

Managing Resources of Innovation Ecosystems



How can I manage an enterprise to success?

Management of
Resources and Tools
in an Ecosystem.

Ecosystems

Biological Ecosystem



Ecosystems

- **Biologic**
 - **Forests**
 - **Marine**
 - **Deserts**
 - **Wetlands**
- **Artificial or Human-Made**
 - **Urban**
 - **Agricultural**
 - **Company**
 - **Innovation**

Ecosystems

Dynamic Elements

Static Elements

Characteristics

Energy Flow (Sun/Usefulness)

Nutrient Cycling (Food Chain/Money)

Diversity (Bio/Resource)

Energy Flow

Eye → **Object**

**Allegory of the Sun
(Plato)**

Sunlight

Technology → **Market**

Perceived Usefulness

Magic of ...

Innovation

Origin

Evolution

Limitations

Definition

Efficiency

Dimensions of Innovation

Barriers

Characteristics

Societal Impact

Geography

“the economic effects of innovation processes as constructive destruction”

Origin of Innovation

Josef Schumpeter ~1940s

Innovation is "a new or changed entity, realizing or redistributing value"

Definition of Innovation

Standard ISO 56000:2020

Innovation is
Real
Genuine
Authentic
True

Reality

**is that which, when
you stop believing in
it, doesn't go away.**

Philip K. Dick

BUT

Reality is always complemented by
our view, our experiences, what can see
and what we want to see.

Limitations of Innovation



What Innovation is not:

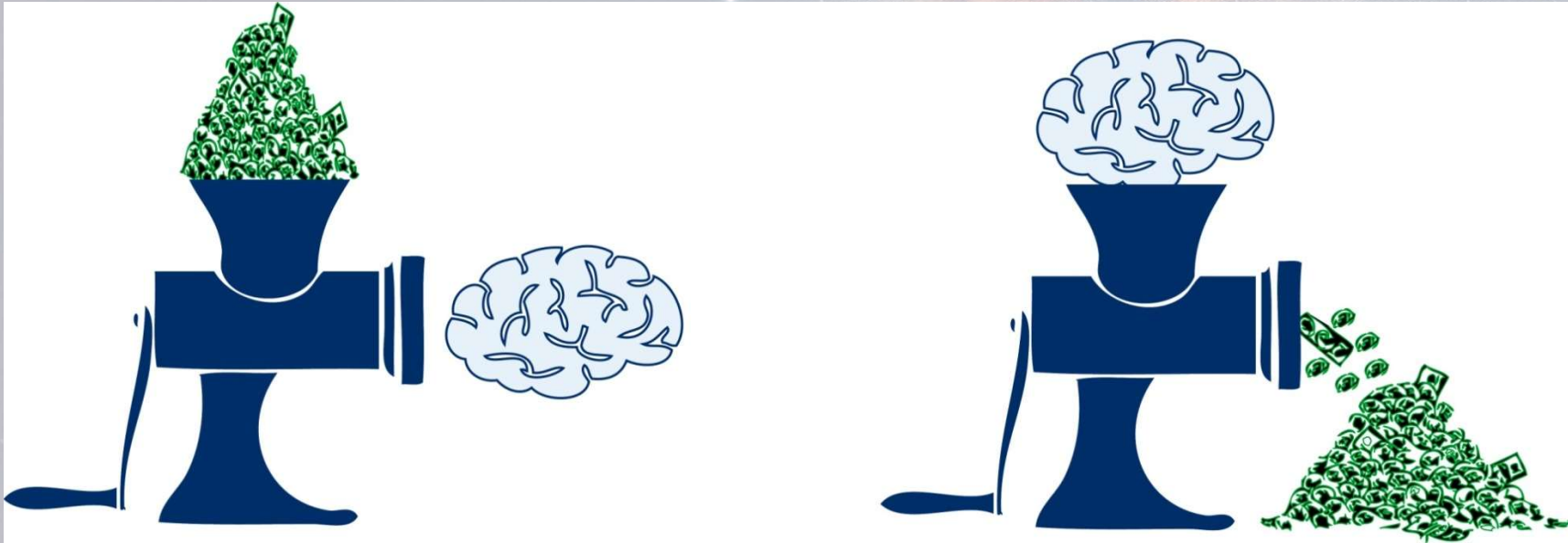
- Research
- Ideation
- Invention
- New Knowledge

Discussion:

What is the opposite of Innovation?

Conformity, Normality

Limitations: Research vs Innovation



RESEARCH

**Generates Knowledge
with Money**

INNOVATION

**Makes Money out of
Knowledge**

Barriers of innovation

- Convenience
- Burocracy
- Religion
- Autocracy
- Lobbyism
- Alternative career models

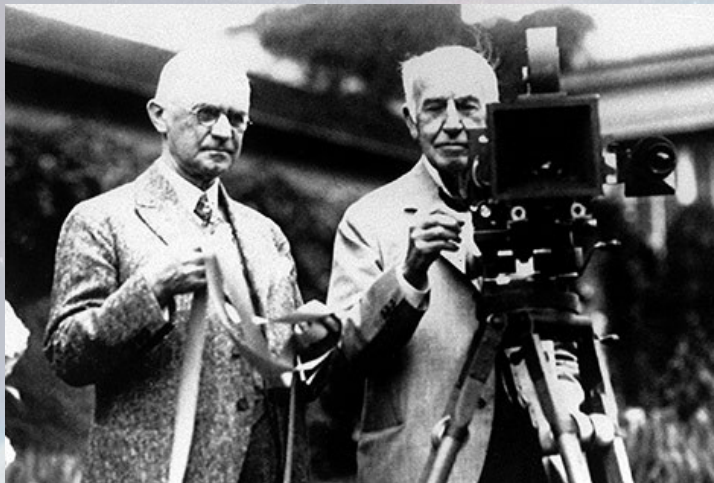


Innovation is about

- > bringing existing technology to a new market**
- > bringing new technology to an existing market**
- > bringing new technology to a new market**

Innovation is about

➤ **combining different expertise**



Thomas Edison (camera)
Eastman Kodak (film)

Ask the right Question

What?

How?

Why?



Improvement

Newness

Spread of Ideas or Technologies

Characteristics of Innovation

New Value

Pushing Boundaries

Improving Societal Development

Challenging the Status Quo

Resources of Innovation Ecosystems

Resources of Innovation Ecosystems

- **Finance (VC/Bank/FFF/Promotion)**
- **Human Resources (Knowledge/Skills/Leadership)**
- **Technology (AI/Blockchain)**
- **Institutional Setting (Univ./RTO/Agency)**
- **Legal Framework**
- **Mindset (Belief/Attitude/Tolerance/PIF)**
- **Policy (Government/Strategy)**
- **Service Providers (Tax/Law/Management)**

Power of Priorities

- **Flexibility**
- **Importance**

Flexibility

**Flexibility
assesses each resource's potential
to increase or decrease over time**

Importance

**Importance
is a function of a changed status quo
of the resource compared to its
current status**

Discussion



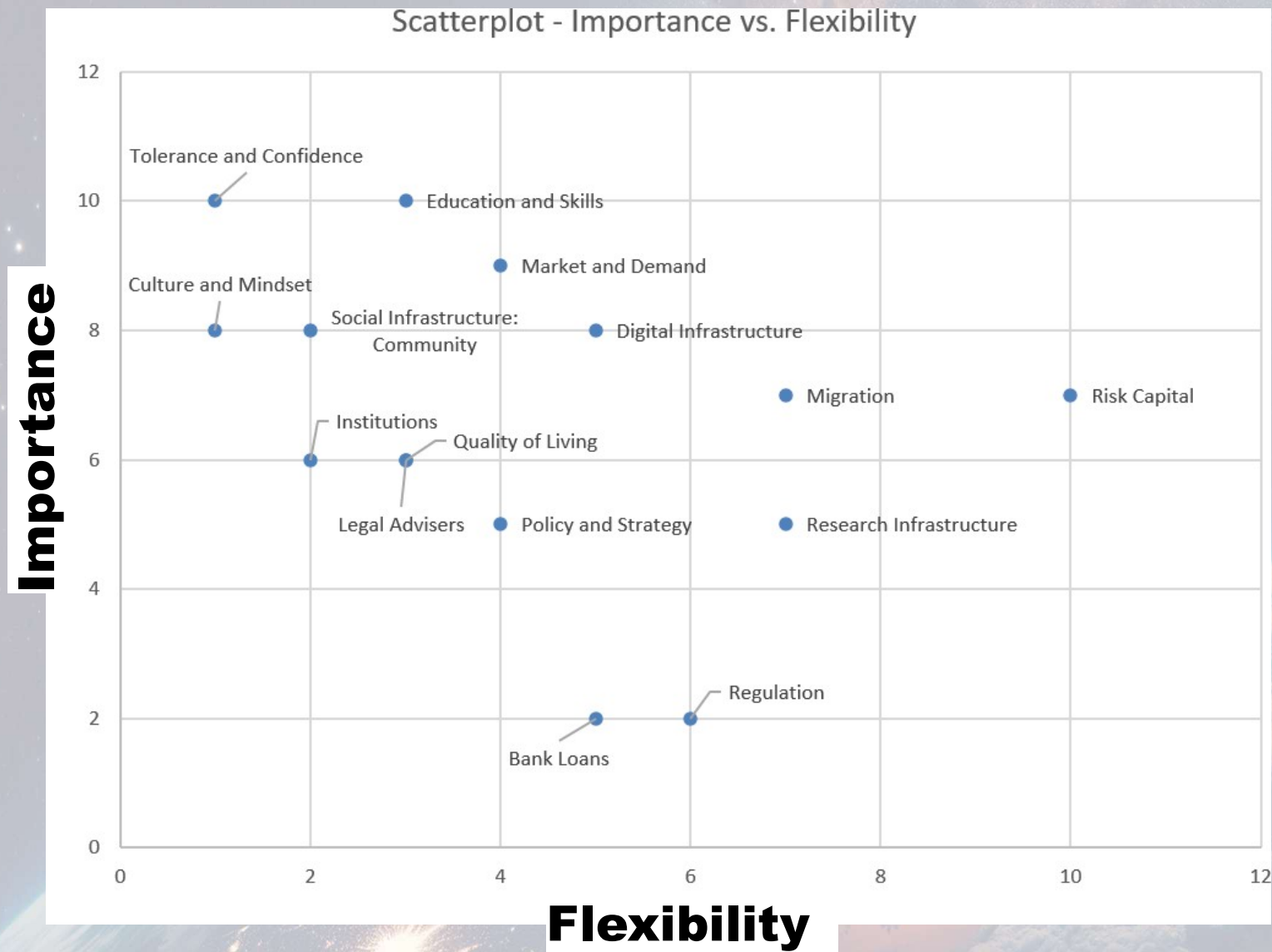
List resources

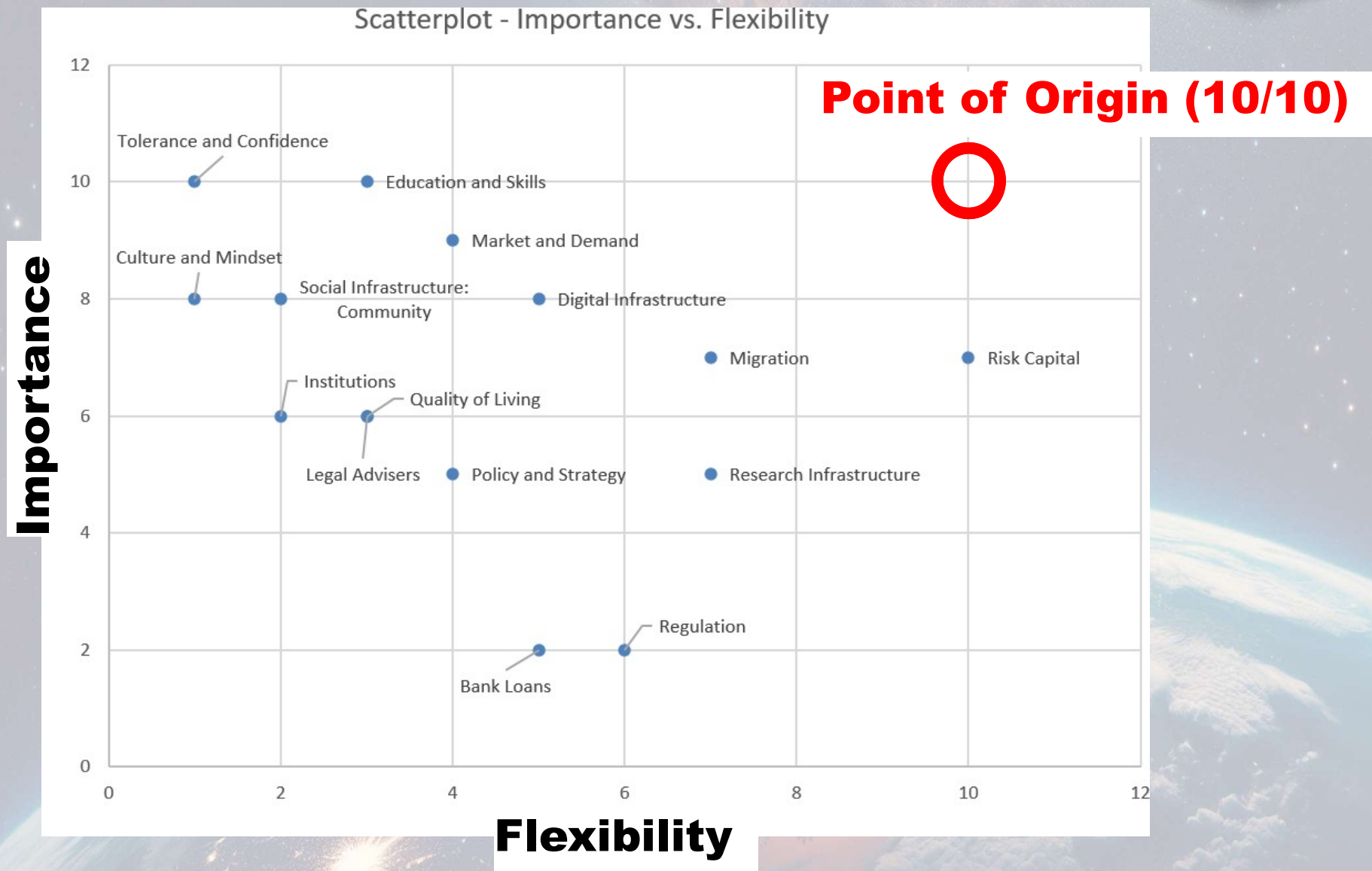
Design Importance/Flexibility

Focus Energy

Resources	Flexibility	Importance
Bank Loans		
Culture and Mindset		
Digital Infrastructure		
Education and Skills		
Institutions		
Legal Advisers		
Market and Demand		
Migration		
Policy and Strategy		
Quality of Living		
Regulation		
Research Infrastructure		
Risk Capital		
Social Infrastructure: Community		
Tolerance and Confidence		

Resources	Flexibility	Importance
Bank Loans	5	2
Culture and Mindset	1	8
Digital Infrastructure	5	8
Education and Skills	3	10
Institutions	2	6
Legal Advisers	3	6
Market and Demand	4	9
Migration	7	7
Policy and Strategy	4	5
Quality of Living	3	6
Regulation	6	2
Research Infrastructure	7	5
Risk Capital	10	7
Social Infrastructure: Community	2	8
Tolerance and Trust	1	10

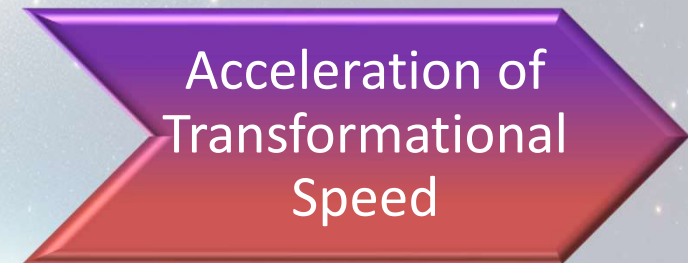
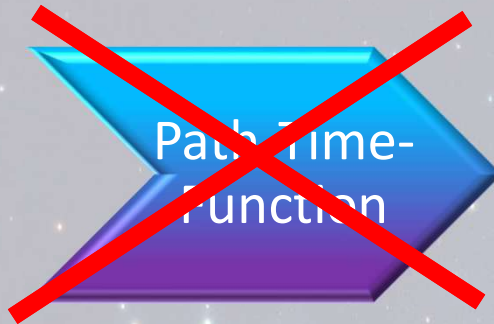




$f(x)$

$f'(x)$

$f''(x)$



AI in Innovation Ecosystems

Role of AI in Innovation Ecosystems

AI influences ecosystems by

- enhancing creativity
- improving decision-making
- optimizing processes
- accelerating new technologies

AI boosts the ecosystem with

- acceleration
- efficiency
- new opportunities

AI supports the ecosystem by

- augmenting human imagination
- providing new perspectives
- streamlining repetitive tasks

AI provides data-driven decision making

- process and analyze large datasets
- make more informed decisions
- anticipate market trends
- understand consumer behavior
- predictive power for strategic decisions

How to leverage basic competitive mapping into an expansion strategy?

China Southern Airline



map direct competitors, indirect competitors and substitutes for China Southern Airline

China Southern Airline



what is the competitive advantage
China Southern Airline compared to
its competitors?

provide a table comparing the KPIs

China Southern Airline



adapt this table reducing the competitors to 3 and include 3 substitutes

sorry, I do not regard xxx as a substitute, please replace by another substitute

thanks, that's wonderful. How can China Southern Airline focus on specific resources and take a decision to beat the high speed railway in its advantage of punctuality?

China Southern Airline



Board Meeting
Let's present the contents

China Southern Airline

It lacks the context of the passengers that take the train. Focus on the disadvantages in travelling in train compared to a flight

Why should we care about the interpretation of AI results?



GPS – Dilution of Precision

Culture



Is there a bias in AI support regarding cultural differences?



Language

Languages to train AI Models



Languages worldwide

7000

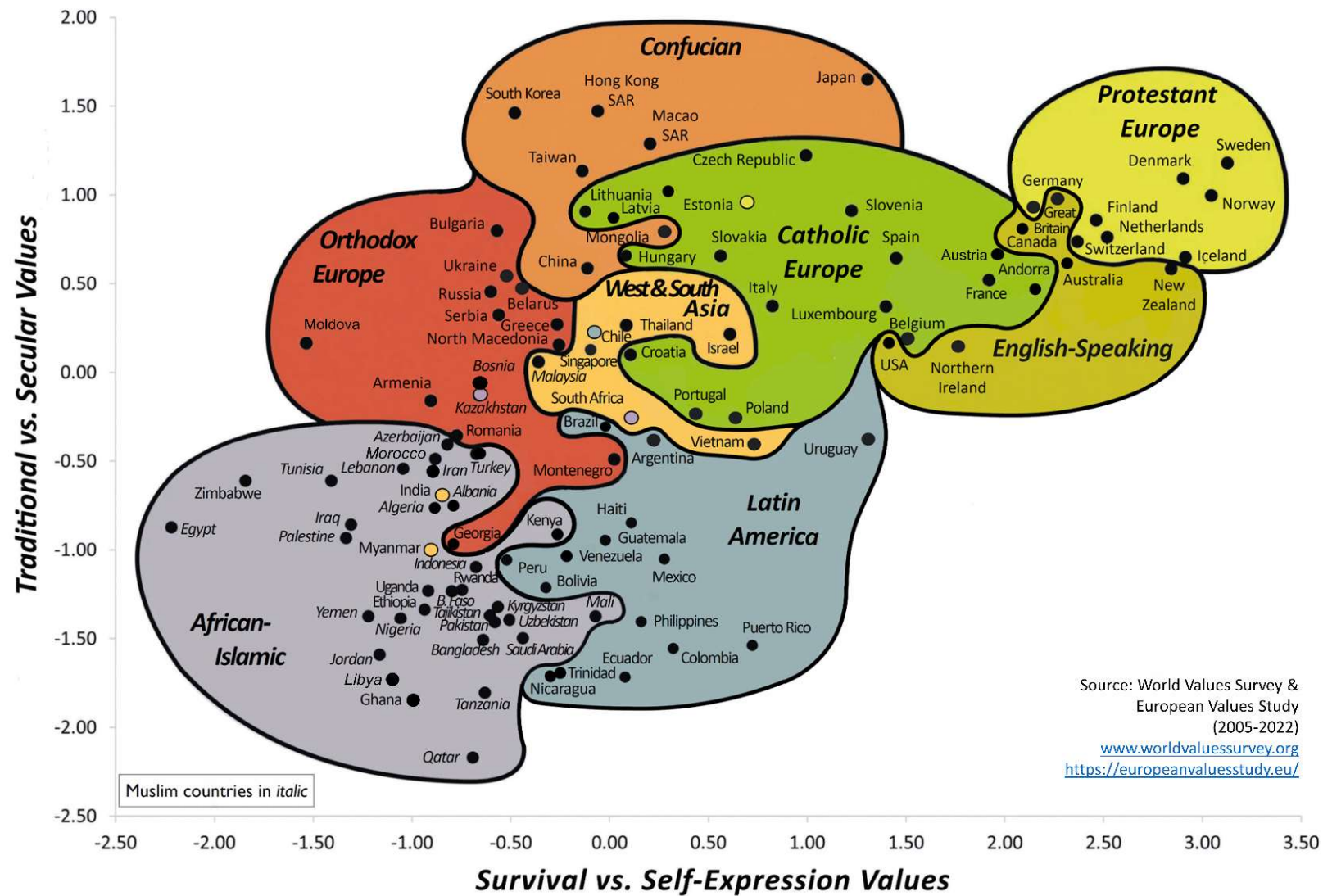
Languages training AI (GPT-4)

28

“Generative AI is mainly trained on the English language, leading to bias and, in some cases, errors with **serious consequences**”

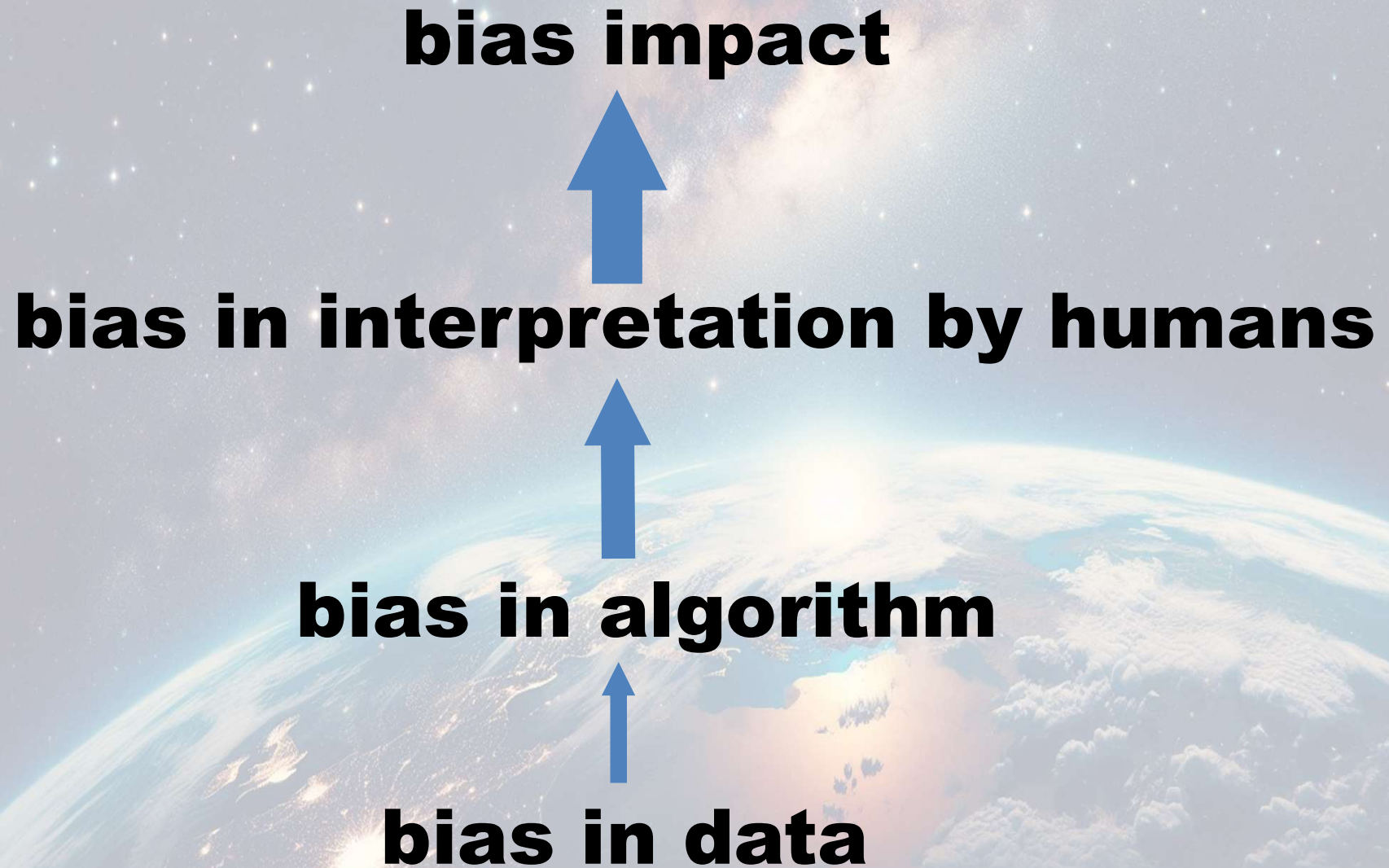
Attitudes Believes

The Inglehart-Welzel World Cultural Map 2023



Is there an impact of cultural settings in AI ?

3 steps of cultural impact



Self-Perception ChatGPT Nov 2024



„AI models like me don't have inherent attitudes, beliefs, or subjective experiences in the way humans do. However, the data used to train these models can reflect human attitudes, biases, and cultural norms, which can sometimes be unintentionally learned by the AI.”

Self-Perception Deepseek



„Hi! I'm DeepSeek-V3, an artificial intelligence assistant created by DeepSeek. For comprehensive details about our models and products, we invite you to consult our official documentation.”

Bias in Data

Data consists i.e. of

- **text from books**
- **websites**
- **social media**
- **news articles**

**What kind of biases can be there
and what impact will it have?**

Discussion



**Newsflash in 1500
after 50 years of book printing.**

**Write 5 sentences for the news
about the potential bias in data for
AI models.**

Newsflash in **2125**

Write 5 sentences for the news about the learnings from the biases humankind had in 2025 in the impact of AI models.

Bias in Algorithm

Developer of AI algorithms?

- **Male**
- **Young**
- **Urban**
- **Industrialised Country**
- **Communicating in English language**
- **Wealthy**

Bias in Algorithm

Consequences

- **Intensifying the bias in data**
- **Lack of transparency of biases**
- **Misconception of consistency in data and algorithms**

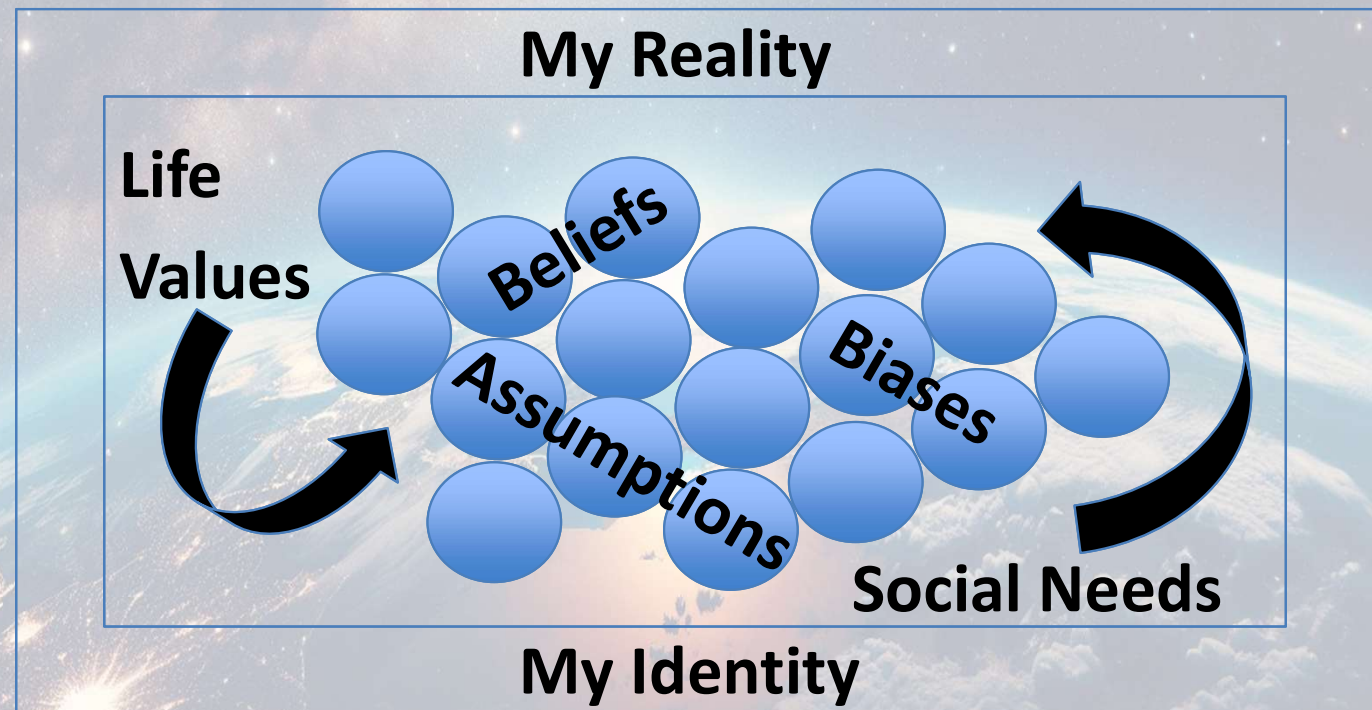
What impact does AI have on **improving societal development?**

- **Powerful Acceleration**
- **Digital Colonialism**
- **Expanded Workforce**
- **Increasing International Gap**
- **Spiritual/Real AI Conflicts**

AI Identity

If AI knows your stories and experiences, it can simulate your believes, your needs and your reality and identity.

 Stories



International Innovation Ecosystems



Global R&D Investment

No.	Country Name	Continent	GDP (USD Billion)*	GDP Per Capita (USD thousand)*
1	United States	America	28,783	85.37
2	China	Asia	18,536	13.14
3	Germany	Europe	4,590	54.29
4	Japan	Asia	4,112	33.14
5	India	Asia	3,942	2.73

Which country/global region will be leading in 2100 ?

Regarding GDP **China** will retain Nr 1 the next decades.

By **2100**, **India's** GDP will be competing with China.

Leading by GDP in 2100



China

India

Nigeria

USA

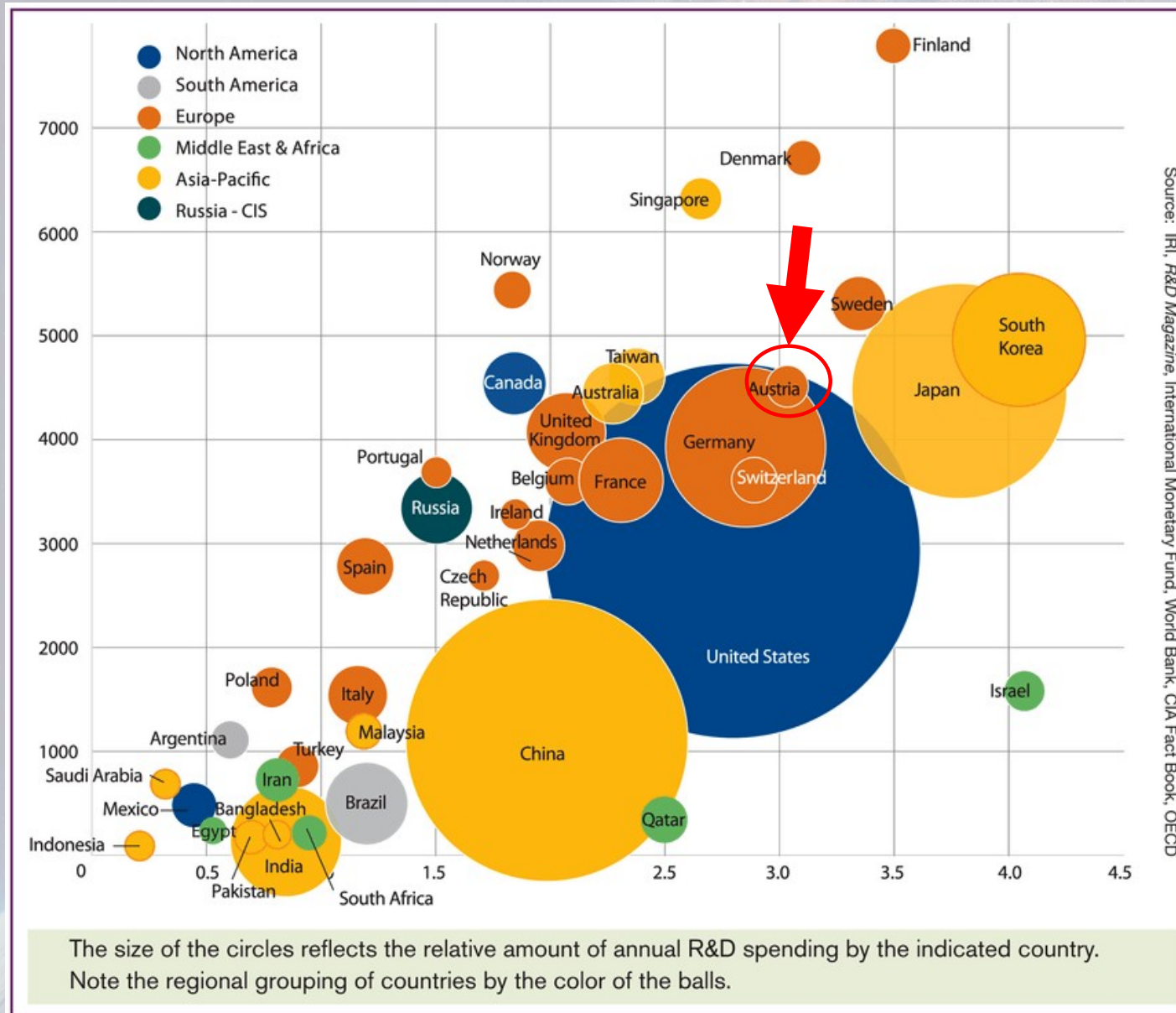
Pakistan

Indonesia

Ethiopia

Global R&D Investment

Scientists / Million People



GDP on R&D

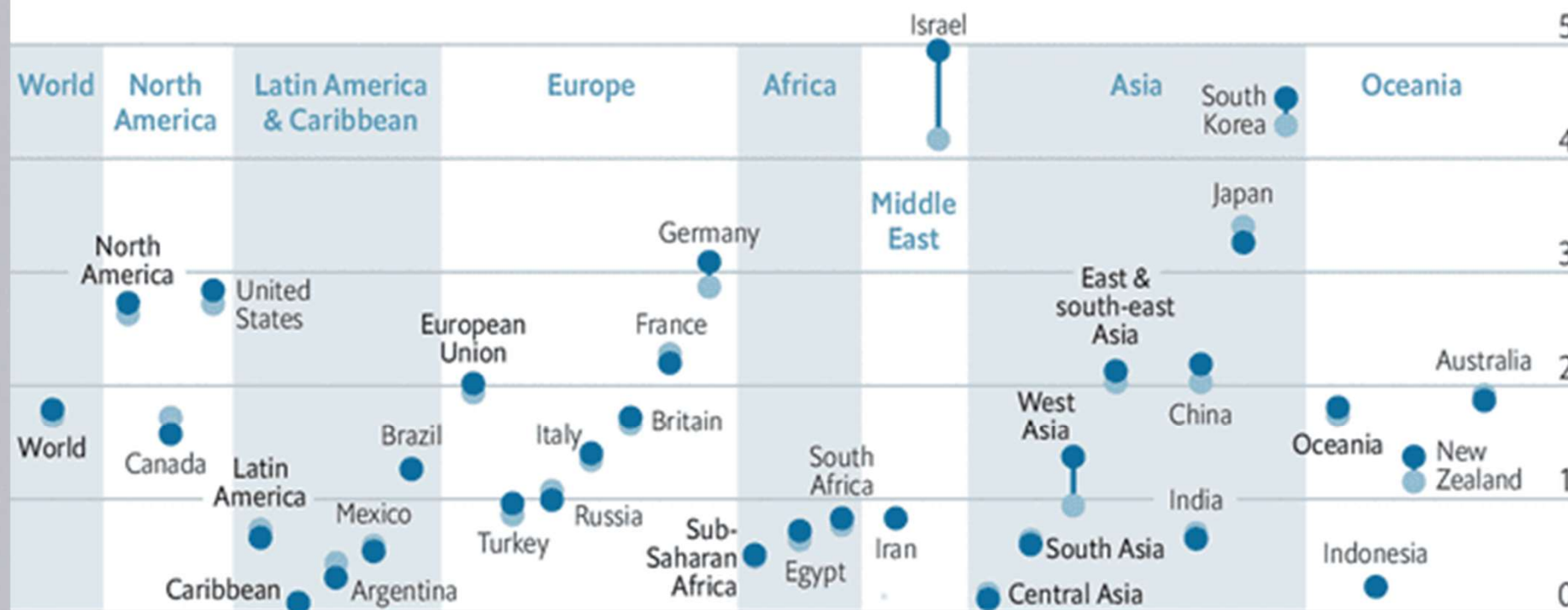
Global R&D Investment

Following the science

Investment in research and development as % of GDP

Selected regions and countries

● 2014 ● 2018



Source: UNESCO

The Economist

Immigrant Founders in US

Non-US countries of birth of US unicorn founders

Number of founders 1078

Number of unicorns 500



Data covers 531 US companies that became unicorns between 1997-2019. For 1,078 founders of 500 unicorns, we identified the country of their birth. Only non-US-born founders (44%) are included in this figure.

SOURCE: Ilya Strebulaev, Venture Capital Initiative, Stanford Graduate School of Business (08/2024)

@IlyaSTREBULAEV



Silicon Valley

New York



Medellin



Co-Authors of



Zurich



Sofia

Tel Aviv



Nairobi



Berlin

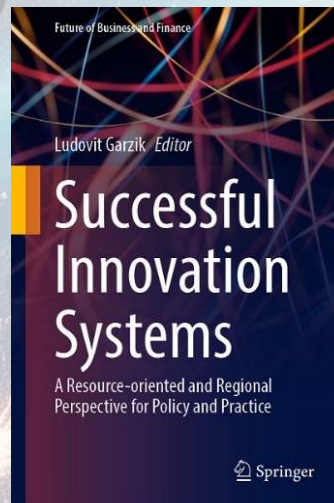


Moscow



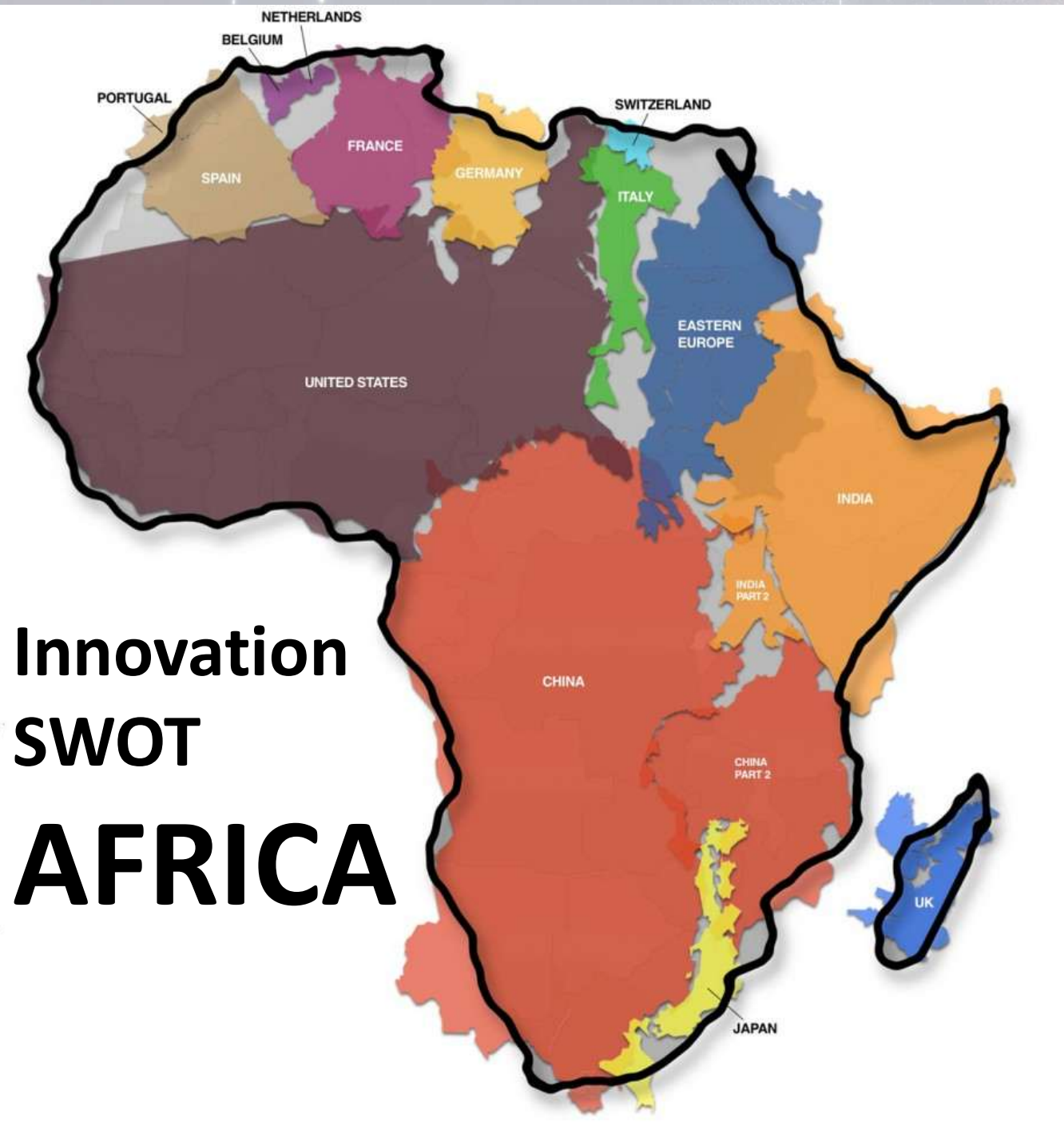
**Shanghai
Shenzhen**

Bangalore



International Innovation Ecosystems





Innovation SWOT AFRICA



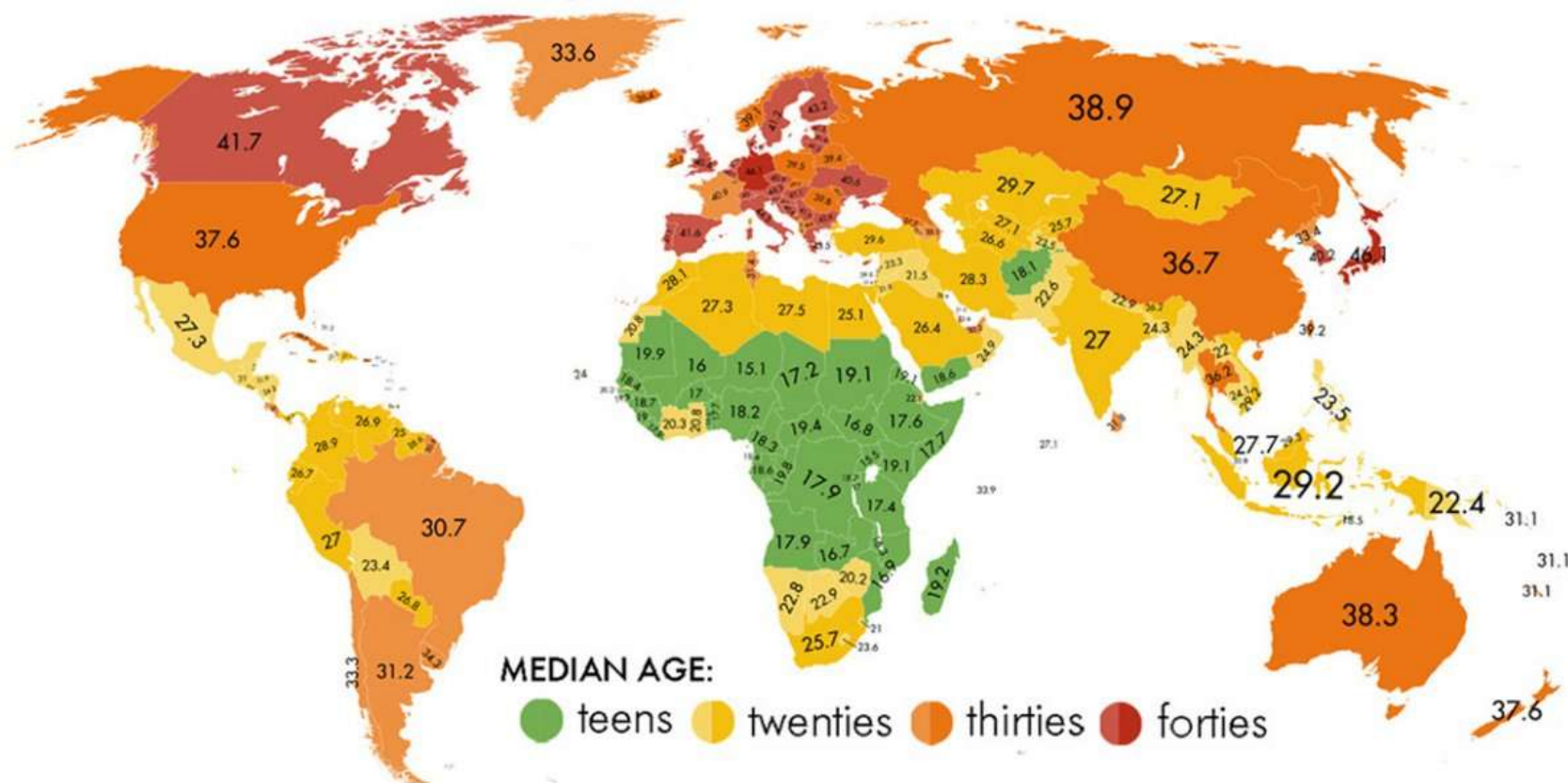
Facts about Africa

- **54 countries**
- **2000 languages**
- **Worlds longest river**
- **2nd largest continent**
- **Our ancestors paradise**
- **Average income: 12 US\$**
- **Worlds youngest population**



World Median Ages

gp



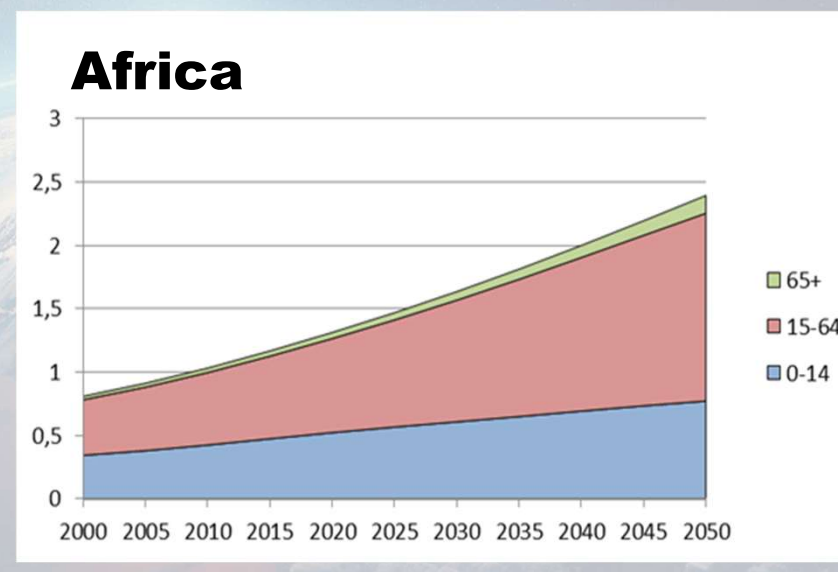
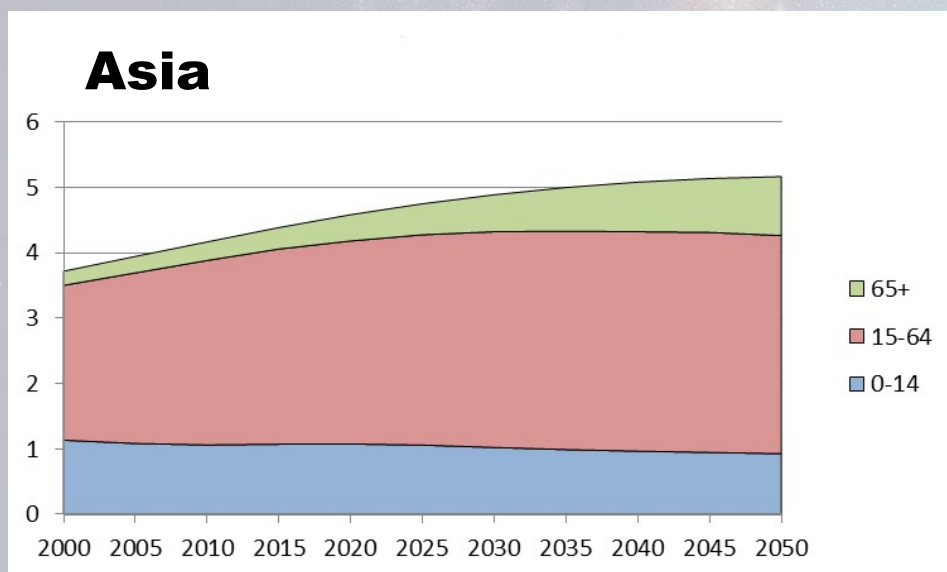
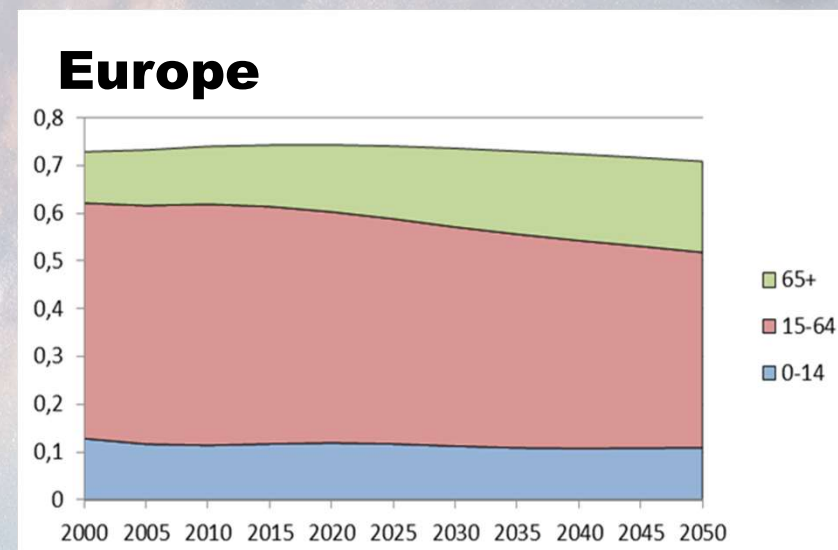
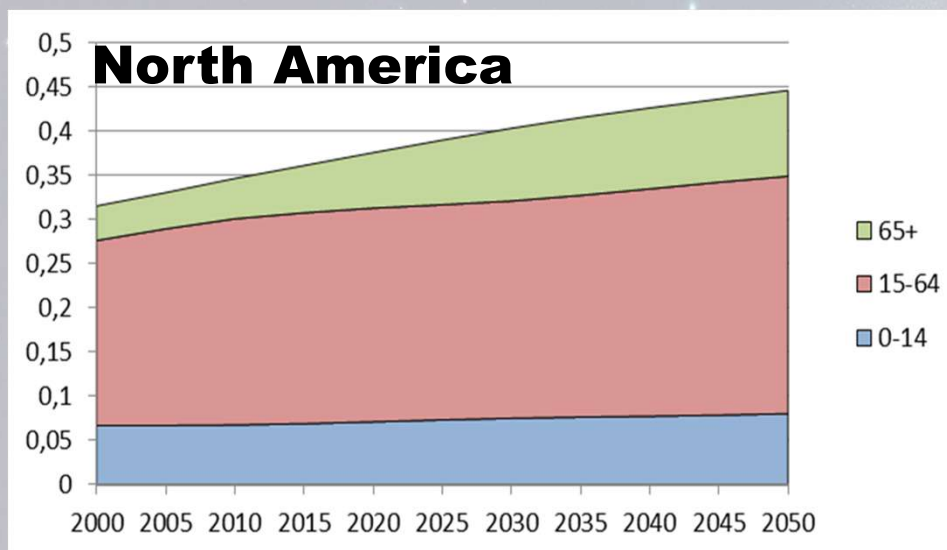
YOUNGEST: 1. Niger (15.1) 2. Uganda (15.5) 3. Mali (16) 4. Malawi (16.3) 5. Zambia (16.7)

OLDEST: 1. Germany & Japan (46.1) 2. Italy (44.5) 3. Austria (44.3) 4. Virgin Islands (44.2)

Source: CIA Factbook

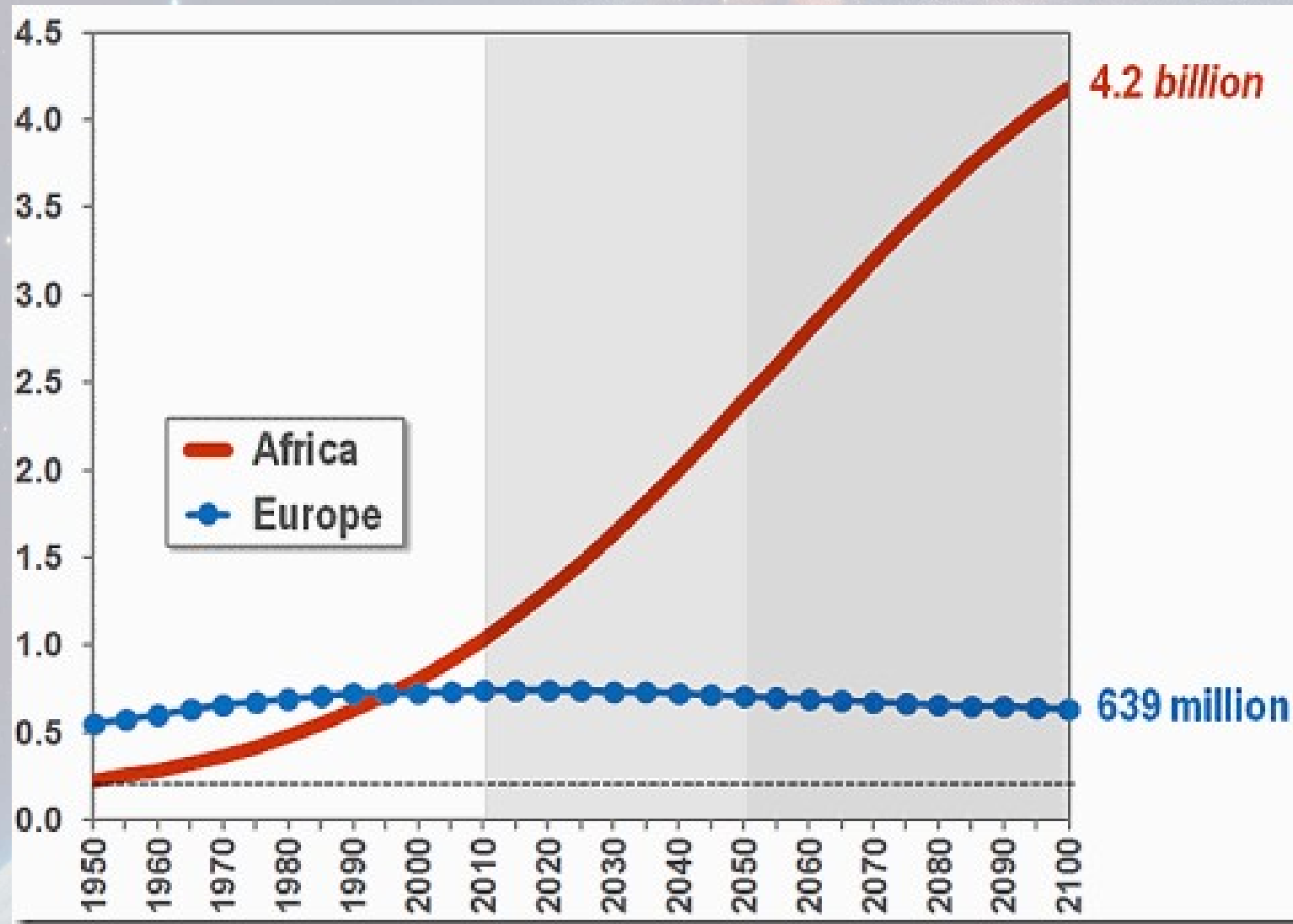
Simran Khosla/GlobalPost

Global Demography (bn people) 2000 - 2050

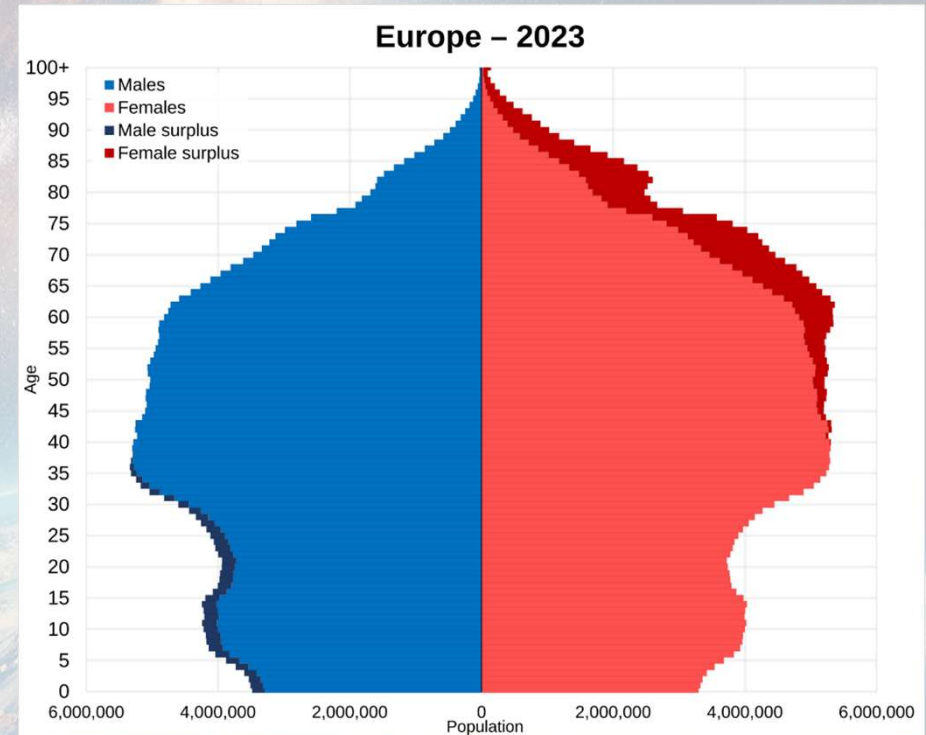
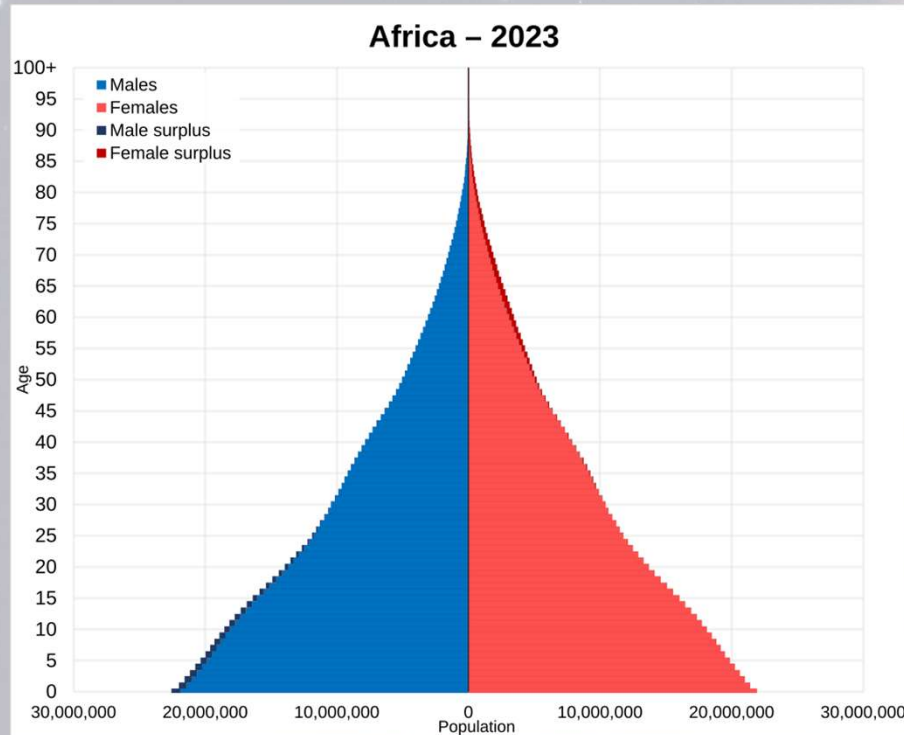


Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat

Population Growth



Demographics Africa / Europe



**“WE SHOULD STOP THINKING ABOUT HOW
AFRICA CAN BE MORE LIKE US
WE SHOULD RATHER THINK ABOUT HOW
WE CAN BE MORE LIKE AFRICA”**

ERIK HERSMAN

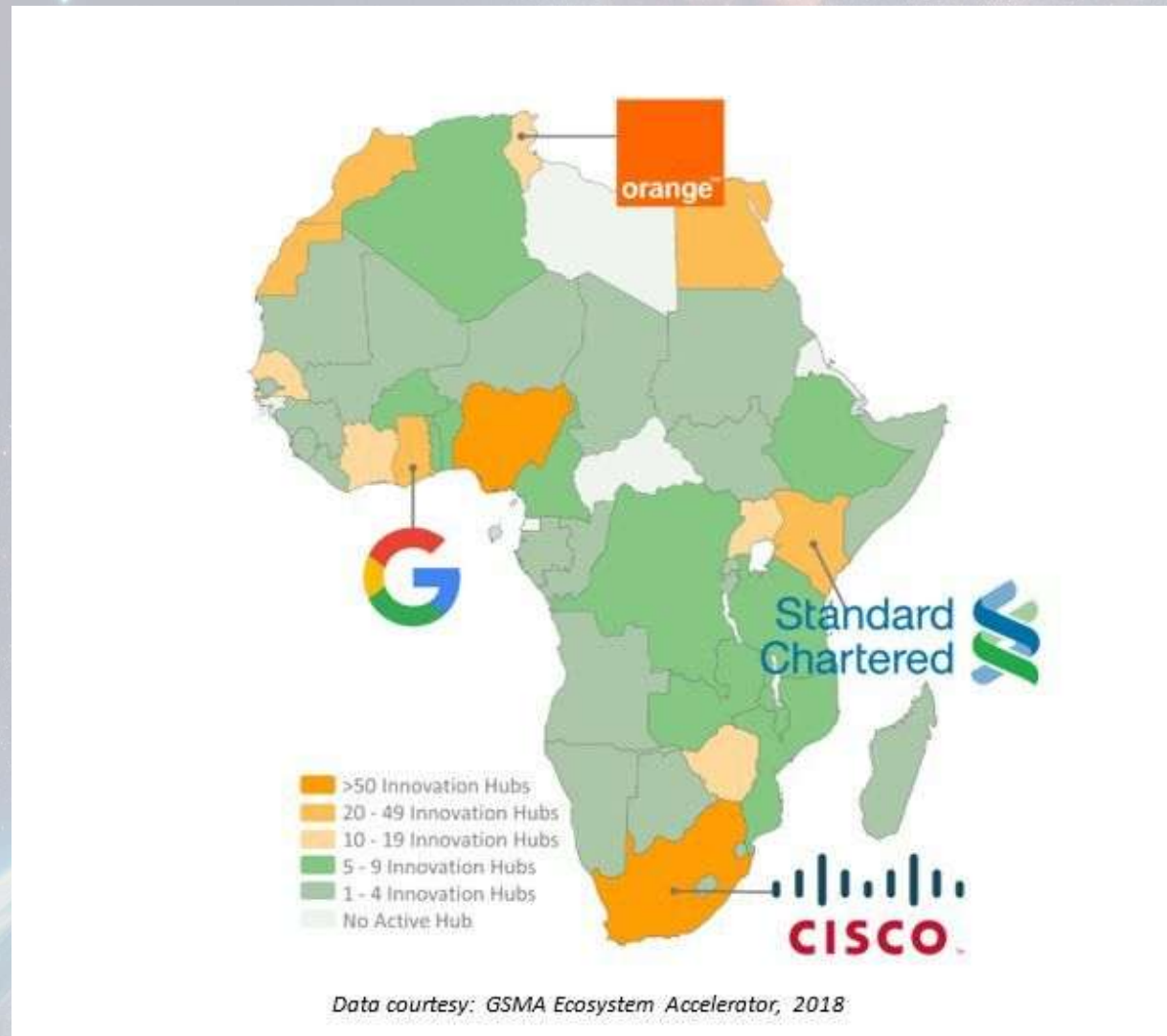


„First innovation,
then regulation!“

PROF. BITANGE NDEMO,

PERMANENT SECRETARY OF KENYA'S MINISTRY OF INFORMATION AND COMMUNICATION 2005 TO 2013

Tech Hubs and Innovation Hotspots



African Innovation Strengths

- **Frugal Innovation**
- **Perceived Usefulness**
- **Leapfrogging**



Frugal Innovation

F Functional

R Robust / Resource-efficient

U User-friendly

G Growth opportunities

A Affordable (for consumer, society and environment)

L Less complex / simplified

Frugal Innovation: Examples



Mobile Phones



Transport



Water Treatment

Discussion



More Examples for Frugal Innovations?

Perceived Usefulness



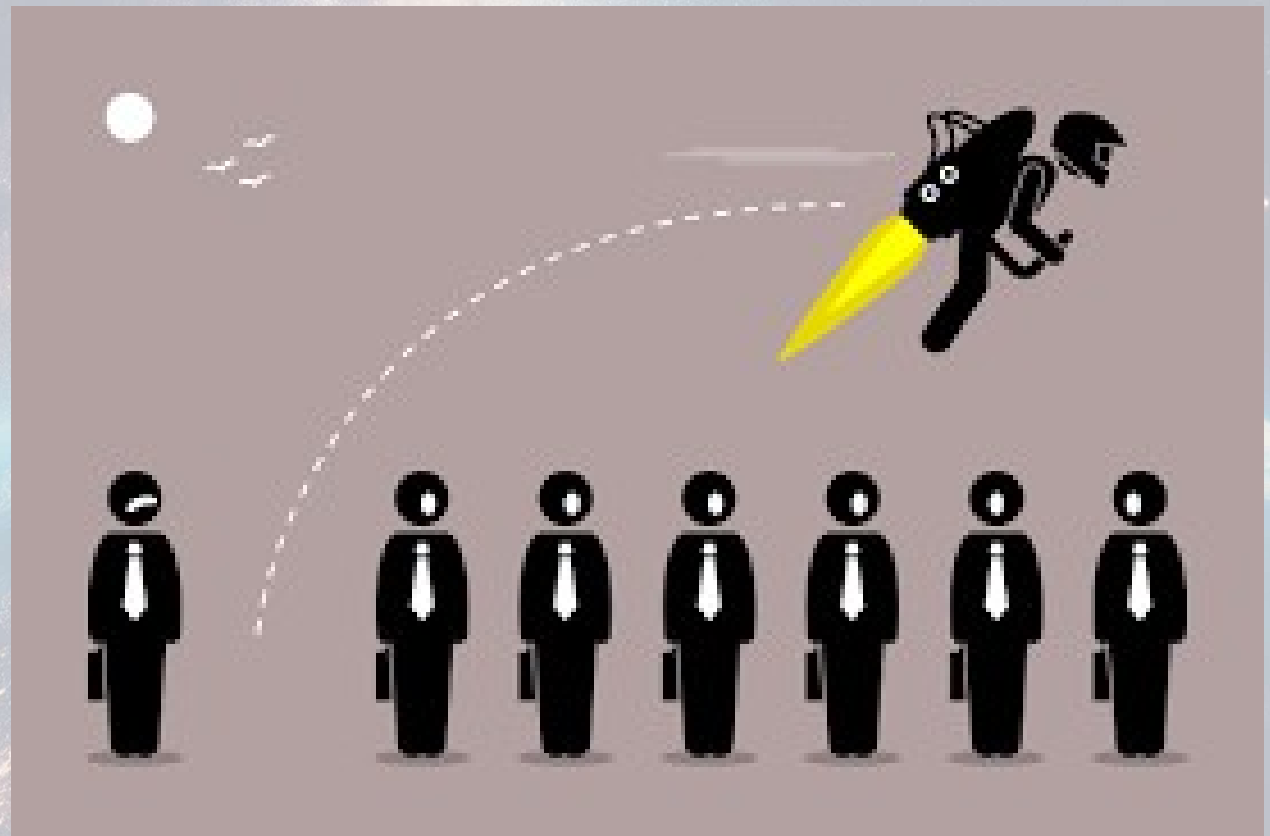
African Digital Transformation is Closer to Human Needs

Testbed for Drone Services



Leapfrogging

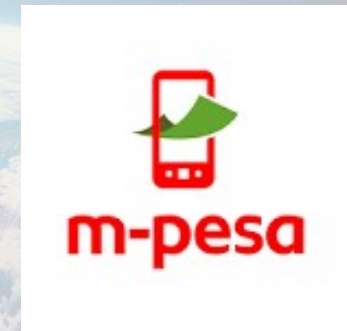
- **Mobile Money > No Bank Branches**
- **Energy / Sustainable PV system**



World Leader in Mobile Money

- deposit and withdraw money
- transfer money to other users
- pay bills
- purchase airtime

“Mobile Phone = Bank Account”

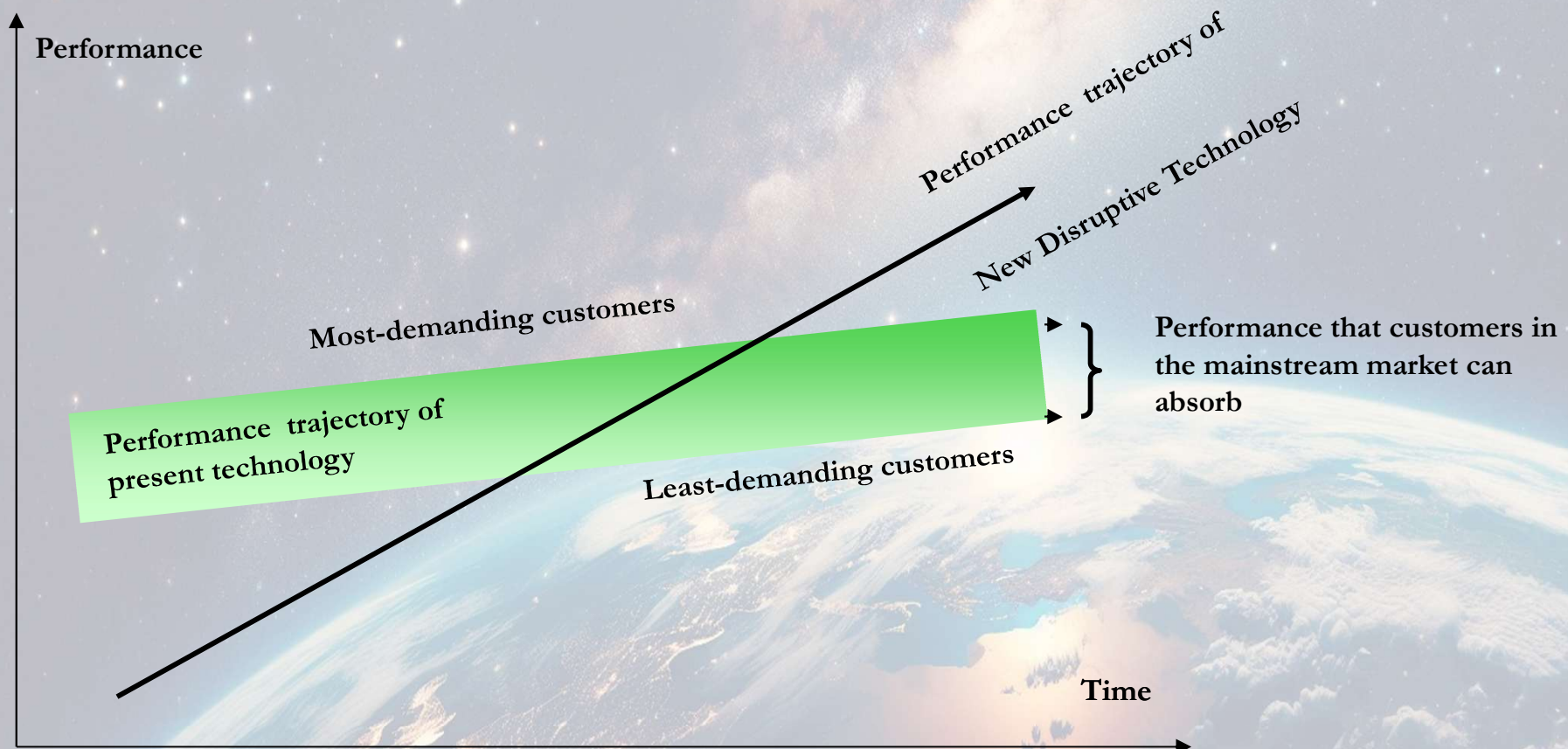


Disruptive Innovations



Disruptive innovations emerge at the bottom of the market

Innovator's Dilemma



Source: Clayton M. Christensen

Resources and Strenghts of Innovation Ecosystems in Africa

Take Home SWOT

from Africa

- **Young Population, fast Growth**
- **Frugal Innovation**
- **Innovation Leapfrogging**
- **Motivation of Improvement of Societal Position**
- **Poor Framework Conditions (Tax/Law)**
- **Infrastructure Challenge**
- **Double Population in 25 years**

International Innovation Ecosystems



USA

& Silicon Valley Special

Facts about the United States

- **Largest Economy**
- **No Metric System**
- **Humans on the Moon**
- **800 languages in NYC**
- **Nr 1 International Students**
- **Welcoming Home to Newcomers**
- **Alligator and Grizzly as Presidential Pets**



The United States in the World



- **Top 10 Tech Companies (in Market Capitalization, 2024)**
Apple, Microsoft, NVIDIA, Alphabet, Amazon, Meta, TSMC, Broadcom, Tesla, Tencent

USA 8

Asia 2

Europe 0

- **Top 10 Start-Ups**
ByteDance, SpaceX, SHEIN, Stripe, Checkout, Canva, Instacart, Databricks, Revolut, Epic

USA 5

Asia 3

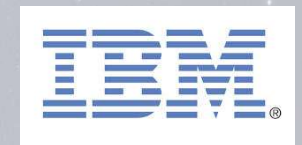
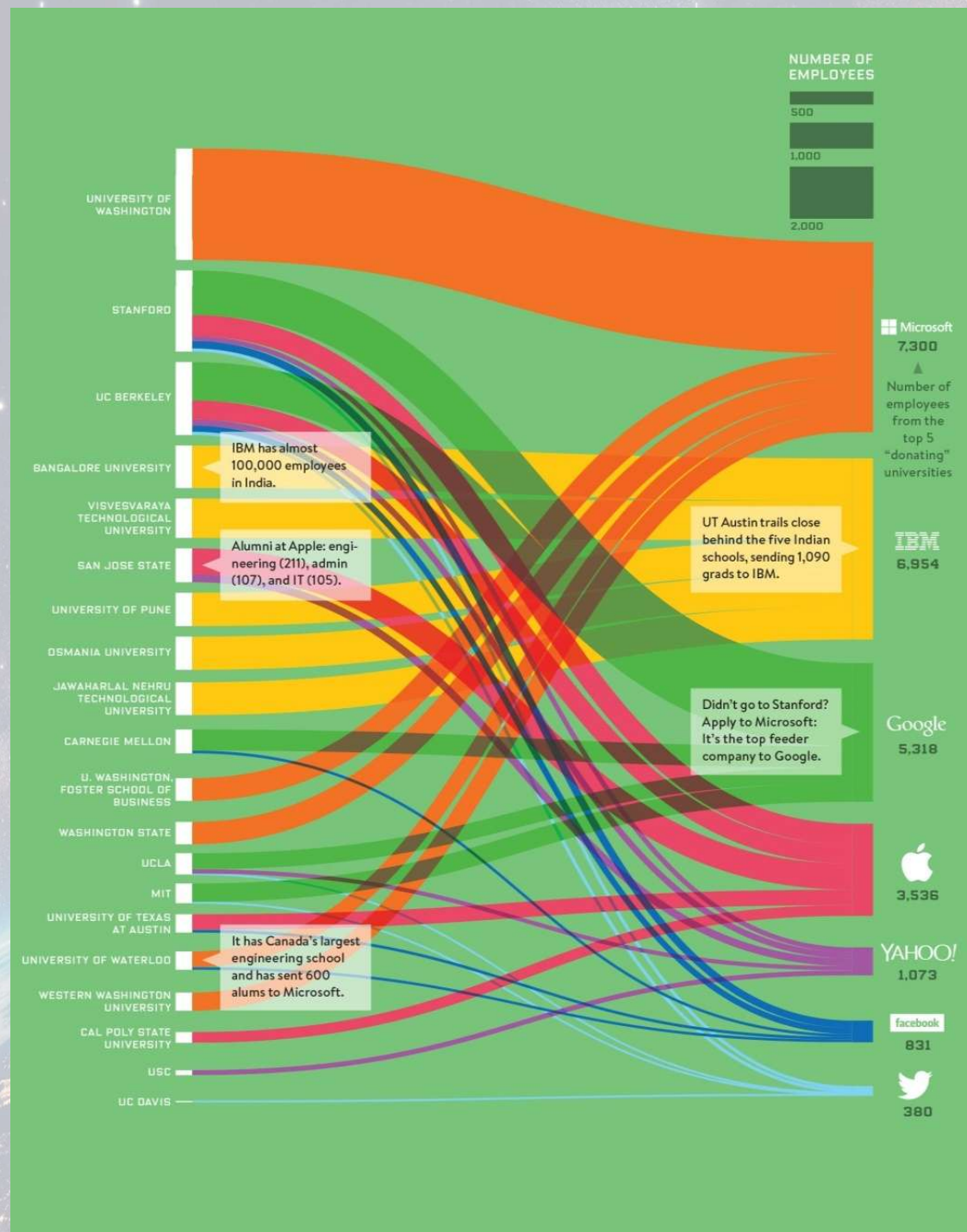
Europe 2

Knowledge
> Market

Stanford >
Berkeley >

Carnegie Mellon >

MIT >



Bay Area Ecosystem



Resources:

- Angel and seed round investors
- Venture capital
- Talent
- Materials

Community:

- Co-working
- Meetups
- Hackathons

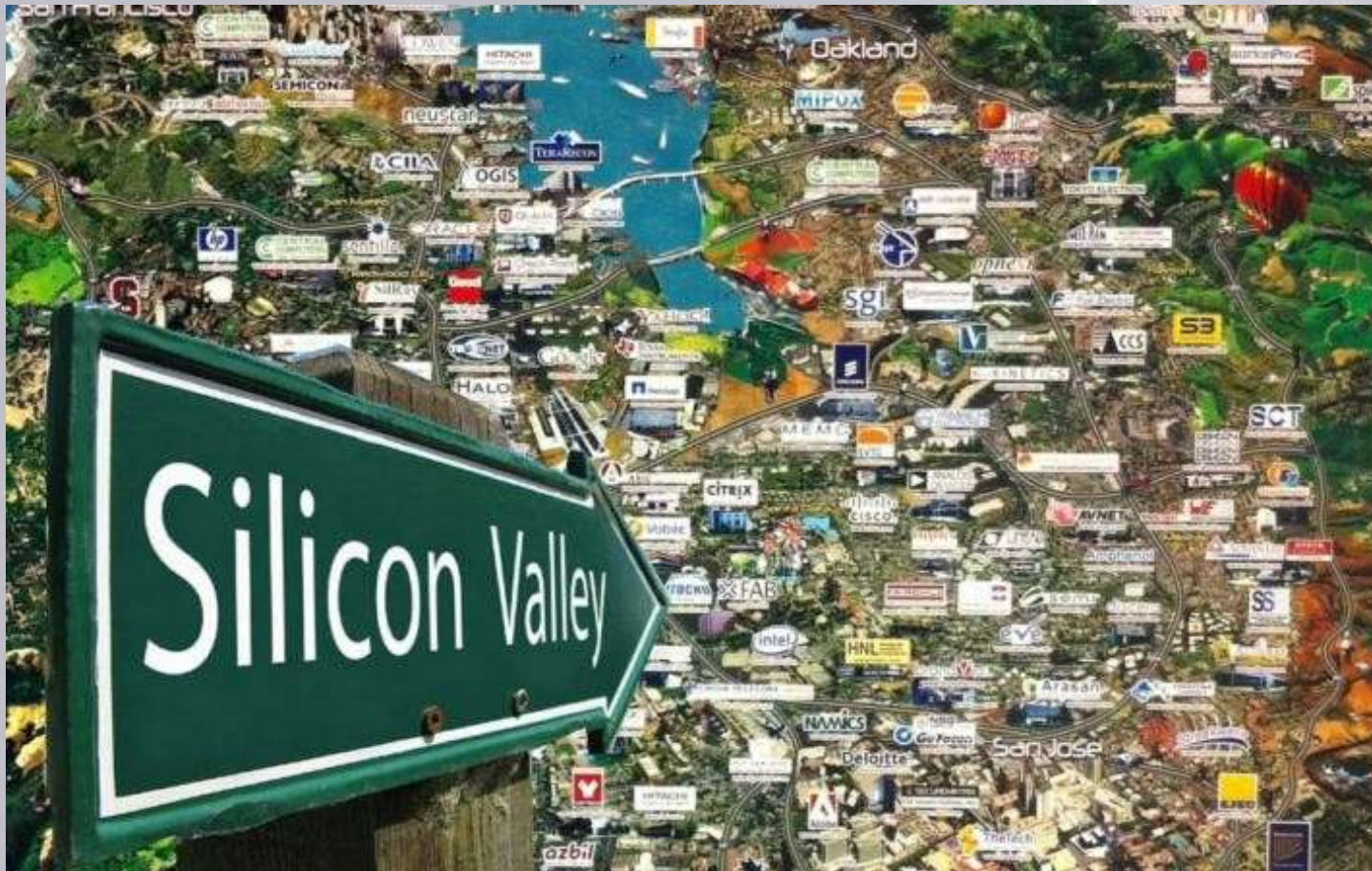
Support Systems:

- Incubators
- Accelerators
- Entrepreneurs & Intrapreneurs
- Advisors



Moving Hotspots of Innovation





Silicon Valley about Europe:

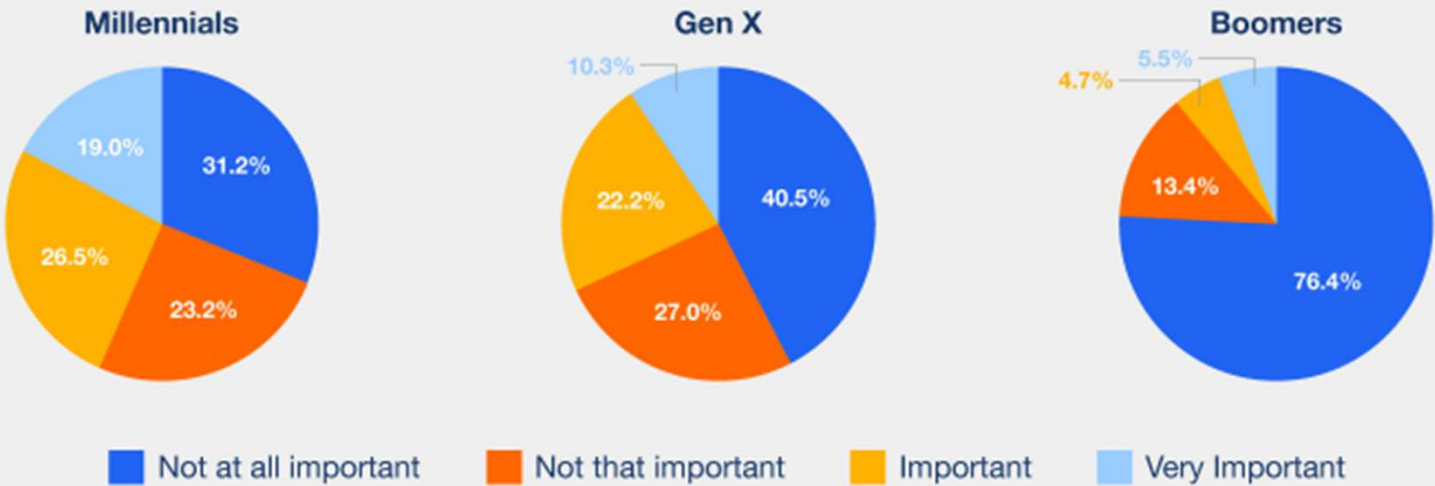
„People come to **Silicon Valley** to see the **future**“

„People go to **Europe** to see the **past**“

Silicon Valley attracting talent:

45.5% of Millennials Consider Working in Silicon Valley “Important”

Attitudes to importance of Silicon Valley among Millennials (18-34)
Gen X (35- 49) Boomers (50-65)



Source: Indeed



Silicon Valley – The Story

Ingredients to the Silicon Valley Ecosystem



Centered around **emotion and desire**:

- Finding common cause to change the world
- People want to do things that matter
- People want to do things that are new

Creating a **common identity** as problem solvers.

Difference in Attitude

Silicon Valley

„How can we make this thing happen?“

Europe

„How can I keep my job?“

Platform business resources



- Biggest taxi company does not own vehicles



- Biggest provider of accommodations without own any real estate



- Biggest phone company does not own any telecommunications infrastructure



- Biggest provider of photographic content employs no photographers



- Most popular publishing house does not generate content



- Biggest movie distributor owns no movie theatres

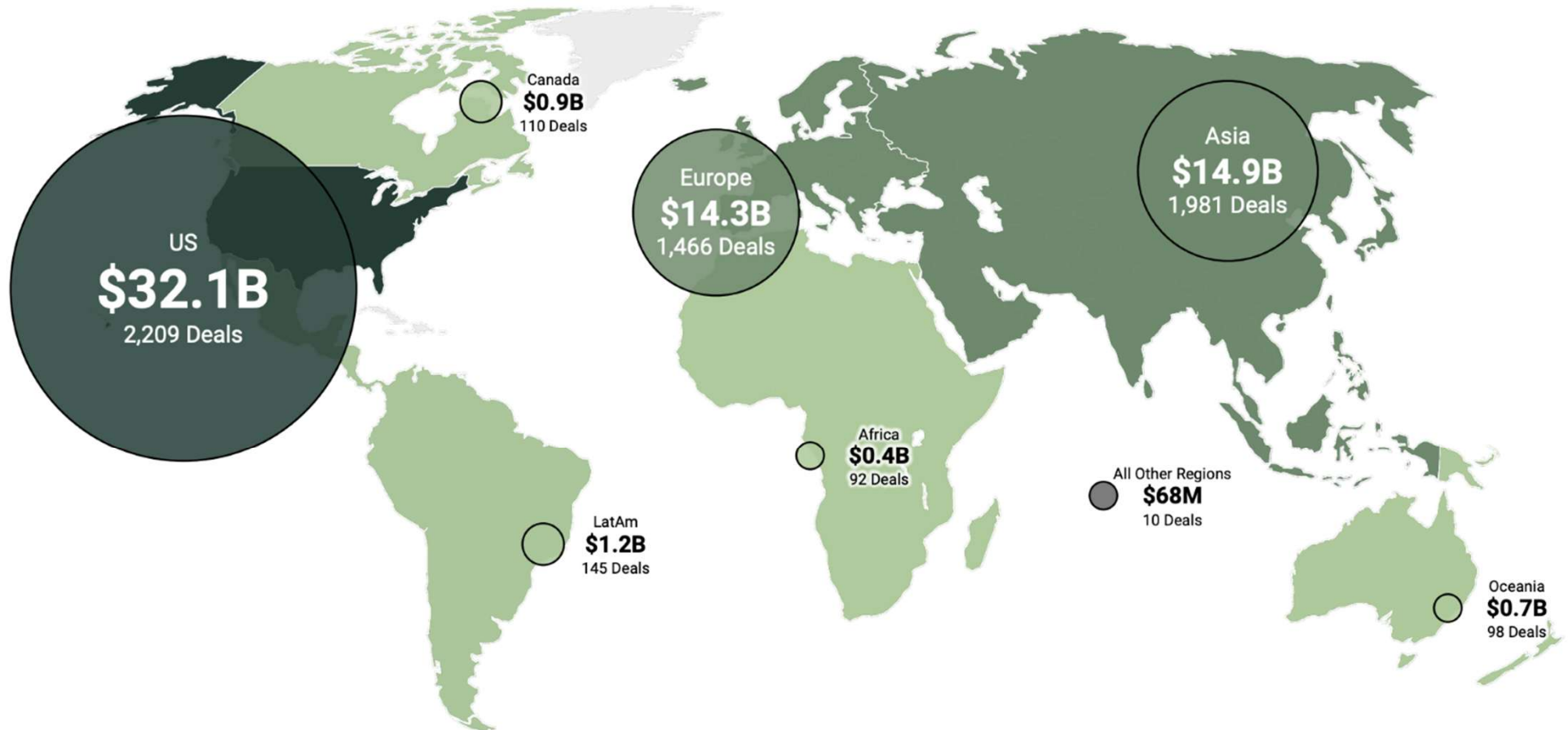


- Most valuable trading company has no inventory

Venture Capital

State of Venture | Global Trends | Investment Trends

US-based companies raise \$32B in Q3'23, accounting for 50% of funding



Source: CB Insights Q3 2023 State of Venture Report

Leading Tech Cities

Key Ingredients For A Tech City

- **An urban site that attracts young professionals**
- **A large pool of skilled talent**
- **Modern infrastructure and technical support**
- **Demographics (population growth, education, etc.)**
- **Attractive tax and/or other beneficial policies**

Source: Arubaexec

Leading US Tech Cities

1. San Francisco, CA
2. New York City, NY
3. Washington D.C.
4. Seattle, WA
5. Dallas, TX
6. San Diego, CA
7. Chicago, IL
8. Boston, MA
9. Atlanta, GA
10. Denver, CO

Source: Arubaexec

Discussion: Future Hotspots

according to the change in the number of utility patents granted over time per 100,000 residents.

Northwest Arkansas

Louisville

New Orleans

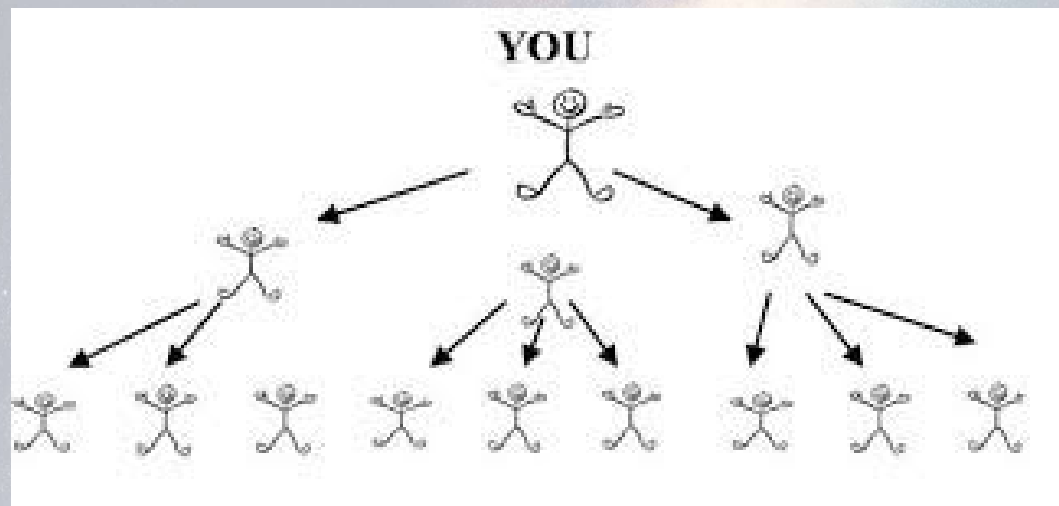
Source: Axios

US Innovation Strengths



- **Pay-It-Forward**
- **Tolerance and Trust**
- **Customer Orientation**

Pay-It-Forward

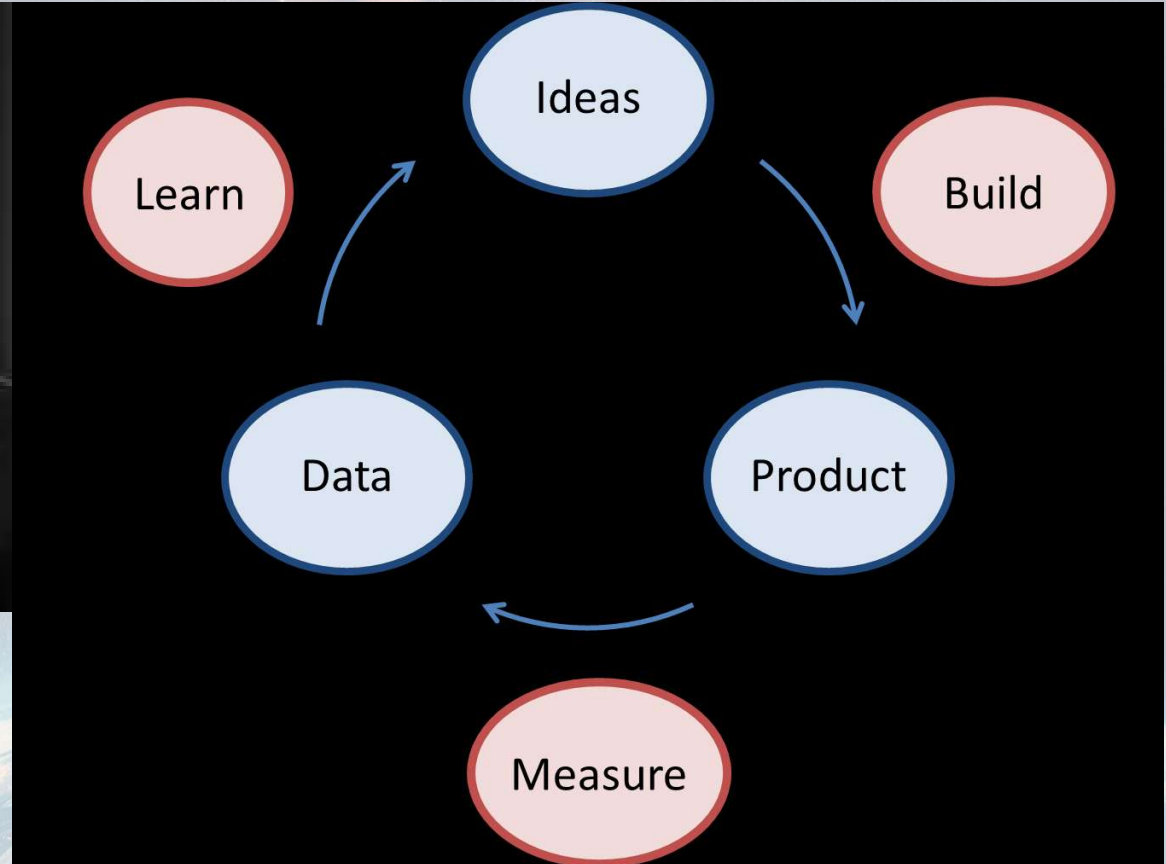


Tolerance and Trust

- Think Different
- Live Different
- Accept Difference



Customer Orientation



- Lean Process
- Minimum Viable Product
- Pivot or Persevere

Discussion

USA: Resources and Strenghts of the Innovation Ecosystem

USA: Strenghts of the Innovation Ecosystem



- **Human Resource Magnet**
- **Smart Management Capacity**
- **Strong Customer Orientation**
- **University Strategy in line with Industry**
- **SV Specials: Lean Start-Up, Community**
- **Tolerance**

International Innovation Ecosystems



Facts about China

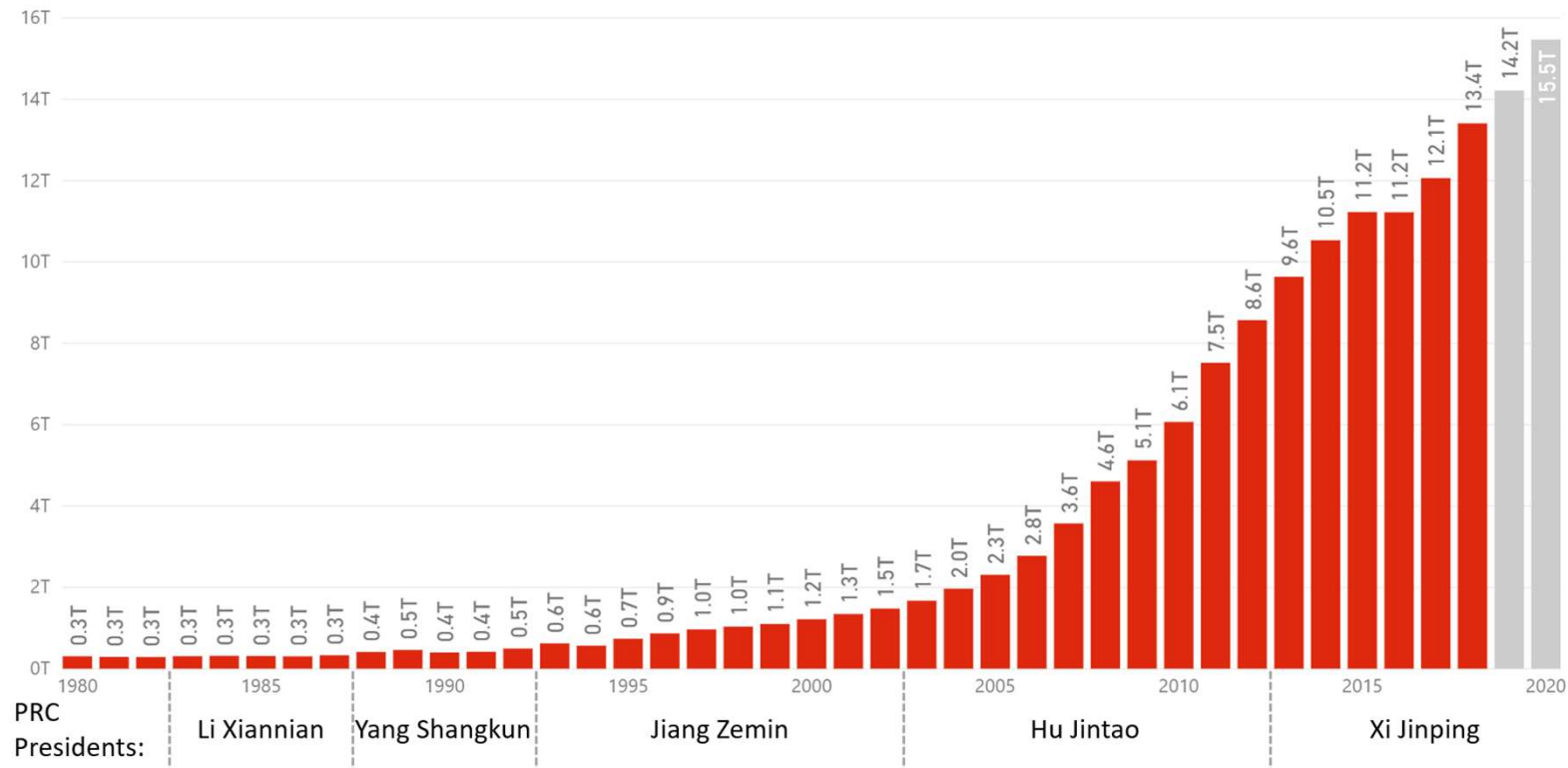


- **Largest High-Speed Railway Network**
- **35 Million People who live in Caves**
- **One of the World's Oldest Civilisations**
- **Largest Economy by Purchasing Power Parity**
- **Invented Paper, the Compass and Gunpowder**
- **The Only surviving Pictographic Writing System**

China: GDP per capita

China GDP

GDP in current prices (trillions of US dollars)



Data Source: IMF World Economic Outlook, April 2019

Data Analysis by: MGM Research

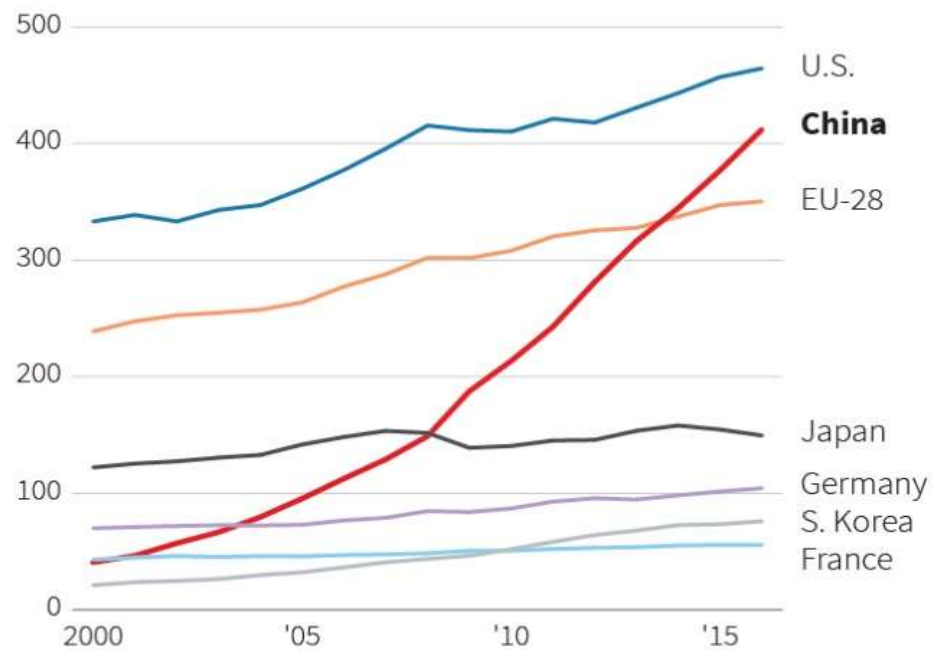
Source: MGM Research

China's Research Spending

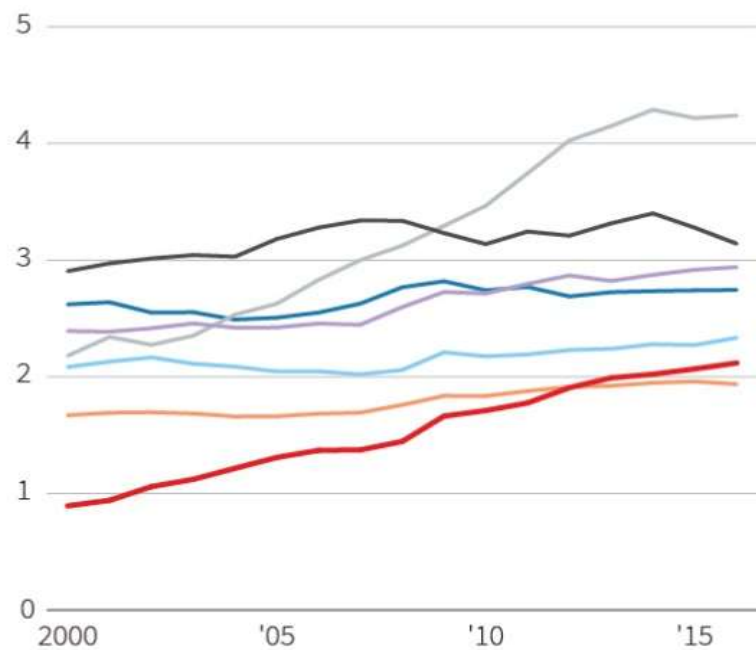
Research spending

China's spending on research and development in science and technology, surged ten-fold since 2000, while the U.S. spending grew a modest 39 percent in the same period.

SPENDING IN R&D - In million U.S. dollars



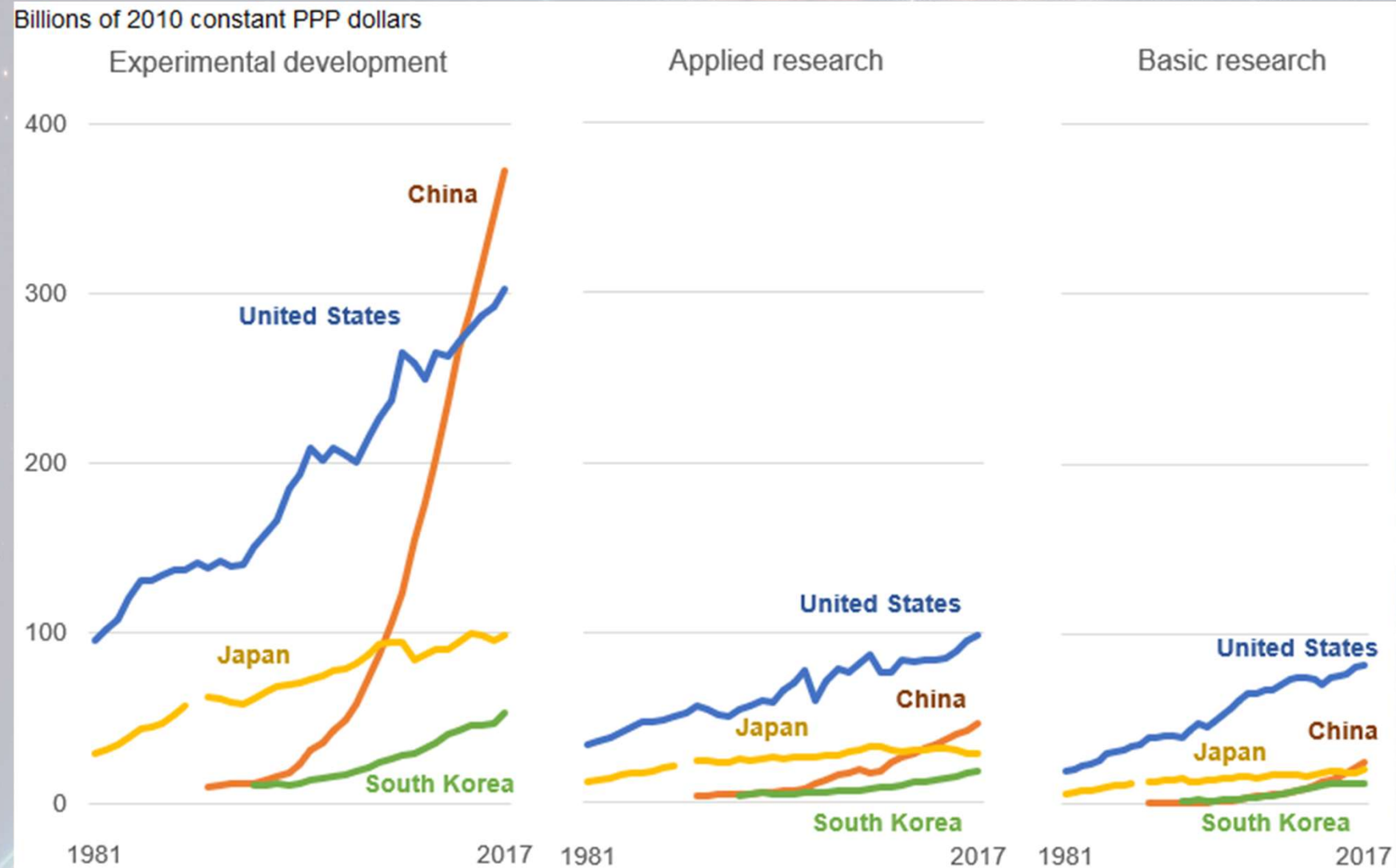
AS PERCENT OF GDP



Source: Organisation for Economic Cooperation and Development

C. Inton, 13/04/2017

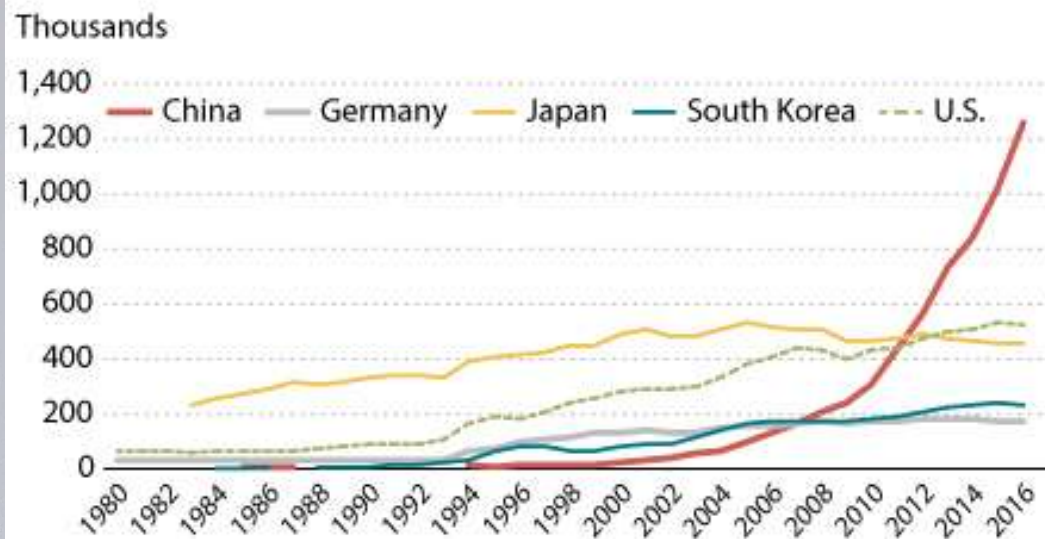
China's Research Spending



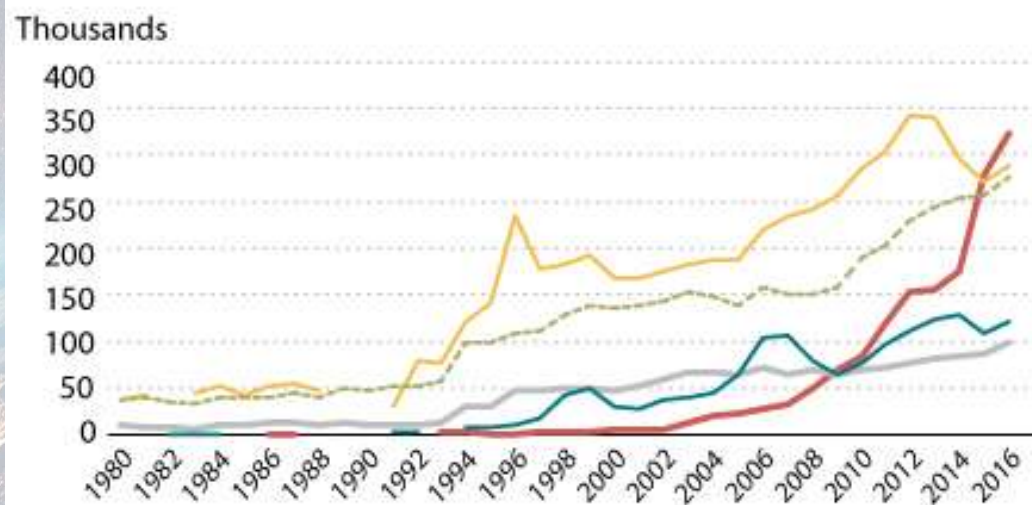
World Patents China's Growth

Figure 1

A. Patent Applications, 1980-2016

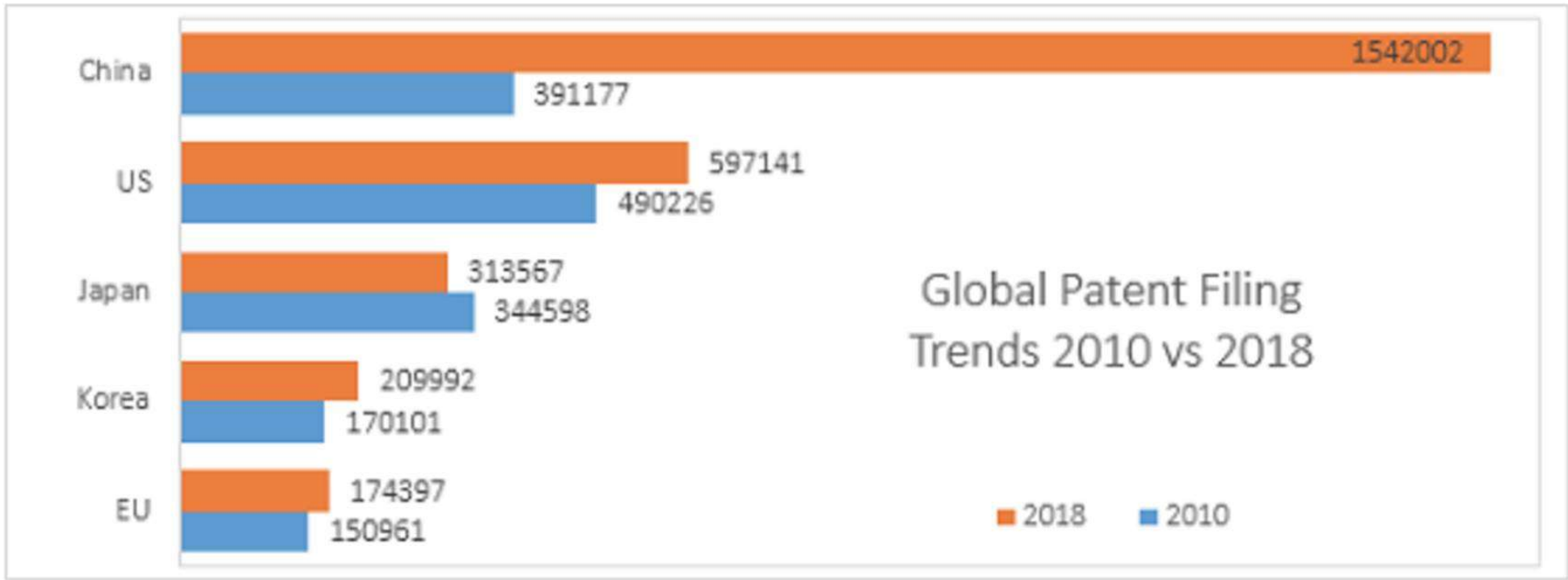


B. Patent Grants, 1980-2016



SOURCE: World Intellectual Property Organization.

World Patents: China's Growth (2000-2018)



China: How they see themselves

- World's largest R&D investment
- World's leading innovative enterprises:
in manufacturing, high-speed rail, the Internet
industry, robotics and artificial intelligence industry.



The Steep Rise of Huawei

Huawei's global revenue and Chinese smartphone market share

- Revenue (in billion U.S. dollars)
- Chinese smartphone market share (in %)



Converted from Yuan Renminbi
Sources: Huawei, Canalys



statista

IT Industry



„What do we need?“
„Where do we get it?“

„What are they doing, we don't do?

„THEY DO“

China and Innovation

What do we need to know?

- China's rapid rise: combination of size, dynamics and ambition it unique
- China's global ambitions: innovation a core element of its national interests
- China 'does not play fair': divide & conquer, 'technology for market' etc.
- The conflict with the US is about technology and geopolitics, not about trade, and it's escalating

Chinese Innovation Strengths



- **Speed of Implementation**
- **Market Orientation**
- **Knowledge to Innovation**

China's scientific and technological development: size and speed

- **Rapidly becoming a cash-free society
(750 m internet users of with mobile payment methods)**



- **Nearly one half of all global STEM graduates**
- **Many of China's 'tech entrepreneurs' have close links to US**

China lets us know its ambitions

President Xi Jinping:

“the initiatives of innovation and development **must be securely kept in our own hands** (...) only by mastering core technologies can we guarantee national economic security, defense security and other securities.”

The Chinese Academy of Sciences:

80 people doing bibliometric studies in order to be aware who is most successful in doing what and where

Compare EU:

1,5 people involved in science cooperation with China and they do project management too.



5. deutsch-chinesische Regierungskonsultationen © dpa / Wolfgang Kumm

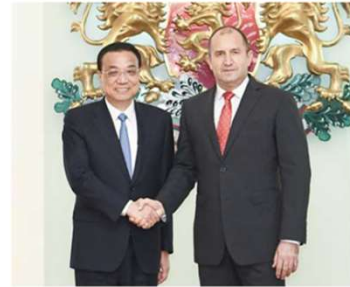
Aktualisiert: 09.07.18 - 16:01

MINISTERPRÄSIDENT LI KEQIANG ZU GAST

Merkel empfängt chinesische Delegation -

Premier Li meets Bulgarian president on ties

Updated: Jul 7, 2018 5:08 AM Xinhua



SOPIA — Visiting Premier Li Keqiang met with Bulgarian President Rumen Radev on July 6, and the two sides pledged to promote bilateral ties.



Politics

Austria to Send Its Largest-Ever Trade Delegation to China

By Matthias Weid

Premier Li meets with British foreign secretary

Updated: Jul 31, 2018 3:40 PM english.gov.cn



On July 30, Premier Li Keqiang met with visiting British Foreign Secretary Jeremy Hunt, who was in Beijing to attend the 9th China-UK Strategic Dialogue.

Publié le 08/01/2018 à 03:48, Mis à jour le 08/01/2018 à 09:56

Emmanuel Macron en Chine : les enjeux de sa visite pour la France

International

Partager 5 partages

Partager

Twitter

Partager

Commenter

Réagir 37 réactions

S'ABONNER

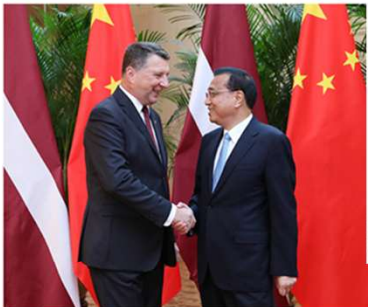


Emmanuel Macron en Chine : les enjeux de sa visite pour la France

Le Président de la France débute aujourd'hui sa première visite d'état en Chine depuis son

Premier Li meets with Latvian president

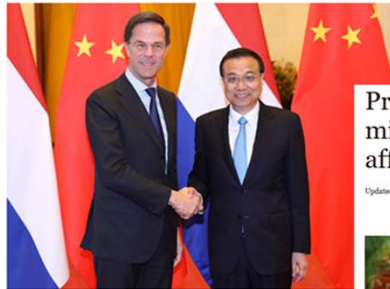
Updated: Sep 19, 2018 8:17 PM english.gov.cn



Premier Li Keqiang met with Latvian President Raimonds Vējonis, who was in China for the Summer Davos Forum, on Sept 19 in Tianjin.

Premier Li meets with Dutch PM

Updated: Apr 12, 2018 9:43 PM english.gov.cn



Premier Li Keqiang held a meeting in Beijing on April 12 with visiting Dutch Minister Mark Rutte, who attended the annual conference of Boao Forum (BFA) and is on an official visit to China.

Premier Li meets with French minister of Europe and foreign affairs

Updated: Sep 14, 2018 8:00 PM english.gov.cn



Premier Li Keqiang met with Jean-Yves Le Drian, French minister of Europe and foreign affairs, in Beijing on Sept 14.

China, Estonia strengthen cooperation

Updated: Sep 19, 2018 8:43 PM english.gov.cn



Delegationsreise China

China, 25. November - 2. Dezember 2018.

Die Wirtschaftsbeziehungen in Ingolstadt und der Region 10 haben



Premier Li Keqiang met with visiting Austrian President Alexander Van der Bellen in Beijing on April 8.



Tria dalla Cina rassicura su sp



Il ministro Giovanni Tria incontra a Pechino il ministro delle Finanze cinese Liu Kun

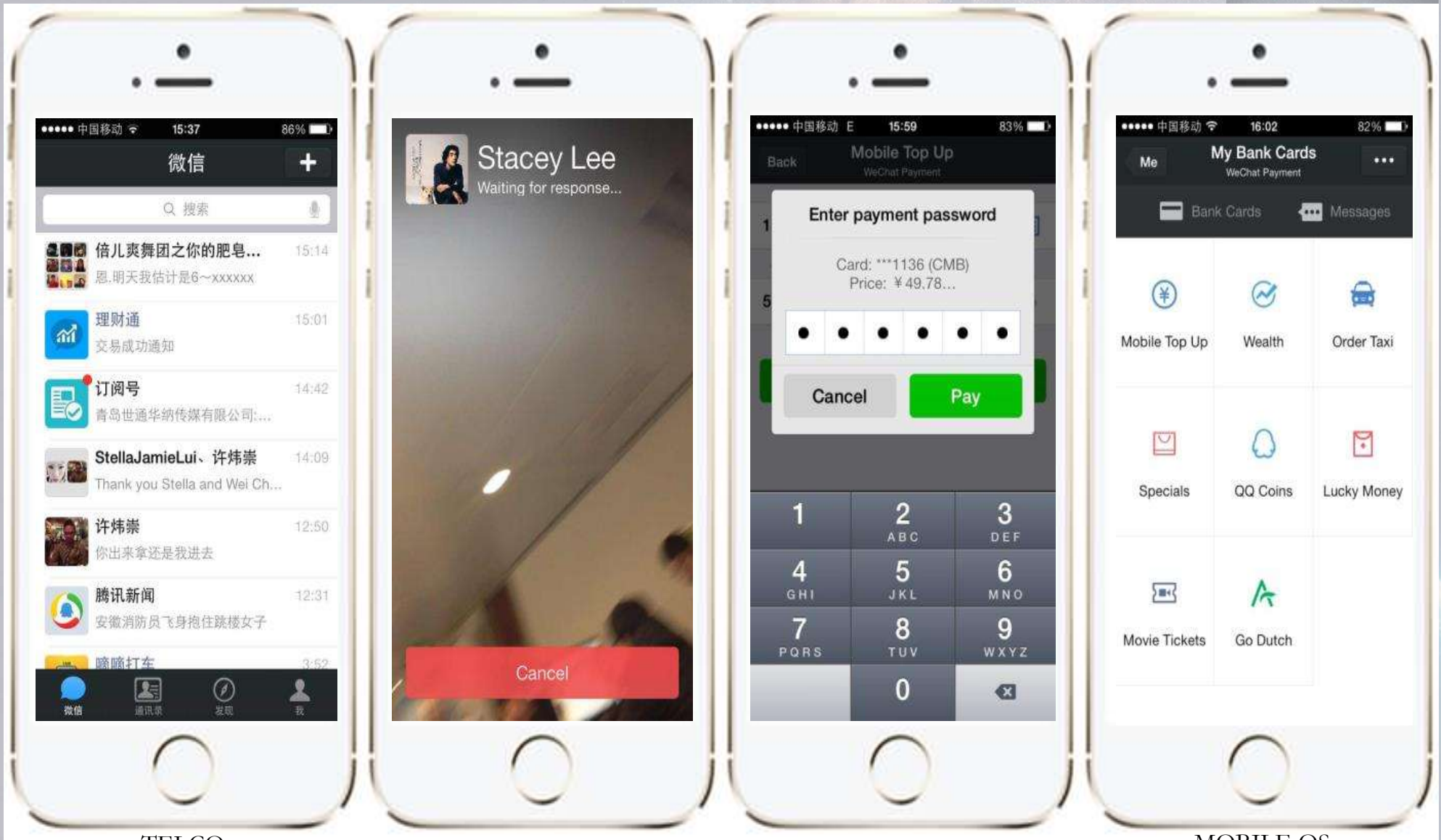
Europe's reaction to China's rise

- EU: lack of coordination, outcompeting each other
- Naive view of China? Eurocentrism?
- Rapid change in position driven strongly by industry? (Germany, Sweden, EU)
- Low China competence
- Polarization of views on how to handle China (and the US)



WeChat微信

RESHAPING INDUSTRIES



TELCO

(TEXT & VOICE)

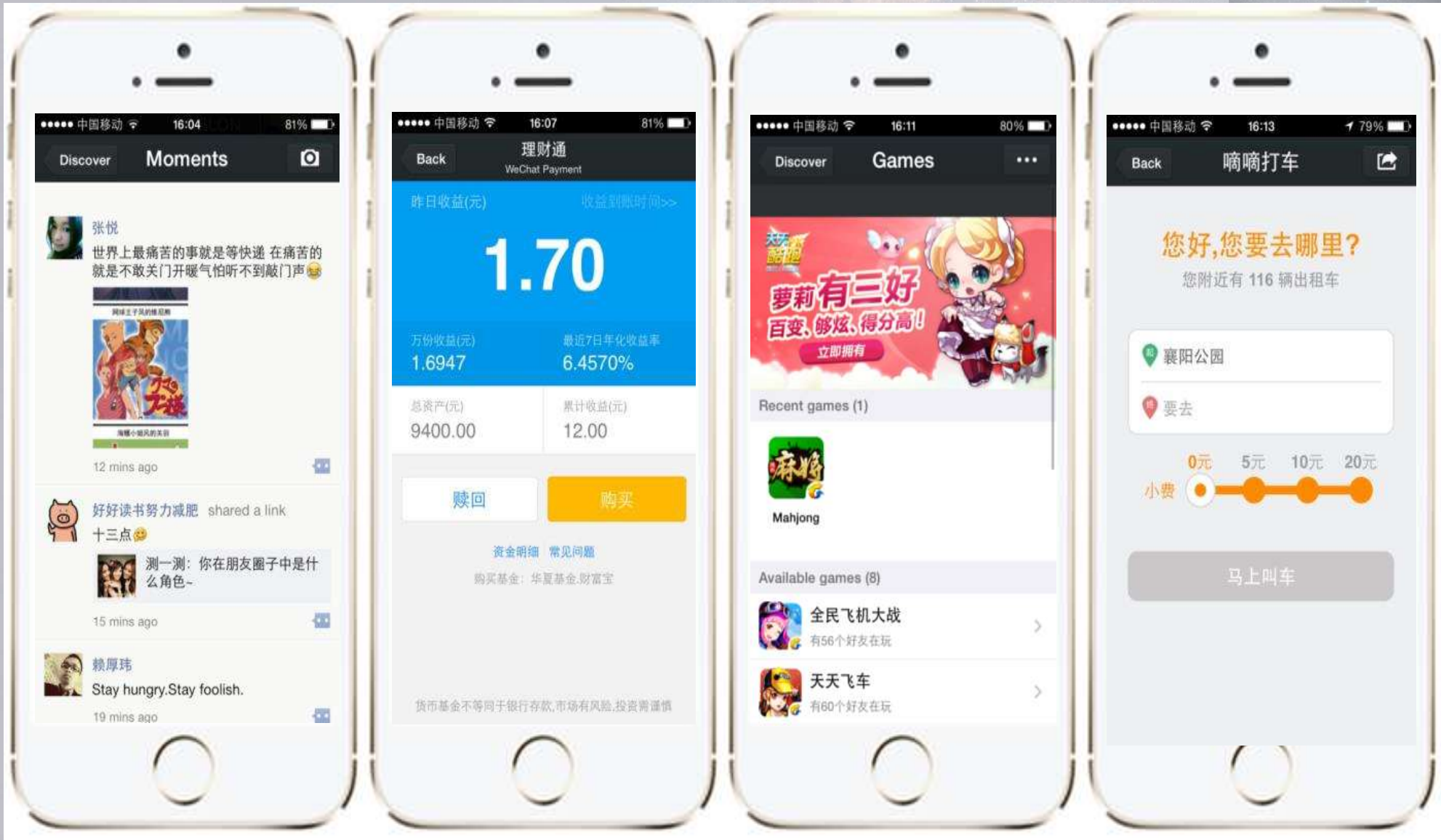
VIDEO CALL

PAYMENT

MOBILE OS

(APP AS A PLATFORM)

RESHAPING INDUSTRIES



SOCIAL NETWORK

PERSONAL FINANCE

GAME DISTRIBUTION

TAXI BOOKING

Duration to 100 Mio Users

Year of invention

1878		Telephone	75 years
1979		Mobile phone	16 years
1990		World Wide Web	7 years
2003		iTunes	6 years, 5 months
2004		Facebook	4 years, 6 months
2008		Apple App Store	2 years, 2 months
2009		WhatsApp	3 years, 4 months
2010		Instagram	2 years, 4 months
2012		Candy Crush Saga (Smartphone game)	1 year, 3 months

Source: BCG Research, ITU, Statista.

Duration to 100 Mio Users

Rank	Platform	Launch	Time to 100M Users
1	Threads	2023	5 days
2	ChatGPT	2022	2 months
3	TikTok	2017	9 months
4	WeChat	2011	1 year/2 months
5	Instagram	2010	2 years/6 months
6	Myspace	2003	3 years
7	WhatsApp	2009	3 years/6 months
8	Snapchat	2011	3 years/8 months
9	YouTube	2005	4 years/1 month
10	Facebook	2004	4 years/6 months
11	Spotify	2006	4 years/7 months
12	Telegram	2013	5 years/1 month
13	Twitter	2006	5 years/5 months
14	Uber	2011	5 years/10 months
15	Pinterest	2010	5 years/11 months
16	Google Translate	2006	6 years/6 months
17	World Wide Web	1991	7 years
18	LinkedIn	2003	7 years/11 months

Days to 100 Mio Users

facebook

1,600 days

twitter

1,400 days

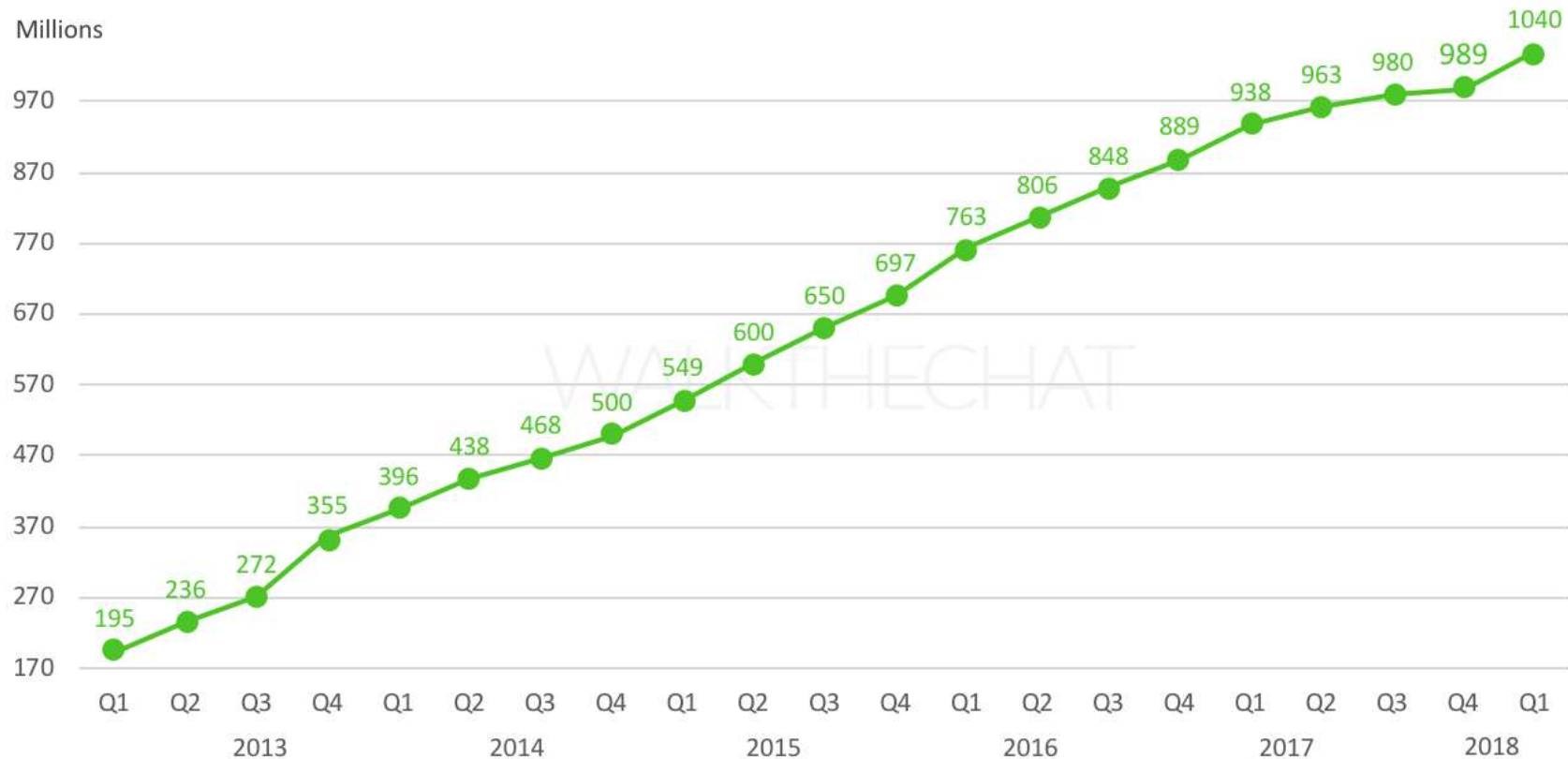
WeChat

433 days

Example WeChat



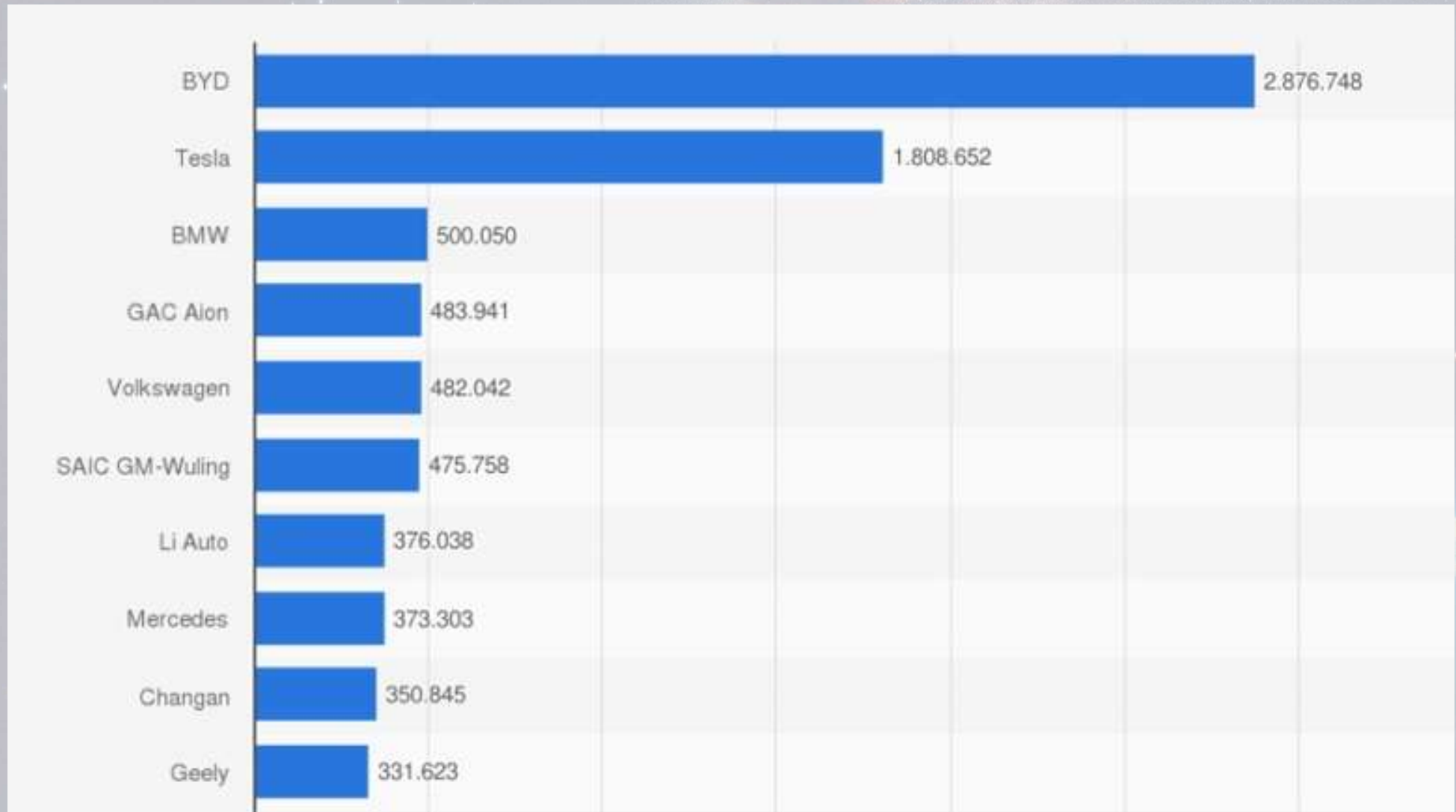
WeChat Monthly Active Users (MAUs)



Data: Tencent

WALKTHECHAT

Example E-Cars 2023



Shenzhen / HKG Border 1979



China Strategic Developemnt

Example Shenzhen

- 1979: Shenzhen becomes a City (~15000 inh.)
- 1980: Special Economic Zone
- 1989: Salary Civil Servant **50 RMB**
Industry Shenzhen **3000 RMB**
- 2018: HQ of [BYD](#), [DJI](#), Huawei, Tencent, ZTE
Passed by GDP of Hongkong
~20 Million inh.

Shenzhen 2018



Shenzhen City Square October 2018

China University Education



广东工业大学 (GDUT) 位于
中国东南部，中国的富裕大省
广东省首府广州市。学校是广
东省最大的工科大学



廣東工業大學
Guangdong University of Technology



Technology...



...and Arts!

艺术教育活动

校区分布



Guang Dong University Of technology

The Symphony Orchestra Triennial

2010广东工业大学新年音乐会

主办：校团委 校工会 学生处 通识教育中心
承办：通识教育中心
演奏：广东工业大学交响管乐团
指挥：廖鸣辉
时间：2009年12月31日 晚7时30分
地点：大学城校园大讲堂 三楼



Discussion

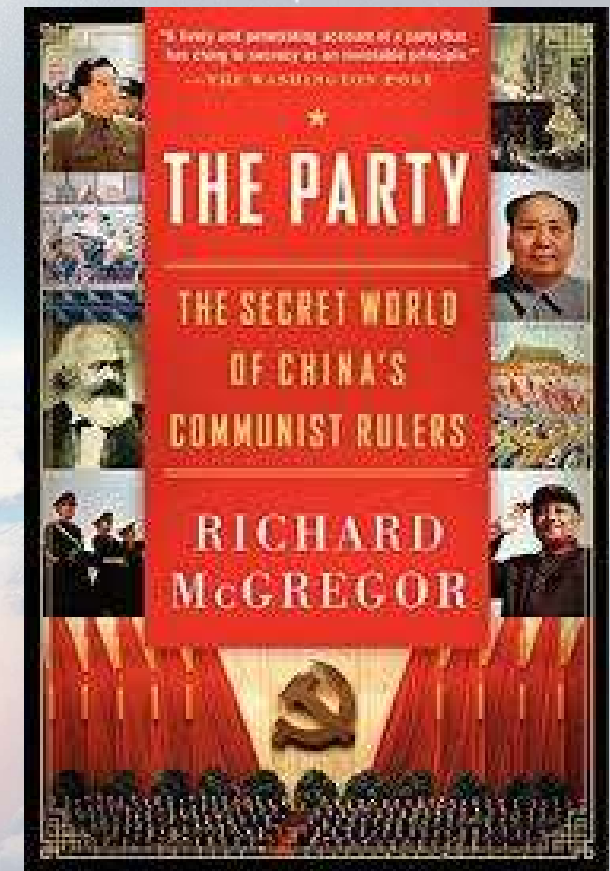
China: Resources and Strenghts of the Innovation Ecosystem

China: Strengths of the Innovation Ecosystem

- **Market Size**
- **Top-Down Strategy of Economic Development**
(i.e. Shenzhen)
- **HR Global Exposure (Inviting Expats)**
- **Strong Industry Strategy**
- **Quality of Administration**
- **Change from Manufacturing to Innovation**
- **Next Step: Artificial Intelligence**

China: Literature

➤ Richard McGregor: “The Party”



Mindful Leadership



How do you make a learning and innovative organization?



Five keys to becoming “innovative” in your organization

The Innovative Organization

- Reduce **Cognitive Load**
- Encourage **Openness**
- Encourage **Problem Solving**
- Increase **Diversity**
- Setup **Safety Nets**

Brainstorming

Form groups of 3

Discuss one example for each of these five key factors that could be easily implemented in your company?

The Innovative Organization



Create Systems and Platforms to reduce cognitive load.



Play

A study psychologist Sir Cary Cooper revealed young employees that have fun in the workplace take less sick leave, work harder and are more productive.

The Innovative Organization



Create Systems and Platforms to reduce cognitive load.

Top rated ideas for encouraging play/fun at work:

- Dress down Friday (25%)
- Office parties/nights out (21%)
- A pool or game table (19%)
- An office pet (18%)
- Wellbeing massage days (17%)

The Innovative Organization



Create Systems and Platforms to reduce cognitive load.

What other ways can an organization help reduce cognitive load at work?



The Innovative Organization



Internal Openness

Extending inclusion into the decision making process can encourage ideas and innovation from employees according to studies.

Simply providing opportunities for employees to voice concerns or add ideas can increase productivity by 15%.

The Innovative Organization



External Openness

Encouraging your community to provide new ideas can add to your bottom line. This can be done through specific customer review and follow up processes or innovation challenges.

The Innovative Organization

Openness

What policies can an organization put in place to encourage openness?



The Innovative Organization

Encouraging Problem Solving Set Clear Goals



Employees are more motivated if they know what they are expected to achieve. Study from HBS noted clear improvement in performance between two groups, one given vague goals and timelines and the other given precise goals and timelines.

The Innovative Organization



Encouraging Problem Solving Feedback



To learn from mistakes and gaining Grit. Dr. Angela Duckworth, a pioneer in character development, identified that feedback is a key motivator in moving forward after a setback. This is key to solving long-term complex problems.

The Innovative Organization

Encouraging Problem Solving

What other policies or systems can an organization put in place to encourage problem solving mentalities?



The Innovative Organization

Diversity

Cultural Diversity



A German study led by Dr. Silke Stahl-Rolf demonstrated positive correlation between cultural diversity and innovation, showing that cultural diversity has a stronger impact on innovation than other diversity indicators such as age or gender.

The Innovative Organization



Diversity

What policies can an organization put in place to encourage diversity?



The Innovative Organization



Safety Nets Insurance

The American Institute for Stress finds workplace stress due to health concerns is one of the biggest employer challenges to productivity.

The Innovative Organization



Safety Nets

Child Care

Employer provided child care services

- decrease employee absences by 20-30 percent
- improve employee recruitment
- boost employee productivity



The Innovative Organization



Safety Nets

What other safety nets can organizations use to help employees feel safer innovating?



The Innovative Organization



Creating an Innovation Identity

The Innovative Organization



Identity Matters because...



People will follow you.

Until you fail to innovate.

The Innovative Organization



Identity Example: Sports

Pittsburgh Steelers



The Innovative Organization



Identity Matters because...

**You come together
as a tribe.**



Discussion

Creating your innovation identity

In groups of “/3, create an “innovation identity”.

Write down in 3 sentences answers to the following questions:

1. What values do you have?
2. What problems are we *uniquely motivated* to solve?
3. What future do we want to help create?
4. What do we do better than anyone else?

The Innovative Organization



Activity: Creating your innovation identity

Example: Pittsburgh Steelers

1. **Values:** the Steelers value hard work. We focus on always putting in 110% and rising to every challenge. We also value defense, we think that a strong defense will be the booster to our victories.
2. **Internal Change:**
 - We want all our team to want to put in 110%.
 - We want to provide a structure where defense becomes an integral part of our culture.
 - We want to hold our opponents to less than 50 yards rushing every game.
3. **External Change:**
 - We want to encourage fans to show up to every away game.
 - We want to sell out all our home games.
 - We want to encourage our fans to engage in community service.
 - We want to help make Pittsburgh a safer place to live.

Megatrends and Perspectives

➤ exercise

Mindful Leadership



Transition

vs

Transformation

Transition

Definition:

A transition refers to the *process or period of changing* from one state, condition or stage to another. It emphasizes the movement or *passage between states*.

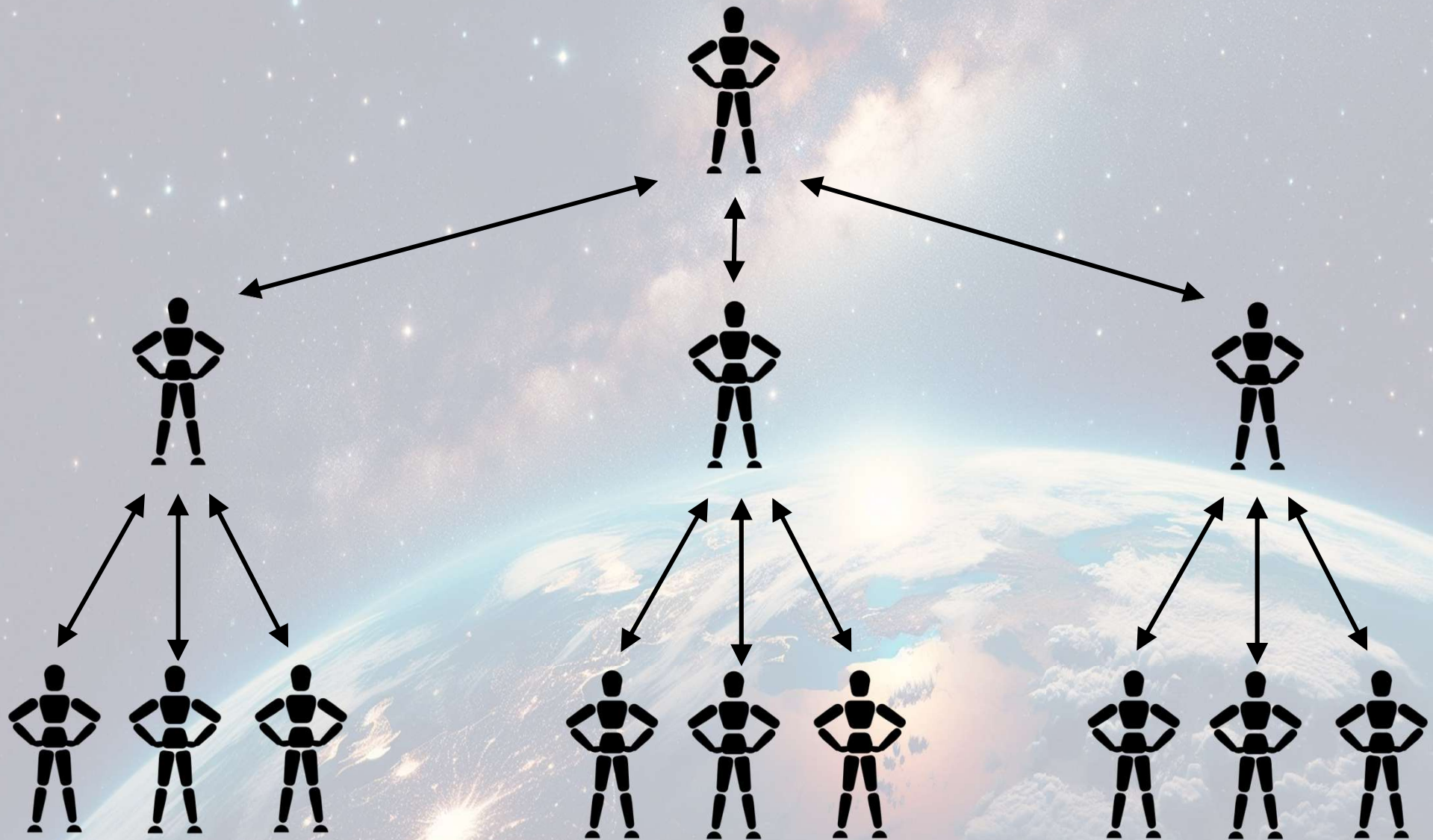
Transformation

Definition:

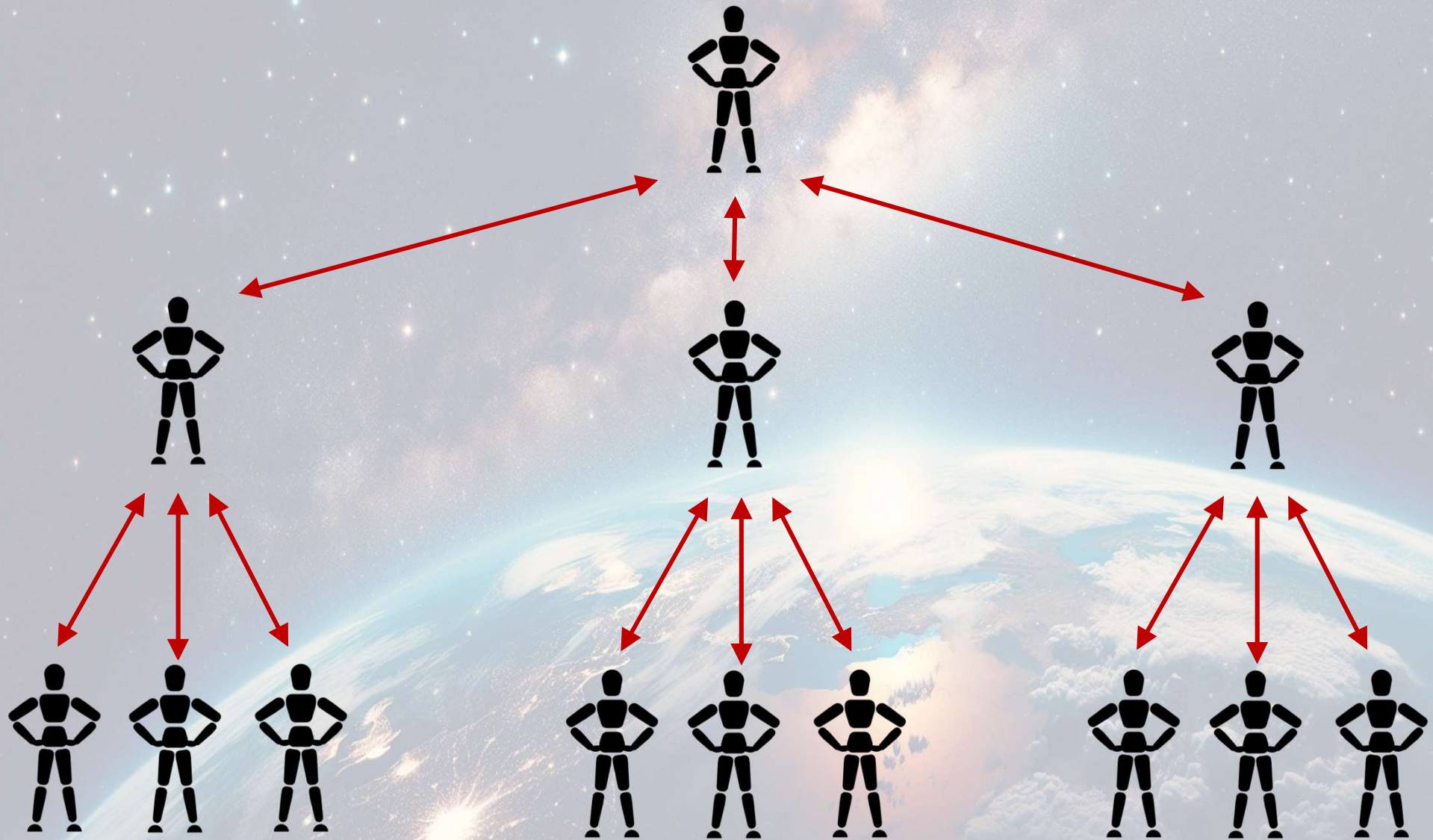
A transformation is a profound or *significant change* that alters the nature, structure or appearance of something. It *focuses on the outcome* or the new state achieved.

Aspect	Transition	Transformation
Focus	The process or journey	The result or final state
Nature	Gradual, incremental	Fundamental, radical
Duration	Temporary	Permanent
Scope	Narrower, stepwise	Broader, affecting the core
Change	Strategy/Plan	Beliefs/Behavior
Support	With or w/o advice	Support from outside

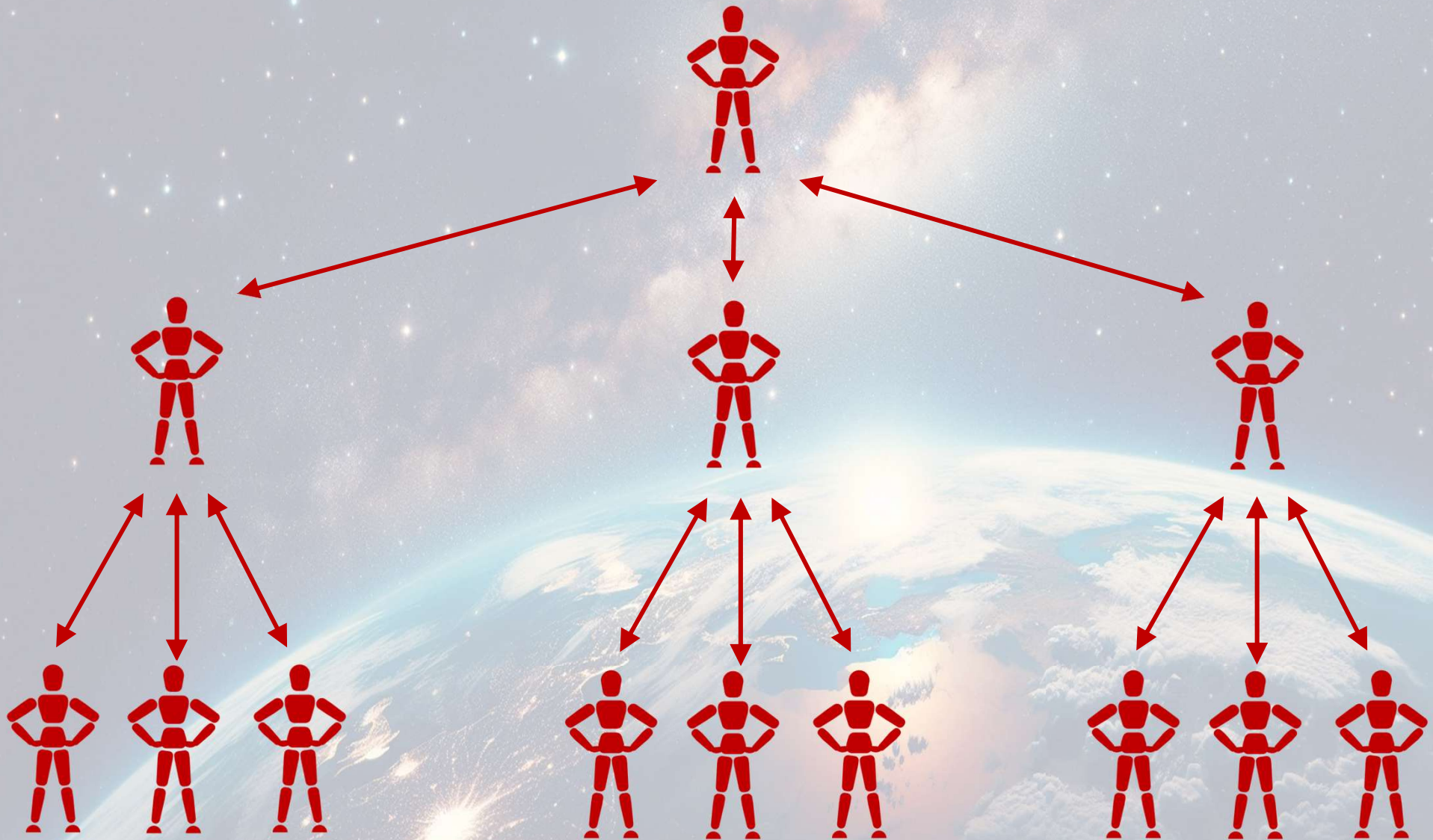
Transition vs Transformation



Transition



Transformation



Transformation

Inspire Humans to Love the New Horizon

Where is the starting point of transformation?

Yourself

Your Transformation Capacity



Mindfulness →

Mindfulness

- is a cognitive skill
- can be trained
- controls your archaic programs
- boosts your energy level
- focuses on your positive motivation
- shrinks negative vibes
- is a precondition for successful leadership

Mindfulness

➤ exercise

Exercise Content Mindfulness

Start with Yourself

<https://www.youtube.com/watch?v=TZs35mJGBtQ>

The Journey using Mindfulness



Walk

Do it

Focus on Your Goal

Define Your Success

Look at the Broad Vision

Define Your Idea

Stand Up

Define Yourself

Discussion

What is your success?

What is the value of your success?

10min
Group of 2
Make Notes.

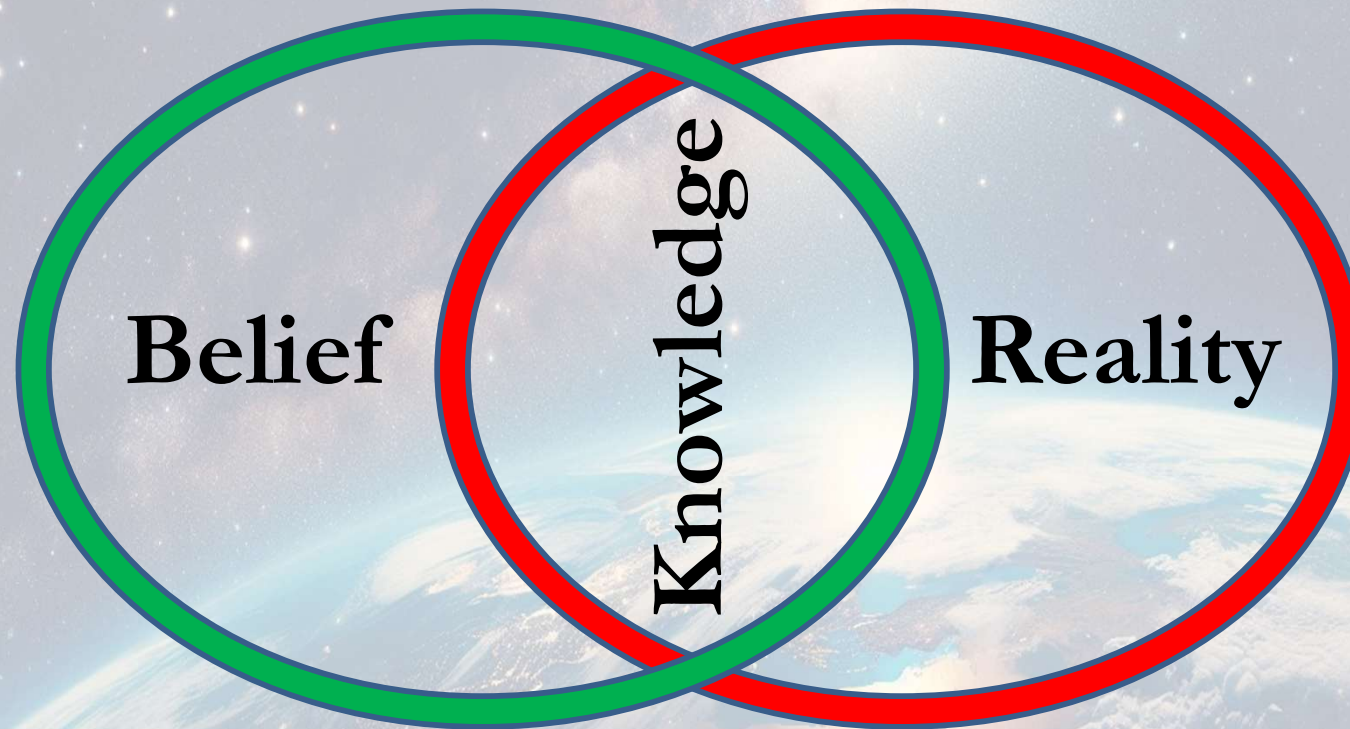


...valid for the whole process of strategy implementation

Culture

- Principles of Interaction
- Perception of Reality
- Appreciation of Ideas of Others
- Societal Values
- Motivation towards Success

Beliefs and Reality



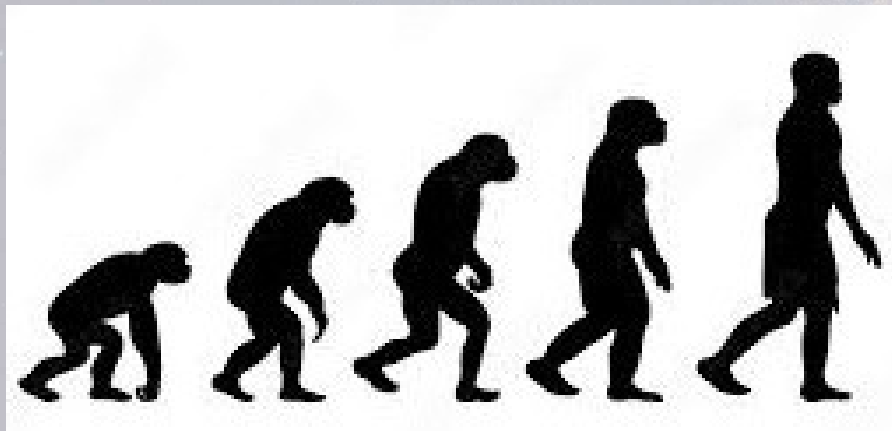
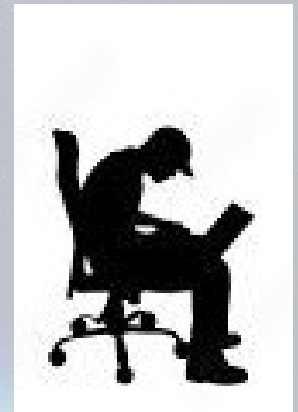
Two Components of Mindfulness

➤ **Archaic Programs**

➤ **Stoicism**

Homo Sapiens

Modern Society ~ 300 years



Homo Sapiens ~ 160.000 years

Early Homo Sapiens ~ 300.000 years



The **Challenge** of Challenges



How many of you **hunted this morning to get breakfast?**



Maybe the **hunt** looked like that:



Archaic Challenges

- **Food, Water, Shelter**
- **Protection from Predators**
- **Health and Disease**
- **Resource Scarcity**
- **Social Dynamics**
- **Technological Limitations**
- **Environmental Changes**

Modern Challenges

- **Food, Water, Shelter**
- **Protection from Predators**
- **Health and Disease**
- **Resource Scarcity**
- **Social Dynamics**
- **Technological Limitations**
- **Environmental Changes**

Homo Sapiens in the Modern World

- **Underchallenged**
- **Convenient**
- **Comfortable**
- **Overfed**
- **Safety Netted**
- **Temperature Controlled**
- **Clean**
- **Sheltered**

Sounds great!

Why is that a problem?

The human brain is programmed to meet **challenges, not to manage boredom.**

Brain and Body react with

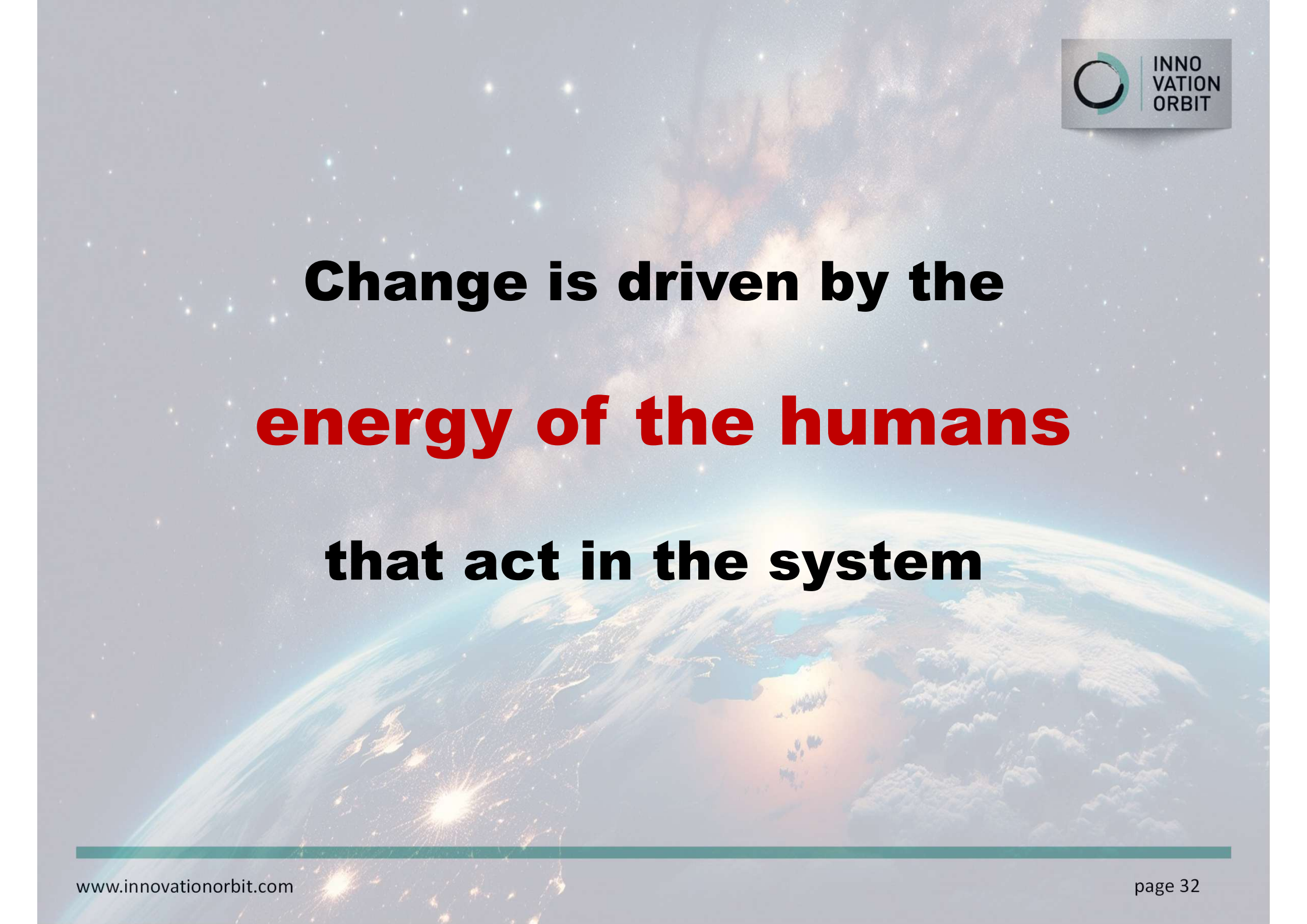
- **Depression**
- **Psychological Stress**
- **Diabetes**
- **Cancer**
- **Anxiety**
- **Physical Constraints**

**How can we achieve the best
operating temperature of our
brains?**

Meet challenges !

Challenge Options

- **Expand Comfort Zone**
- **Develop Your Ideas**
- **Respect Desires**
 - ✓ **Social Meaning**
 - ✓ **Importance**
 - ✓ **Significance**

The background of the slide is a high-quality image of Earth as seen from space. The horizon of the planet is visible, with a thin layer of white clouds and a blue atmosphere. Below the horizon, the dark surface of the Earth is covered with a dense network of golden-yellow lights, representing city lights or satellite data. The sky above is a deep blue with scattered white stars and a faint, glowing nebula or galaxy structure.

**Change is driven by the
energy of the humans
that act in the system**

Two Components of Mindfulness

➤ **Archaic Programs**

➤ **Stoicism**

What is Stoicism?

- School of Hellenistic Philosophy
- 300 BC (Zeno of Citium)
- Ancient Greece and Ancient Rome
- Happiness through Virtue
- Wisdom, Courage, Temperance, Nature

Why is Stoicism a topic today?

Focus on What You Can Control

- **Reduces Anxiety and Stress**

Practicing Mindfulness

- **Reflecting Your Actions and Thoughts**

Emotional Resilience: External Events are Neutral

- **Achieve Calmer and Balanced Life**

Community and Social Duty

- **Act with Kindness and Foster Social Responsibility**

No tree is solid and strong that is not frequently exposed to gusts of wind.

These vibrations give it inner support and allow its roots to sink more securely into the ground.

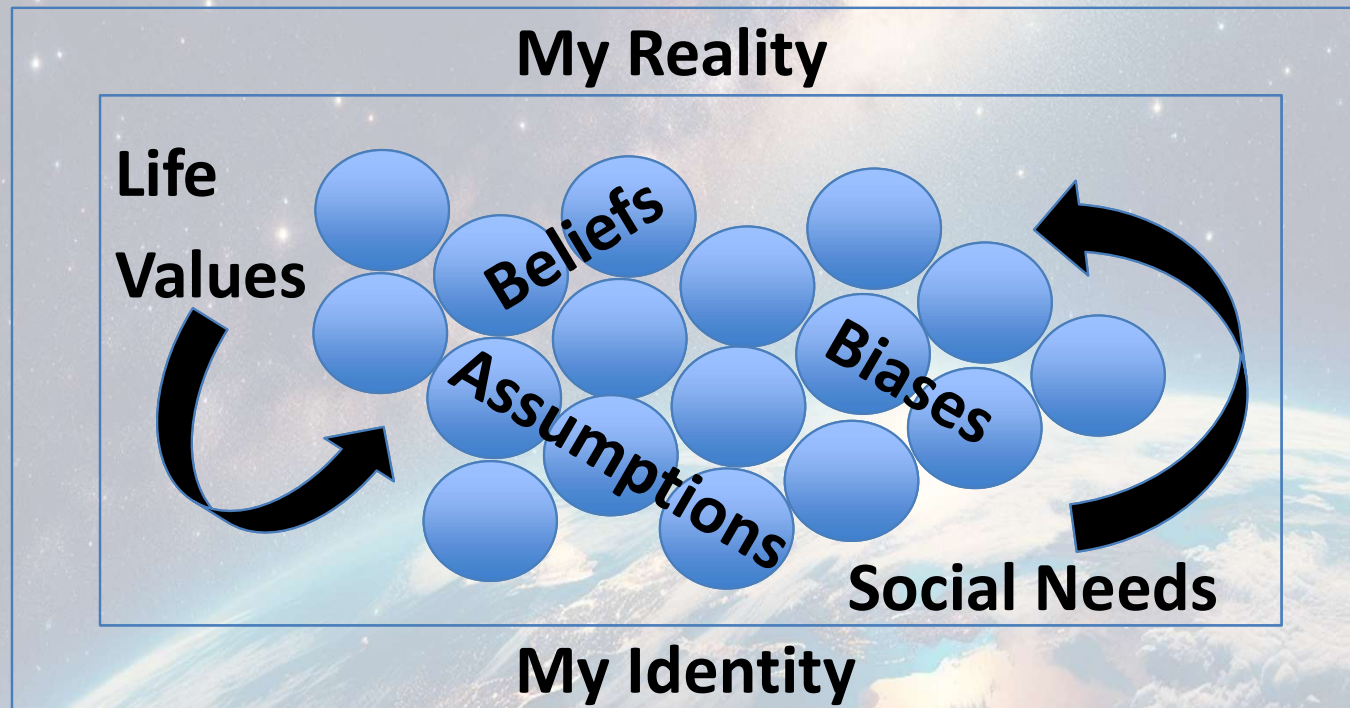
The trees that grew up in the sunny valley are granted only a short and fragile existence.

Seneca

Mindfulness

- Individual Reality
- How is it designed?

My Reality



 **Stories**

Life Values

best of...

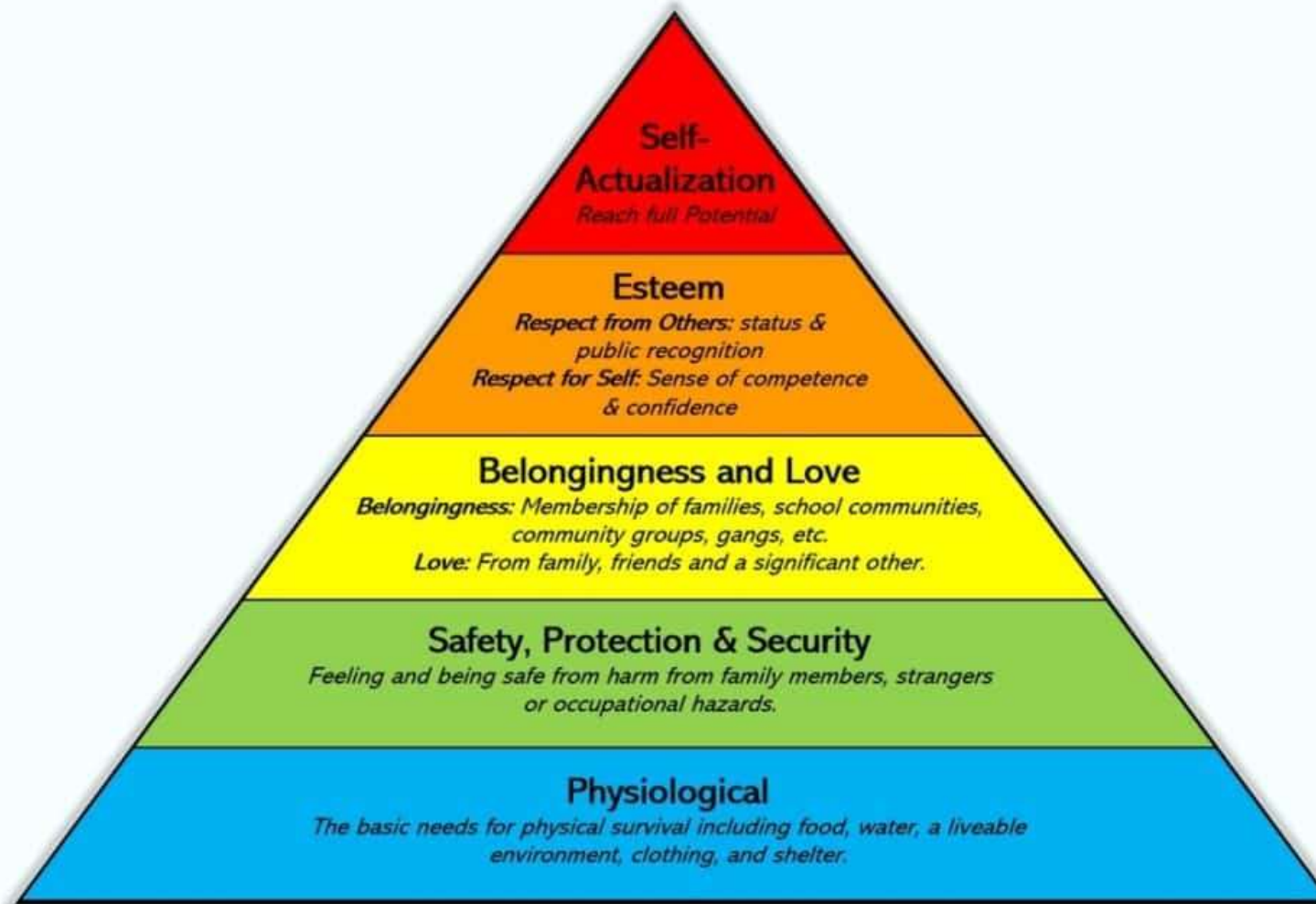
- ✓ Perseverance
- ✓ Generosity
- ✓ Honesty
- ✓ Forgiveness
- ✓ Gratitude
- ✓ Self Respect
- ✓ Pleasure

Social Needs

best of...

- ✓ Love
- ✓ Intimacy
- ✓ Friendship
- ✓ Family
- ✓ Feedback
- ✓ Acceptance
- ✓ Belonging

Maslow's Hierarchy of Needs



The Brain

- **Perfect** in processing stories
- **Failing** in bureaucracy

How can you make use of AI in your mindfulness journey?

The Essence of Coaching

Be a Thinking Partner, not an Advisor

Reflective Inquiry

- **Surface Dreams and Fears**
- **Gaps in your Logic**
- **Belief Models**

Coach the Person not the Problem

**We need somebody outside our head
to be able to**

- **Realize our Patterns**
- **Cross our Barriers**
- **Challenge our Brain**

Discussion Exercise 1+1

10min each. Make Notes.

Reflective Inquiry:

- **Beliefs and Patterns**
- **Awareness of Dreams and Fears**
- **Value of Success**
- **Mapping, no Judgement**

Choose your preferred AI tool

➤ **Prompt1:**
Can you be my Coach?

➤ **Option Prompt2:**

Lets start with my personal development. I want to get ready for changes in my work environment. How can I prepare now for changes that could be arising in future?

Using AI for Self-Coaching in Transformation

➤ **exercise**

Exercise Content AI Self Coaching

Using AI for Self-Coaching in Transformation

**What self coaching tools and
processes can help me improve
my change journey?**

Change Management and the benefits of AI

Opportunities for the use of AI in Change Management?



- **Monitoring and Measuring Success**
- **Automating Administrative Tasks**
- **Change Impact Analysis**
- **Predictive Analytics for Change Readiness**
- **Personalized Communication**
- **Training and Upskilling**

AI

**is the fire accelerant of
my experience and creativity**

Change Management Methods

Change Management – 10 Methods

No. 1 The ADKAR Model

Five main goals

- **Awareness**: Ensure everyone in your organization understands the need for change.
- **Desire**: Make your case so that everyone involved wants the change.
- **Knowledge**: Provide the information each person needs on how to accomplish their part of the change process.
- **Ability**: Make sure all employees have the skills and training they need to successfully do their part.
- **Reinforcement**: Continue to work with employees and stakeholders after you accomplish a change

Change Management – 10 Methods

The ADKAR Model – USE CASE AI

- Awareness
- Desire
- Knowledge
- Ability
- Reinforcement

USE CASE Content pdf

AI Support in the ADKAR Model of Change Management

Change Management – 10 Methods

The ADKAR Model – Example AI Sentiment Analysis

<u>Change Management</u>	Analyze employee feedback to detect resistance early
Customer Service	Flag angry or unhappy customers in messages
HR & Culture	Assess sentiment trends in internal surveys
Marketing	Understand brand perception on social media

No. 2 William Bridges Transition Model...

...emphasizes the emotional transition people go through in the course of experiencing and accepting a change

- **Ending, losing and letting go:** For many people, the first reaction to change is a resistance marked by fear and discomfort
- **The neutral zone:** When the change is starting to take place, people will be stuck between letting go of the old status quo and welcoming the new
- **The new beginning:** Once the new change is in place and it's handled well, people will enter the stage of acceptance and comfort with the new way of doing things

No. 3 Kurt Lewin's Change Management

- 1. Unfreeze:** This is the preparation stage. Analyze how things work now so you accurately understand what needs to change to get the intended results. Implement change management communication so employees know what to expect
- 2. Change:** This is the implementation phase. Put the change into practice, and keep communicating and providing support for all employees involved
- 3. Refreeze:** This phase helps you avoid falling back into the old way of doing things. Review how the new processes work and measure change management metrics and key performance indicators (KPIs) to see how well you've reached your goals

No. 4 Nudge Theory

Focus on employing a particular mindset to encourage change rather than a step-by-step guide. Instead of issuing top-down change requests from senior executives and expecting people to fall in line, the nudge theory is about finding a persuasive way to **nudge your employees toward wanting the change on their own.**

- Thinking about the change you want to make from your employee's point of view
- Presenting it based on how it will benefit them
- Treating it as a recommendation rather than a command
- Listening to employee feedback throughout the process

Change Management – 10 Methods

No. 5 PDCA Plan-Do-Check-Act

...also known as the Deming Wheel.

- **Plan:** ...assess the need for change and establish clear objectives and goals. Develop a detailed change management plan, outlining strategies, resources and timelines
- **Do:** ...implement their change management plan, execute activities, communicate with stakeholders and support employees with necessary training
- **Check:** ...evaluate the progress and impact of the change initiative by monitoring key performance indicators and analyzing deviations from the planned outcomes
- **Act:** ...take corrective actions based on findings from the check phase, adjusting the change management plan



No. 6 John Kotter's 8 steps for change

...focuses primarily on the people involved in a change process

1. Create a sense of urgency to motivate people
2. Build your change team with leaders and change agents
3. Define your strategic vision for what you want to accomplish
4. Communicate with everyone involved in the change process
5. Identify roadblocks and address anything causing friction
6. Create short-term goals to break into achievable steps
7. Keep up the momentum throughout the process
8. Maintain the changes after the initial project is complete

No. 7 Virginia Satir Change Model

...based on trends Ms Satir saw in how families experience change

- **Late status quo:** This is where you are when you first start
- **Resistance:** This is the natural response many people have when you first introduce change
- **Chaos:** This occurs when the change first gets implemented, and there's still confusion and resistance from employees
- **Integration:** This is when productivity begins to level out, suggesting general acceptance
- **New status quo:** This is when employees settle into the new normal

No. 8 Mc Kinsey 7-S framework

1. **Strategy:** This is what a company wants to achieve
2. **Structure:** This is how a company is organized, including who reports to whom and how tasks are divided among employees
3. **Systems:** These are the formal processes like technology systems, performance evaluation processes and budgeting procedures
4. **Shared values:** These are the core beliefs and principles that guide behavior and decision-making in a company
5. **Skills:** These are employees' abilities and expertise
6. **Style:** This is the leadership and management approach within a company, including the leadership style of top executives
7. **Staff:** This is the company workforce and includes the number of employees, their roles and their distribution across functions

No. 9 Resistance to change model

...focuses on the factors that lead to change failure.

It emphasizes that poor leadership and implementation strategies are the primary reason for change failures, not resistance.

Three levels of resistance:

- **Level 1—“I don’t get it”**: This level involves rational objections due to lack of information, disagreement with data or confusion
- **Level 2—“I don’t like it”**: This level is emotional resistance based on fear of loss, such as face, status or control
- **Level 3—“I don’t like you”**: This level is based on resistance towards the leader or the organization, often due to mistrust or past negative experiences

No. 10 Elisabeth Kübler-Ross Curve

...five stages of grief, the model describes the experience and process of dealing with loss:

- **Denial:** Refusal to believe the situation is a common reflexive response to information a person doesn't want to hear
- **Anger:** When an unwanted change feels forced on a person, anger is natural
- **Bargaining:** People may try to push for a compromise to avoid having to accept the change entirely
- **Depression:** If employees are upset about the change and feel hopeless about it, they may enter a stage of depression
- **Acceptance:** When people realize there's no other option, they eventually reach the point of acceptance

Change Management

10 Characteristics

Change Management - Characteristics

No. 1 Focus on the human side

Successful change management addresses the emotional and behavioral aspects of change, recognizing that people may resist or fear the unknown.

Change Management - Characteristics

No. 2 Clear communication

Regular, timely and consistent communication is crucial throughout the change process to articulate the need for change and provide guidance.

Change Management - Characteristics

No. 3 Leadership and ownership

Change initiatives require strong leadership and encourage ownership by key players.

Change Management - Characteristics

No. 4 Vision creation

Change management involves developing a clear vision for the future state and crafting a compelling story.

Change Management - Characteristics

No. 5 Training and goal-setting

Providing necessary training and establishing clear goals helps employees understand their roles in the new environment.

Change Management - Characteristics

No. 6 Adaptability

Change management strategies need to be flexible to address various types and degrees of change in different organizational contexts.

Change Management - Characteristics

No. 7 Emotional intelligence

Change leaders must demonstrate emotional intelligence to navigate the human aspects of transition.

Change Management - Characteristics

No. 8 Recognition and engagement

Acknowledging progress and achievements boosts morale and reinforces the change process.

Change Management - Characteristics

No. 9 Forward-thinking

Successful change management requires a focus on long-term objectives and the ability to anticipate future needs.

Change Management - Characteristics

No. 10 Systematic approach

Change management involves a structured process to transition an organization from its current state to a desired future state.

Communication

Communication – Key Aspects



Clarity of Vision and Objectives

**Communication articulates
the purpose and goals of the change**

**It helps stakeholders understand
the "why," "what," and "how" of the
change initiative, reducing ambiguity**

Communication – Key Aspects



Building Trust and Reducing Resistance

**Open and honest communication
fosters trust and credibility
among employees and stakeholders**

**It addresses concerns and
mitigates resistance by creating a sense
of inclusion and transparency**

Communication – Key Aspects



Engagement and Buy-In

Effective communication ensures that all stakeholders **feel involved and valued in the process**

It enables leaders to **align teams around a shared vision, securing commitment to the change**

Communication – Key Aspects



Providing Direction and Guidance

Communication serves as a roadmap, outlining the steps and milestones in the change process

It helps clarify roles, responsibilities and expectations for individuals and teams

Communication – Key Aspects



Managing Emotions and Building Resilience

Change often brings uncertainty and stress. Communication addresses these emotions through empathy and support

It builds resilience by reinforcing positive outcomes and providing reassurances

Communication – Key Aspects



Fostering Collaboration and Feedback

Two-way communication encourages collaboration, innovation and feedback

It enables continuous improvement and ensures that the change process adapts to emerging challenges

Communication – Key Aspects



Sustaining Momentum

**Regular updates and success stories
keep stakeholders informed and motivated**

**Communication reinforces progress,
celebrating wins and maintaining focus on
long-term goals**

Engagement

Leading and Managing for a Culture of Engagement and Innovation



People want to be engaged when they come to work.

Most people are not engaged based on the Gallup Institute's research on engagement.

When people are engaged they **perform and contribute at higher levels.**

When people are **not engaged, performance drops, dissatisfaction increases** and they often leave earlier to join other companies.



Engagement – Main Questions?

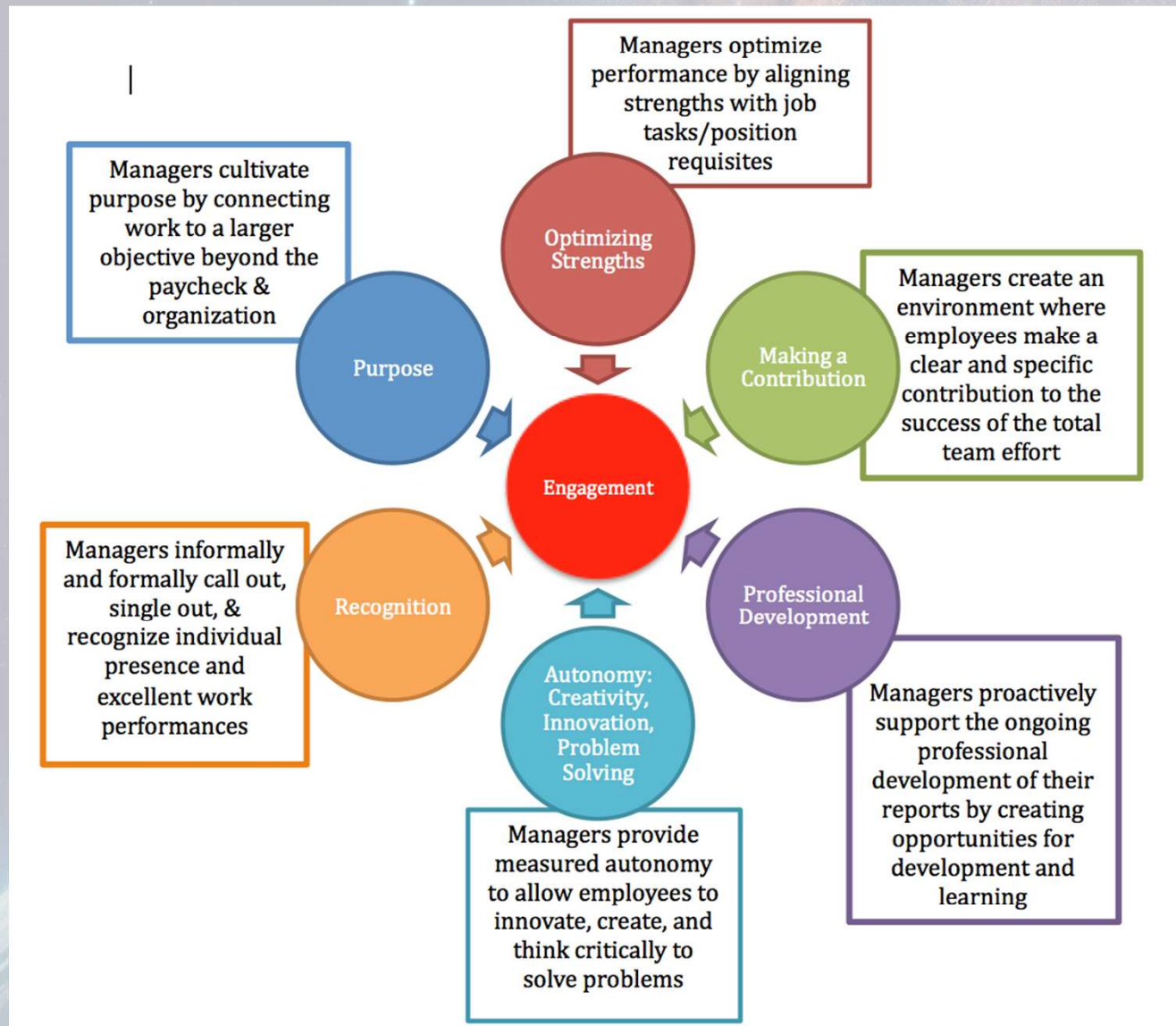
- How do organizations **build engagement**?
- How do organizations **sustain engagement**?
- How does engagement **impact performance**?
- How do organizations **sabotage engagement**?
- Organizations may assume that they are addressing engagement when, in fact, they are doing nothing except collecting data on engagement.



Discuss:

What are the assumptions about engagement in your organization?

The E6 Model



Engagement – E6 Model

Purpose

Managers cultivate purpose by **connecting work to a larger objective** beyond the paycheck & organization

Engagement – E6 Model

Recognition

Managers informally and formally call out, single out and **recognize individual presence** and excellent work performances

Engagement – E6 Model

Autonomy, Creativity, Innovation, Problem Solving

Managers provide measured autonomy to
**allow employees to innovate, create and think
critically** to solve problems

Engagement – E6 Model

Professional Development

Managers proactively support the ongoing professional development of their reports by **creating opportunities for development and learning**

Engagement – E6 Model

Making a Contribution

Managers create an environment where employees **make a clear and specific contribution** to the success of the total team effort

Engagement – E6 Model

Optimizing Strengths

Managers optimize performance by **aligning strengths with the job** that tasks or position requires

Findings from E6



If a leader wants to **create a culture of innovation**, that leader must view innovation as an outcome of other factors that, when combined, **build and sustain a powerful culture of employee engagement**.

Moreover, innovation must be supported by established organizational core values and consistently advanced and **resourced by senior leaders throughout the organization**.

Findings from E6

Those who are most responsible for building and sustaining engagement at the line-level **are the managers**. The flash points for effective engagement leading to innovation and creativity are **managers who understand, value and have an established track record of building and sustaining engagement**.

Organizations that collect engagement data and then use that data to evaluate and train managers around building and sustaining engagement **have a distinct advantage**.

Preconditions to E6



Must be a cultural imperative reflected in core values

Must be supported and championed by senior leaders

HR must be a true business partner at the table with senior leaders

Managers must be trained to build and sustain engagement

Performance evaluations for managers must include data on the engagement levels of teams

How can you support engagement efforts with AI?

Teams of 2
20 min
3 Slides

Engagement supported by AI



Recognition and Rewards

AI can identify and highlight employees' achievements by analyzing performance metrics, ensuring that contributions are acknowledged and rewarded

Predictive analytics can suggest appropriate rewards based on employee preferences, fostering a sense of value and belonging

Engagement supported by AI



Inclusive Work Environments

AI can reduce unconscious bias in hiring, promotions and evaluations, promoting diversity and inclusion—key drivers of engagement

AI-powered collaboration tools can enhance teamwork across diverse teams, breaking language barriers and streamlining communication

Leadership

Next Step: Inspire Your Team



Culture is a top-down topic

Mindful



Mindful Leadership



Case Study

➤ exercise

Exercise Content Case Study AI Change Management

Exercise Case Study



- **Group of 2/3**
- **Max 7 Slides**
- **Topic is the value added mixture of experiences**
 - **Find topic**
- **Change Management with AI support**
 - Starting point: Status of Your individual settings**
 - **Design Change Process**
 - **Use AI Tools**

Exercise Case Study



Leading Questions: (Try to use AI tools for every question)

- **What is our setting today?**
- **What is the value of the desired future?**
- **What is the added value for the customers or stakeholders?**
- **How can I make use of tools to meet the future goals?**
- **What is the improved efficiency of my workflow?**
- **How do you sell it to your investors who have to approve the new goals and procedures?**

Exercise Case Study



Investment Decision

- One point is 20% of your investment budget
- Place Points on Top of Flipchart

Your Contact

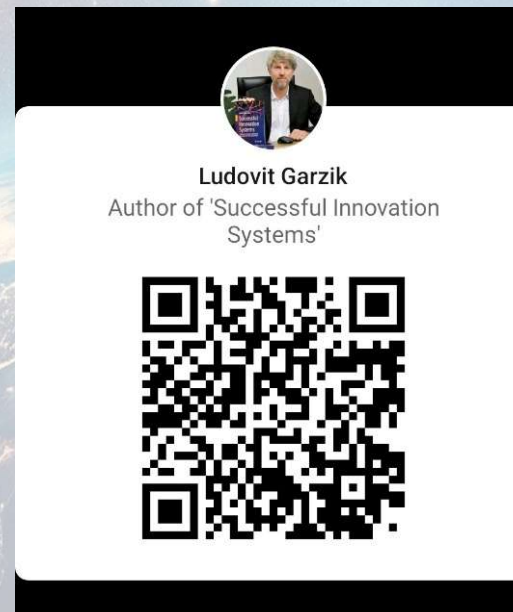
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