

The Future of Work

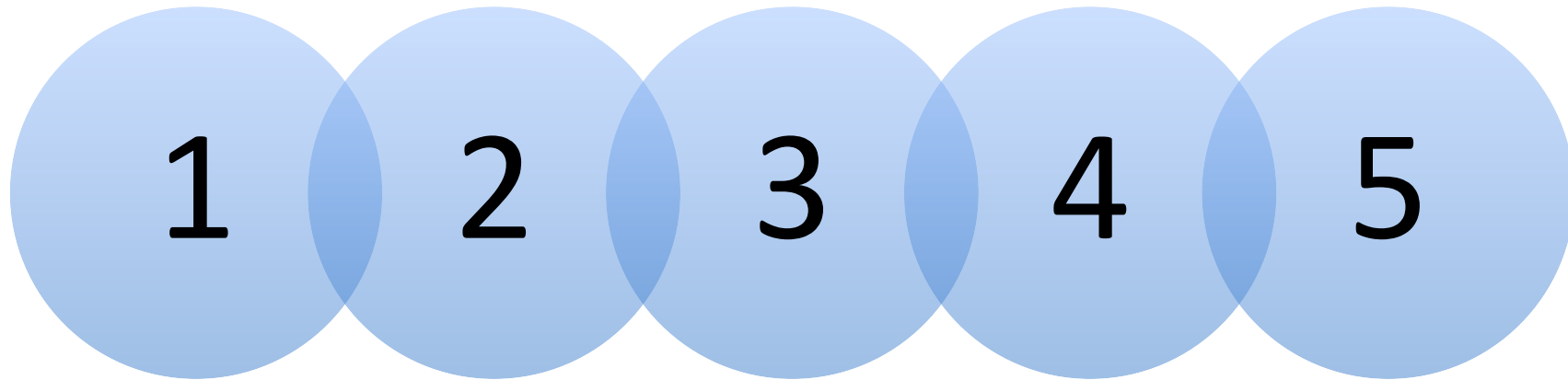
Will a robot take your job?
Are there other questions
you should be thinking
about?



Physiotherapy New Zealand
Business Symposium: Beyond 2019
Auckland, 1 November 2019

Dr Stephanie Pride
StratEDGY Strategic Foresight
www.stratedgy.co.nz

Where would you put yourself on the
'appetite for change' continuum?



Will a robot take your job?

To answer this question,
we have to consider two
things:

- What does your job consist of
- How is automation impacting on work



Will a robot take your job?

What does your job consist of?

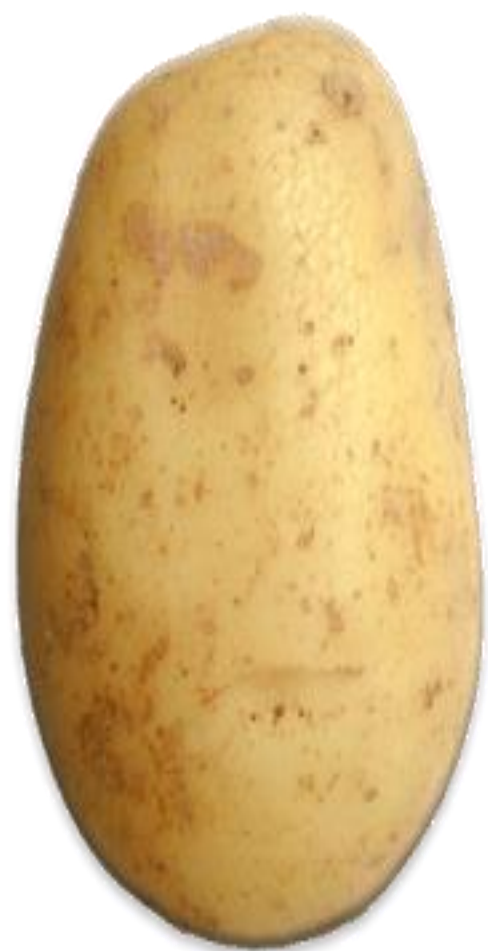
On your handout, please fill in the left hand column with the main tasks you do.

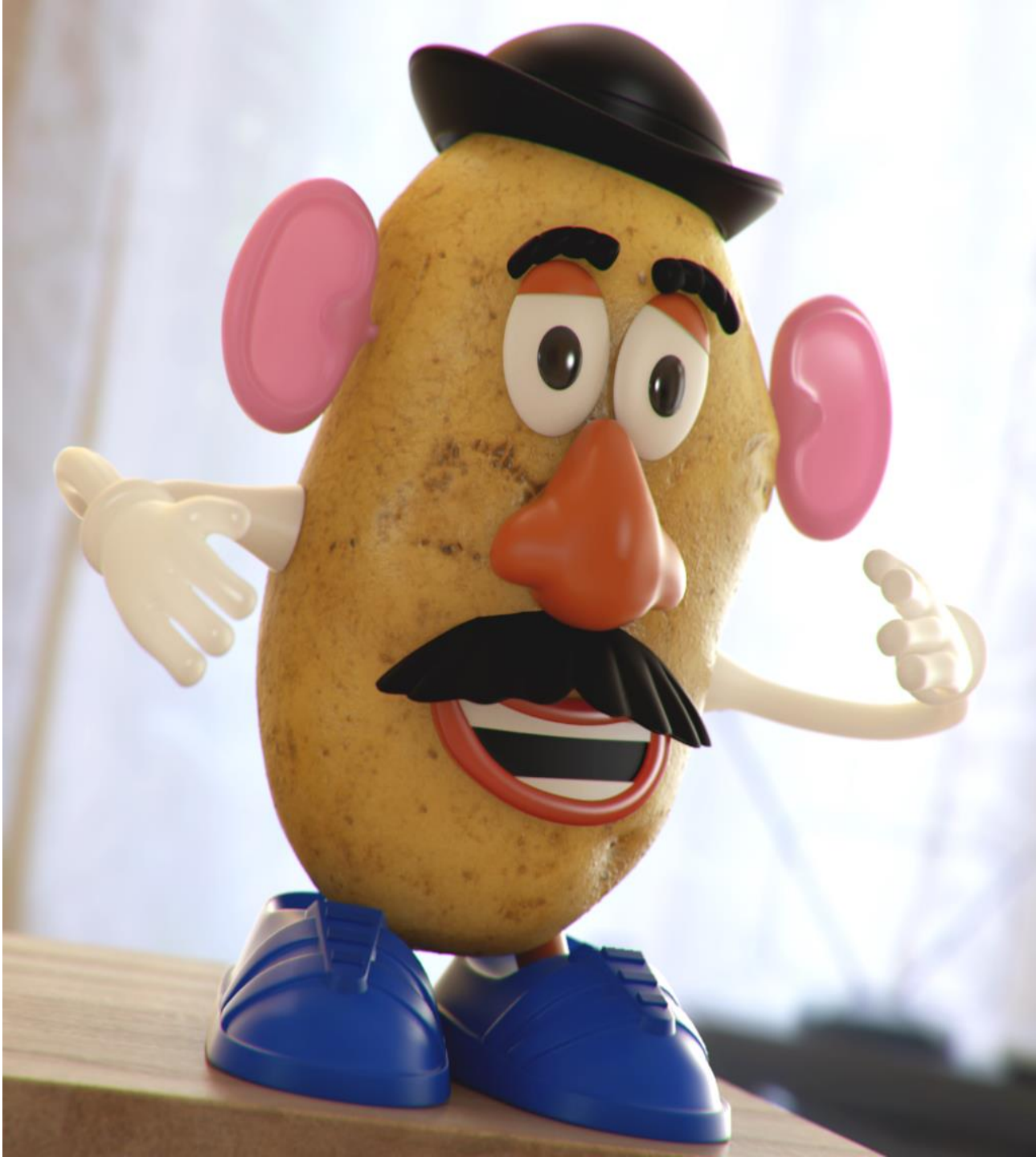
When you've done that, tick the appropriate column to indicate whether you'd like more or less of it in your life













Boston
Dynamics

DARPA

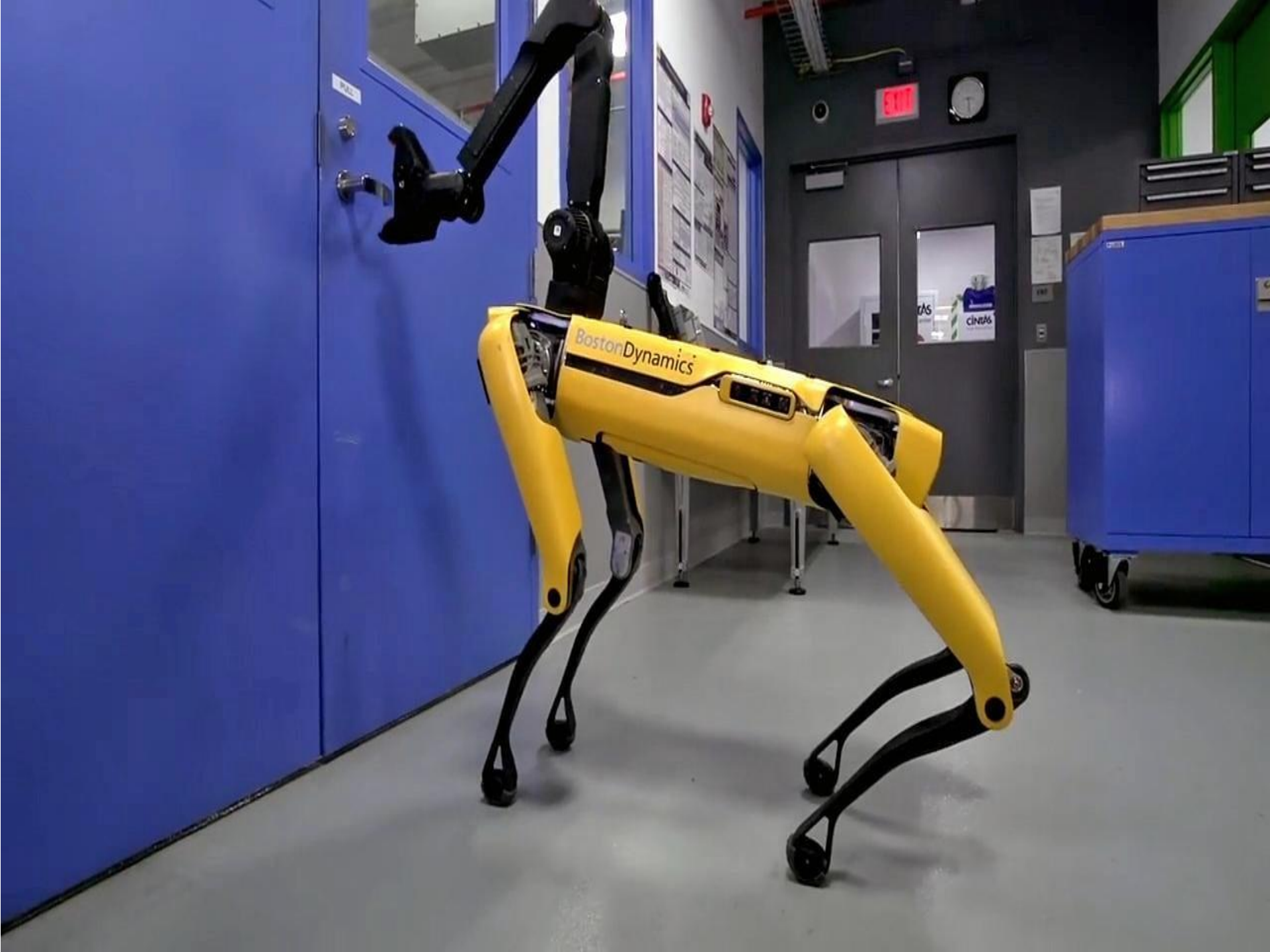




Screengrabs from video uploaded on YouTube by BostonDynamics









Boston Dynamics







Japan's robot hotel: a dinosaur at reception, a machine for room service

The Henn na - or Weird Hotel - has opened in Japan where guests check in with robots which also deliver their luggage to rooms



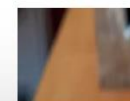
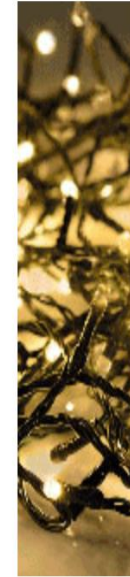
▲ Robot staff are ready to welcome guests at Japan's new hotel. [Link to video](#)

Japan's robot hotel lays off half the robots after they created more work for humans

It turns out even robots can't enjoy job security

By [Shannon Liao](#) | [@Shannon_Liao](#) | Jan 15, 2019, 4:36pm EST

[f](#) [🐦](#) [🔗](#) SHARE





AI

VS



LAWYERS

Everything
routine will be
automated –
this is already
underway



Will a robot take your job?

What does your job consist of?

On your handout assess your main tasks in terms of whether they are routine or non-routine.



The Future of Work

What else is impacting
on the future of
work?

e.g. the rich digital
ecosystem





Rich Digital Ecosystem
Unprecedented Connectivity
Unprecedented Data Richness
Unprecedented Analytical Capability
Mobile
Sensate
Responsive

Individual data



Individual data





Thington's concierge helps you
get the most from your smart devices

Immediate Environment



City/settlement

Rich digital ecosystem - Impact on work

Business model
disruption



Rich digital ecosystem - Impact on work

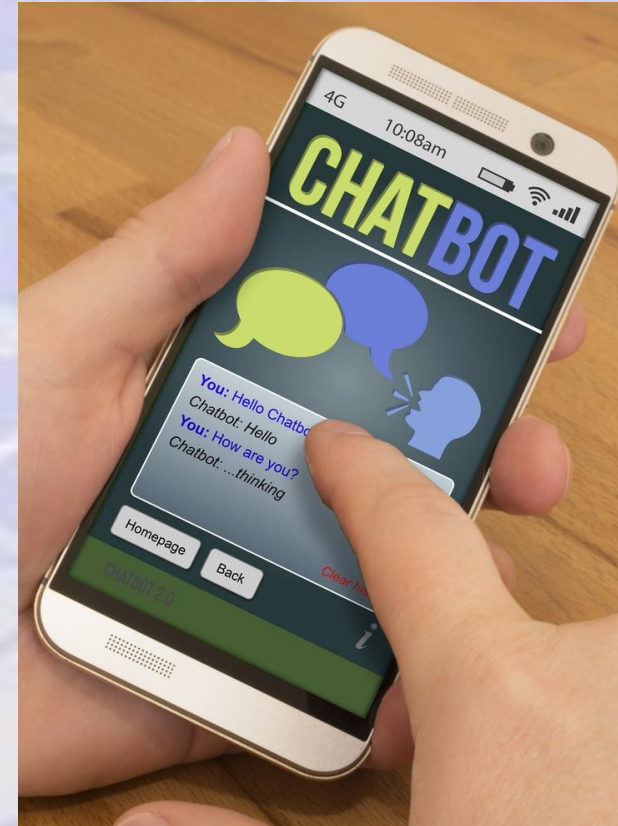
Size and revenue
disconnected –
large profits
without large
workforces



Rich digital ecosystem - Impact on work

Automation of routine work – both manual and cognitive

Hollowing out jobs in the middle



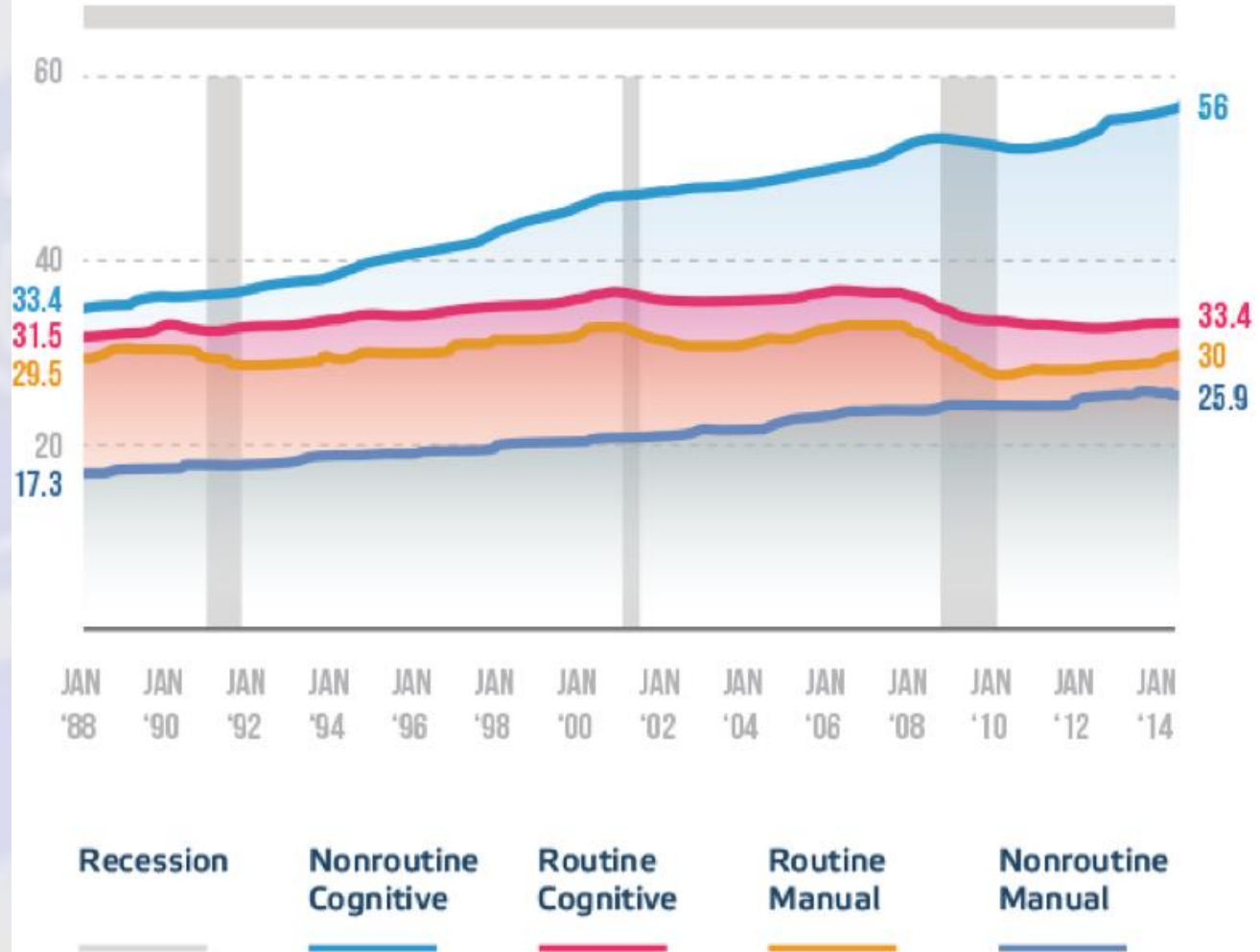
Rich digital ecosystem - Impact on work

Skill level and skill mix constantly evolving – learning and creating are no longer separate from working

RISE OF THE NONROUTINE

SOURCE: HENRY SIU AND NIR JAIMOVICH FOR THIRD WAY

Total Number of jobs (in millions) sorted by whether the work is routine or non-routine, 12-month moving average



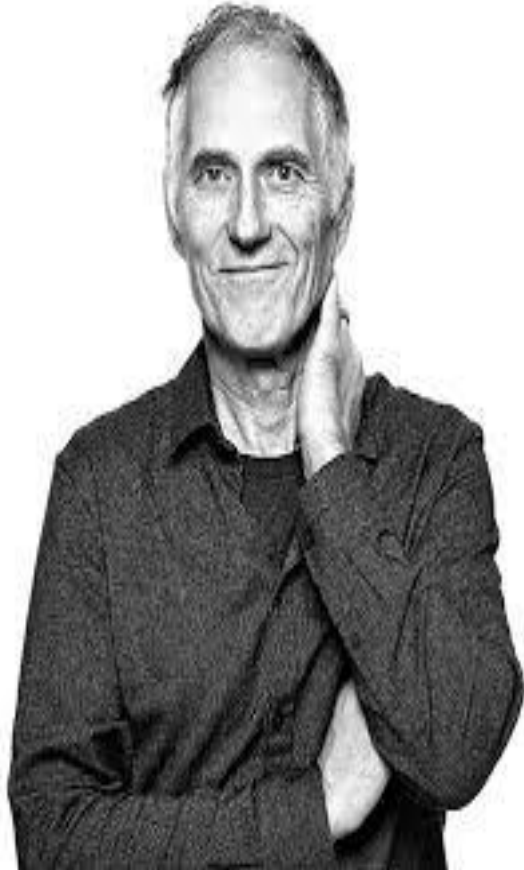
Rich digital ecosystem – Impact on work

The uniquely human aspects of work will be ever more important

The Most In-Demand Skills in 15 Business Functions

Based on nearly 25 million job postings collected between September 2014 and August 2015.

SKILL BY OVERALL RANK	CAREER AREA															
	OVERALL	Clerical and administrative	Customer and client support	Design, media, and writing	Engineering	Finance	Health care	Hospitality, food, and tourism	Human resources	Information technology	Management and operations	Manufacturing and production	Marketing and public relations	Personal care and services	Research, planning, and analysis	Sales
Communication skills	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1
Organizational skills	2	3	3	4	3	3	2	2	2	3	2	2	2	2	2	3
Writing	3	6	5	1	2	4	3	4	5	2	3	3	3	4	4	4
Customer service	4	8	1	15	12	7	9	3	11	9	11	14	12	5	11	2
Microsoft Excel	5	2	9	9	8	2	12	16	3	10	6	6	5	16	3	9
Microsoft Word/Office	6	4	8	7	5	5	10	13	4	8	8	5	9	15	7	6
Problem solving	7	12	6	10	6	8	7	12	7	4	7	4	11	10	5	7
Planning	8	14	18	13	7	12	5	10	10	5	4	8	4	7	8	11
Computer skills and typing	9	5	4	17	10	10	4	8	12	24	14	7	17	9	16	8
Research	10	10	12	5	9	9	6	21	8	7	12	13	6	12	6	18
Detail-oriented	11	7	7	6	11	6	14	9	6	11	13	9	10	19	10	12
Building effective relationships	12	15	11	19	17	11	11	6	9	15	9	18	13	3	13	5
Project management	13	24	24	11	4	17	19	37	14	6	5	12	8	29	9	22
Supervisory skills	14	18	20	25	14	14	8	5	18	26	10	11	23	8	26	14
Multitasking	15	9	10	12	19	13	15	11	13	13	18	15	16	18	14	13
Time management	16	16	13	14	26	15	16	19	15	21	19	20	20	14	19	10
Leadership	17	33	23	21	15	26	18	14	24	12	15	17	22	17	17	17
Mathematics	18	22	15	27	13	18	25	7	35	20	31	10	32	13	18	16
Creativity	19	30	26	3	22	27	22	20	16	14	17	26	7	21	22	20
Presentation skills	20	35	21	16	23	22	23	32	17	16	16	27	14	31	15	15
Teamwork	21	20	19	18	21	23	21	15	21	17	24	19	15	22	21	19
Analytical skills	22	31	28	29	27	16	32	36	23	18	22	21	21	36	12	31
Bilingual	23	23	14	23	34	20	17	24	22	39	29	25	31	23	36	24
Meeting deadlines	24	19	27	8	28	19	31	28	19	25	26	22	18	25	20	29
Self-starter	25	27	29	20	24	25	38	34	25	22	28	24	19	30	23	21
Listener	26	34	16	31	37	24	20	22	32	32	34	29	33	6	33	23
Critical thinking	27	36	36	34	39	29	13	45	38	29	38	38	35	37	28	39
Positive disposition	28	29	22	24	36	32	28	17	33	37	40	28	28	11	41	25



“EVERY industry and
EVERY organisation
will have to transform
itself in the next few
years”

The Future of Work

Are there other questions
you should be thinking
about?

e.g. how can the
rich digital
ecosystem help
me do my job
better?



Not replacing but assisting



Not replacing but assisting

SWIBO HOME GET STARTED ▾ DOWNLOAD FEATURES HELP MEDIA CONTACT MY ACCOUNT

SWIBO TILT

BALANCE GAMES FOR FUN, FITNESS, AND PHYSIO

SWIBO Swibo Tilt, Games for Fun, Fitness, and Physio Watch later Share

Welcome! To give Swibo Tilt a try, click below for a free...

Not replacing but assisting

[SENSORS](#)[RESOURCES](#)[ABOUT US](#)[SHOP](#)

Training smarter not harder

By leveraging big data, machine learning algorithms and cloud computing, it's even possible to create smart garments that give real-time feedback. Imagine swinging a golf club 100 times only to find out after training that you were bending your elbow incorrectly. You could have been alerted immediately — in real-time — so you didn't make the mistake in the first place.

[CONTACT US](#)

Not replacing but assisting

Virtual reality's potential role in supporting patients with advanced breast cancer ▶

Katarina Williams · 05:00, Oct 10 2019



Transferring data from ping.chartbeat.net...

The Future of Work

Other questions to think about:

how would you use continuous real-time , fine-grained data about your clients to help them more?



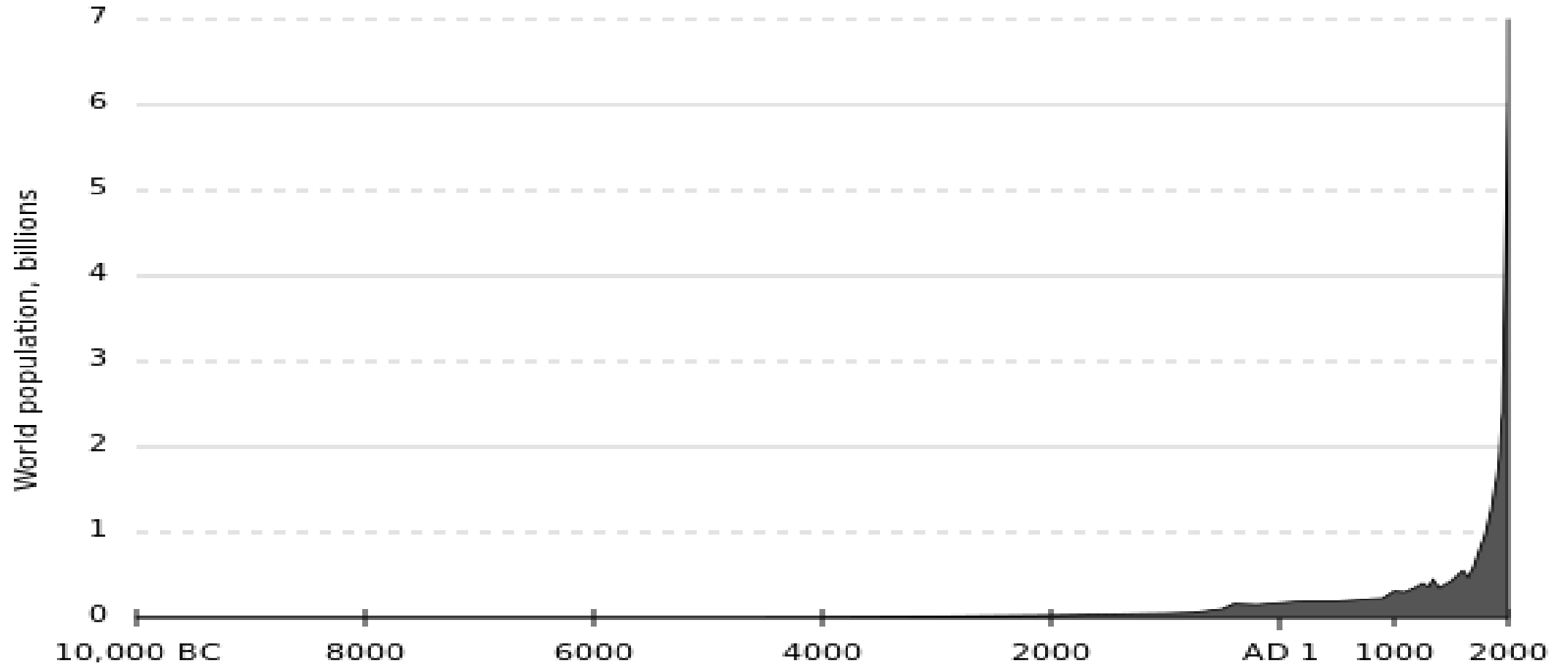
The Future of Work

Are there other questions
you should be thinking
about?

e.g. how will bigger
forces reshape
what work is and
how it is done?



World population growth over 12,000 years





POPULATION GROWTH

2019 7.7 BILLION

2029 8.7 BILLION

↑ 1 BILLION IN THE NEXT 10 YEARS

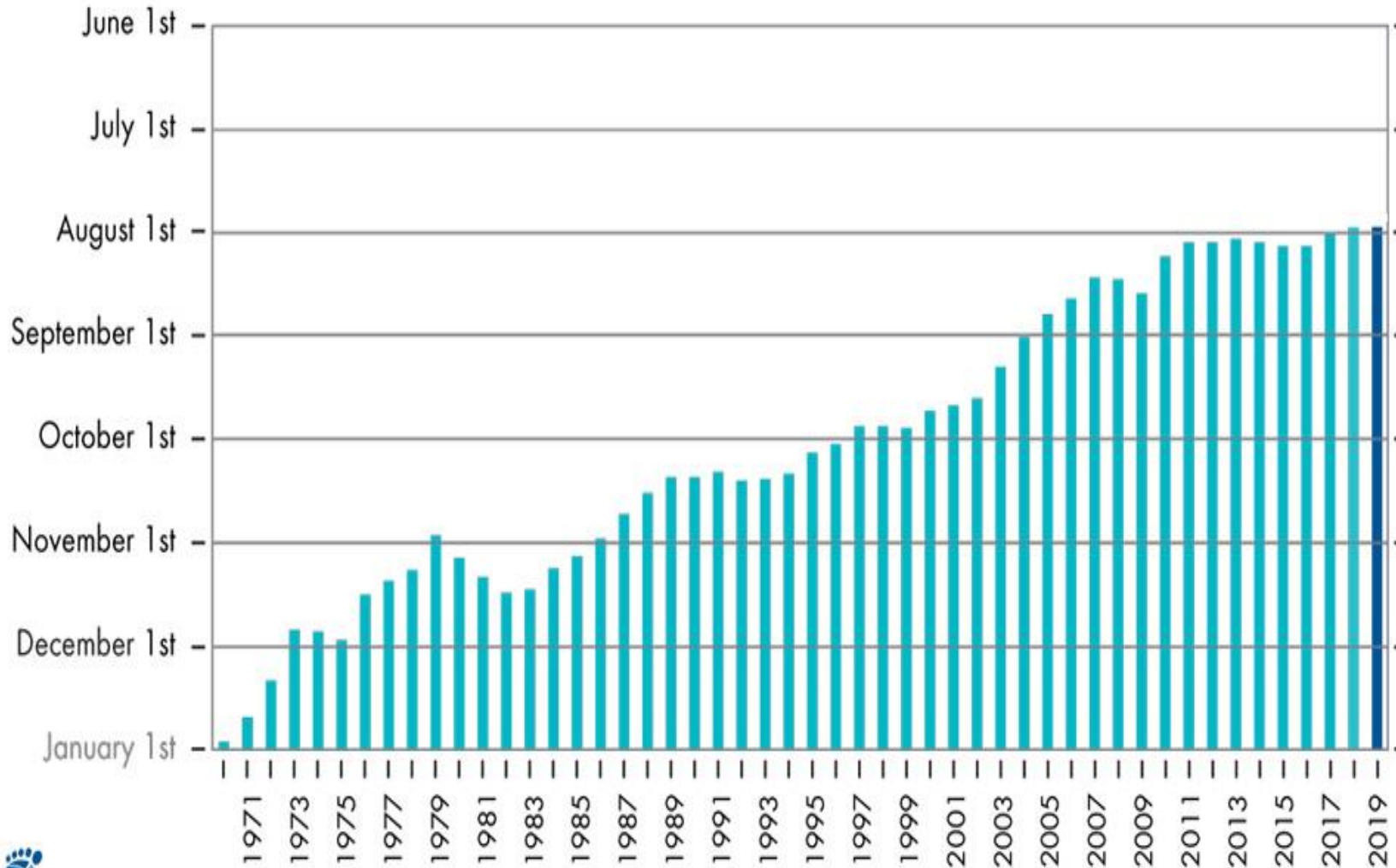


1 Earth

Earth Overshoot Day 1970-2019



1.75 Earths

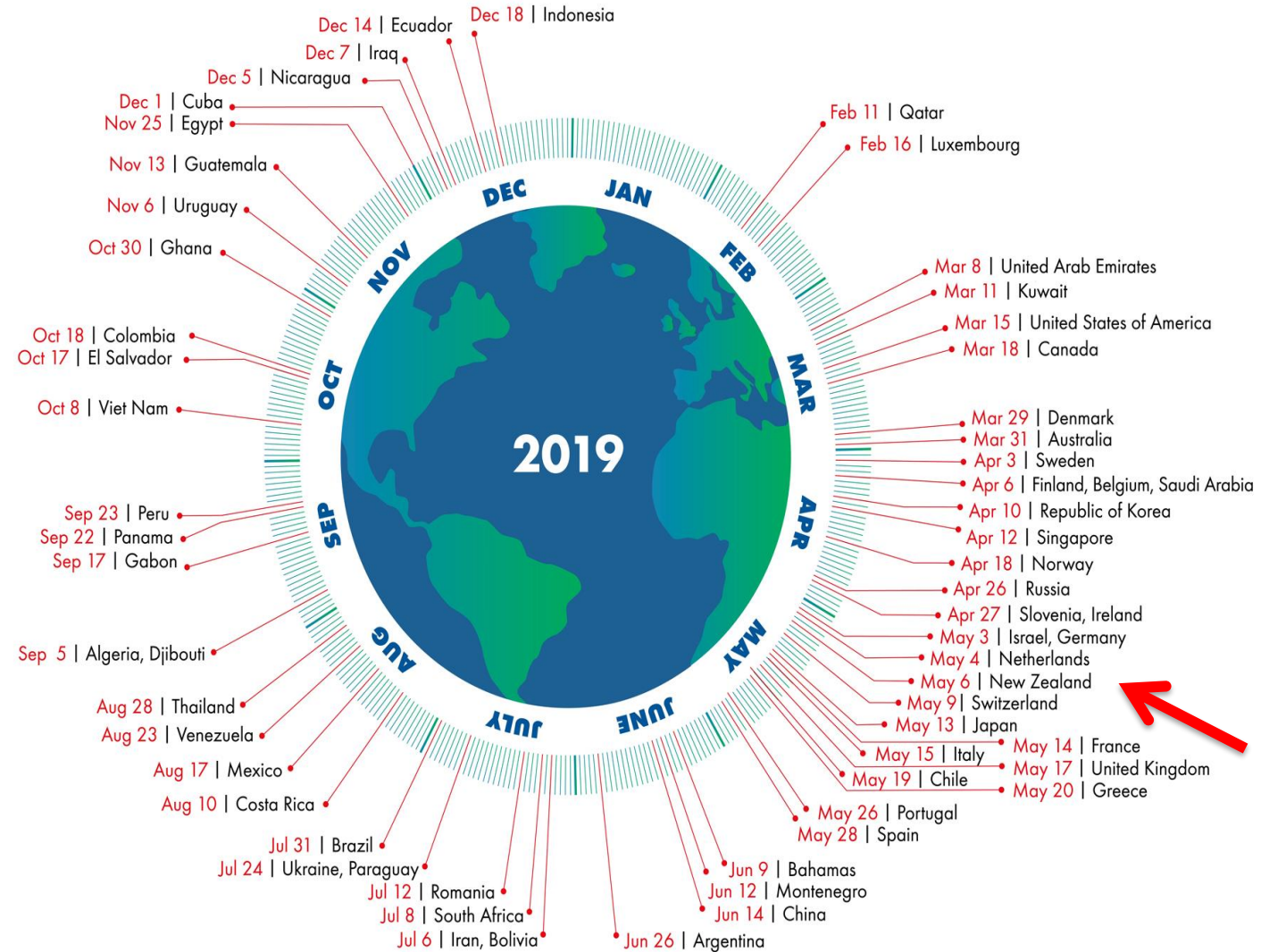


Globally we are using up 1.75 earths per year.

Collectively, the way we live in New Zealand uses 2.9 earths per year.

Country Overshoot Days 2019

When would Earth Overshoot Day land if the world's population lived like...



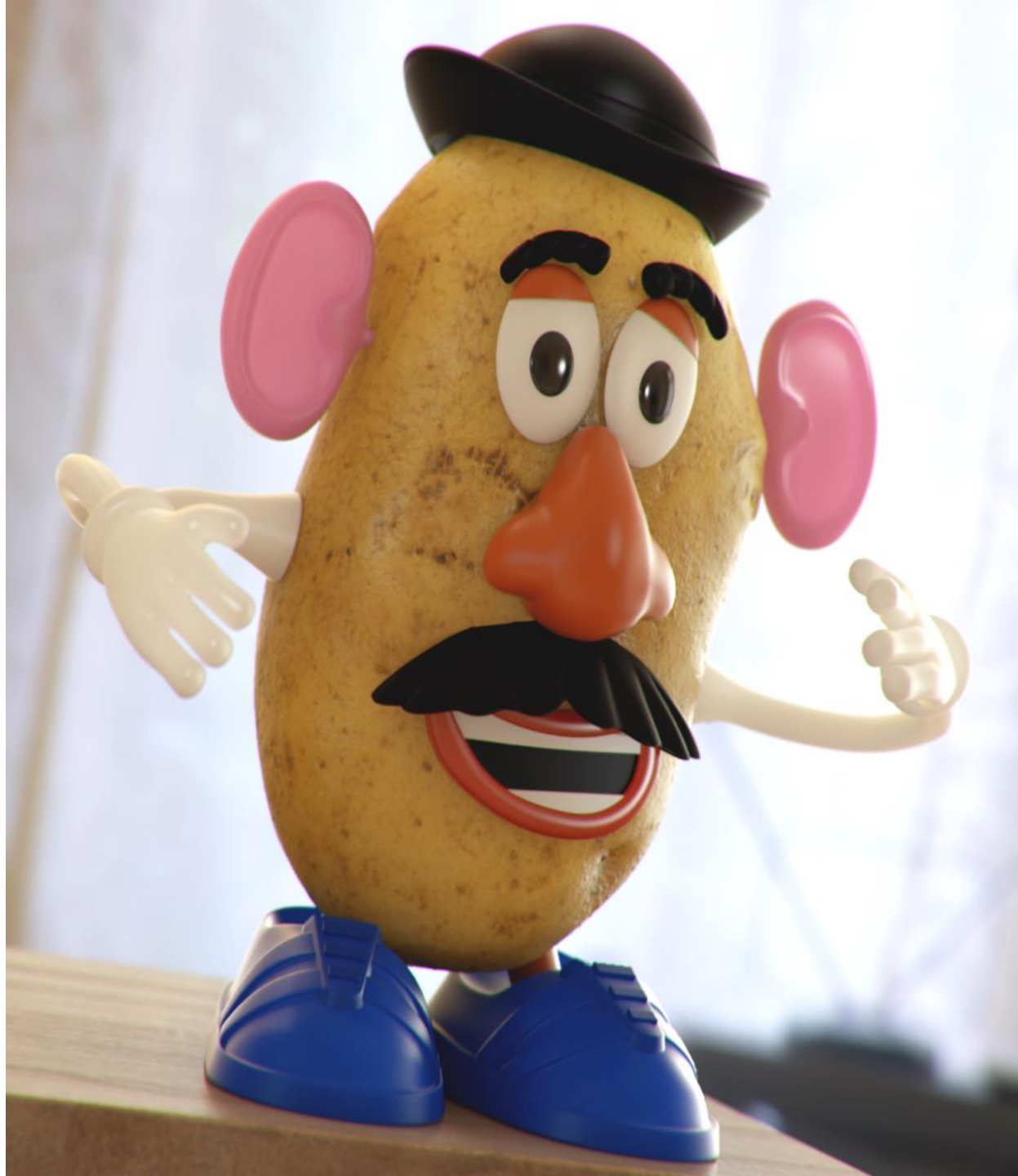
New Zealand's has the third highest waste per person in the OECD (740kg)







New Zealand's GHG emissions per person are amongst the highest in the world.







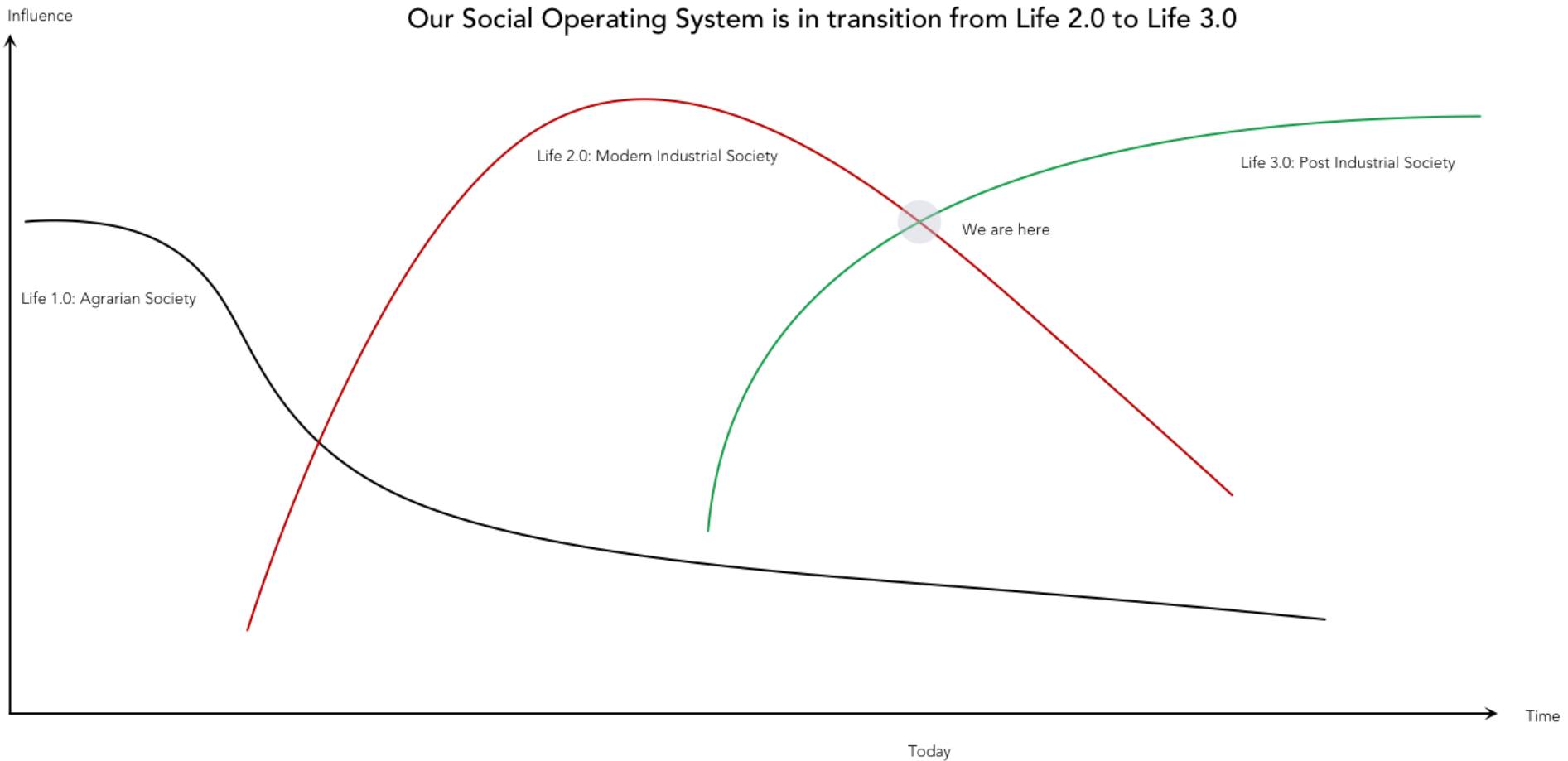


Social Operating System

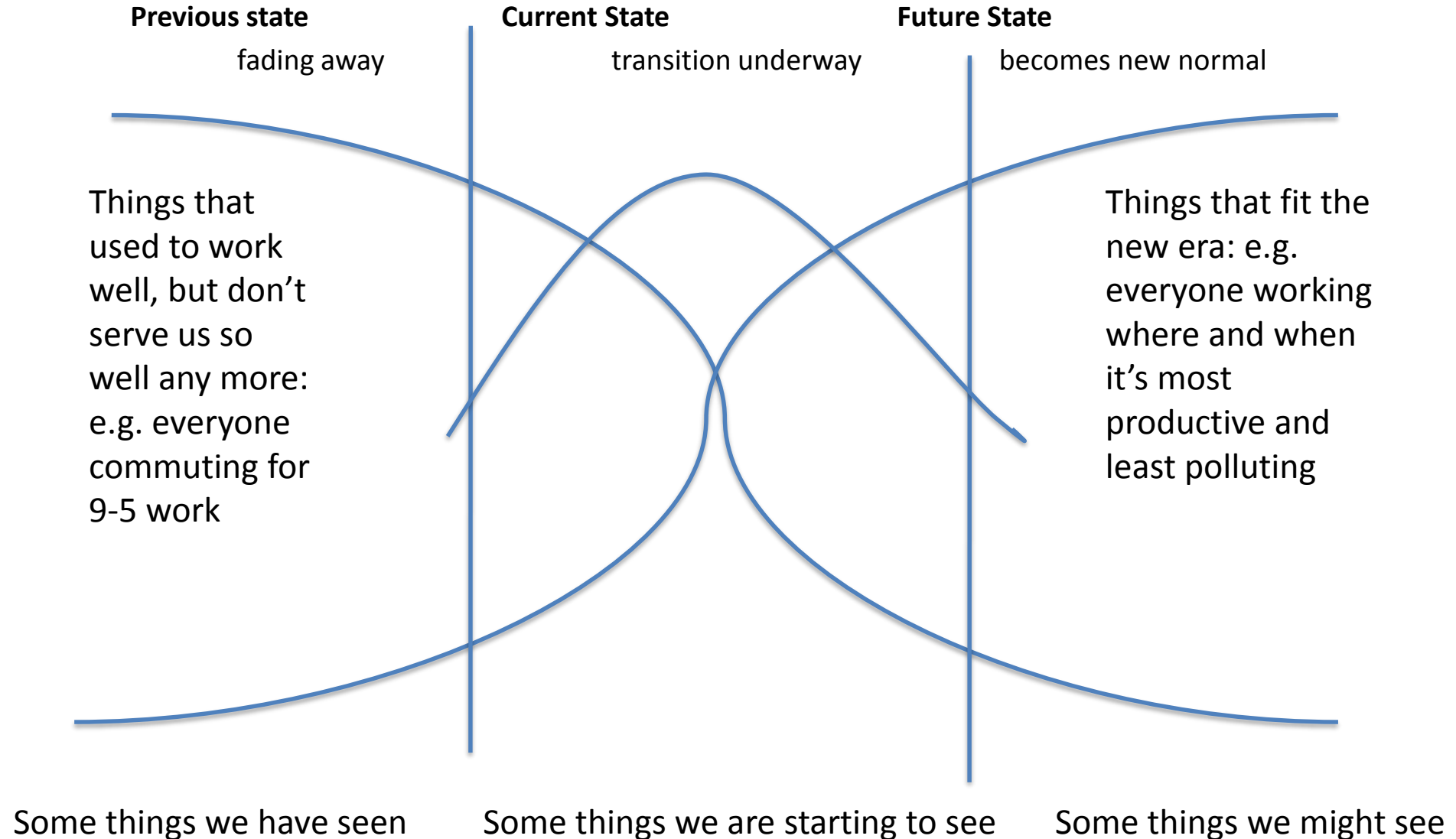
The way we organise ourselves
and get things done as a society



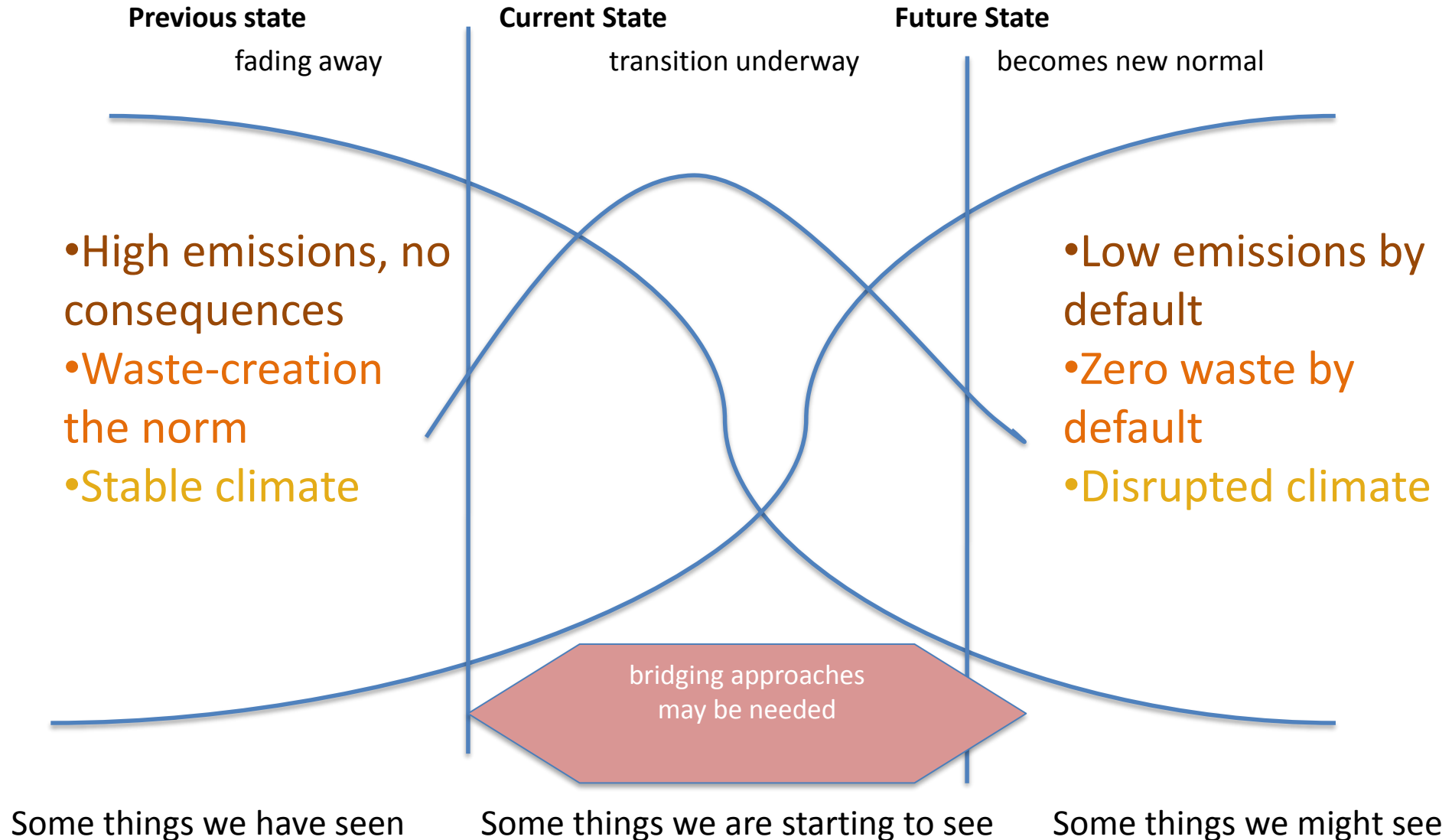
Our Social Operating System is in transition as we undergo era-scale change



Thinking over Three Horizons



Critical Transitions in the 21st Century



Changing values and expectations



Changing values and expectations

BUSINESS

Forget plastic-free Feb, try no-fly 2019

2 Mar, 2019 5:00am

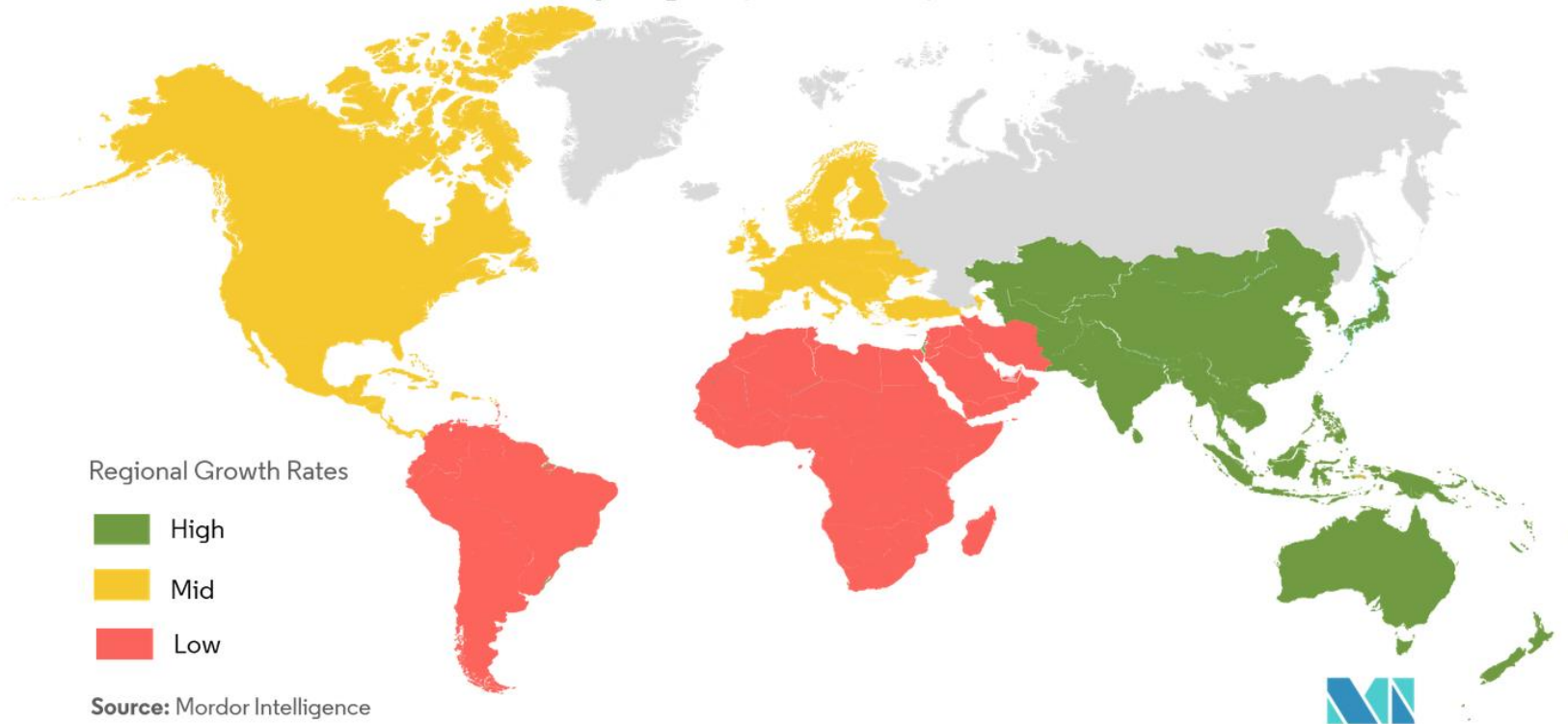
🕒 9 minutes to read



Swedish activists Maja Rosen and Lotta Hammar have already convinced 14,500 people to refuse air travel in 2019. Photo / Grant Bradley

Changing values and expectations

Global Medical Waste Management Market -
Growth Rate by Region (2019 - 2024)



Emissions and waste are the new smoking and drinking



Modal Shifts

mode

1. a way or manner in which a thing is done; a method or procedure
2. a prevailing fashion or custom
3. a way of operating or using a system

modal

1. of, or relating to mode or form as opposed to substance

Modal Shifts Currently Underway

Life 2.0		Life 3.0
Ownership (enclosed)	→	Use (open)
Fixed	→	Distributed
Mass	→	Bespoke
Institution	→	Network
Overload	→	Supplement/ complement

How can you use future
modes to
meet
21st century
challenges?



Ownership/
Enclosed



Use/Open

SPACIOUS

LOCATIONS

HOW IT WORKS

WHY WE'RE DIFFERENT

PRICING

SIGN IN

JOIN NOW



Access a curated network
of extraordinary workspaces

[Learn more](#)

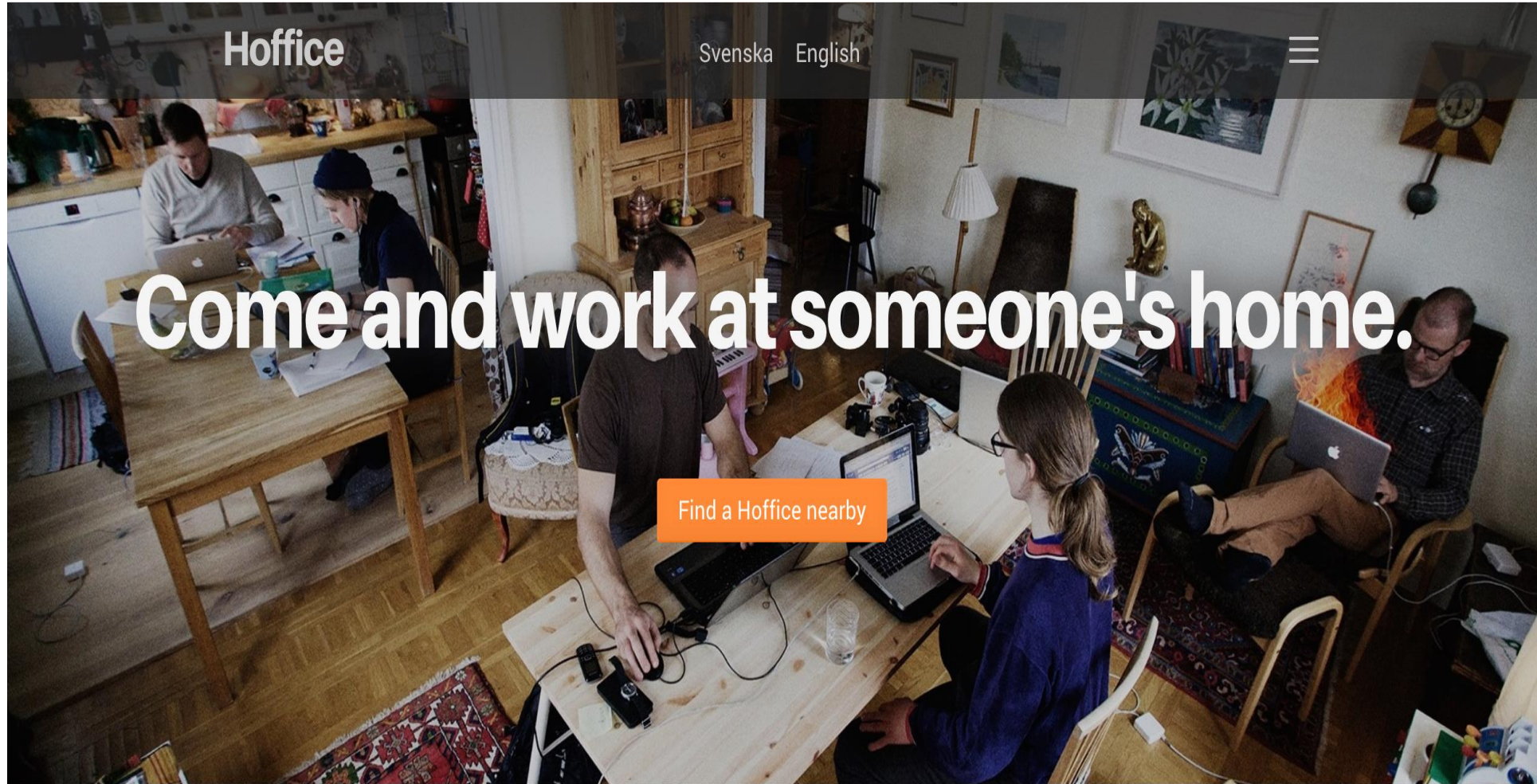
Hoffice

Svenska English



Come and work at someone's home.

Find a Hoffice nearby



How can you use 'open' and
'pay to use' to meet
21st century
challenges?



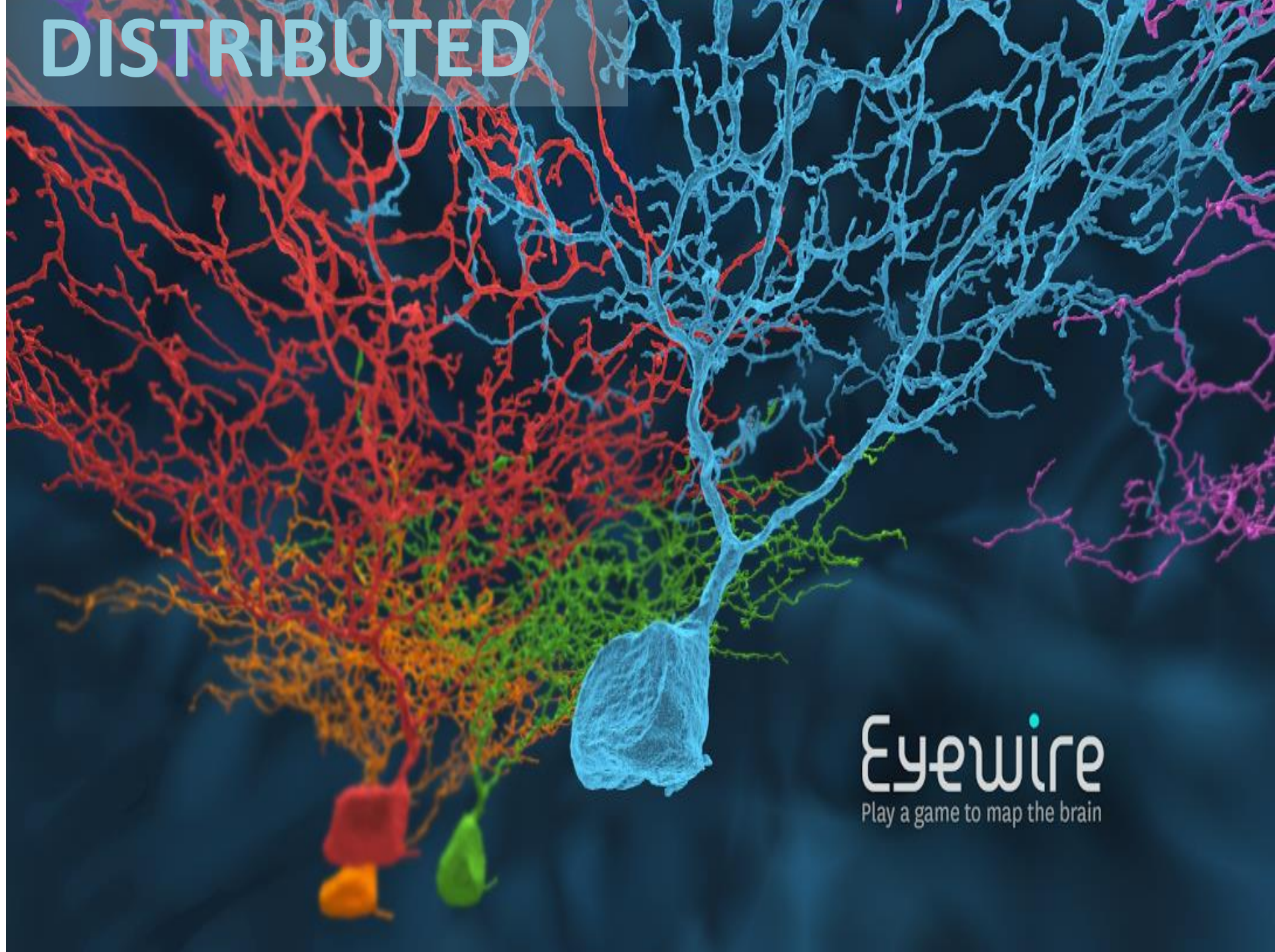
FIXED



DISTRIBUTED



DISTRIBUTED




Eyewire
Play a game to map the brain

DISTRIBUTED



How can you use 'distributed'
to meet
21st century
challenges?





Mass
to
Bespoke

MASS: OSFA



BESPOKE: OSFM



WWW.ENABLINGTHEFUTURE.ORG

How can you use 'bespoke'
to meet
21st century
challenges?



From stand-alone institution to network



NETWORK



How can you use 'networked'
to meet
21st century
challenges?





OVERLOAD
TO
SUPPLEMENT



SUFFICIENT

Conventional

Either, Human Only



Or... Machine only



scorpiopartnership
what wealth needs next

Hybrid



@Scorpio Partnership 2015

SUFFICIENT → SUPPLEMENT/COMPLEMENT

How can you use
'complemented'
to meet
21st century
challenges?







Thank you for listening.

Enjoy the future!

Questions?



Continue the conversation

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www.stratedgy.co.nz