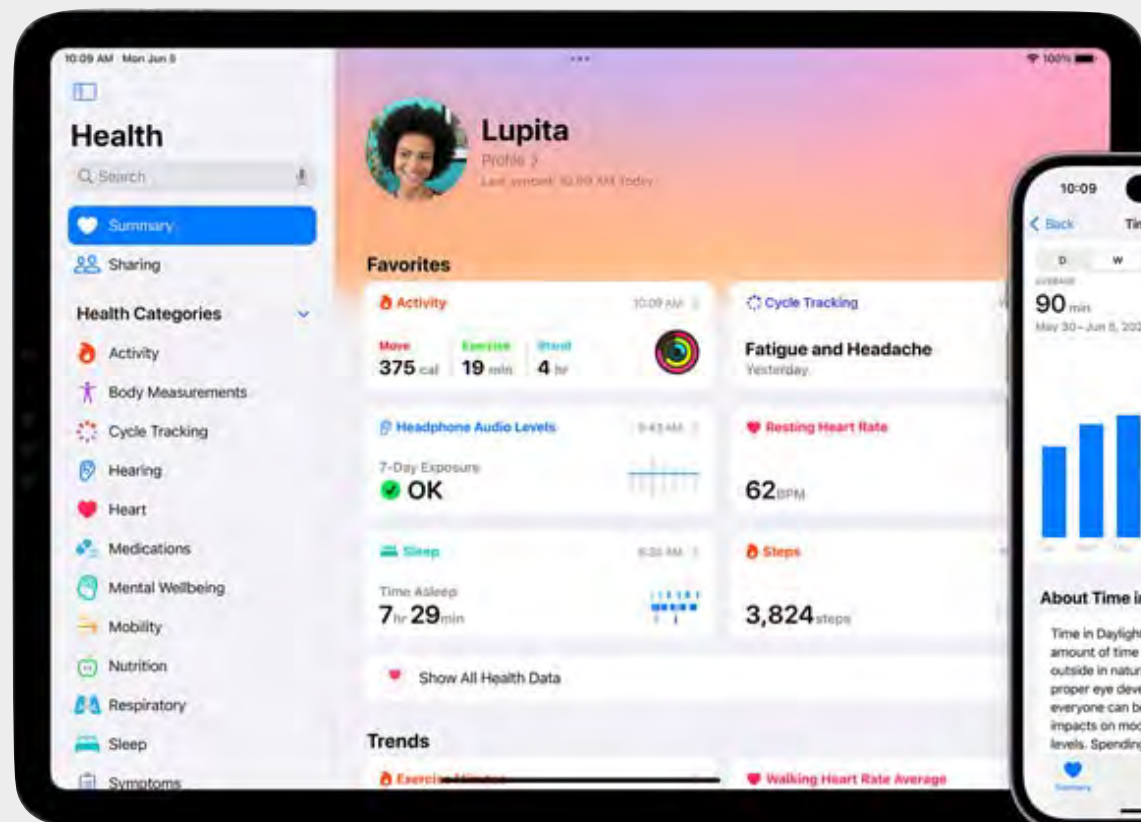
After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee ⁽¹⁾,

Having regard to the opinion of the Committee of the Regions ⁽²⁾,

Acting in accordance with the ordinary legislative procedure ⁽²⁾,





9T05Google ▾



Exclusives Pixel ▾ Nest ▾ Android ▾ Chrome ▾ TV ▾ Workspace ▾ YouTube ▾ Alphabet ▾ Reviews Video

SAMSUNG HEALTH

Samsung Health update will let you access medical records



Andrew Romero | Oct 22 2024 - 8:50 am PT



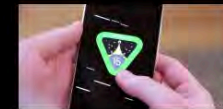
2 Comments



9T05Google

Featured

from 9T05Google



Here's everything new in Android 15 QPR1 Beta 3 [Gallery]



Abner Li | Oct 23 2024



This \$1,000 foldable is far better than I ever anticipated



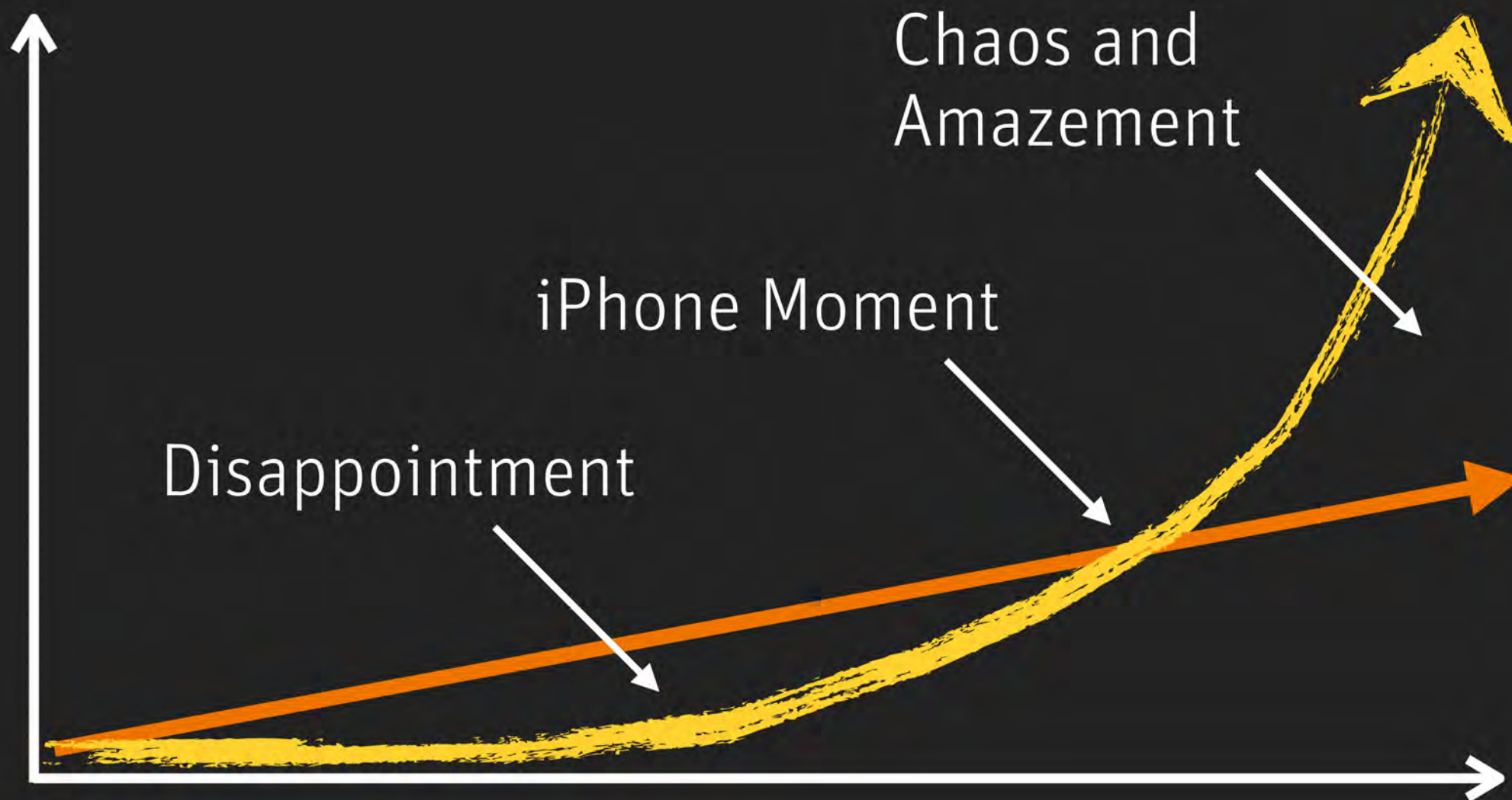
Damien Wilde
| Oct 24 2024



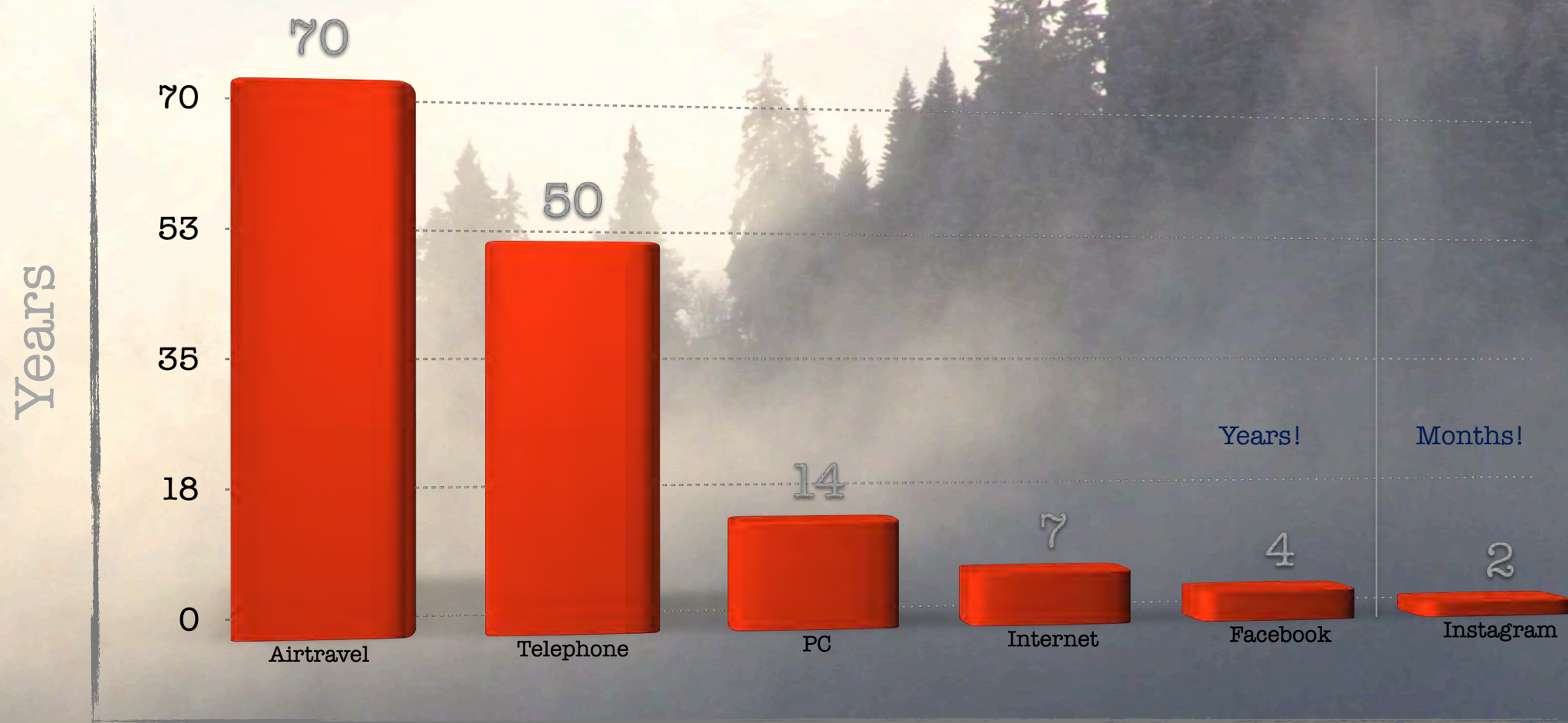
Hands-on: OnePlus packs

Pandora's box of patient data





Years to reach 100 Million people

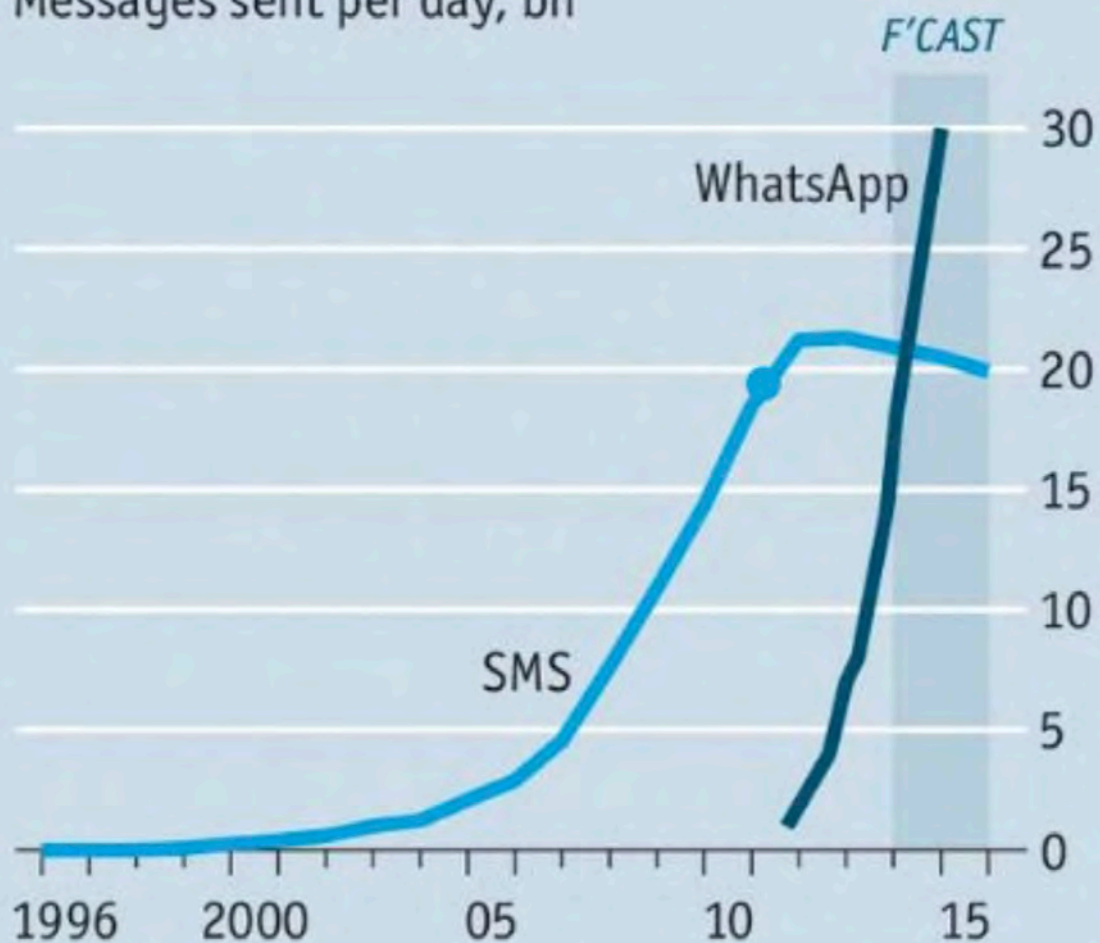


800 Million to date



OMG, RIP txt

Messages sent per day, bn



Sources: Portio Research; a16z

The Future
will fool
history

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

Lucien Engelen
Transform Health



RESTAURANT MENU



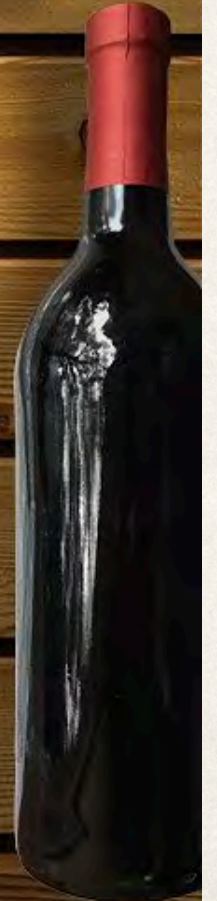
APPETIZERS



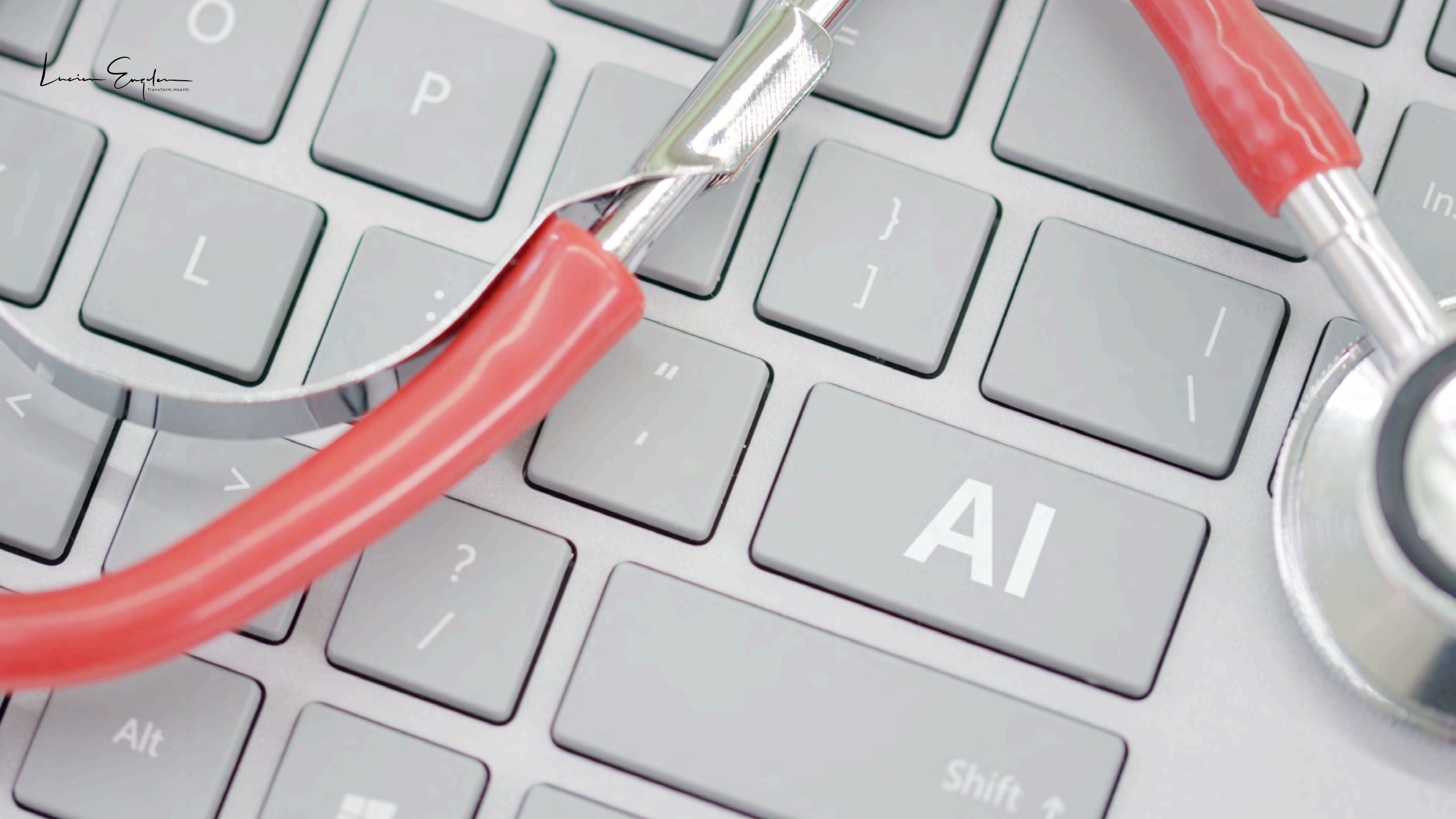
When people talk
about us when
we're not at the table:
We are on the menu.

Health(care)

Lucian Engle
Transform Health







Value

Smart Technology Era



AI

Internet

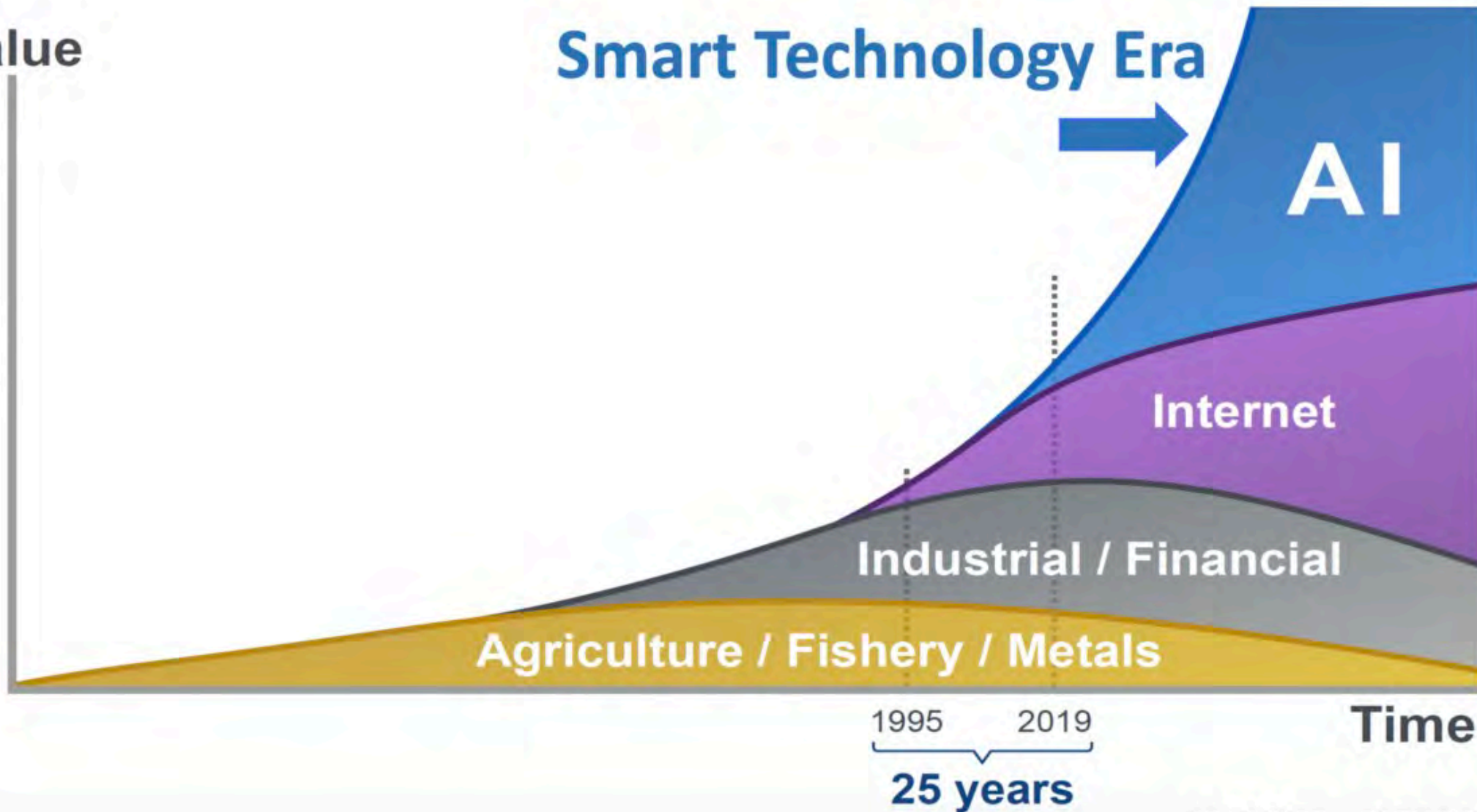
Industrial / Financial

Agriculture / Fishery / Metals

1995 2019

25 years

Time



I'm done, I've had it!



JANUARY 21, 2025

Lucian Engelen
Transform Health

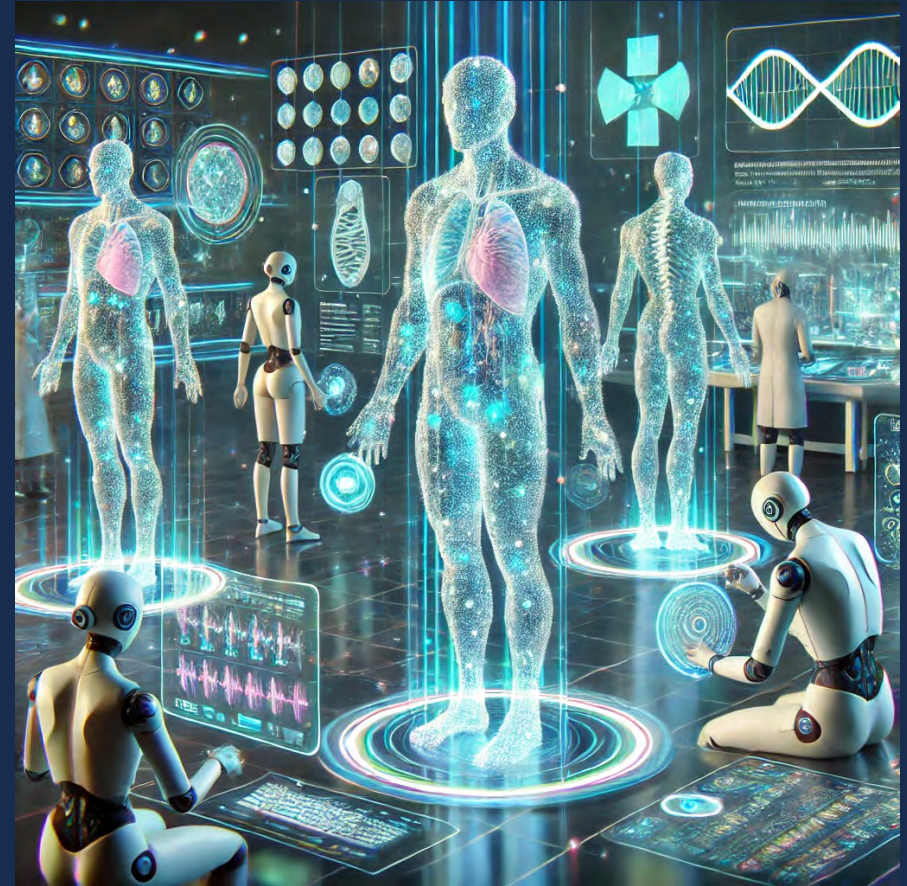
**PRESIDENT TRUMP ANNOUNCES PROJECT STARGATE:
'LARGEST AI INFRASTRUCTURE PROJECT BY FAR IN HISTORY'**

Forbes
BREAKING
NEWS



AI Agents Agentic AI

Is going to disrupt
websites, portals, apps
and point solutions
and EMR's



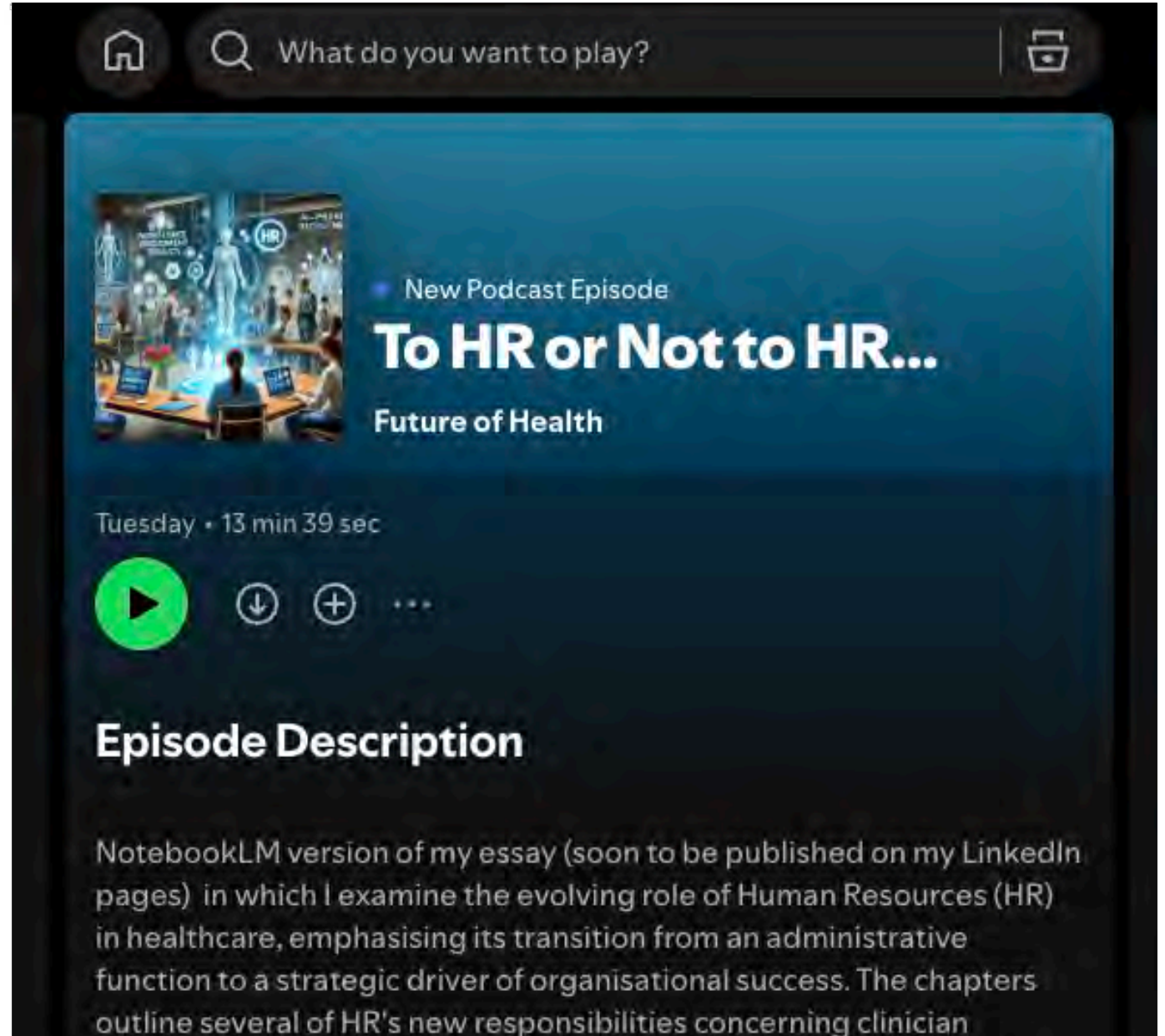
AI-agents **App-store**

In the end a similar process will evolve as seen with the launch of the Apple's app store.

That eventually will evolve in system-incorporated functionalities



My AI-gents





Grandpa Lucien's Health Adventures



2013

Lucian Engle

2024

Autonomous driving Hospital beds



Data shift

**STATIC
DATA**

**HISTORIC
DATA**

**WITHIN
walls of hospital**



**PREDICT
-ALITICS**

**RECENT
DATA**

**OUTSIDE
walls of hospital
WITH alarming**



**PRESCRIPT
-ALITICS**

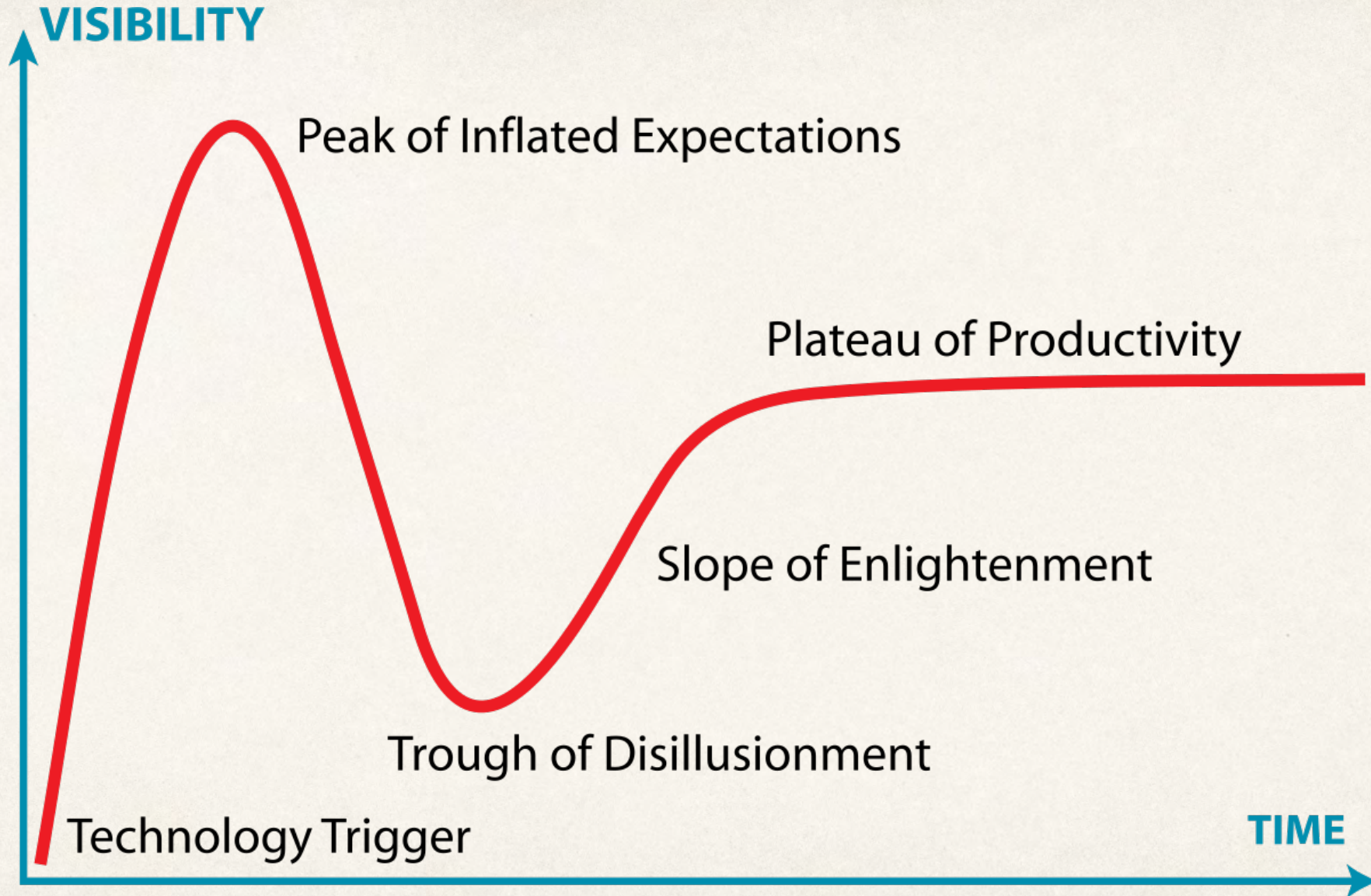
**REALTIME
DATA**

**OUTSIDE
walls of hospital
Collecting data**

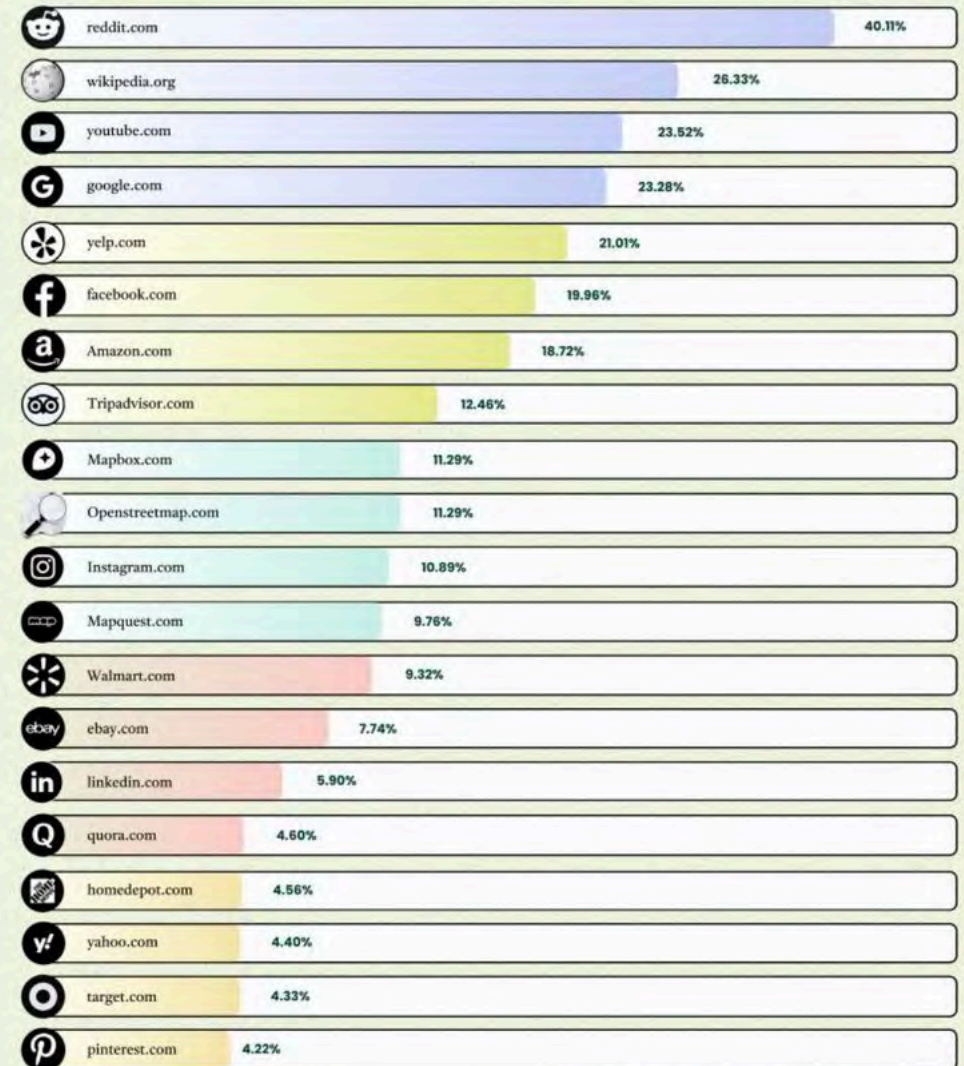




SMARTER



Where AI Gets Its Facts From



The age of everything connected, and cutting through the noise

- Enhance clinical outcome
- Medication management
- Timely interventions
- Improved communication
- Psychological support
- Combine datapoints in/out hospital
- Data to executable insights
- Decrease alarm fatigue





Crossroads

Lucian Engelen
transform wealth

Sandwich Generation





Sandwich Generation

5 major shifts in health(care)

1

A shift from healthcare to health

More focus, and shift of resources, from interventions to prevention, early diagnostics, vitality & wellbeing
Beyond “quality for the patient” to “health of the population”

2

Virtual Health(care): truly centered around the “health consumer”

From a (logistical) supply-driven model of care at a (hospital) location to virtual care
Care will be organized more around the patient, with the motto of 'digital first'

3

Data-driven personalized ('N = 1') health insights and interventions

From treatment based on standard protocols to personalized, data-driven insights and interventions
New health data value chain with collection, analysis, translation to actionable insights, user interface, data platforms

4

Future of work for healthcare professionals: a new what, where and how

Healthcare professionals will be supported by robotization, automation and AI, freeing up more time for a personal approach, quality and safety. Location of work far less relevant.

5

New revenue models, more focused on population health

Reimbursement in silos (e.g. primary care, hospitals and care), is not appropriate for integrated patient care. Neither is Fee for Service
New payment flows will lead to new value pools and revenue models for existing ecosystem players and new entrants

Linking the Future of Health

Lucien Engelen
Transform Health

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 • Mental Health • 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

150 Euro full health scan 50 million datapoints






Healthtech/News/

Spotify founder Daniel Ek officially launches new startup — and this time, he's taking on healthcare

Neko Health's launch confirms earlier Sifted reporting on the Spotify founder's next moves

BY MIMI BILLING 2 FEBRUARY 2023

Daniel Ek and Hjalmar Nilsson, founders of Neko Health

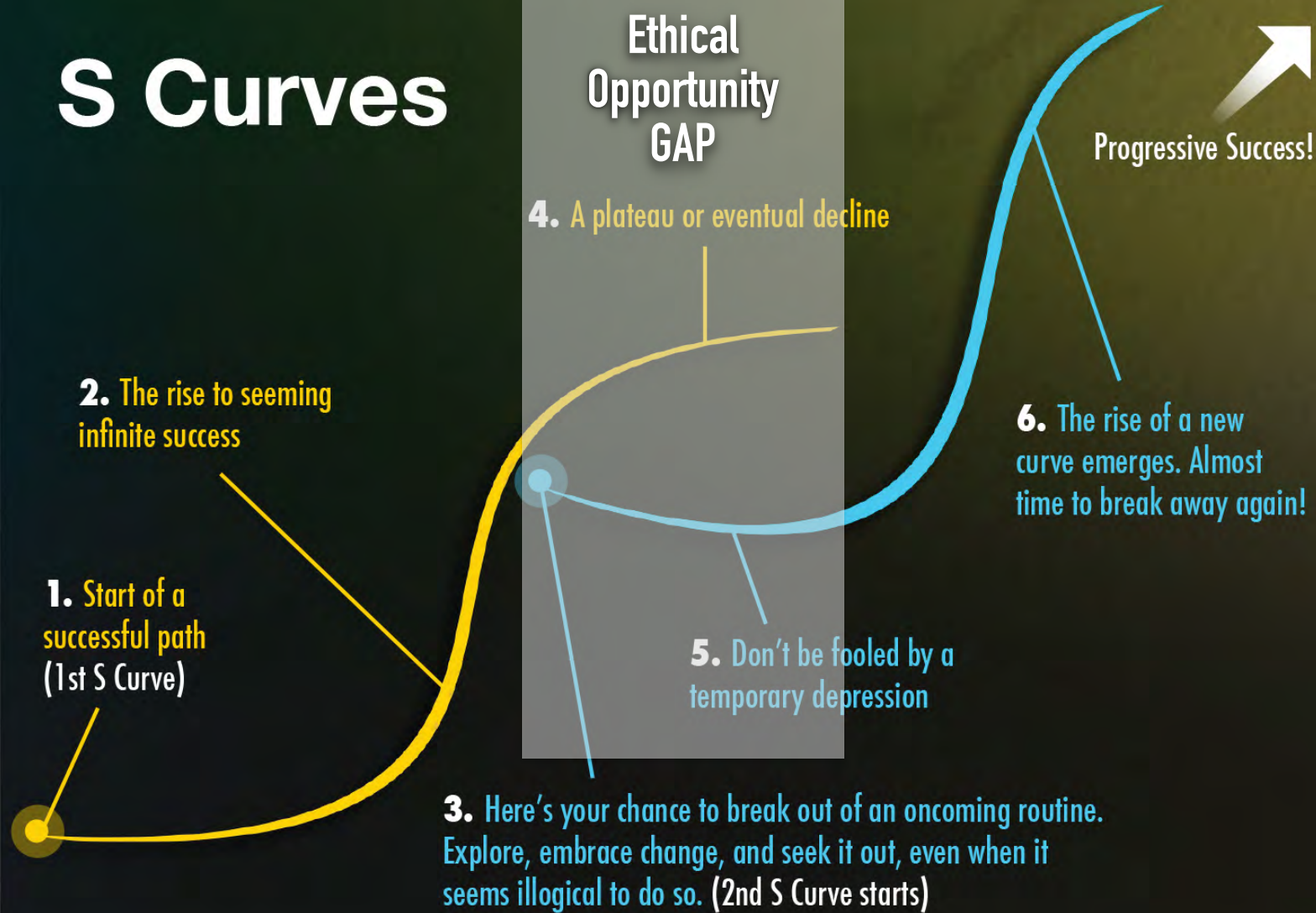




Spotify founder and CEO Daniel Ek is launching a new startup which aims to shake up an industry even bigger than music: healthcare.

S Curves

Progress



Time

717





Think outside-in

Take care

Keep looking outside

Change is coming from the edge

Eco-system play

Partnering

Safe technology

Scalable

Ethical safe

Unbiased

Affordable

Sustainable

Makes them smarter



Today was yesterdays' future

..and chances for impact are NOW!



Wishing you all a soft landing into the future



For my slides, questions or remarks :



The image is a screenshot of a LinkedIn profile for Lucien Engelen. At the top, the LinkedIn navigation bar is visible with icons for home, search, network, jobs, messages, and notifications (11). The profile header features a banner image with a globe and a compass, overlaid with the text: "Securing a soft landing into the future... Explore, Design, Deliver" and "LISTEN ADVISE SPEAK INSPIRE". Below the banner is a profile picture of Lucien Engelen, a man in a tuxedo, speaking at a podium. The profile name "Lucien Engelen" is displayed with a verified badge and "(He/Him)". His bio reads: "Health(care) Strategy & Digital Transformation Maven. International Ambassador Nursing Innovation. (im)Patient. Speaker. Makes things happen." Below the bio is a "Top Voice" badge. The company "TransformHealth" is listed, followed by the location "Heythuysen, Limburg, Netherlands" and a "Contact info" link. At the bottom, it shows "791,230 followers" and "500+ connections".

Lucien Engelen (He/Him)

Health(care) Strategy & Digital Transformation Maven.
International Ambassador Nursing Innovation. (im)Patient.
Speaker. Makes things happen.

Top Voice

TransformHealth

Heythuysen, Limburg, Netherlands · [Contact info](#)

791,230 followers - **500+ connections**

A close-up photograph showing a healthcare worker in blue scrubs holding the hand of an elderly patient. The worker's hand is resting on the patient's hand, which is resting on a white surface. The worker's stethoscope is visible around their neck. The text "the Power of the human touch" is overlaid in the center of the image.

the Power of the human touch



For my slides, questions or remarks :

