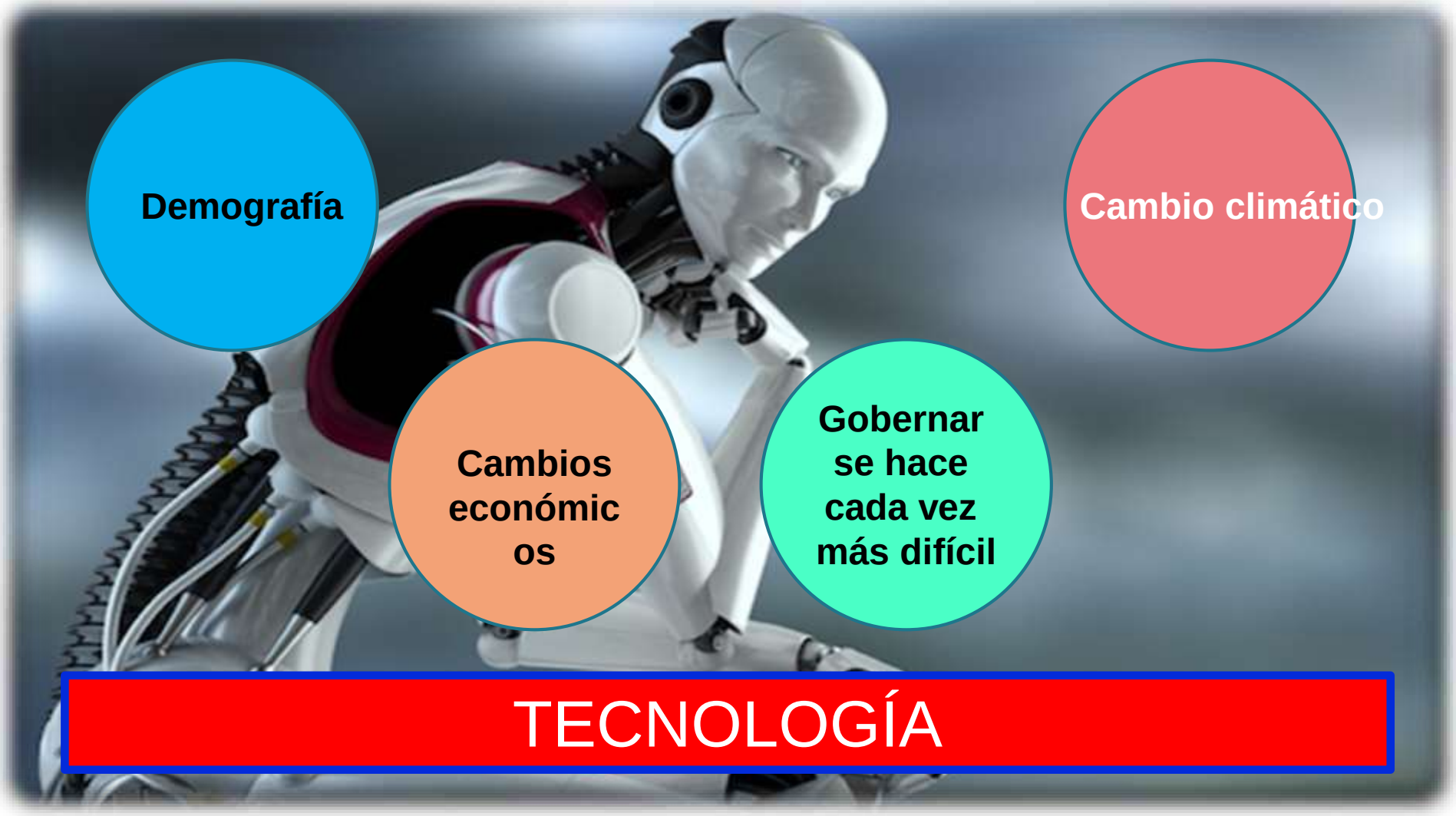
“Esculpiendo el futuro”

Carlos Alejandro Belloni

27ª Conferencia Annual de ICMIF/Américas
21–23 de agosto, 2019|Hotel Park Hyatt Mendoza, Argentina

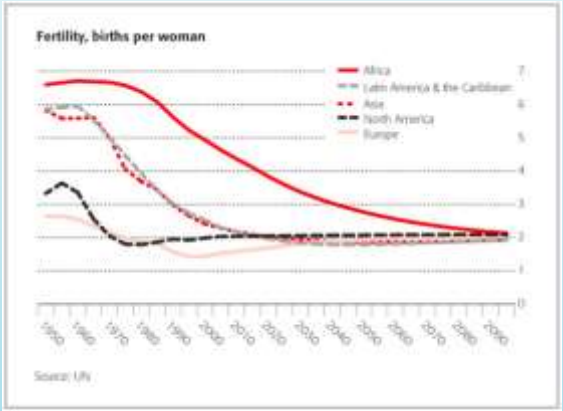

¿Cómo
se ve
el futuro?
y cuáles
son las
Megatendencias
que lo moldean?

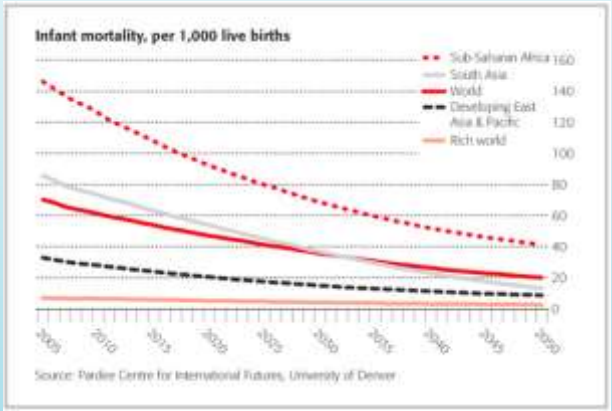

LOS CIENTÍFICOS PREVÉN GRANDES CATÁSTROFES PARA LOS PRÓXIMOS 15 AÑOS: MÁS HURACANES, TSUNAMIS, TERREMOTOS, TERRORISMO...
CALENTAMIENTO GLOBAL, CONTAMINACIÓN, AUMENTO DEL NIVEL DEL MAR, INUNDACIONES, FALTA DE AGUA POTABLE, HAMBRUNA, PESTES, POSIBLE CHOQUE DE UN COMETA...
GORDI... LLEGÓ LA CUOTA DEL COLE Y DE LA MEDICINA PREPAGA...
AAAAAAAAAAHHH!!

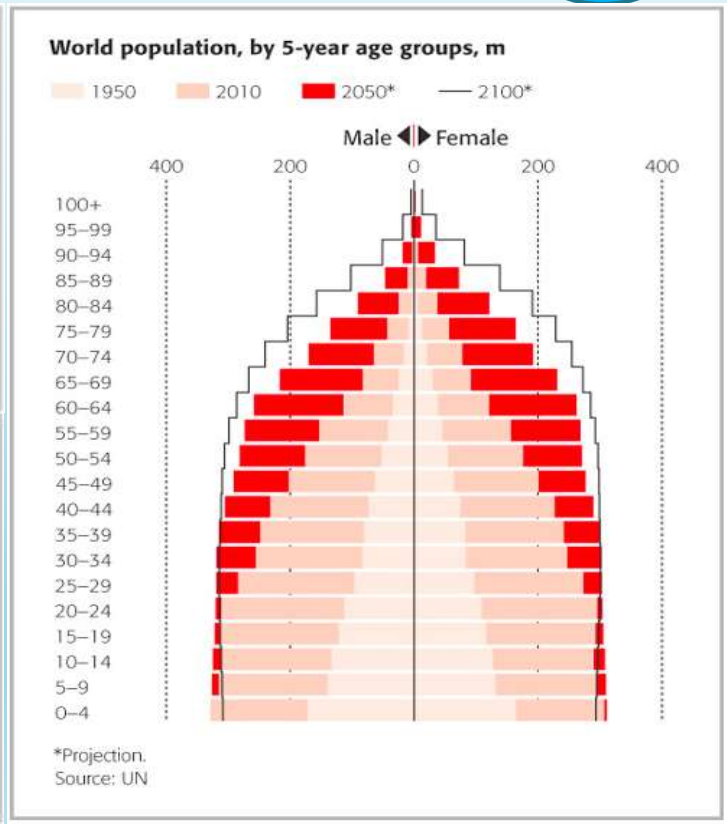

Demografía
Cambio climático
Cambios económicos
Gobernar se hace cada vez más difícil
TECNOLOGÍA

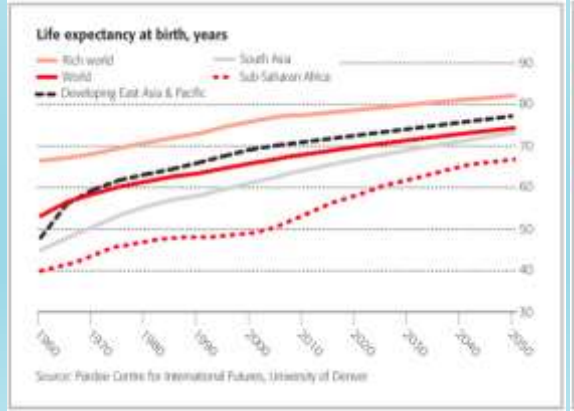
Algunas tendencias demográficas importantes

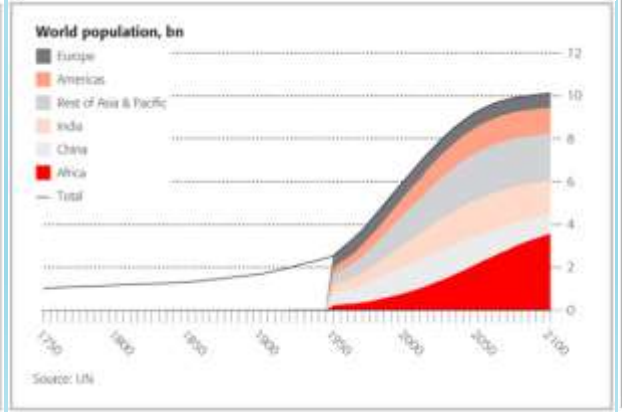
Demografía





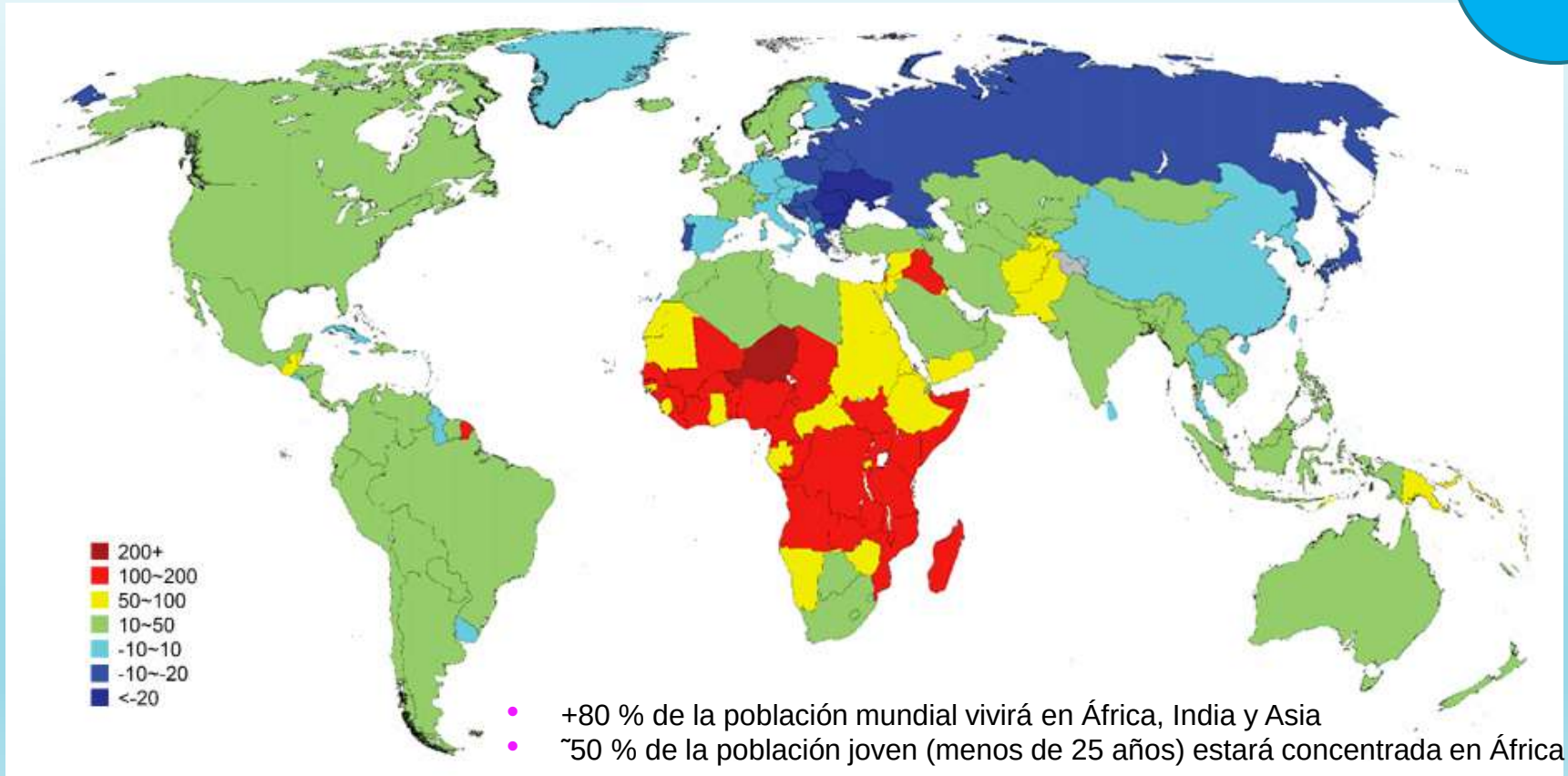






Demografía

Porcentaje de cambio poblacional entre 2015 y 2050

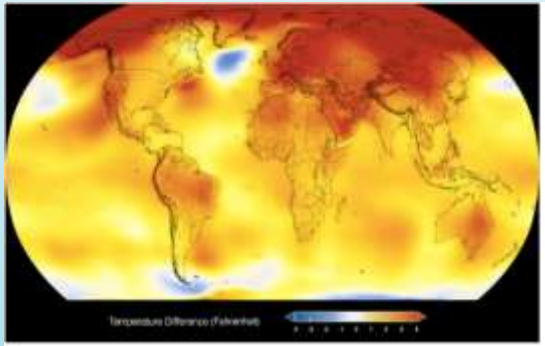


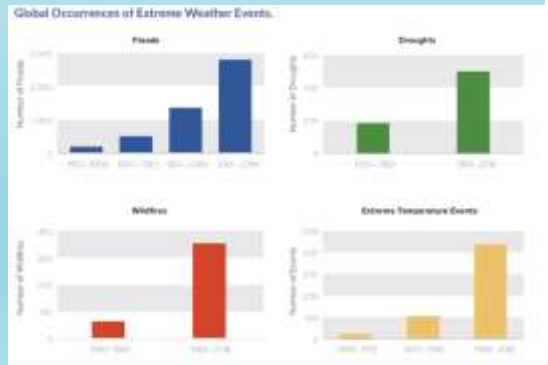
- +80 % de la población mundial vivirá en África, India y Asia
- ˜50 % de la población joven (menos de 25 años) estará concentrada en África

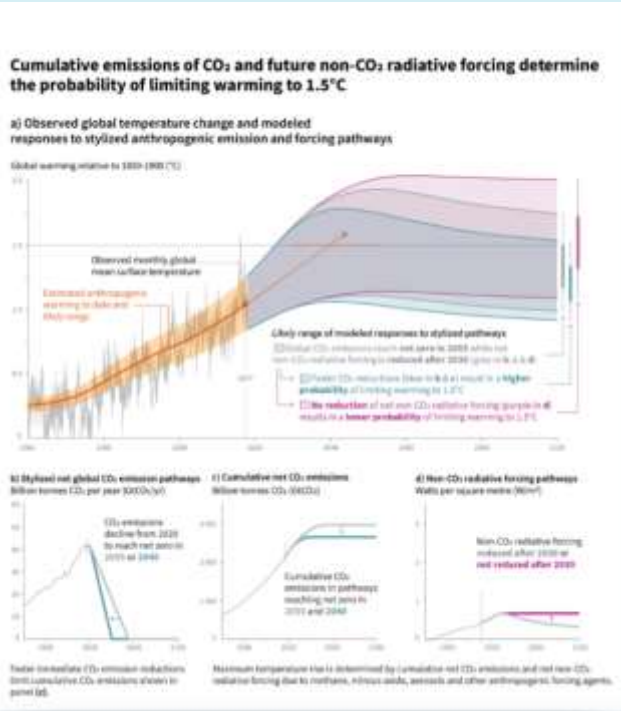
Cambio climático

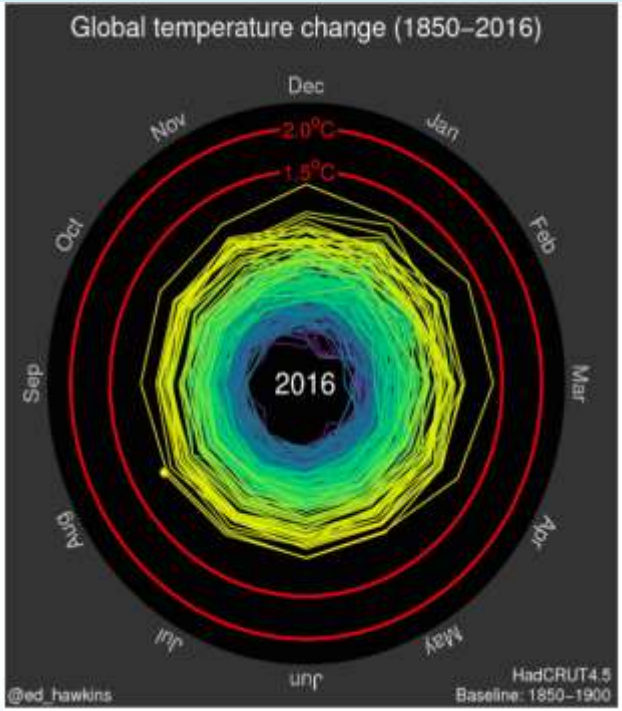
Algunos datos preocupantes…

Cambio climático



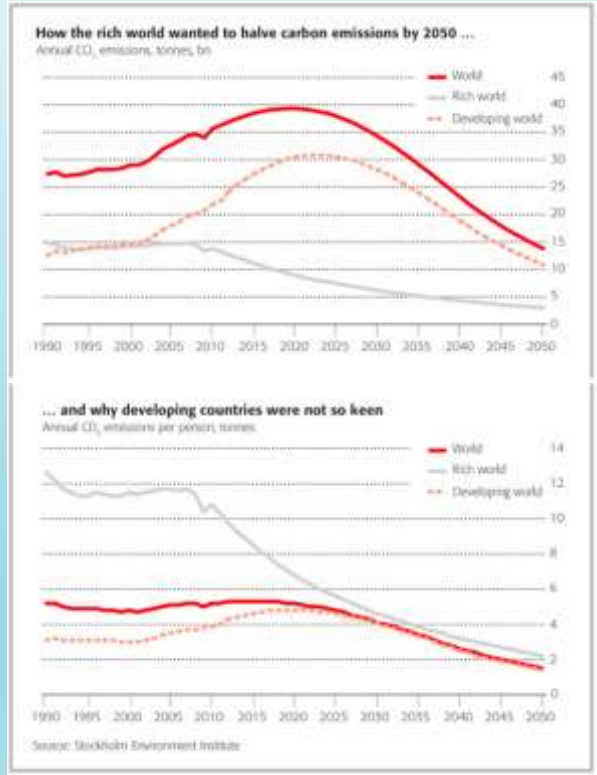


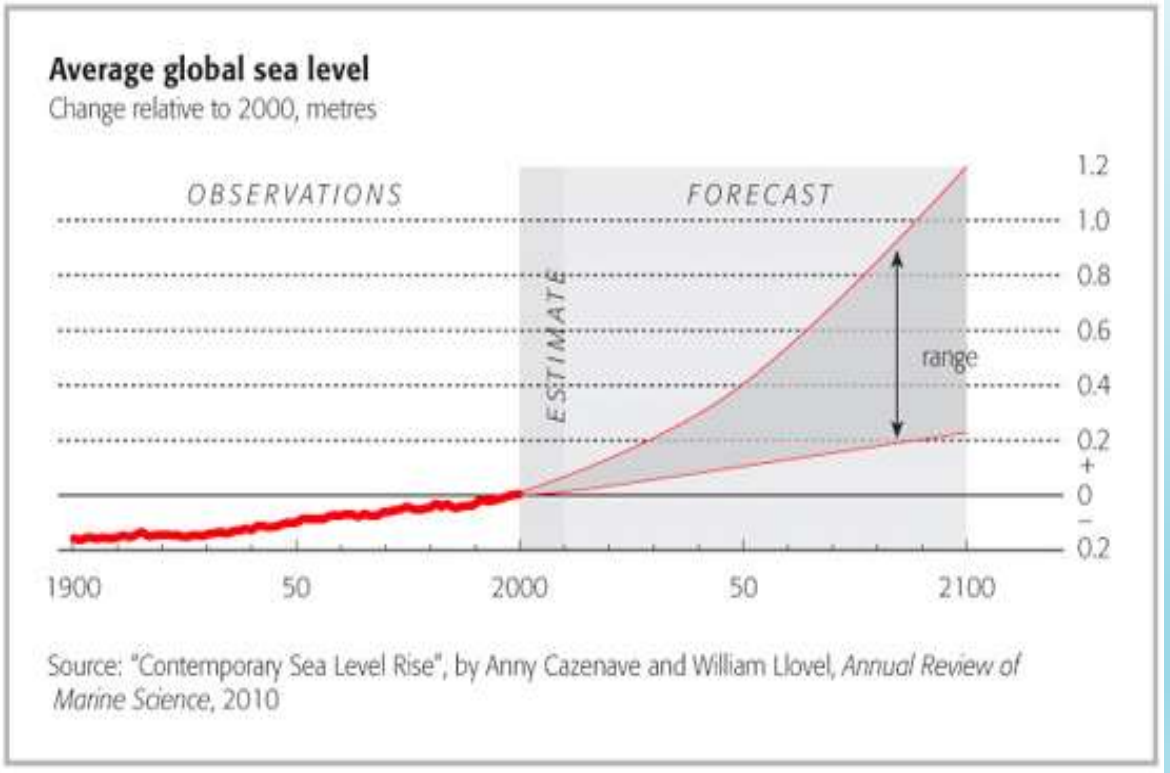




Algunos datos preocupantes…

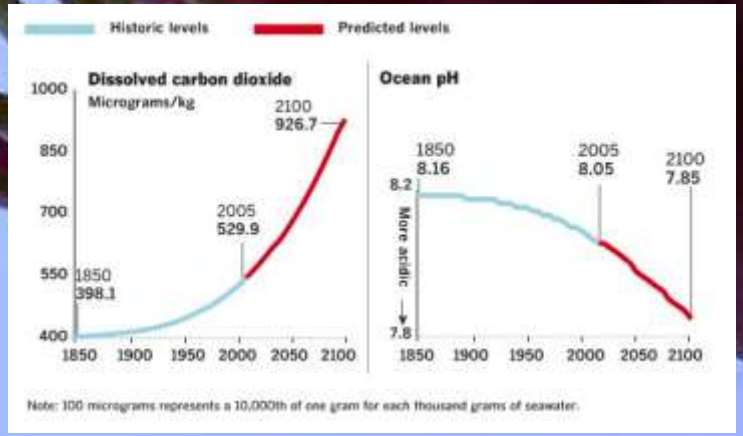
Cambio climático





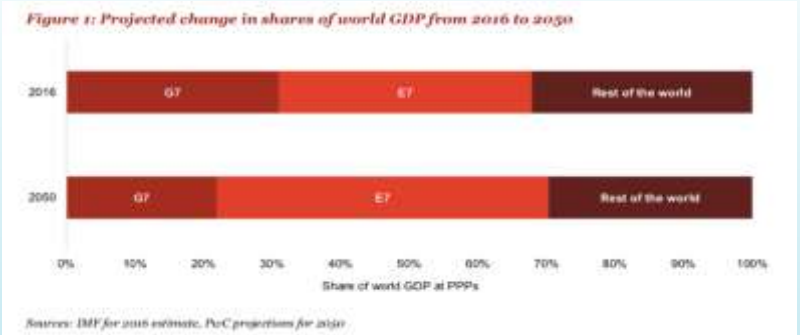
Algunos datos preocupantes…

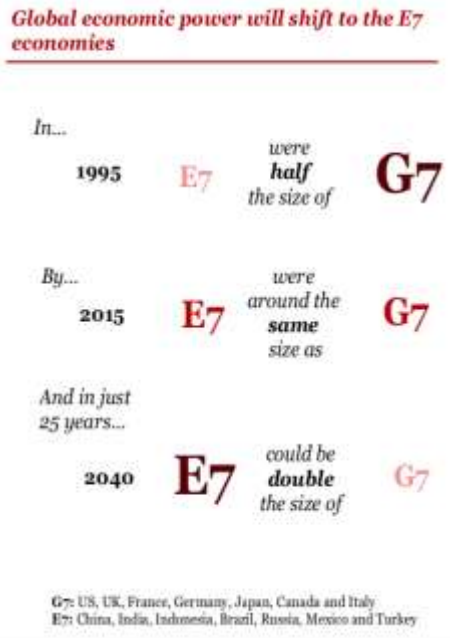
Cambio climático



Cambios importantes en el crecimiento y poder económico…

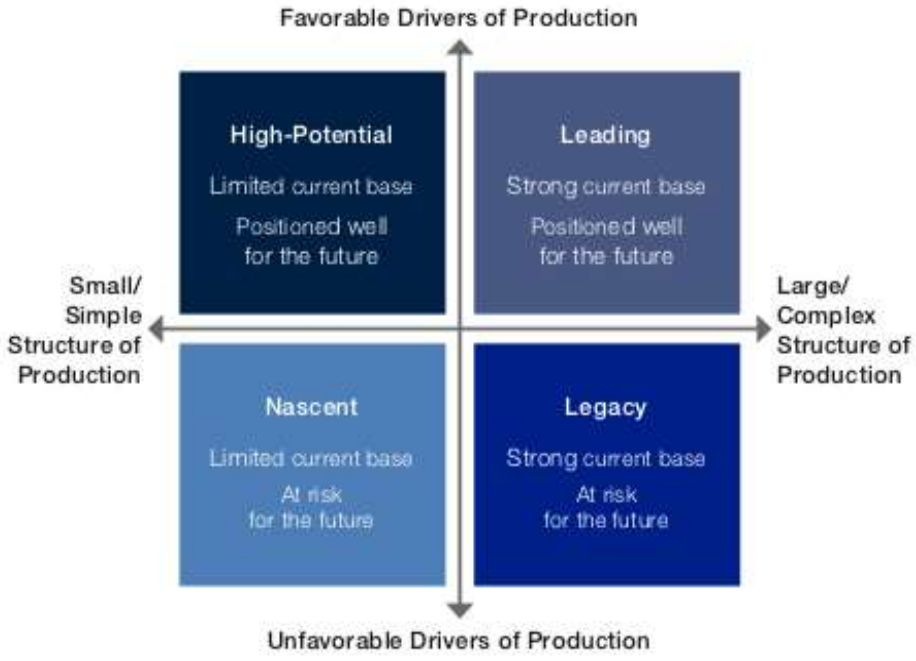
Cambios económicos



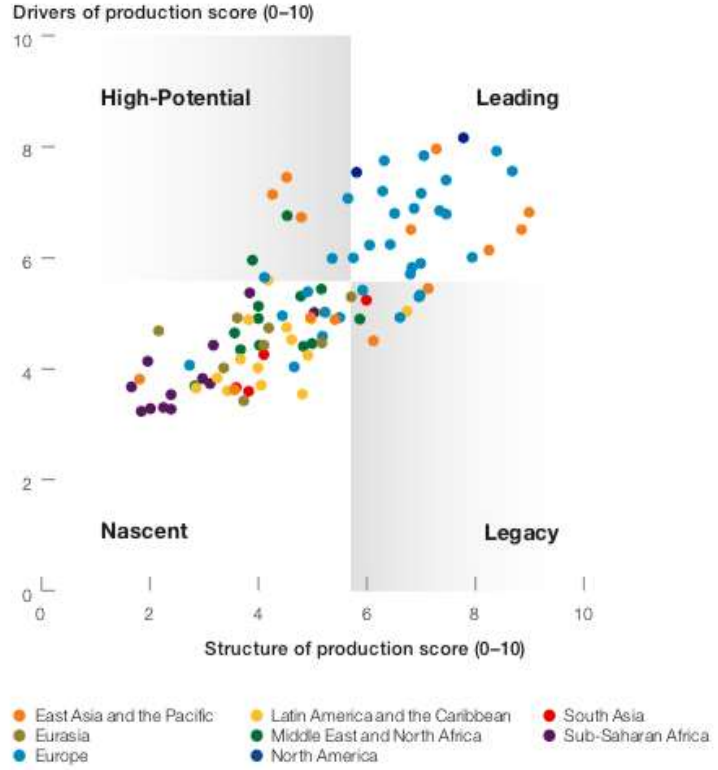


¿Cuán “fácil” es adaptarse a la ***nueva*** econo

Cambios económicos



Note: Average performance of the top 75 countries (weighted average driver score, weighted average structure score) is at the intersection of the four quadrants to create the archetype borders.

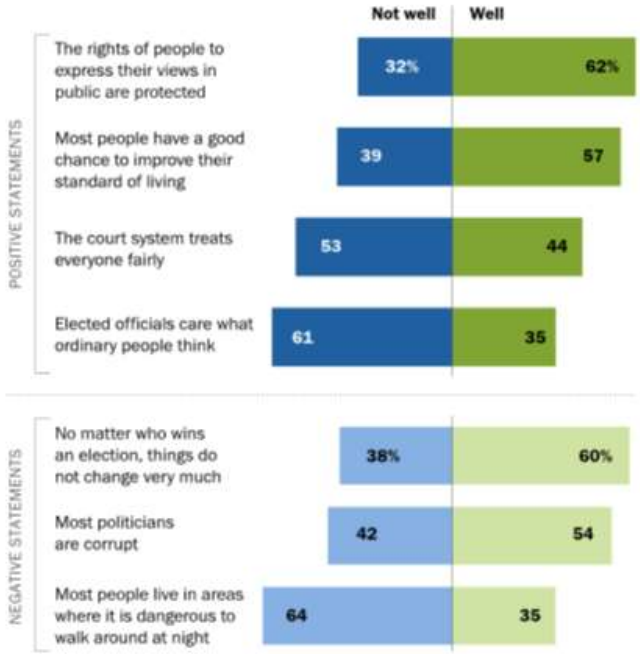



International anti-capitalist demonstration
against G20 summit
G20 WELCOME TO HELL
Thursday 6 July 2017
4 p.m., St. Pauli Fischmarkt, Hamburg
When the heads of government of the world's 20 most powerful countries are arriving on 6 July and the assembled world media are waiting for news from the crisis zone around Hamburg's exhibition halls, we'll be already in the streets.
We are mobilizing internationally to turn Hamburg into a location and an exclamation mark of resistance against old and new authorities of capitalism.
Gobernar se está tornando más difícil
BREXIT

Divided views around the world about how key aspects of democracy are working

% who say they are ___ with the way democracy is working in their country

% who say the statement ___ describes their country ...

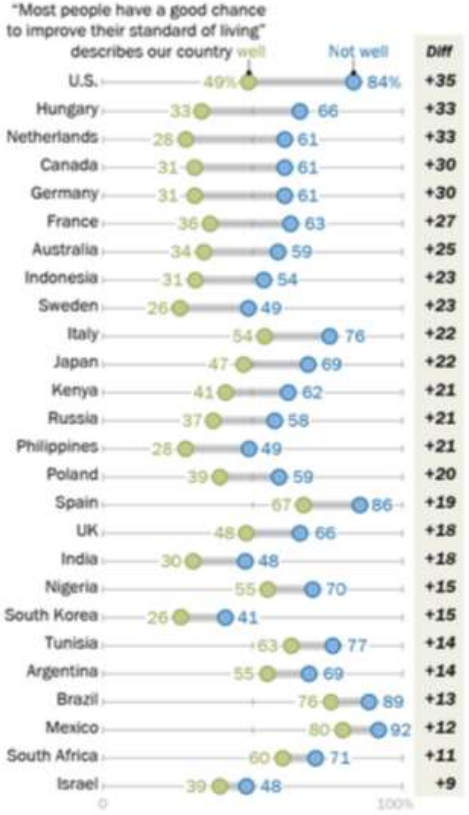


Note: Percentages are medians based on 27 countries. Don't know responses not shown.
Source: Spring 2018 Global Attitudes Survey. Q4 & Q34a-g.

PEW RESEARCH CENTER

Pessimism about improving standard of living linked to dissatisfaction with democracy

% who say they are dissatisfied with the way democracy is working in their country



Note: All differences shown are statistically significant.
Source: Spring 2018 Global Attitudes Survey. Q4.

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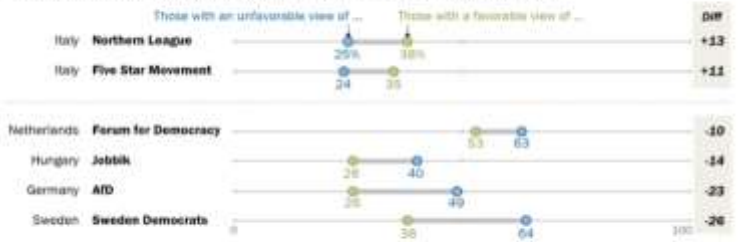
Gobernar se está tornando más difícil

People with positive views of populist parties tend to say politicians are out of touch with ordinary people

% who say "elected officials care what ordinary people think" describes their country well



Note: All differences shown are statistically significant. Political party favorability was fielded as "Northern League" in Italy (now called Lega).
Source: Spring 2018 Global Attitudes Survey. Q34a.

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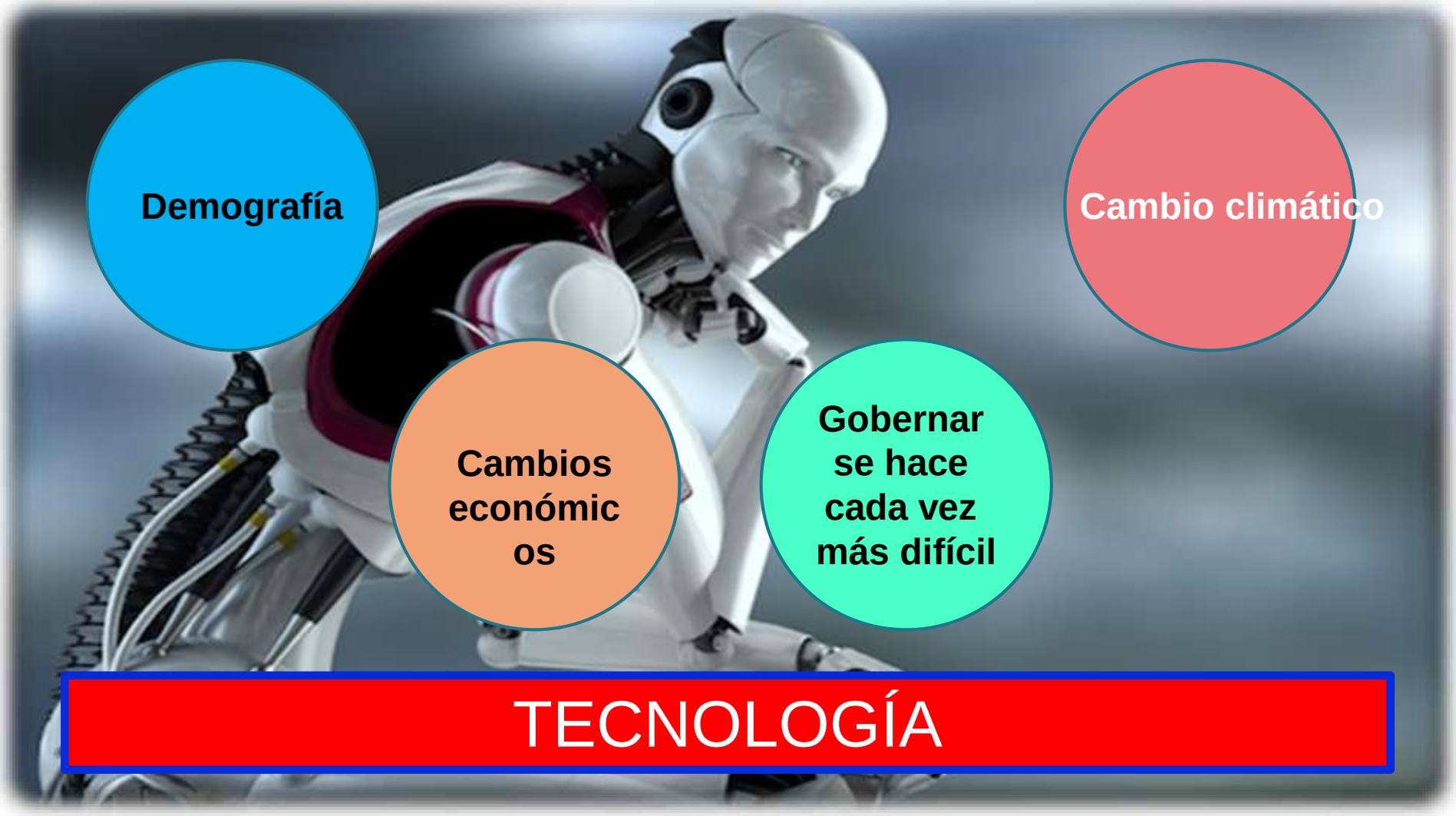
@ inequidad
@ desempleo/sub-empleo
@ economía informal
@ anticapitalismo
@ inmigración

Gobernar se está tornando más difícil


Demografía
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TECNOLOGÍA

La Cuarta Revolución Industrial 4IR


¿Qué es
la cuarta
revolución
industrial?

“La cuarta revolución industrial se caracteriza por una ***fusión*** de tecnologías que está ***desdibujando*** los límites entre el ámbito ***físico***, ***digital*** y ***biológico***”.

“La cuarta revolución Industrial”. Klaus Schwab. Foro Económico Mundial.

Es diferente de las revoluciones anteriores por la ***velocidad, alcance y profundidad*** de los cambios.

Estas tecnologías superpuestas definirán nuestras vidas en las próximas décadas:

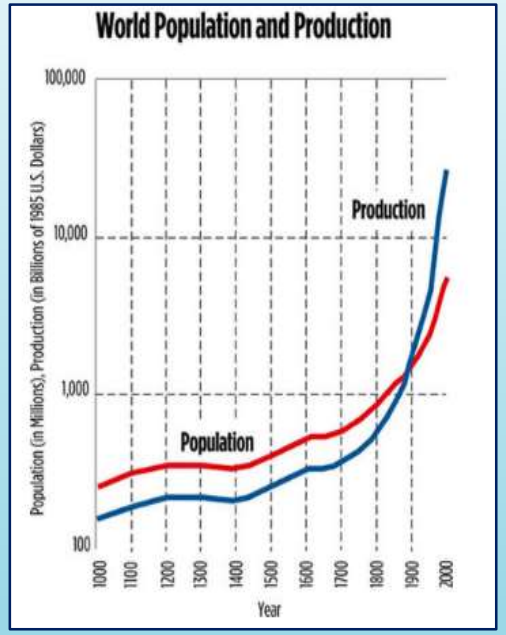
- **La revolución genética** nos permitirá ***reprogramar nuestra propia biología***.
- **La nanotecnología** nos permitirá ***manipular la materia a escala molecular y atómica***.
- **La inteligencia artificial** nos permitirá crear una ***inteligencia no biológica mayor a la humana***.

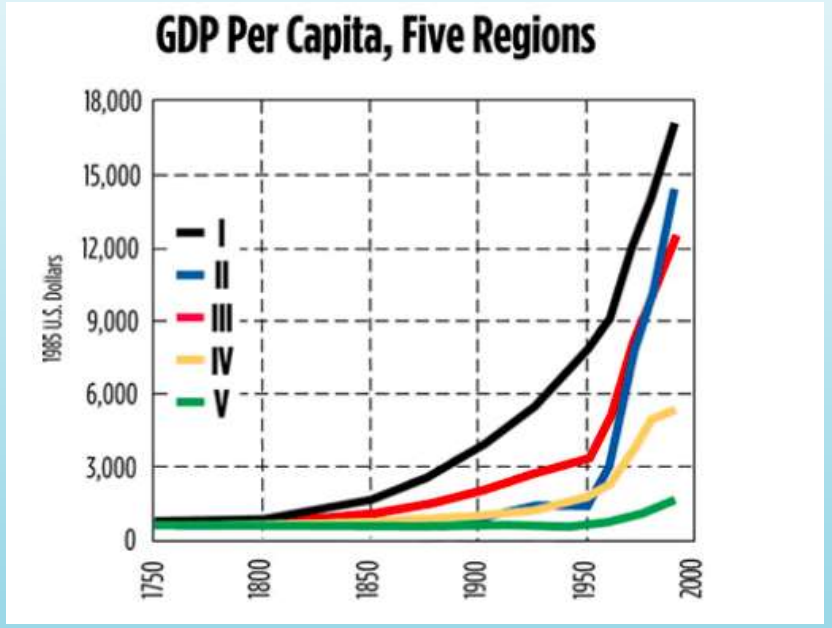
Image Reconstructed From Bacteria


¿Por qué
nos
debería
importar?

Porque cambiará todo, no solo la idea de lo que es el ser humano, sino también los cimientos mismos sobre los que se construye nuestra sociedad.


¿Dónde estamos?
¿Cómo llegamos allí?





Fuente: La revolución industrial pasado y futuro- Informe annual 2003
Robert E. Lucas, Jr. Publcado 1de mayo, 2004.
Federal Reserve Bank of Minneapolis.
[https://www.minneapolisfed.org/publications/the-region/the-industrial-revolution-past-and-future]

10%

15%

45%

66 millones de personas tuvieron que abandonar sus hogares.
23 millones de refugiados.


WARNING
CHALLENGES
AHEAD


Digital is the main reason just over half of the companies on the Fortune 500 have disappeared since the year 2000
Pierre Nanterme
CEO of Accenture


TOYS R US
BABIES R US
STORE CLOSING SALE
STORE CLOSING SALE!
NOTHING HELD BACK!
60%


MUST GO!
ENTIRE STORE
20% TO 40% OFF
GOING OUT OF BUSINESS
Seasonal
Dolls
Clearance


WE'LL MISS YOU,
FIFTH AVENUE!
Lord+Taylor
PLEASE VISIT US AT LORDANDTAYLOR.COM
to find your closest store

¿Recuerdan los teléfonos Nokia o BlackBerry…?

Su principal falla era no reconocer la importancia de poseer un ecosistema…

¿Conocen la historia de Walt Disney y Pixar?


NETFLIX


Disney+
Disney
PIXAR
MARVEL
STAR WARS
NATIONAL GEOGRAPHIC


Disney+
ESPN+
hulu


HBO GO
It's HBO. Anywhere.
Never miss an episode again.

“La única constante de la que estoy seguro es este ritmo acelerado de cambio…”

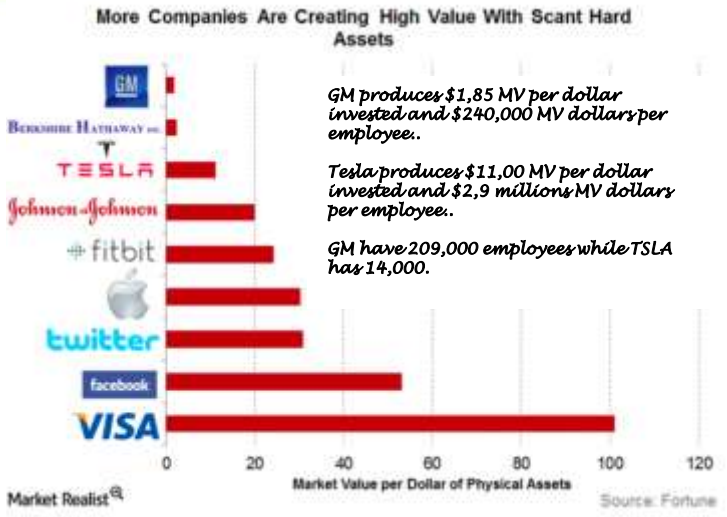
“Downside Up, Upside Down”
Peter Gabriel

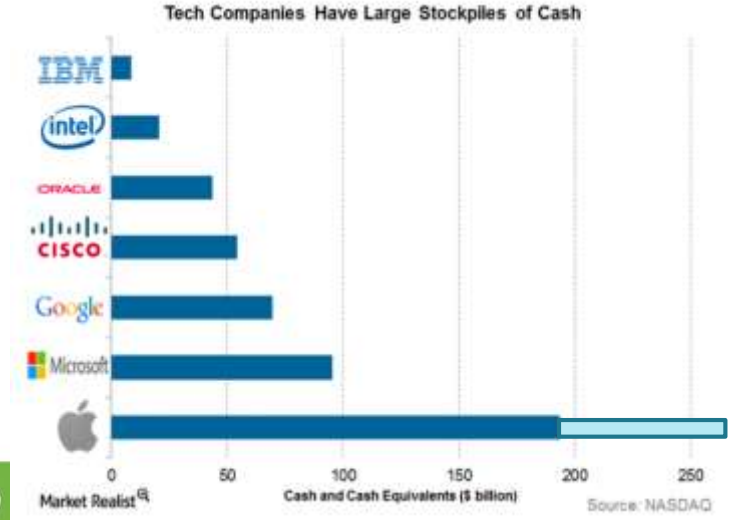
THE LARGEST COMPANIES BY MARKET CAP

The oil barons have been replaced by the whiz kids of Silicon Valley

Top 5 Publicly Traded Companies (by Market Cap) — Tech — Other

	#1	#2	#3	#4	#5
2001	$406B	$365B	$272B	$261B	$260B
2006	$446B	$383B	$327B	$293B	$273B
2011	$406B	$376B	$277B	$237B	$228B
2016	$582B	$556B	$452B	$364B	$359B

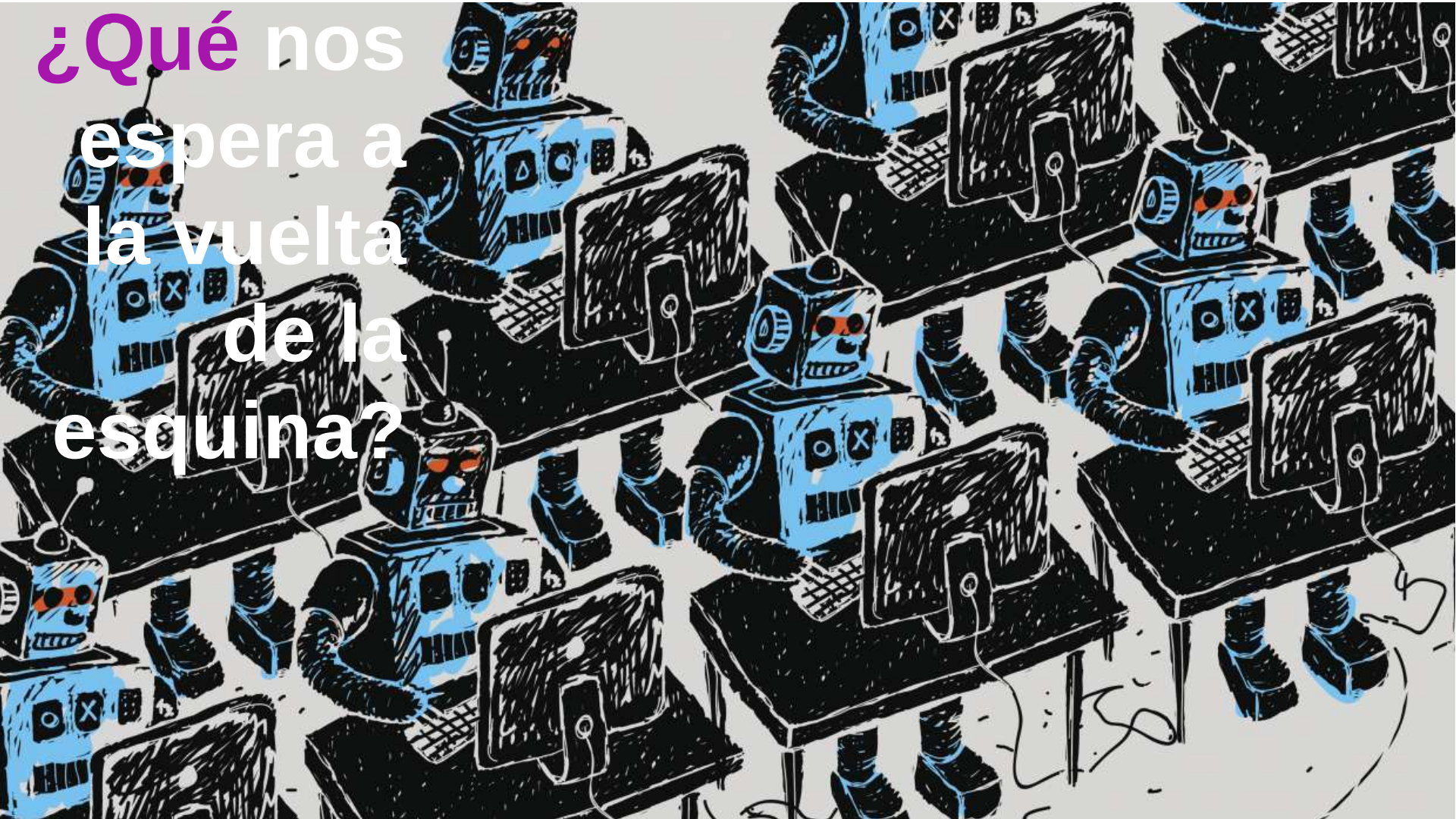


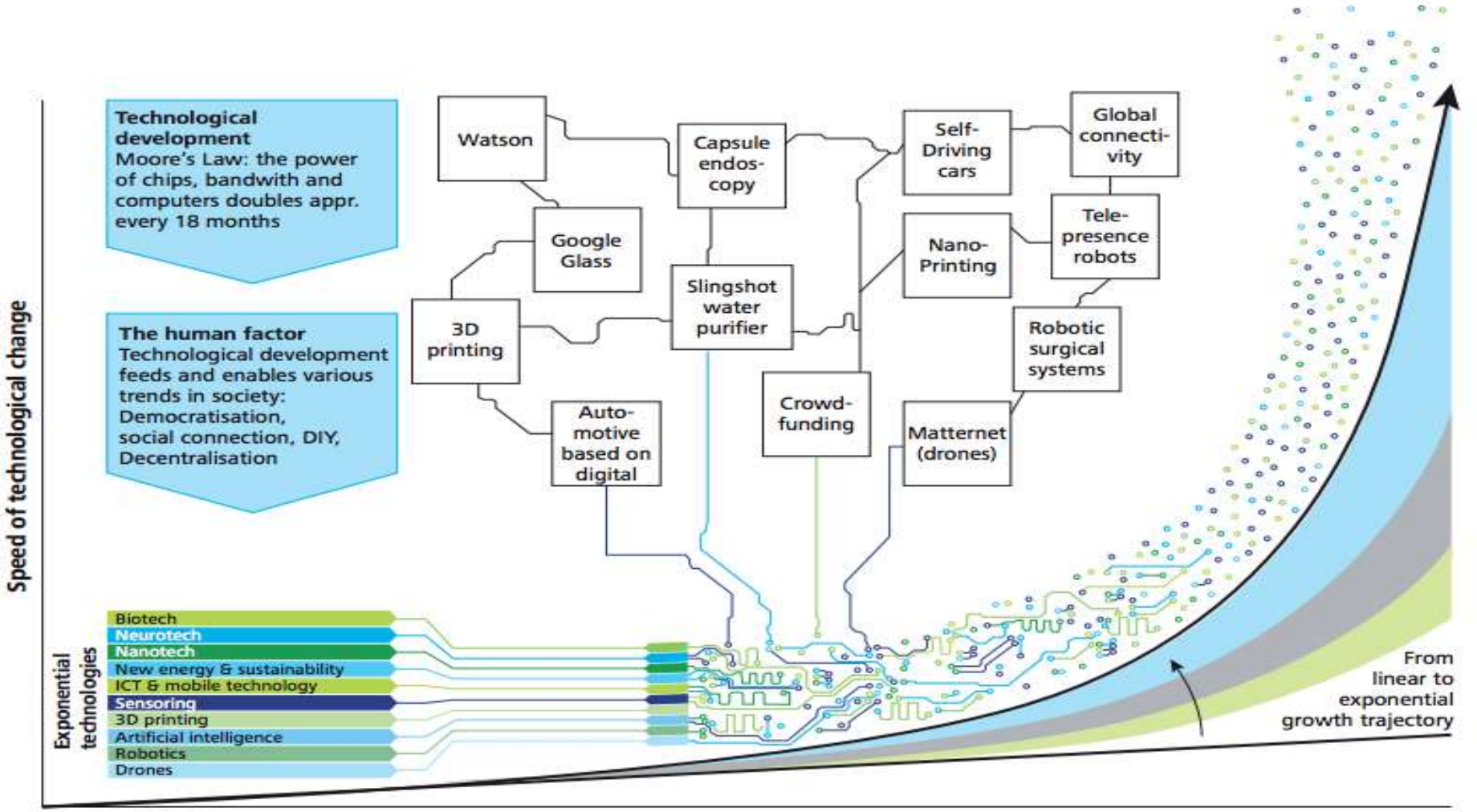


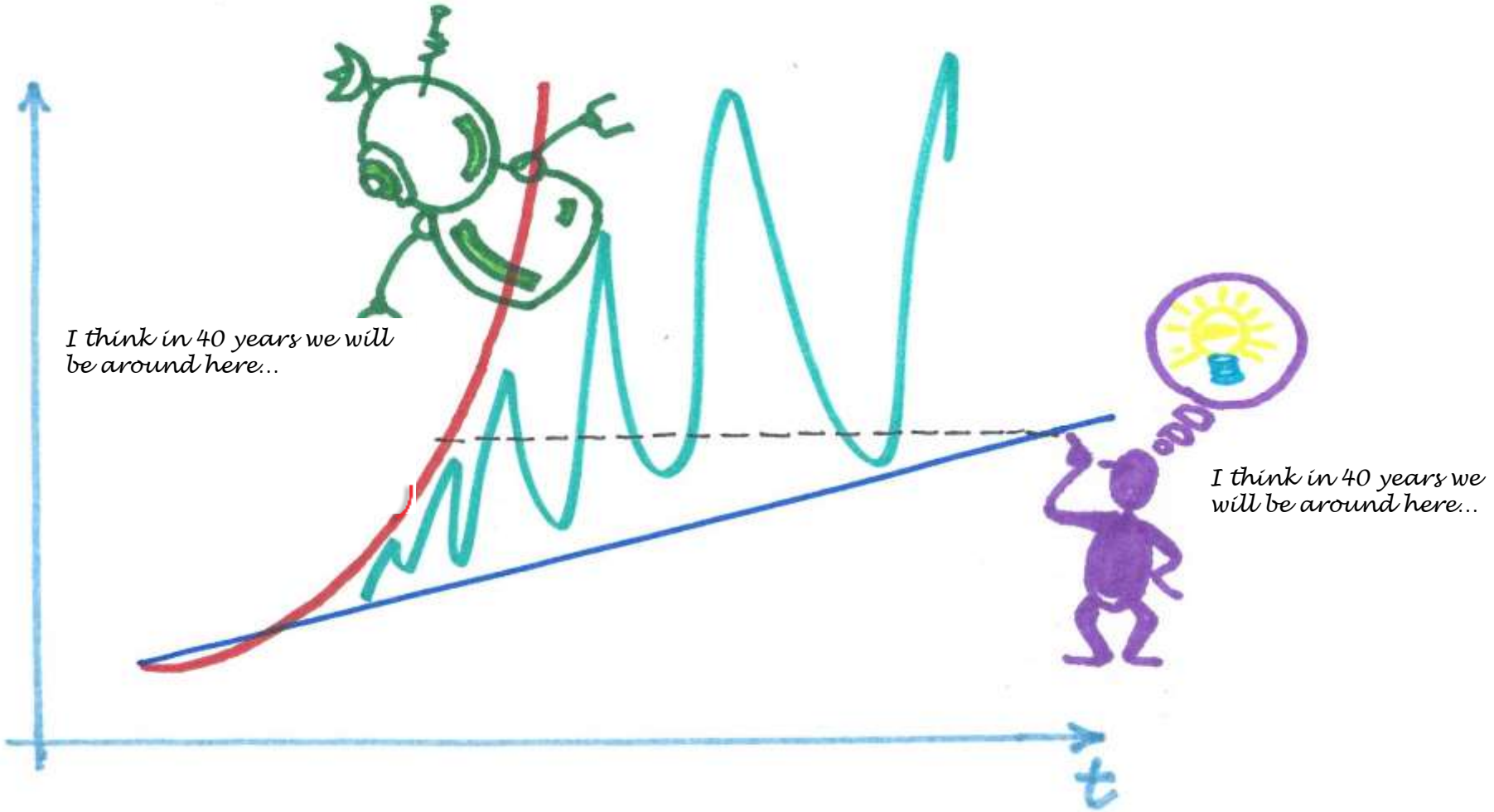
A 20 años de su creación, la firma se convirtió en la más valiosa de la Argentina. Luego de presentar su balance del primer semestre del año, que informó una facturación de US$1019 millones en el período, las acciones se dispararon un 11% en Wall Street, donde cotiza desde 2007. De acuerdo con este indicador, la compañía vale hoy más de US$36.160 millones, seis veces más que YPF, la mayor petrolera argentina (US$6147 millones).


ORACLE

¿Qué nos espera a la vuelta de la esquina?




Technological development
Moore's Law: the power of chips, bandwith and computers doubles appr. every 18 months
The human factor
Technological development feeds and enables various trends in society: Democratisation, social connection, DIY, Decentralisation
Watson
Google Glass
3D printing
Auto-motive based on digital
Capsule endos-copy
Slingshot water purifier
Crowd-funding
Self-Driving cars
Nano-Printing
Matternet (drones)
Global connecti-vity
Tele-presence robots
Robotic surgical systems
Speed of technological change
Exponential technologies
Biotech
Neurotech
Nanotech
New energy & sustainability
ICT & mobile technology
Sensoring
3D printing
Artificial intelligence
Robotics
Drones
From linear to exponential growth trajectory


I think in 40 years we will be around here...
I think in 40 years we will be around here...
t

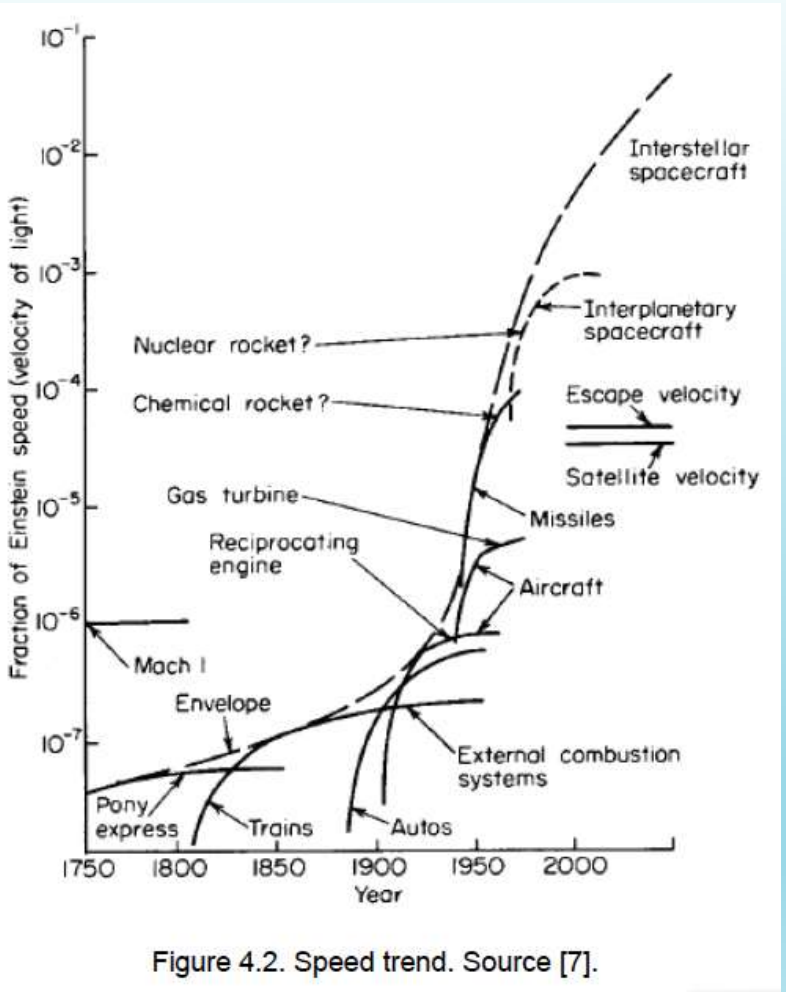
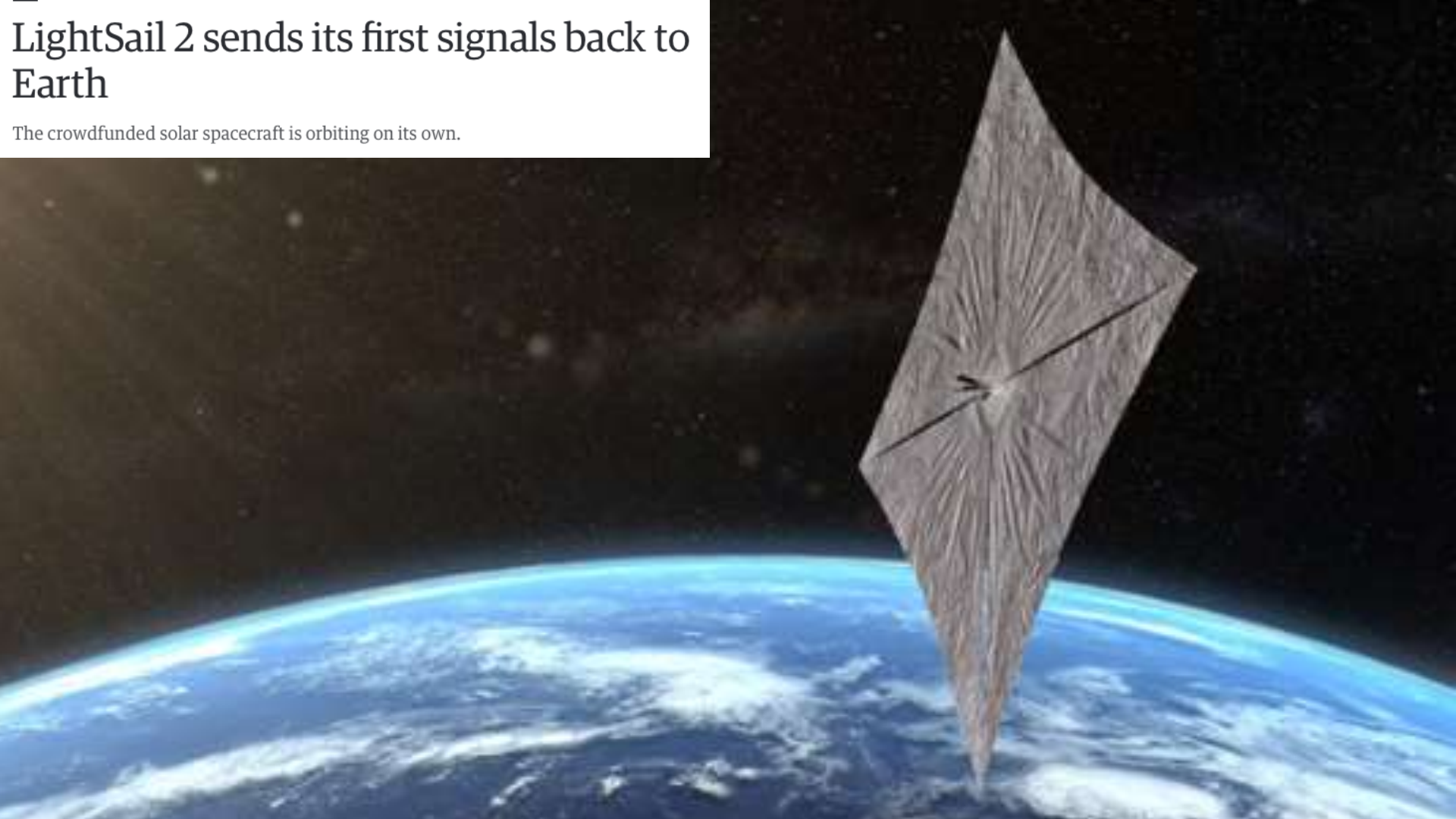


Figure 4.2. Speed trend. Source [7].

LightSail 2 sends its first signals back to Earth

The crowdfunded solar spacecraft is orbiting on its own.



Tecnologías exponenciales

1

2

3

4

5

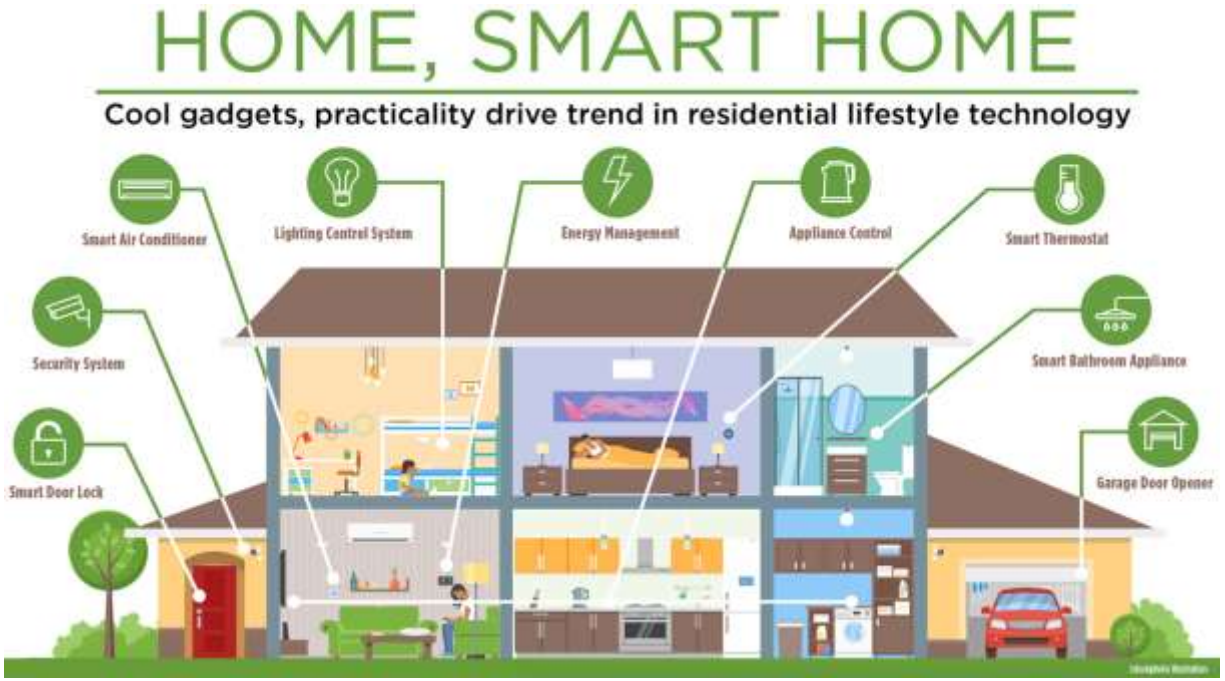
6

7

8

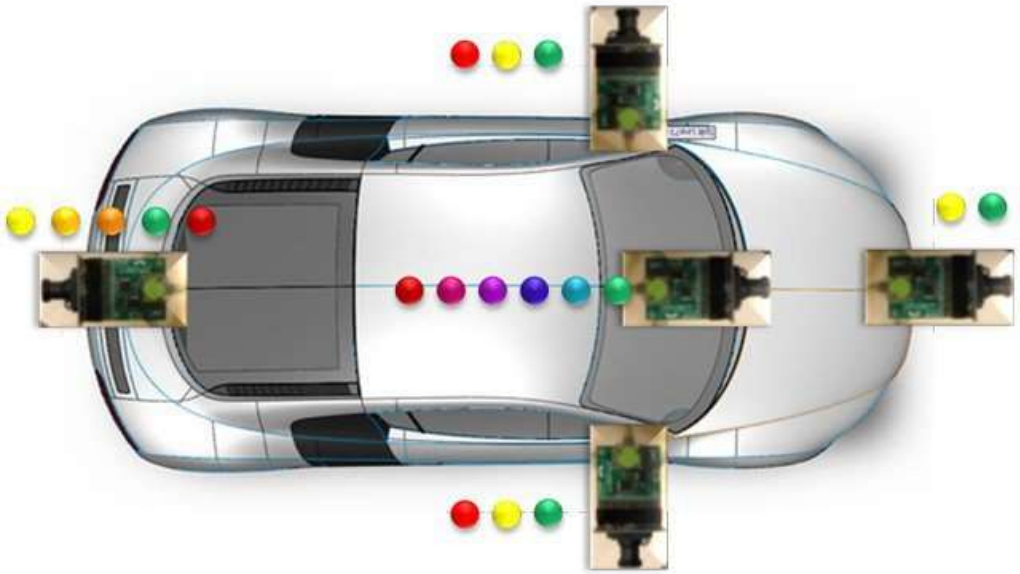

THE
INTERNET
OF THINGS
DEVICES
PROJECTS
WEB
SMART
MACHINES
OBJECTS
BRANDS
SOLUTIONS
LIGHTS
MULTIMEDIA
NETWORK
SERVICES
SOCIAL MEDIA
SMART
CONSUMER
ORGANIZATION
SEO
PROGRAMMING
BRANDING
M2M
CONSUMER DEMAND
WEB MARKETING
SOCIAL
STATISTICS
EQUIPMENT
APPS
PLANNING
MEDIA
SOLUTIONS
VISION
ENGINEERING
RESEARCH
WEB DEV
BRAND
COM
HOME
AUTOMATION
STRATEGY
WORLDWIDE
SEGMENTATION
ORGANIZATION
BIG
DATA
CLOUD
WEB SERVICES
EVERYTHING
AUTOMOBILE
MOBILE
SOLUTIONS
M2M
TOOLS

de las cosas…y también lo harán los seguros de daños generales



Los autos inteligentes ya están cambiando…

…y también lo harán los seguros de autos



- 3D Surround View
- Rear View Camera
- Rear Cross Traffic
- Blind Spot Detection
- Lane Departure Warning
- Intelligent Headlamp Control
- Traffic Sign Recognition
- Forward Collision Warning
- Intelligent Speed Control
- Pedestrian Detection

Y todo lo demás, ¡por supuesto!

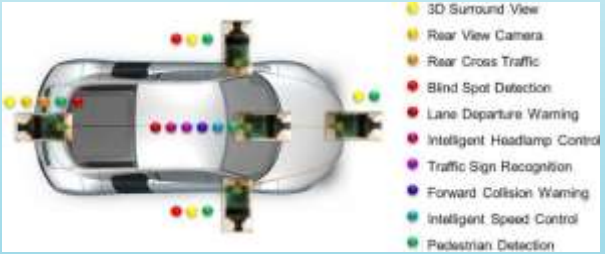
- Internet de las cosas es una “frontera adyacente" principalmente debido a que:

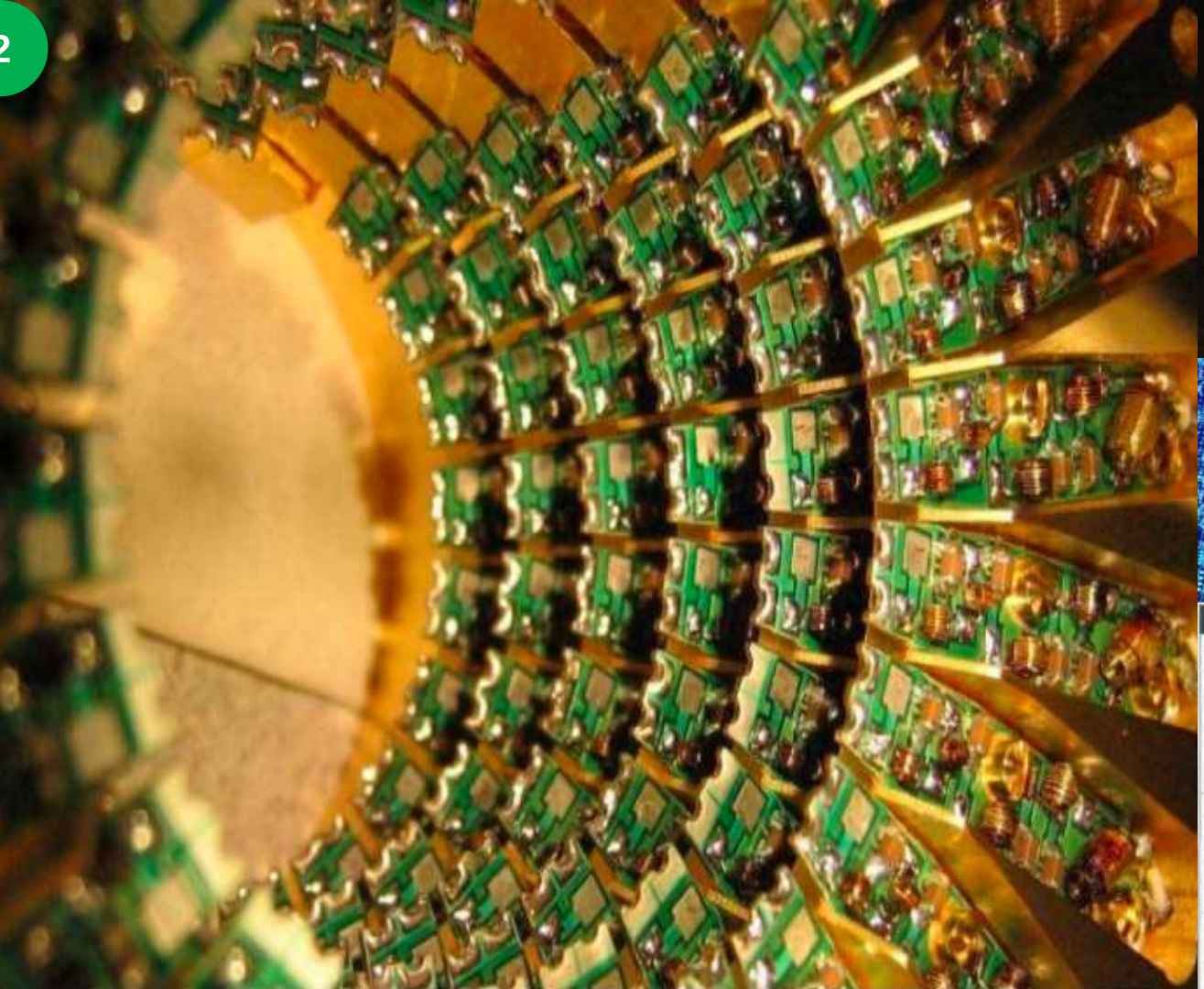
- Los costos de ingreso tecnológicos no constituyen barreras
- Los reguladores vienen MUCHO MÁS REZAGADOS en estas cuestiones (como en tantas otras...)

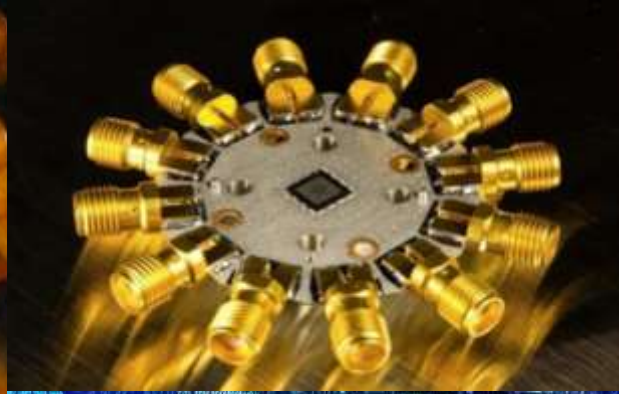
…y también lo hará la industria de los seguros

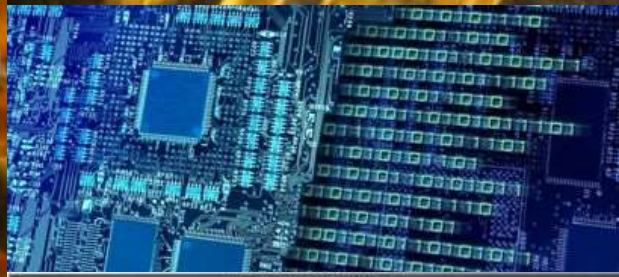
El producto está **migrando** del **análisis posterior al evento a la prevención anterior al evento**.

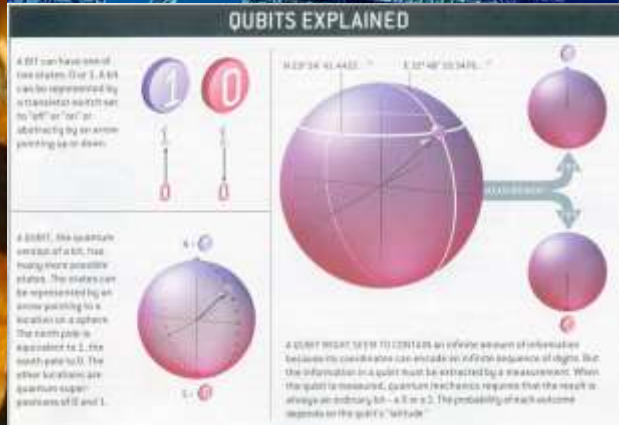
En el futuro, el producto incluirá **cada vez menos** el elemento de indemnización por pérdidas y **más servicios** destinados a evitar/mitigar pérdidas.

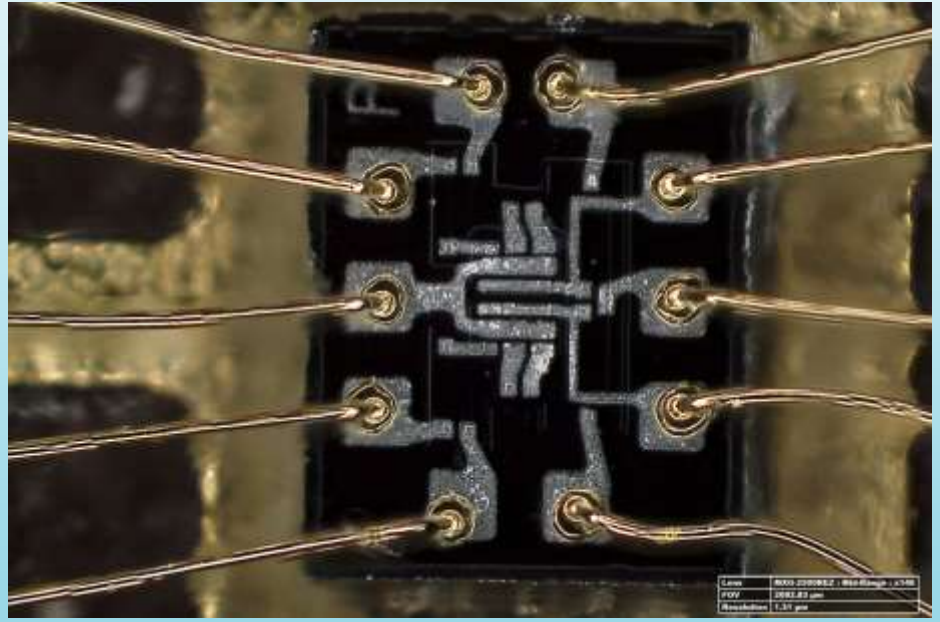









QUBITS EXPLAINED




UPLINK ACTY
TEMP
NO ATT
GIMBAL LOCK
STBY
PROG
KEY REL
RESTART
OPR ERR
TRACKER
COMP ACTY
PROG
VERB
NOUN
+
7
8
9
CLR
VERB
ENTR
−
4
5
6
PRO
NOUN
RSET
0
1
2
3
KEY REL

Physicists reverse time using quantum computer

by Moscow Institute of Physics and Technology


3


Reasoning
AI
Science
Computer
Knowledge
Technology
Learning


AI for
GOOD

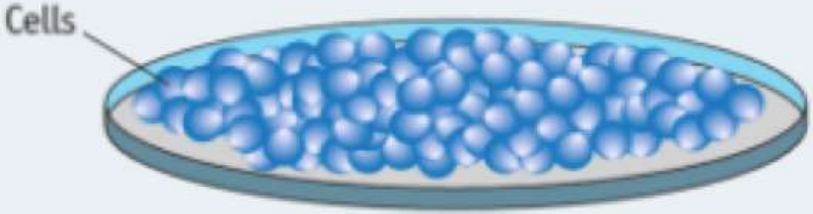

新华社
XINHUA NEWS
Sogou搜狗
AI 合成主播


olli

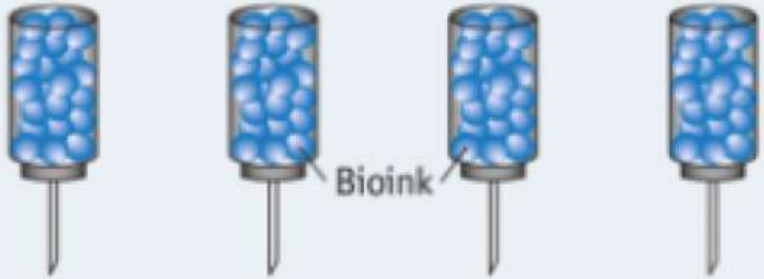

PRUSA
RESEARCH


Tiempos
acelerados de
producción
Sistema
de refrigeración
único
Aleaciones
de muy alta
performance
Una única pieza

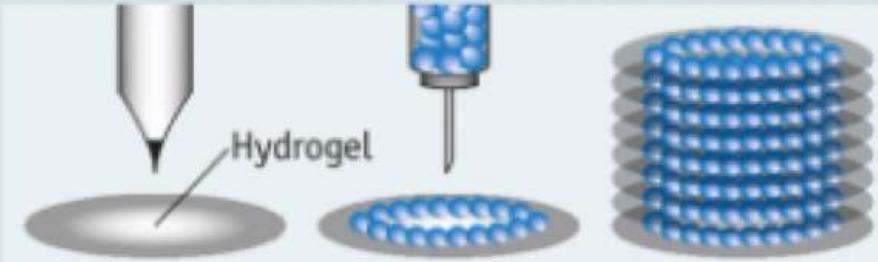
¿Cómo funciona una bio-impresora 3D?



1. Se dejan reproducir, en un ambiente propicio, células madre o células tomadas del organismo de una persona. Estas células serán usadas para producir la "bio-tinta".

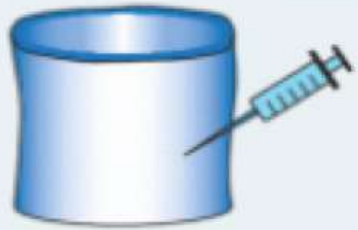


2. Esta "bio-tinta" se introduce en unos cartuchos en forma de jeringas con una agujas largas para la impresión.

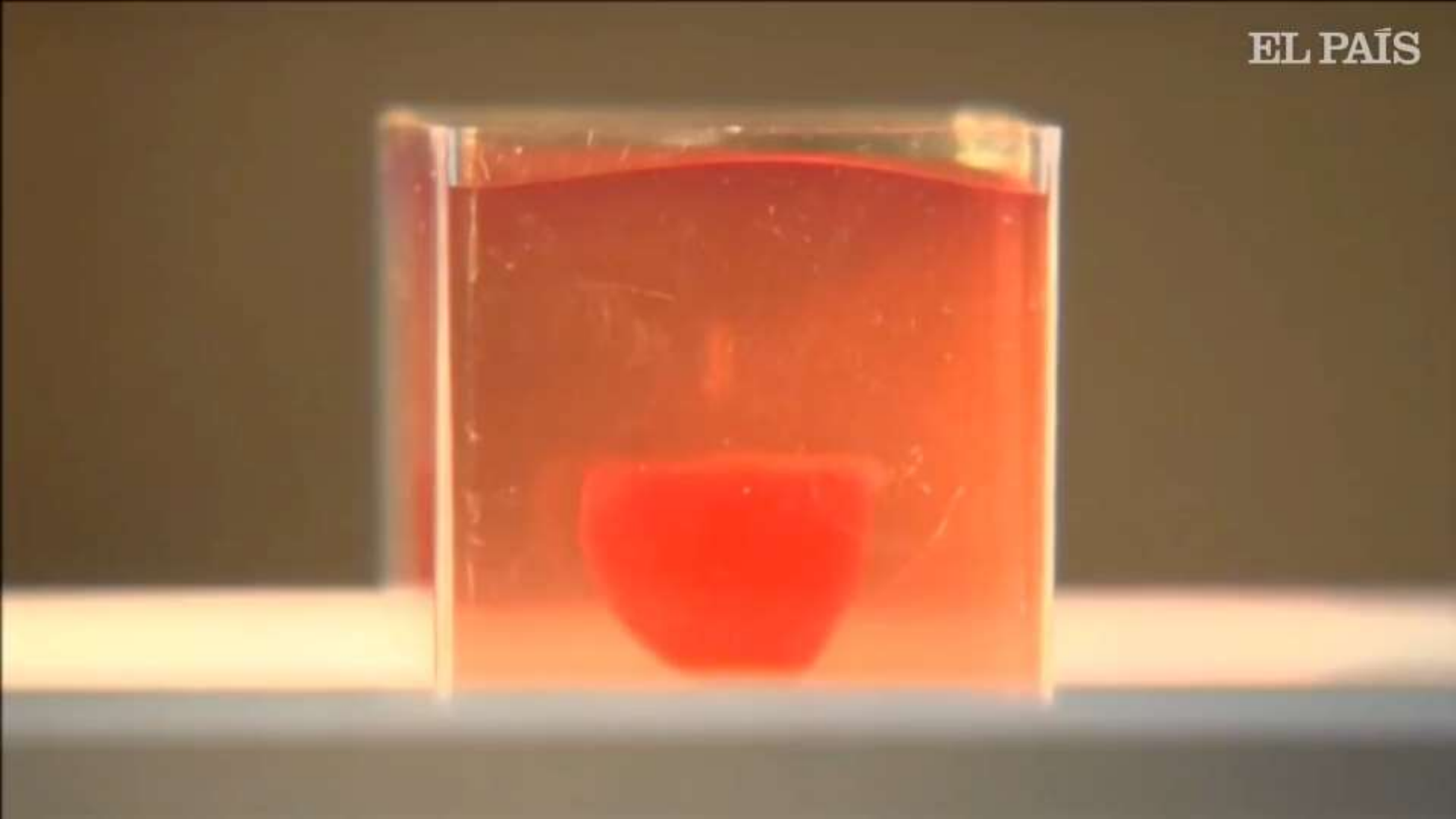


3. La computadora guía a la bio-impresora para ir depositando un diseño de células en capas muy precisas; una capa sobre otra. Entre cada capa se coloca una substancia llamada "hidrogel", la cual se coloca a través de una jeringa especial y que sirve para "darle forma" a las células.

4. El tejido así "impreso", se deja crecer y madurar y se retira el "hidrogel".



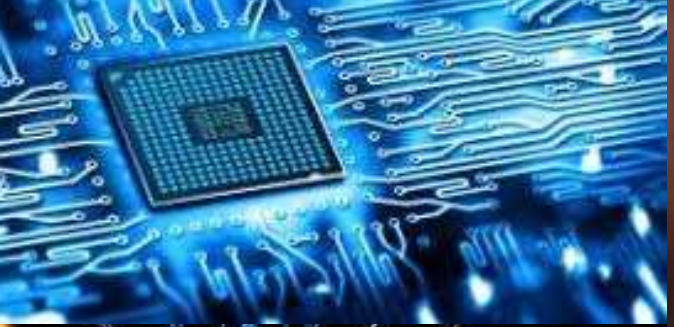
4. El tejido así "impreso", se puede usar para investigación médica o como material para trasplantes.


EL PAÍS

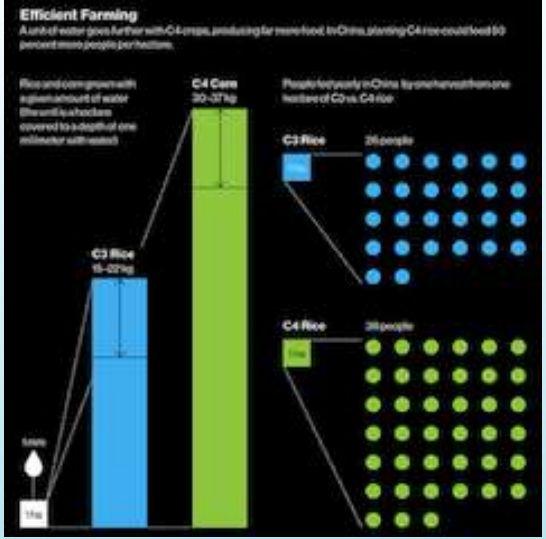
En un futuro cercano todo será cualquier cosa menos un "diseño"...

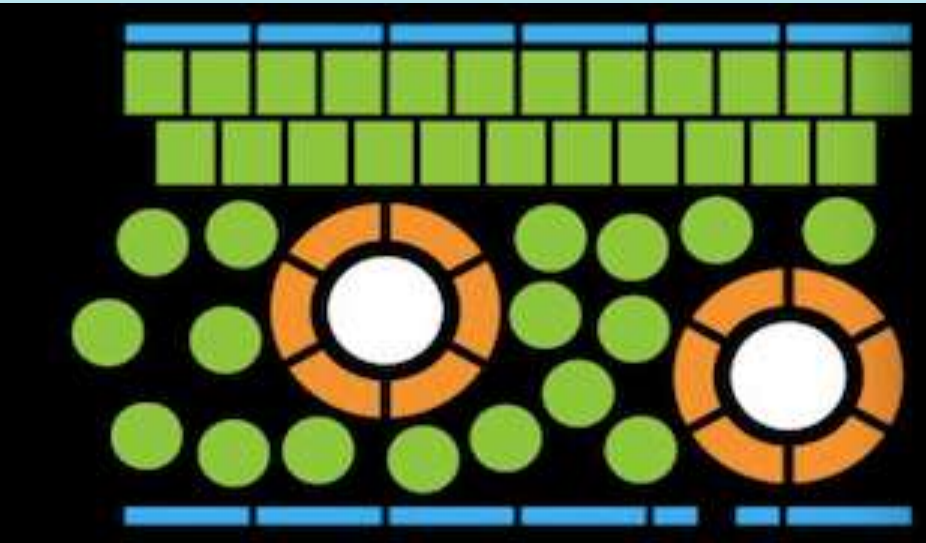
¿Qué sucederá entonces con los contratos de garantía extendida? ¿Qué vamos a asegurar?

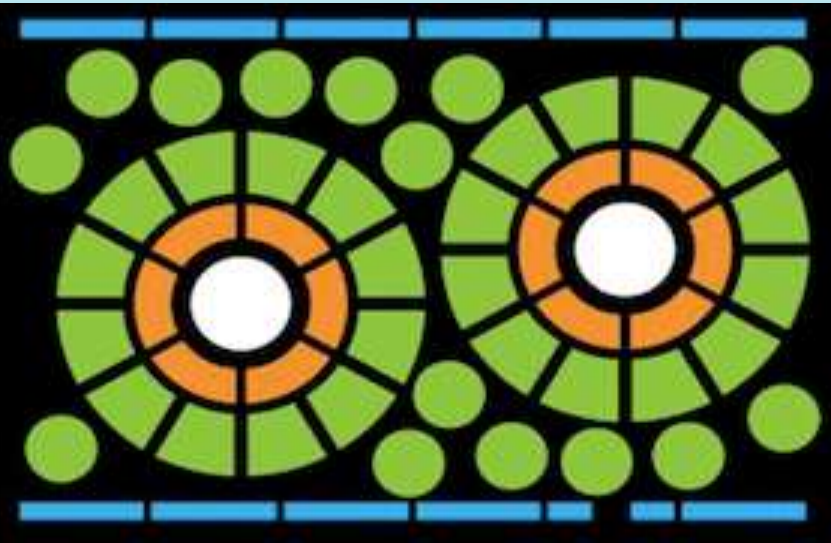
¿La precupación sobre la propiedad intelectual?

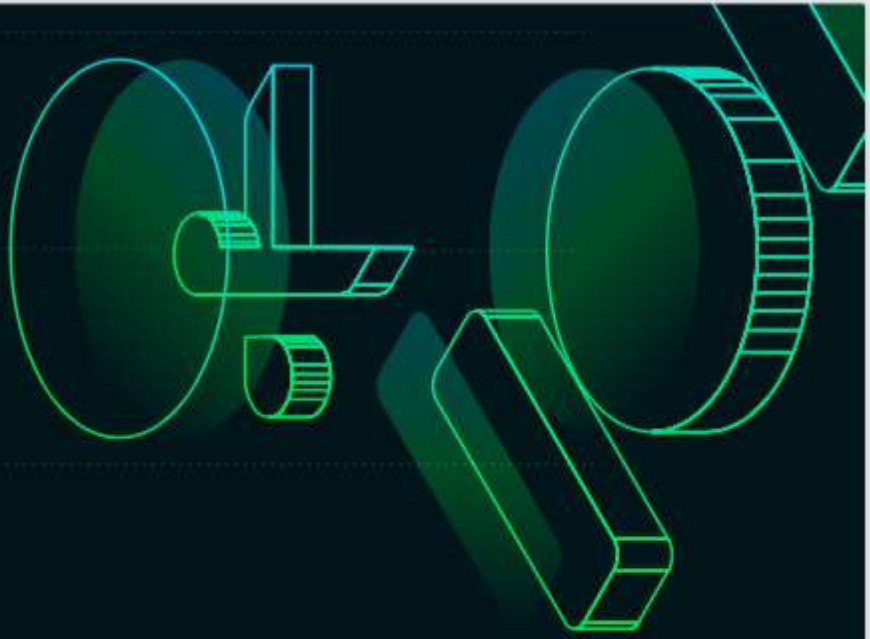



MEDICAL


Efficient Farming
A unit of water goes further with C4 crops, producing far more food. In China, planting C4 rice could feed 50 percent more people per hectare.
Rice and corn grown with a given amount of water fills a unit's six bases covered to a depth of one millimeter with water.
C4 Corn
30–37 kg
C3 Rice
15–22 kg
1 ha
People fed yearly in China by one harvest from one hectare of C3 vs. C4 rice
C3 Rice
26 people
C4 Rice
38 people







CRISPR 101

Your Guide to Understanding CRISPR

SYNTHEGO

Special Report **50 Ideas to Change the World**

Special Report Genomics

crispr gene editing ready for testing in humans

Biotech companies plan to use the technique to treat blood diseases and blindness

CRISPR, a pioneering genome-editing technique could be used to edit living human cells

David Crow MARCH 5, 2018

Rewriting Life

China's CRISPR twins might have had their brains inadvertently enhanced

New research suggests that a controversial gene-editing experiment to make children resistant to HIV may also have enhanced their ability to learn and form memories.

by Antonio Regalado February 21, 2019

SingularityHub

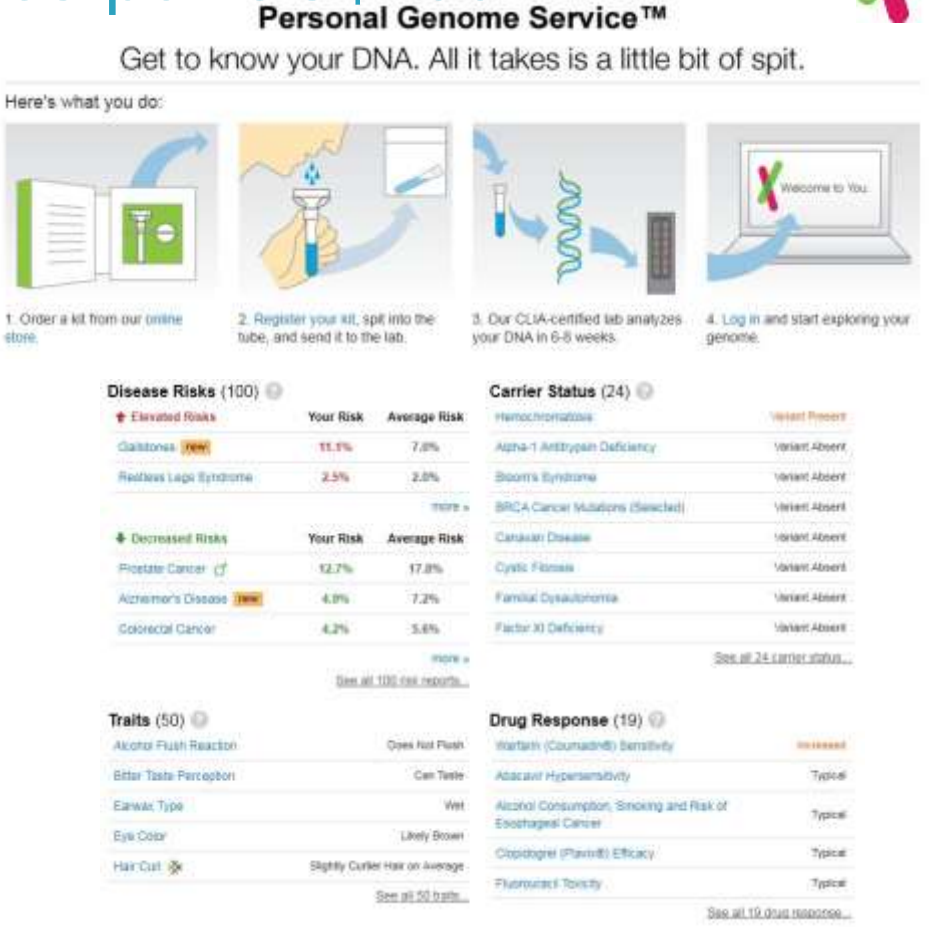
TOPICS IN FOCUS EXPERTS EVENTS VIDEOS

Topics

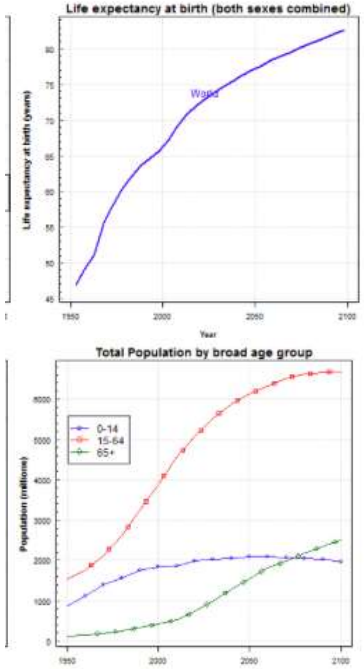
Scientists Just Added Four New Letters to the Genetic Code

By **Edd Gent** - Feb 24, 2019 2,045

Prevenir enfermedades por US$199

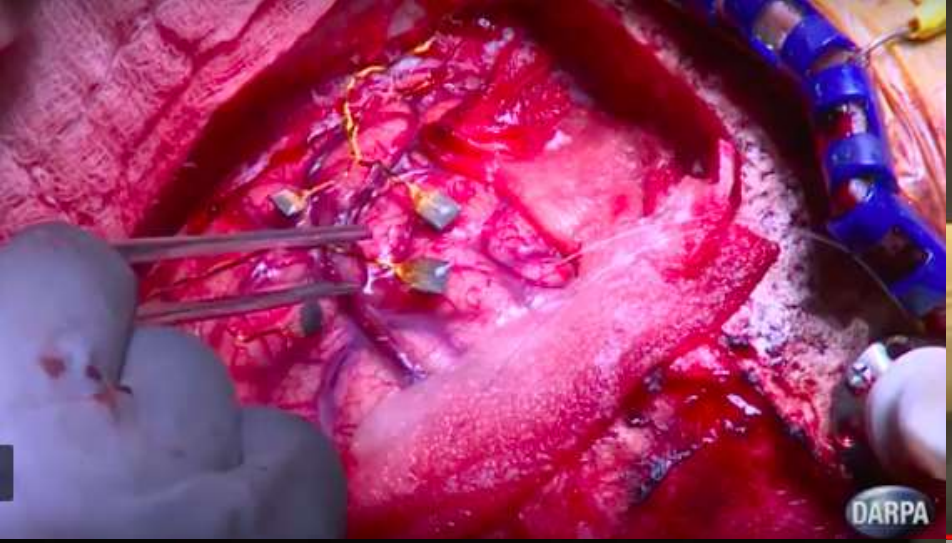


… entonces, ¿cómo afectará a los seguros de vida?



- Bio-impresión 3D
- Uso de IA en la medicina
- Pruebas genéticas predictivas…
  - Podrían conducir a una selección adversa a través de asimetría en la información.


The NeuroMedical Center Clinic

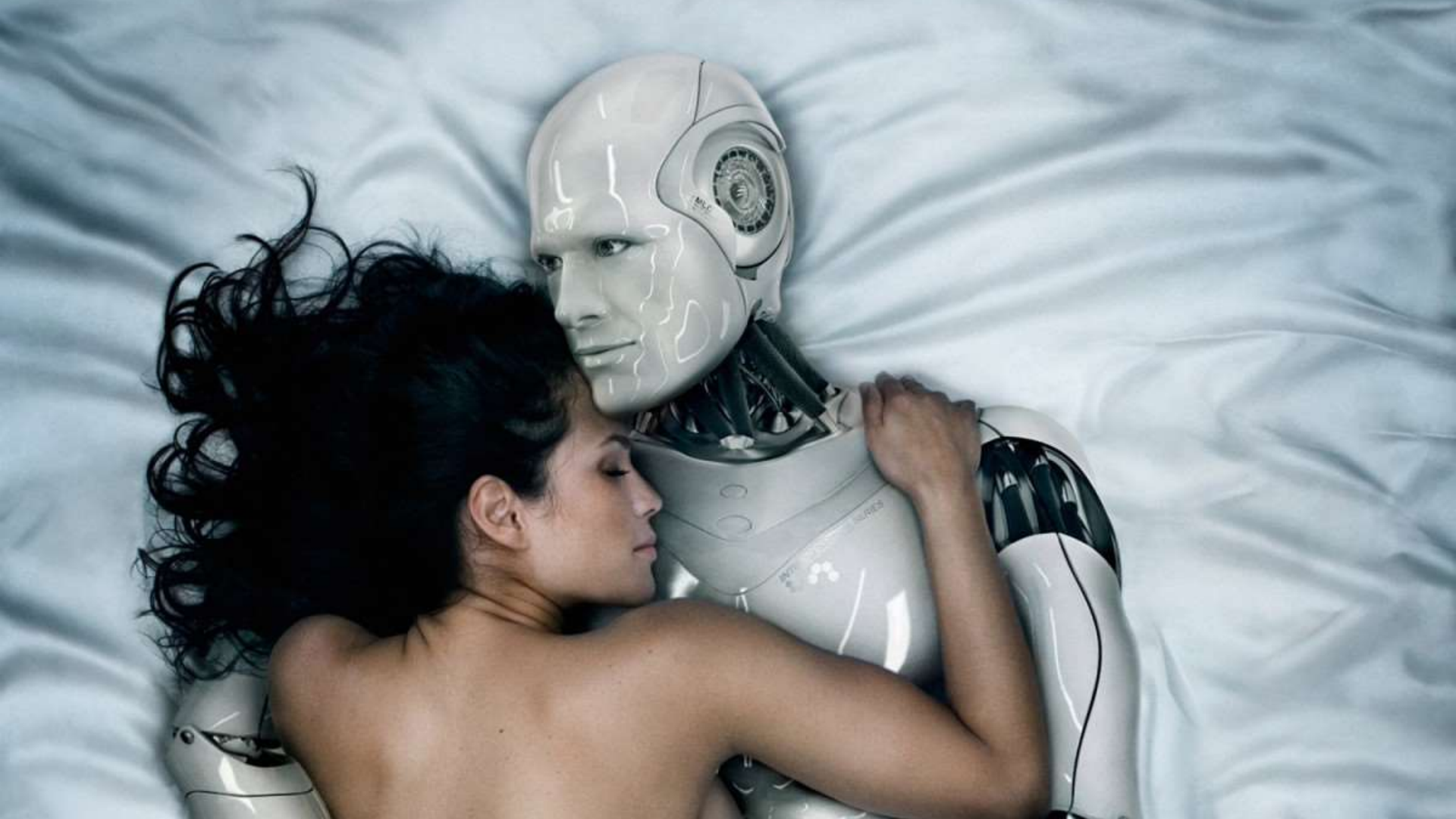

DARPA


DARPA


Providing a Sense of Touch through a Brain-Machine Interface
MORE VIDEOS
DARPA


DARPA

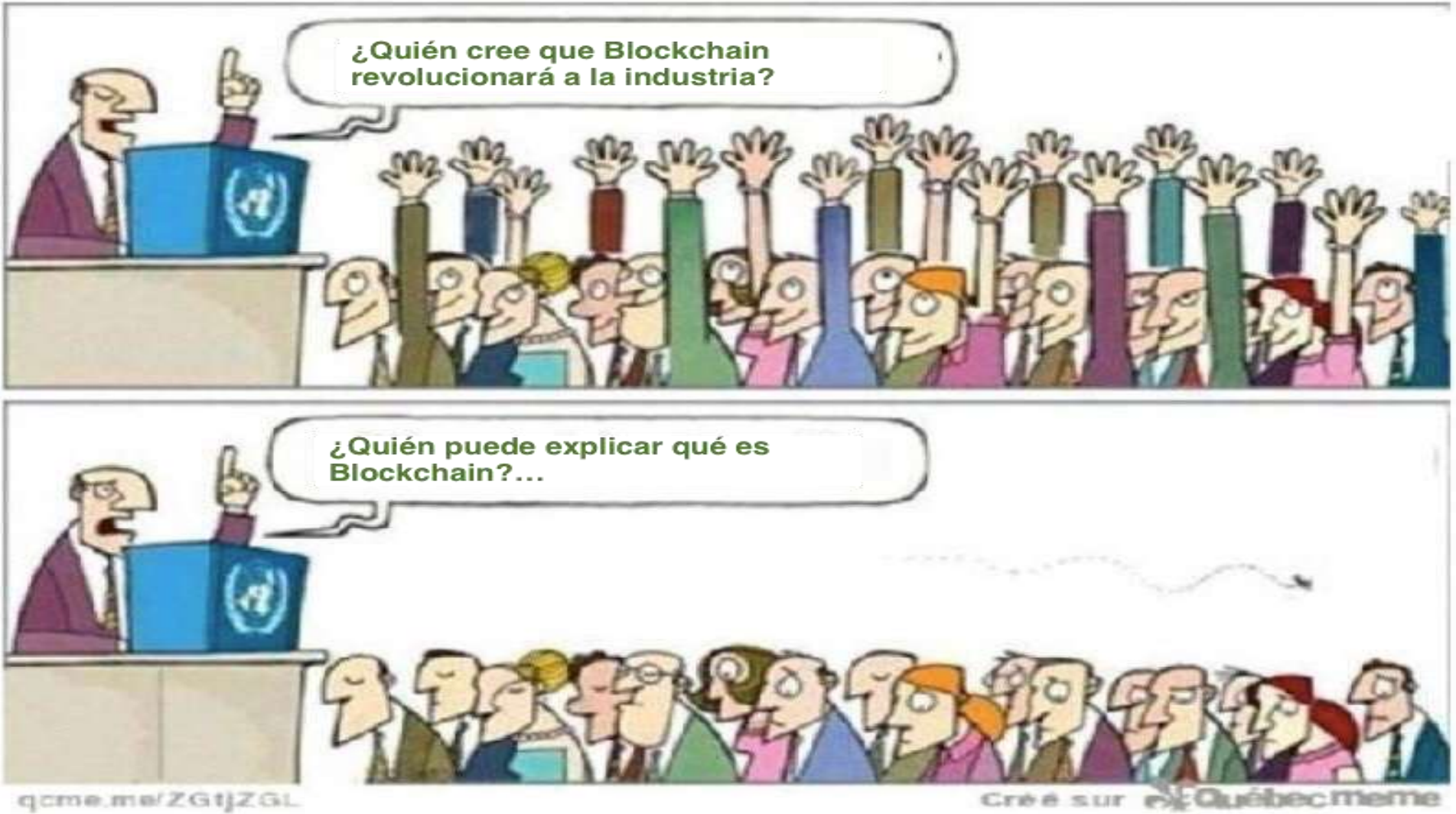
Jesse Sullivan and Claudia Mitchell demonstrate the capabilities of their RIC six-motor, neural-controlledprosthetic arms with a high five.
Photo courtesy of the Rehabilitation Institute of Chicago.




6


BLOCK CHAIN
TECHNOLOGY


TRANSACTION


¿Quién cree que Blockchain revolucionará a la industria?
¿Quién puede explicar qué es Blockchain?...
qcme.me/ZGtjZGL
Créé sur Québecmeme


BitClub
Global Mining Pool


WORLD ECONOMIC FORUM
People in Bangkok are using blockchain to trade electricity with each other

Finalmente…

… ¿Qué pasa con Blockchain?

Munich RE

THE GROUP | REINSURANCE | PRIMARY INSURANCE | INVESTOR RELATIONS | MEDIA RELATIONS | CAREER

» Home » Media Relations » Other Company News » 10 September 2017

Other Company News

You have access to the database of Munich Re company news.
To find information quickly, you can choose from among the following search options:

10 September 2017

B3i launches working reinsurance blockchain prototype

B3i, the Blockchain Insurance Industry Initiative, announces launch of market beta-testing of its reinsurance blockchain prototype.


OTTO


Audi piloted driving
CARJAM TV . com

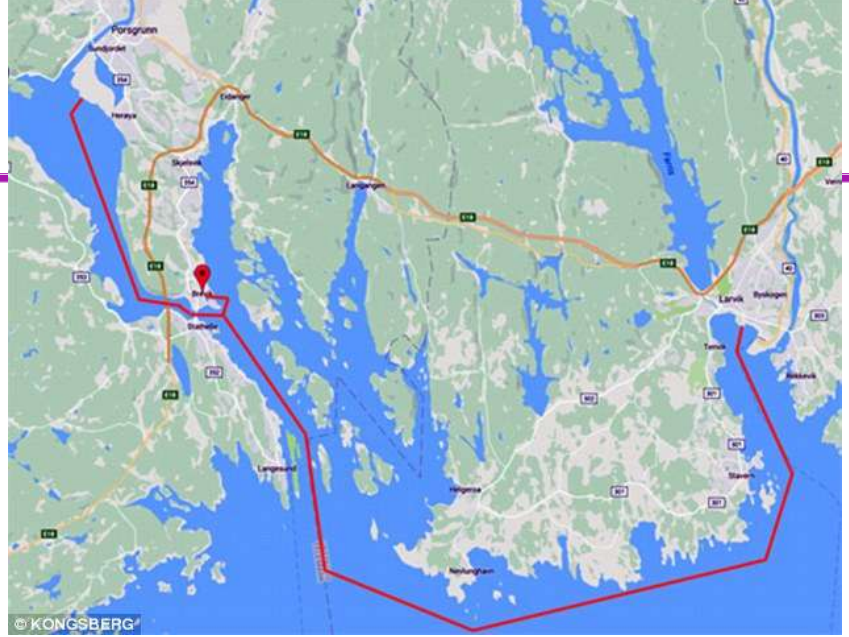
autónomos
remodelarán
completamente la
nueva economía…

4%

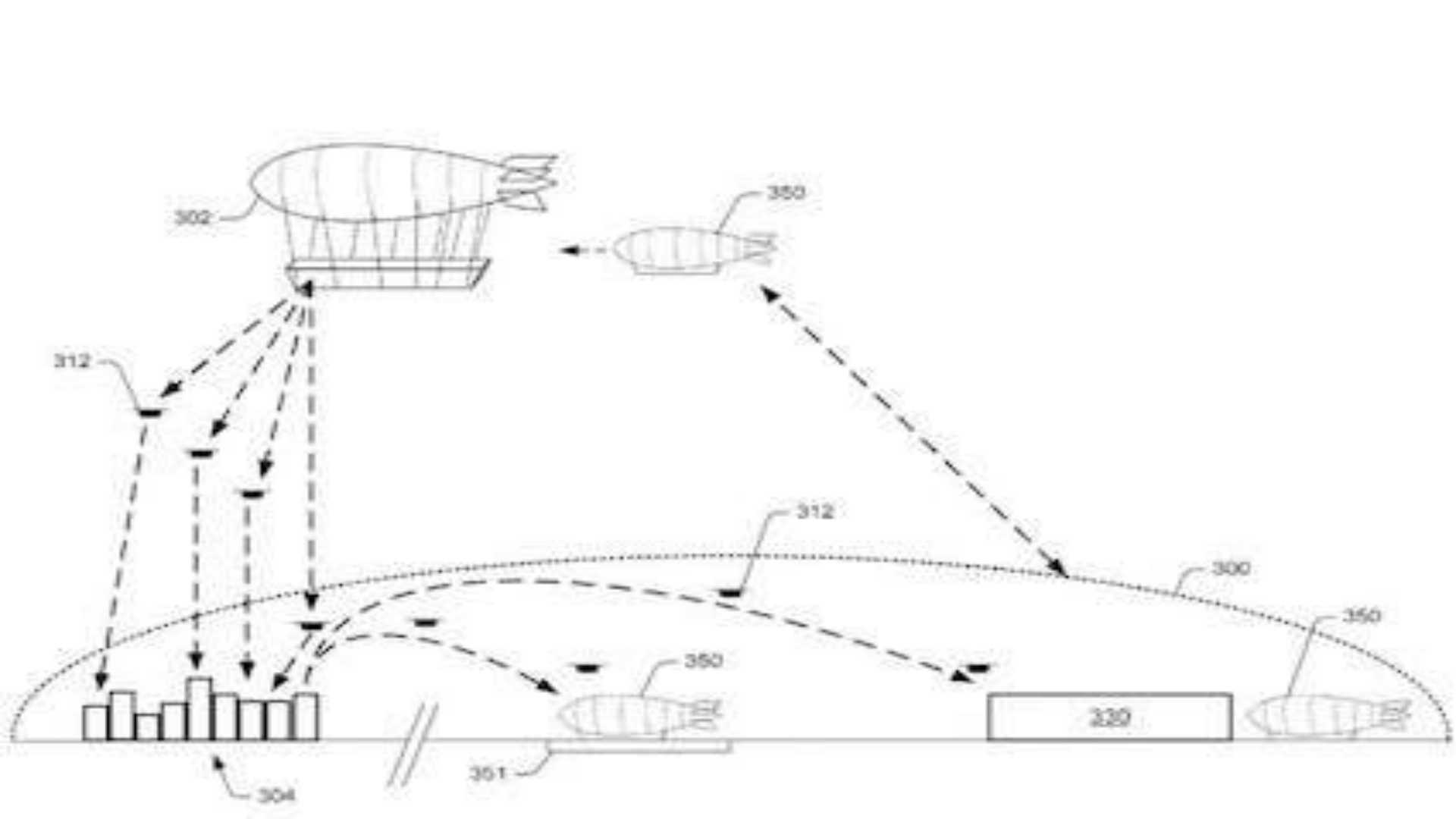
”¿Propiedad ?”

¿Y si en lugar de asegurar miles de millones de autos ahora, en el futuro tenemos que asegurar unas pocas miles de flotas…?

The autonomous ship YARA Birkeland.




THE STRAITS TIMES

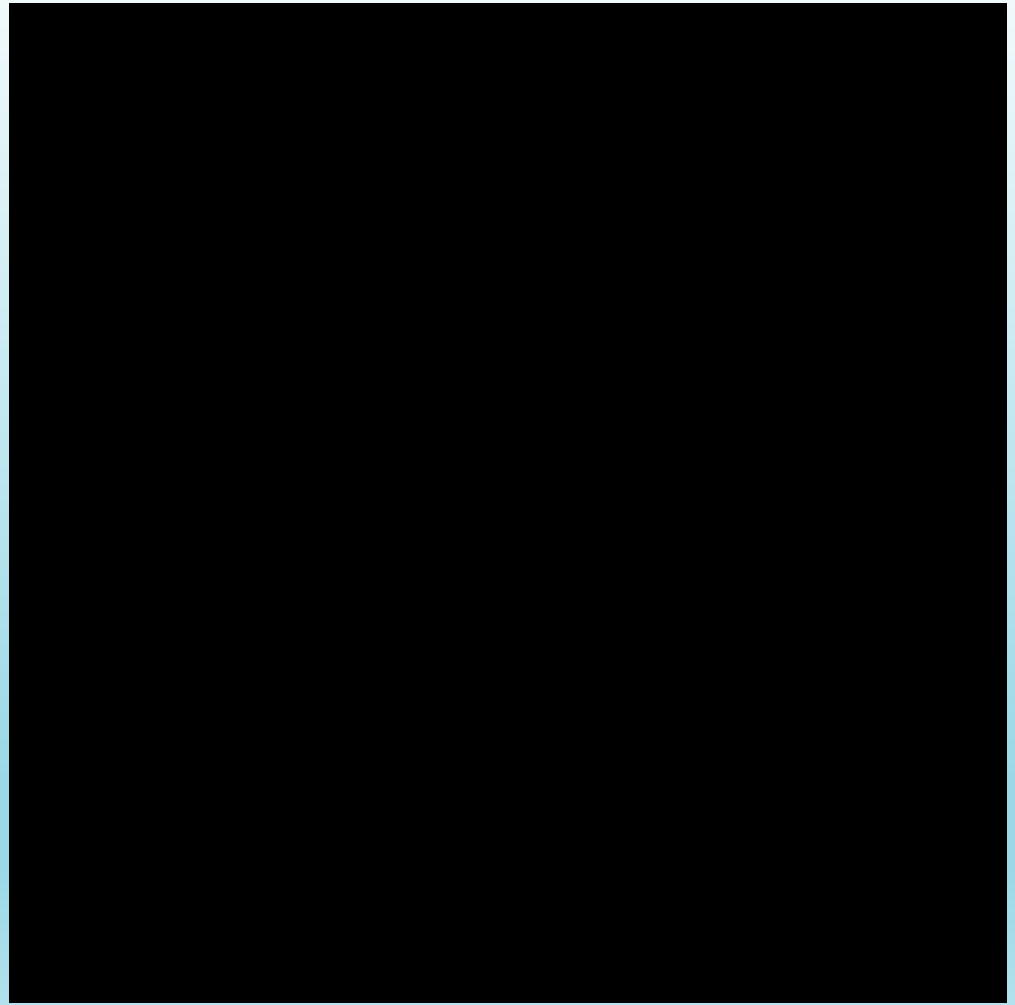

302
350
312
312
300
350
350
330
304
351


AUTOLIVERY
POWERED BY FORD


CHARGE
CHARGE

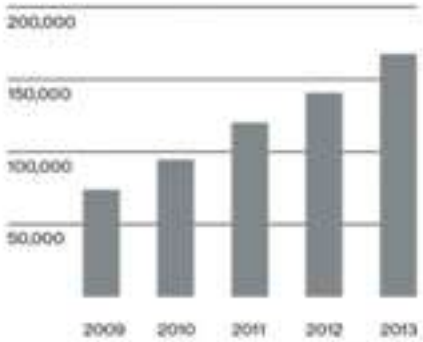

amazon


dispatch



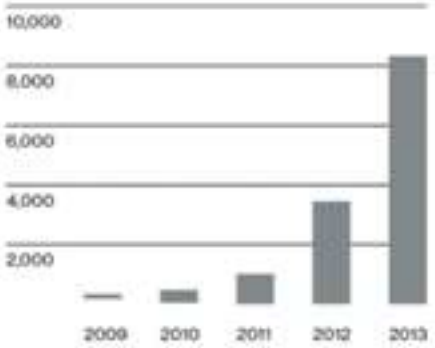
U.S. Wind Power Generation

Gigawatt-hours

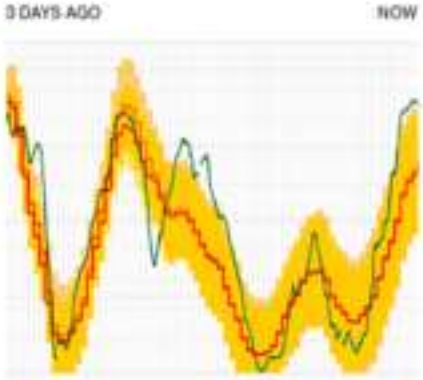


U.S. Solar Power Generation

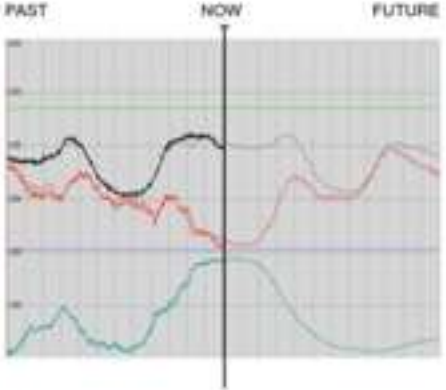
Gigawatt-hours

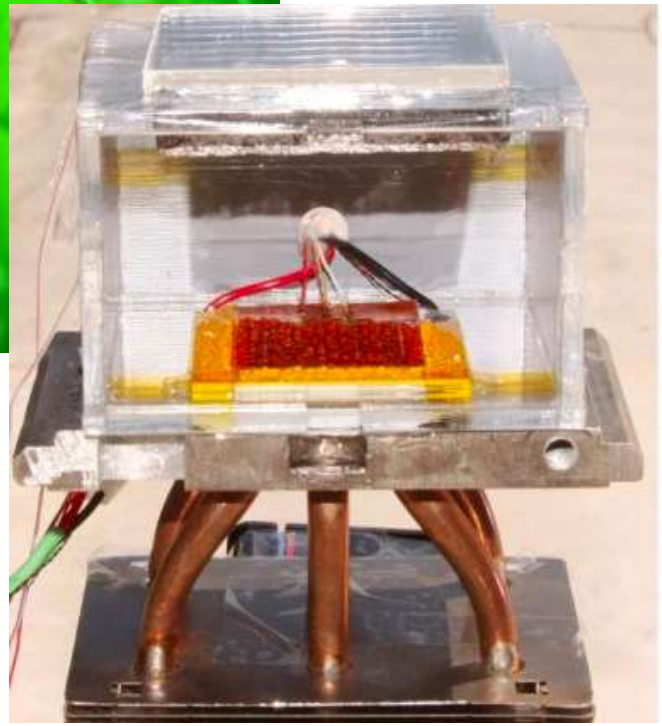


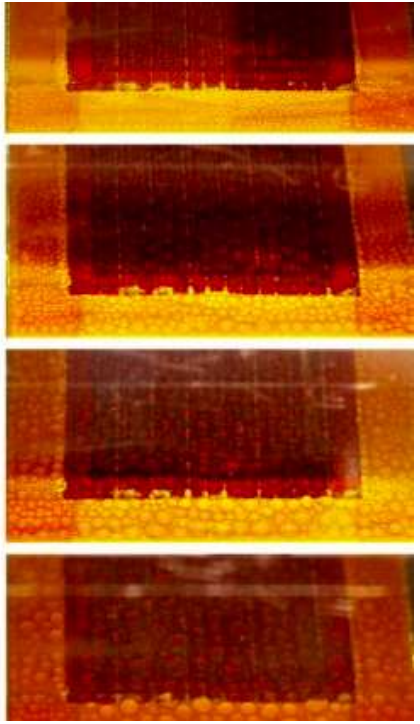
Power Forecast



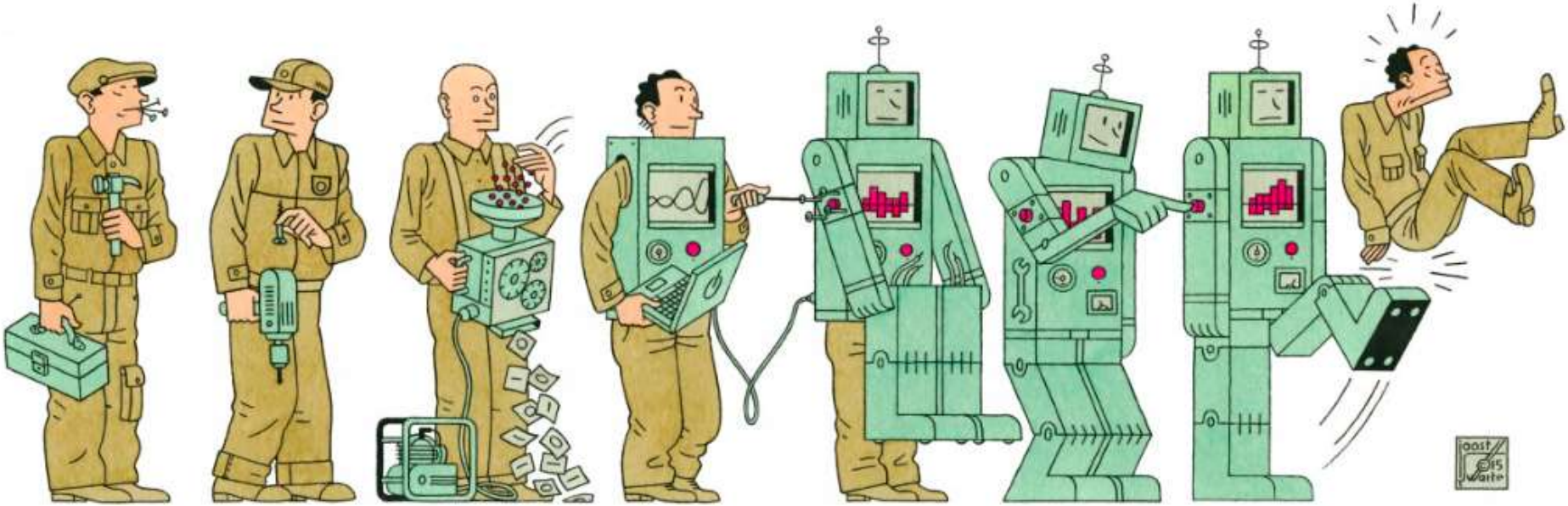
Power Balancing

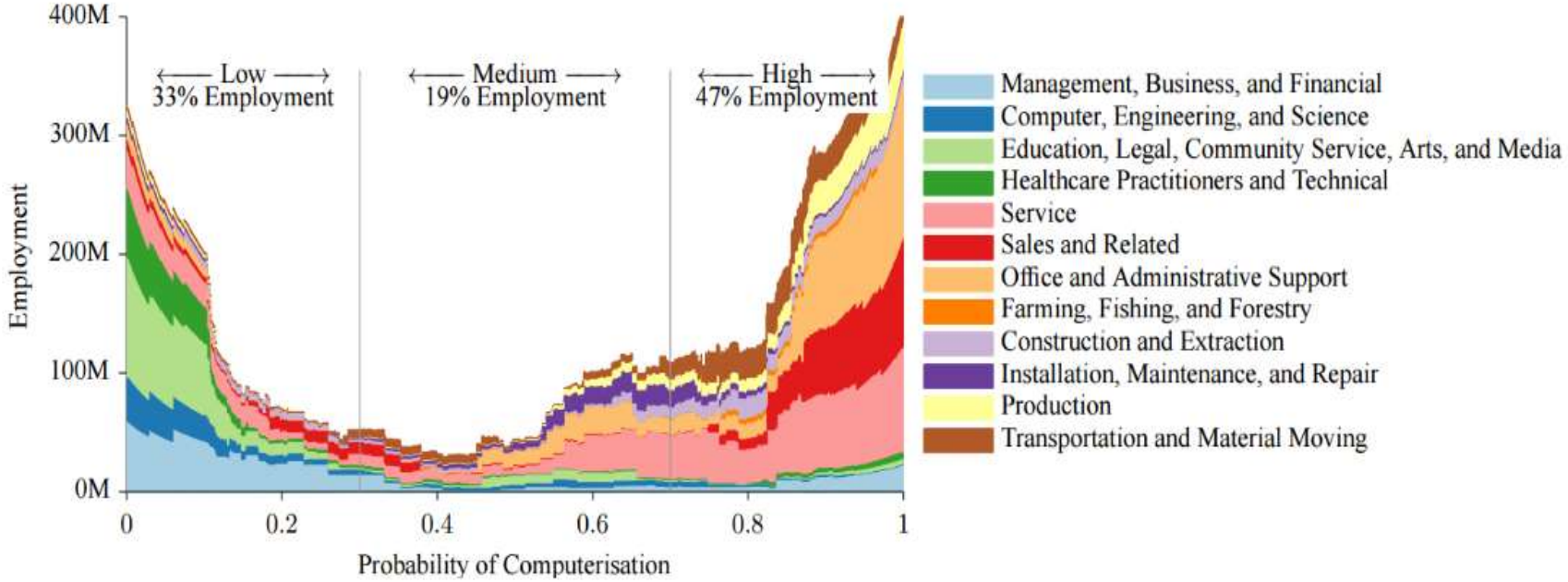







¿Quiénes se verán más afectados ?



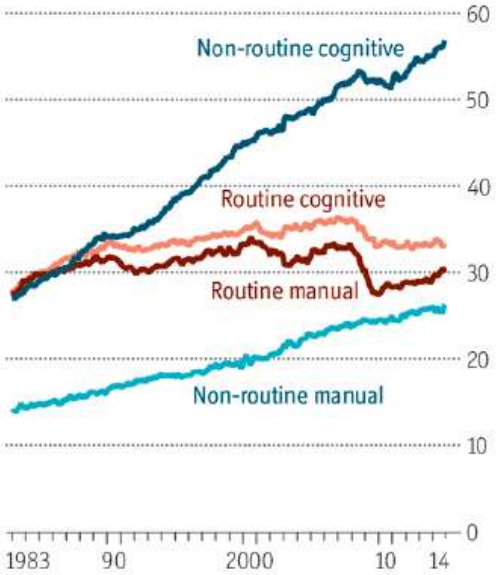


* Distribution based on 2010 job mix.

Source: Frey, C.B. and M.A. Osborne, "The Future of Employment: How Susceptible Are Jobs to Computerisation?", 17 September 2013

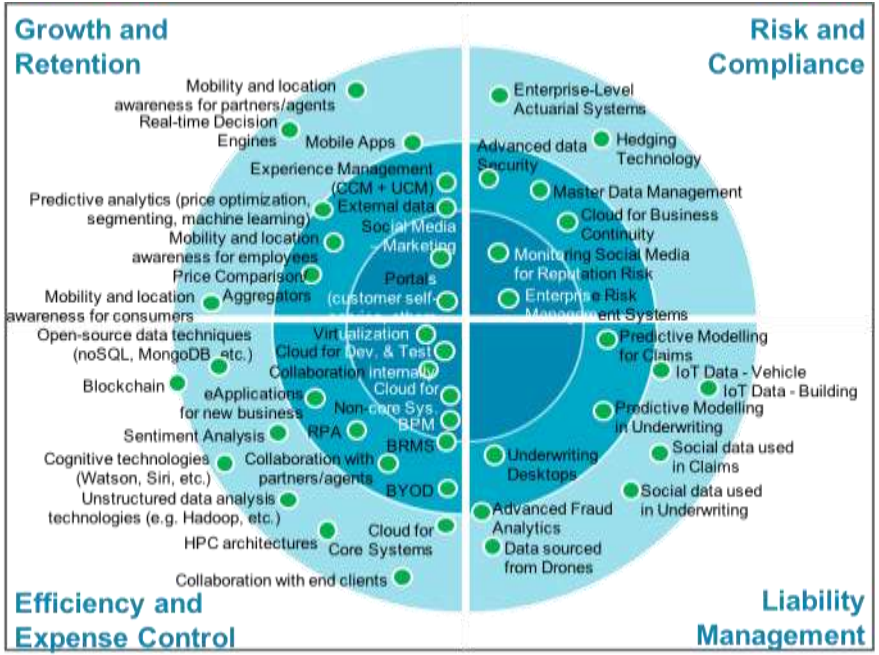
Think

United States employment, by type of work, m

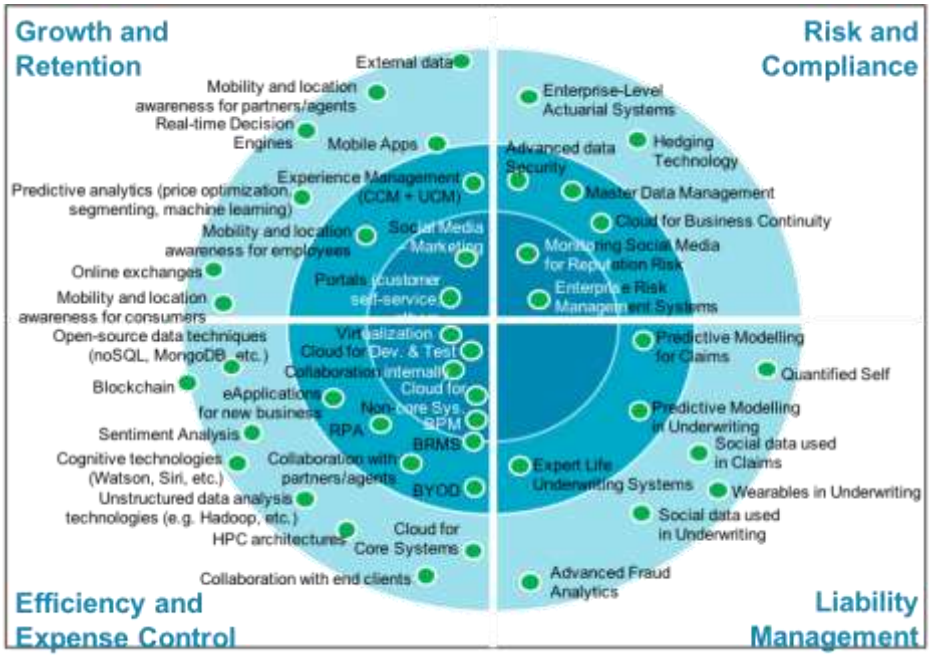


Sources: US Population Survey; Federal Reserve Bank of St. Louis

Economist.com



Daños generales



Vida

Top 10 predictions for 2018

1. **AI accelerates:** Continued innovation and adoption of AI as an underlying tech
2. **Regtech rising:** Increased investment in regtech around the world
3. **Building bridges:** Greater collaboration and partnering between large-scale providers
4. **Next gen digital lending:** The rise of online mortgage technology and platforms
5. **Beyond use cases:** Early success efforts in the initiation of blockchain production systems
6. **Open banking:** Open APIs pave the road for third party developers in Europe and Globally
7. **New challenger banks:** Financial services incumbents building their own digital banks
8. **Insurtech innovation:** Accelerated investment into driving insurtech innovations and building hubs around the world
9. **Going full-stack:** Broadening of solution sets by mature fintech companies
10. **Big tech participation:** More partnering between fintech and technology giants

Aite PARTNER. ADVISOR. CATALYST.

Top 10 Trends in Financial Services, 2018

JANUARY 2018

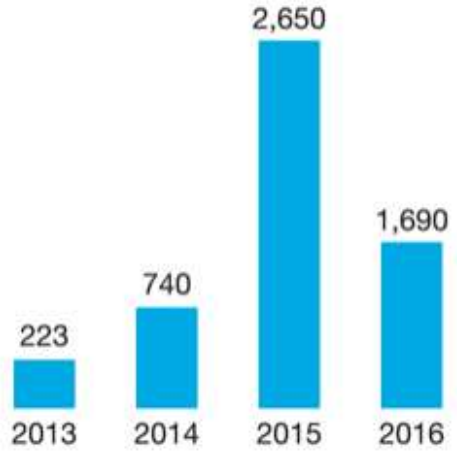
INSURANCE

- **Data protection and privacy take center stage:** Several factors, including ceaseless cyberthreats and Europe's General Data Protection Regulation (GDPR), will force insurers to adopt a fresh data strategy.
- **Unstructured data spreads in property and casualty (P&C) underwriting and claims:** Consumers want quicker underwriting and claims decisions, which will compel carriers to turn to unstructured data.
- **Technology becomes a greater part of loss-control strategies:** High-severity losses are pushing carriers to think differently about how to limit those losses.
- **Instant claims payouts become key differentiators in P&C:** In an increasingly customer-centric environment, more carriers will strengthen policyholder engagement and relationships by using available technology to pay claims quickly.
- **Life insurers step up customer-facing full-office digital transformations:** Customer demand and the need to improve upon the full customer experience will force life insurance carriers to look beyond front-office digital solutions to solutions that will support the full policy life cycle.
- **Accelerated life insurance underwriting gets personal:** The need to create an individualized experience while providing immediate gratification, simplicity, convenience, and products that fit consumers' needs is pushing carriers to shift to a true accelerated underwriting process, employing rules engines, scoring tools, advanced algorithms, and third-party data.
- **Life insurers embrace automation:** Reducing operational costs, improving scalability, and streamlining internal processes while plagued by legacy systems are some key reasons life insurance carriers are forced to implement RPA to support automation.
- **Health plans emerge as a medical bill payment channel:** Deepening provider and member relationships are the linchpin for more payers to implement medical bill payment collection technologies, paving the way for a new disruptive consumer collection model in healthcare.
- **Health insurers revamp provider data management:** Better provider data management is being driven by Centers for Medicare & Medicaid Services. But with potential financial penalties, health plans recognize this capability's importance as their businesses become more consumer-focused.

El incipiente mundo de InsurTech…

The growth of insurtechs.

Insurance tech funding, $ million

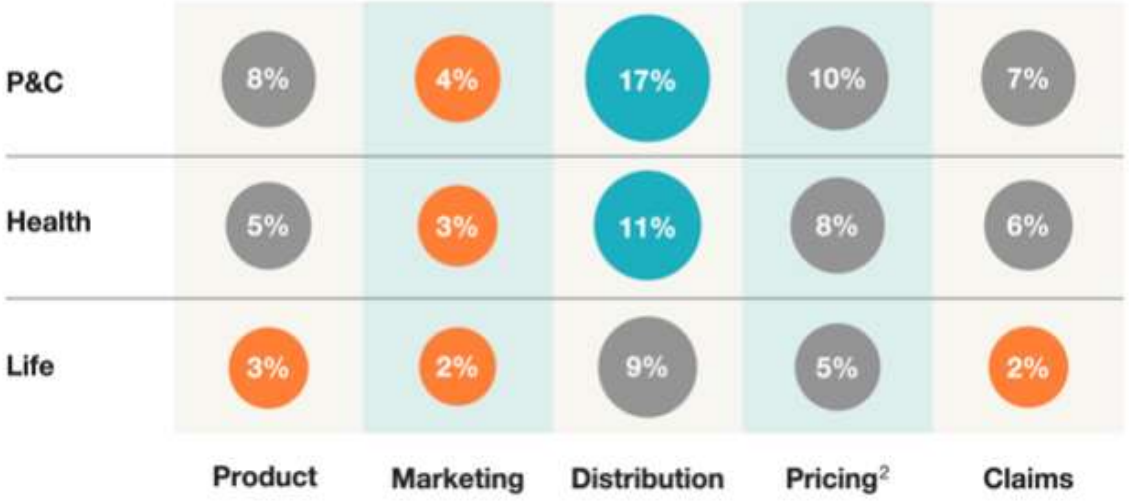


McKinsey&Company | Source: CB Insights

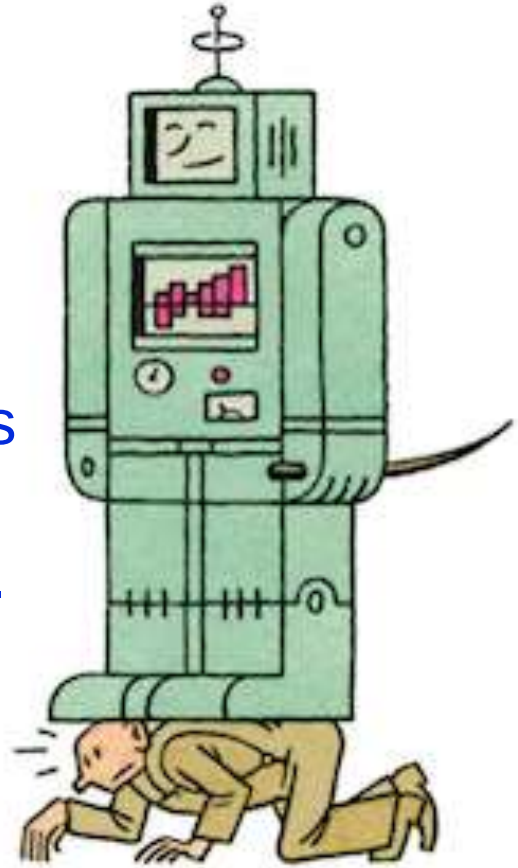
Where insurtechs are focusing.

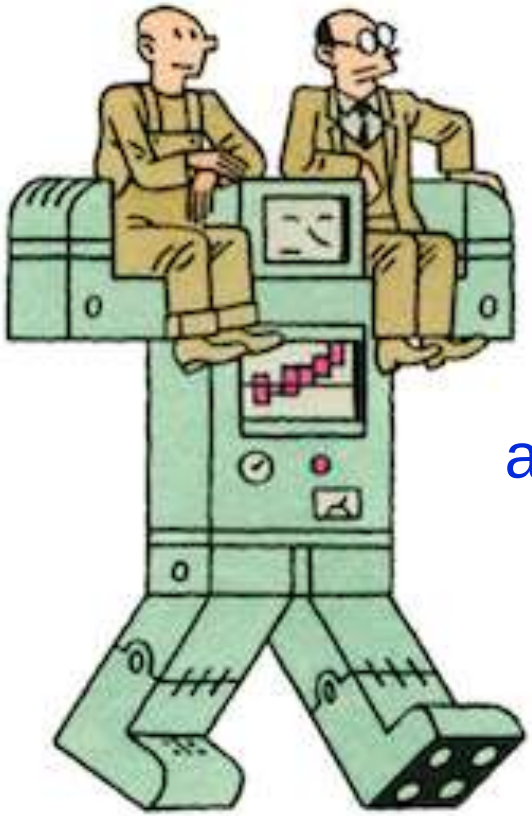
Number of innovations as % of total in the database[1]

Share of innovations in Insurtech database
<5% 5–10% >10%



Tenemos que descubrir cómo evitar ser desplazados por la tecnología...





…y cómo aprovecharla al máximo en beneficio de todos.

Carlos Alejandro Belloni