

EVIDENCE WE CAN BELIEVE IN: TRUST AND VALUE IN THE DATA AGE



Parma
September 2018

Robert Madelin

AGENDA

- SDGs AND INNOVATION
- TRUST
- RISK INNOVATION
- EFSA AND ITS ECOSYSTEM
- FUTURE DATA TOOLS

DISCLOSURES

- CAMBRIDGE UNIVERSITY
CENTRE FOR SCIENCE AND POLICY
- OXFORD UNIVERSITY
CENTRE FOR TECHNOLOGY AND GLOBAL AFFAIRS

- MADELIN INNOVATION
- FIPRA INTERNATIONAL

- EUROPEAN HEALTH FORUM GASTEIN
- INTERNATIONAL NETWORK FOR THE DELIVERY OF
REGULATION

AGENDA

- SDGs AND INNOVATION (POINTS 1-3)
- TRUST (POINTS 4-8)
- RISK INNOVATION (POINTS 9-10)
- EFSA AND ITS ECOSYSTEM (POINT 11)
- FUTURE DATA TOOLS (POINT 12)

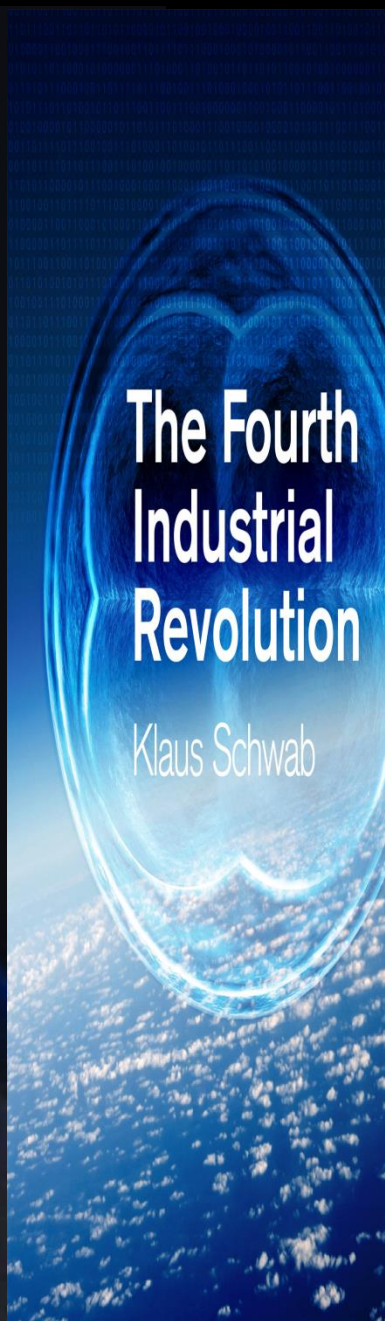
**1. SUSTAINABILITY AND INNOVATION
ARE THE TWO STRATEGIC CHALLENGES
FOR EUROPE AND THE WORLD.**

There has never
been a time of
greater
promise, or
greater peril



The Fourth Industrial Revolution

Klaus Schwab



Professor Klaus Schwab
Founder and Executive Chairman
of the World Economic Forum

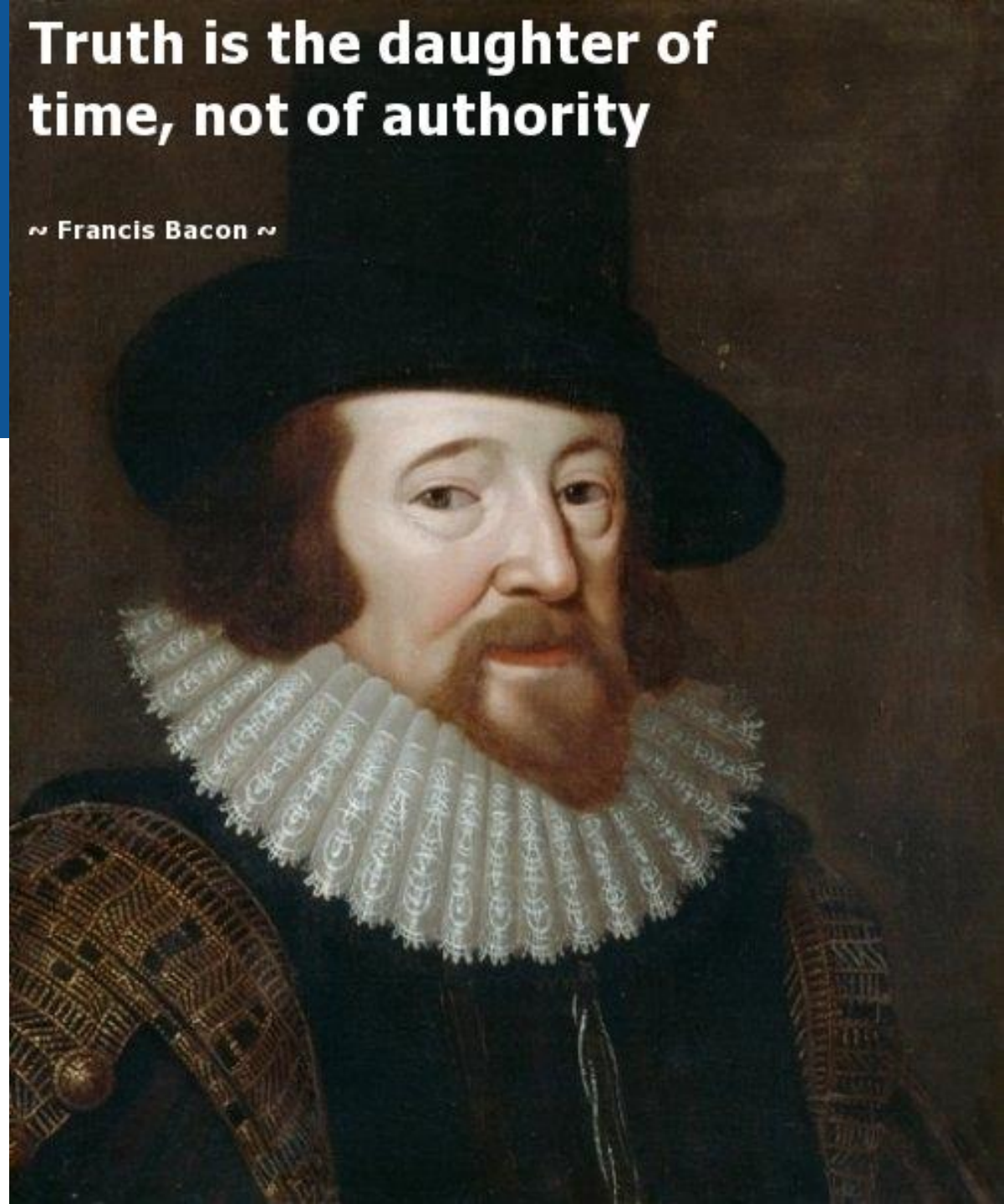
**2. FOOD SAFETY SCIENCE IS A KEY
TO MEETING THOSE CHALLENGES
AND DESERVES WIDER
OWNERSHIP.**

STANDING UP FOR SCIENCE AND TRUTH

“What is **truth**?”
said jesting
Pilate, and would
not stay for an
answer.

Truth is the daughter of
time, not of authority

~ Francis Bacon ~



3. DATA INNOVATION IS A CHALLENGE
SHARED BY EFSA WITH ALL AREAS OF
PUBLIC POLICY.

DATA INNOVATION FACES SIMILAR
CHALLENGES EVERYWHERE AND
REQUIRES JOINED-UP THINKING AND
DOING.

“ONLY CONNECT”, BECAUSE IT IS NOT
ALL ABOUT “US” ...

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



THE GLOBAL GOALS

For Sustainable Development

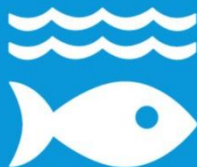
12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND

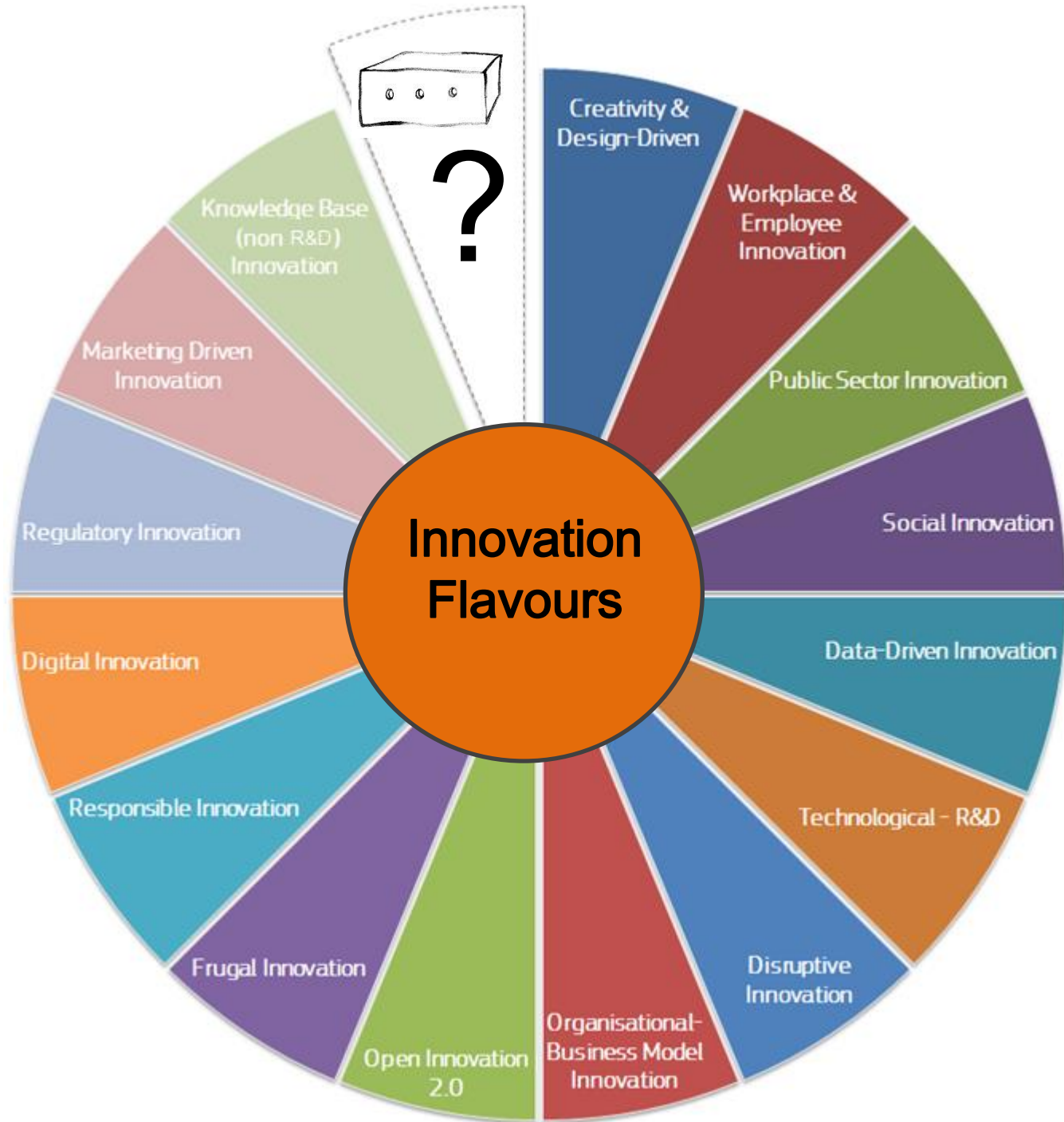


16 PEACE AND JUSTICE STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS





EMBRACE COMPLEXITY

ACCEPT GLOBAL, OPEN SCIENCE & INNOVATION

LET EVERYONE OWN THE REVOLUTION

DEVELOP PEOPLE

FOCUS ON LOCALLY-ROOTED SMART SPECIALISATION

CREATE ENTREPRENEURIAL UNIVERSITIES

RENEW OUR PUBLIC SERVICES

EMBED PRO-INNOVATION REGULATION BY DEFAULT

MAINTAIN MONEY FOR DEEP RESEARCH

DO IT NOW, TOGETHER



https://ec.europa.eu/epsc/publications/strategic-notes/opportunity-now-europe's-mission-innovate_en

TRUST

4. MISTRUST OF (DATA)
INNOVATION IS NOT MERELY
TECHNOPHOBIA BUT CAN TURN
INTO TRUST

MISTRUST NOT IRRATIONAL

- Institutions (bodies and laws) are un-trusted SOMETIMES because they are incoherent, siloed, opaque, slow.
- Citizens today want a new take on a better future, and are prepared to consider risks differently.
- Digital and data innovation can fix some of the trust issues and bring success closer.
- Non-legislative solutions are getting more traction, also with digital help.
- There is a “brand pay-off” for public sector just from trying to modernise.

5. TRUST GROWS WITH:

- ALIGNED SOCIETAL VALUES.
- ALIGNED SUSTAINABILITY GOALS.
- PARTICIPATIVE CO-CREATION.

**6. TRUST GROWS BEST WHERE
SOCIETAL VALUES AND POLICY
GOALS BOTH ALIGN WITH ALL
OUR HARD-WIRED NEEDS.**

“A landmark contribution to humanity’s understanding of itself.”
—*The New York Times Book Review*

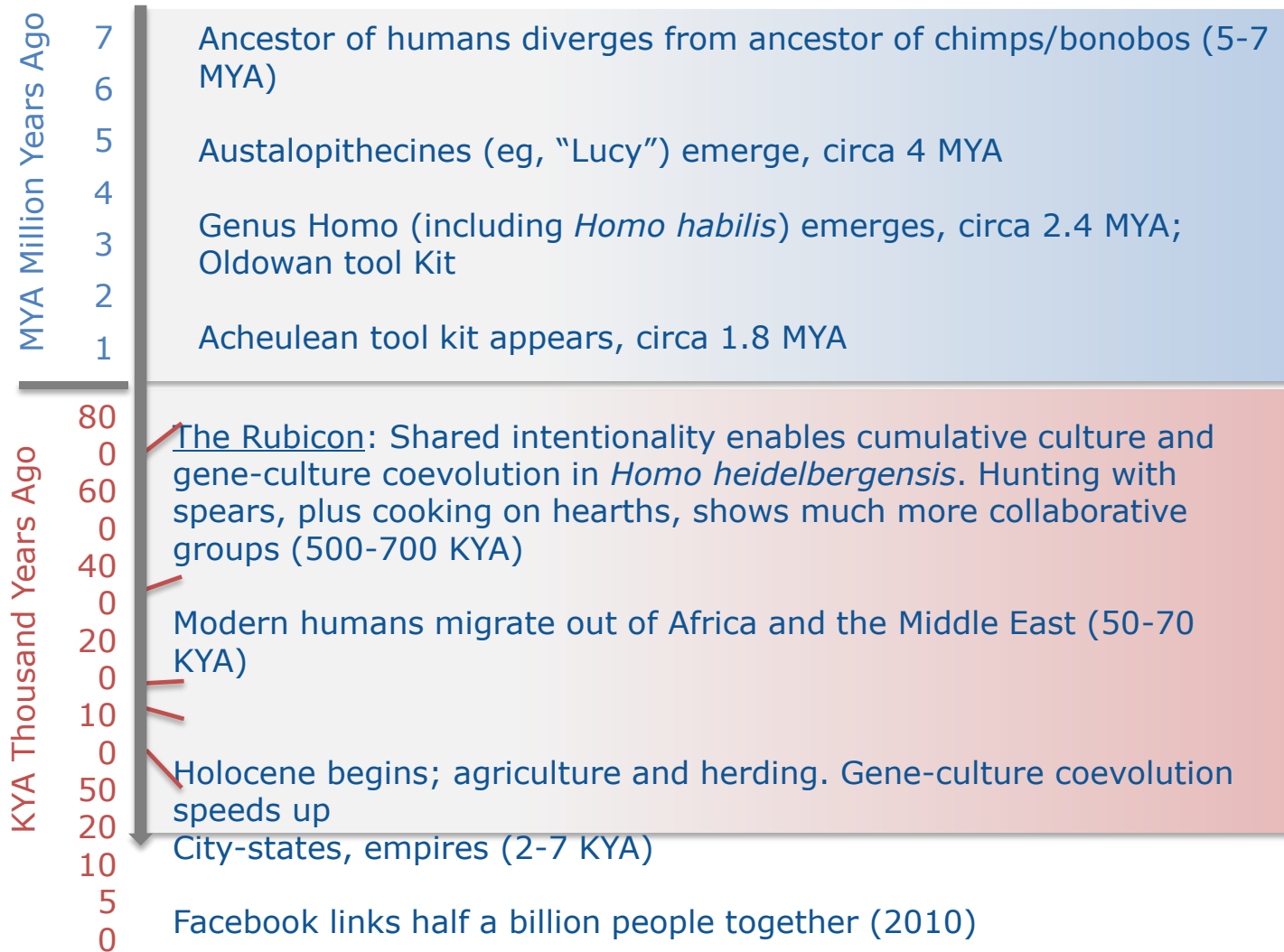
THE RIGHTEOUS MIND

WHY GOOD
PEOPLE ARE DIVIDED
BY POLITICS AND
RELIGION

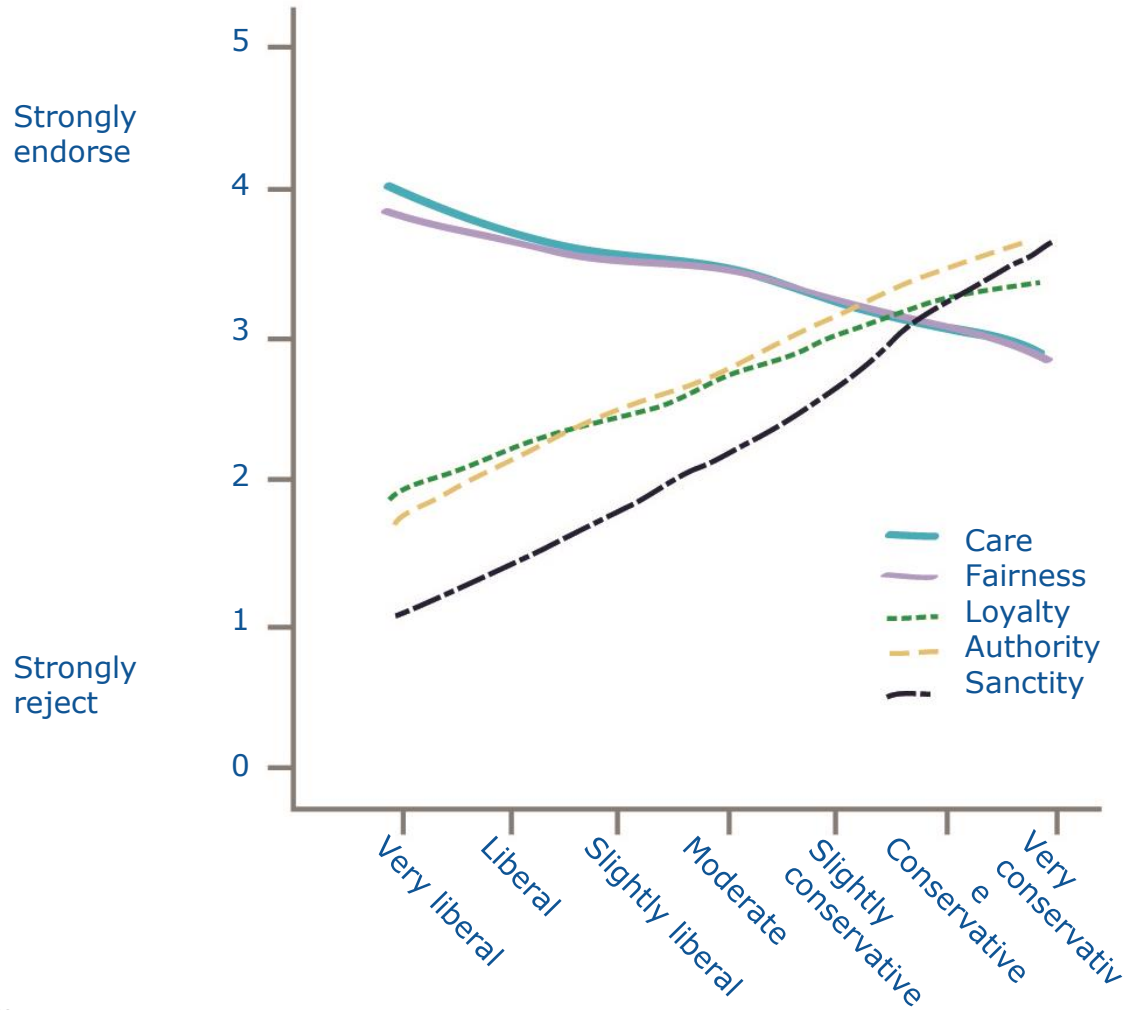


JONATHAN HAIDT

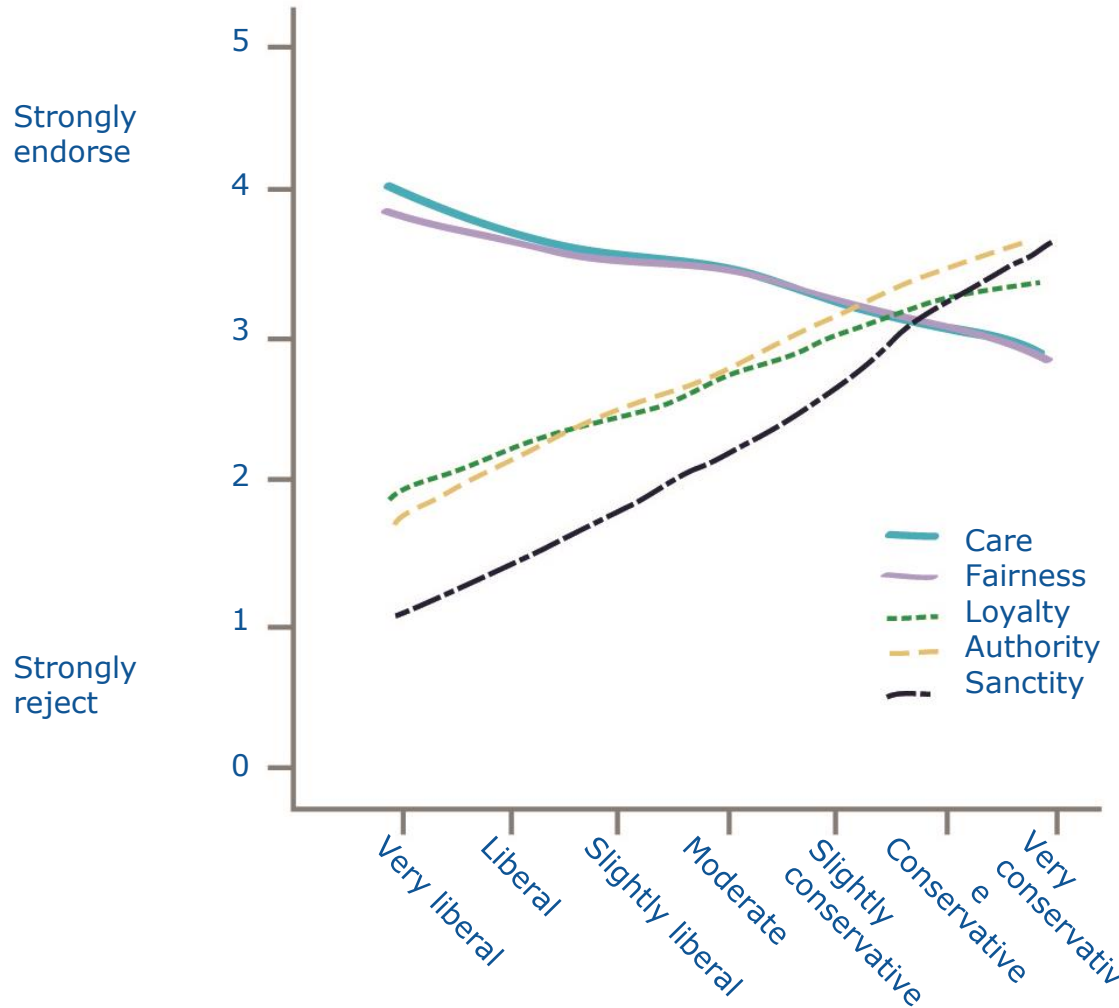
Our Minds are shaped by our distant past...



Our Minds need signals that are not central to all politics today...



Our Minds need signals that are not central to all politics today...



**7. TRUST GROWS WITH ALIGNED
SUSTAINABILITY GOALS BUT THAT
ALIGNMENT IS NOT (YET) TAKEN
AS A GIVEN.**

Perception of Speed of Innovation

28% Too Slow



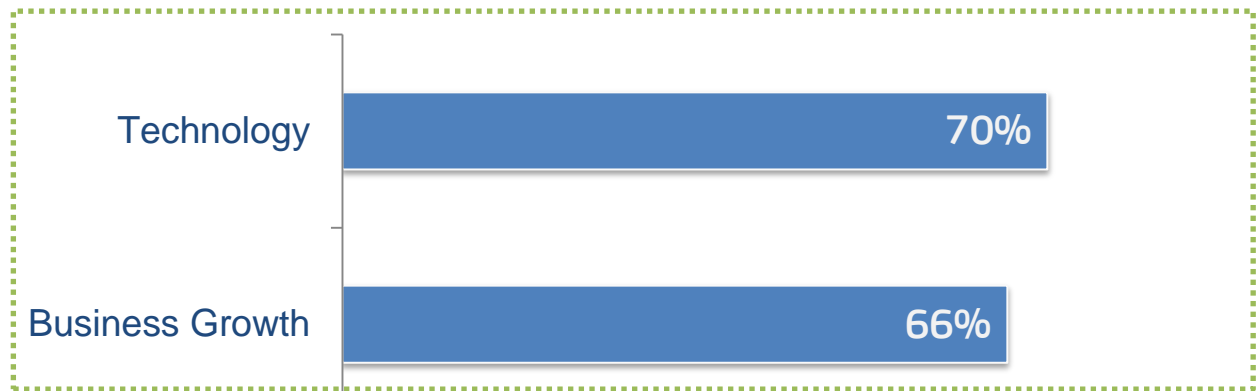
19% Just Right

51% Too Fast



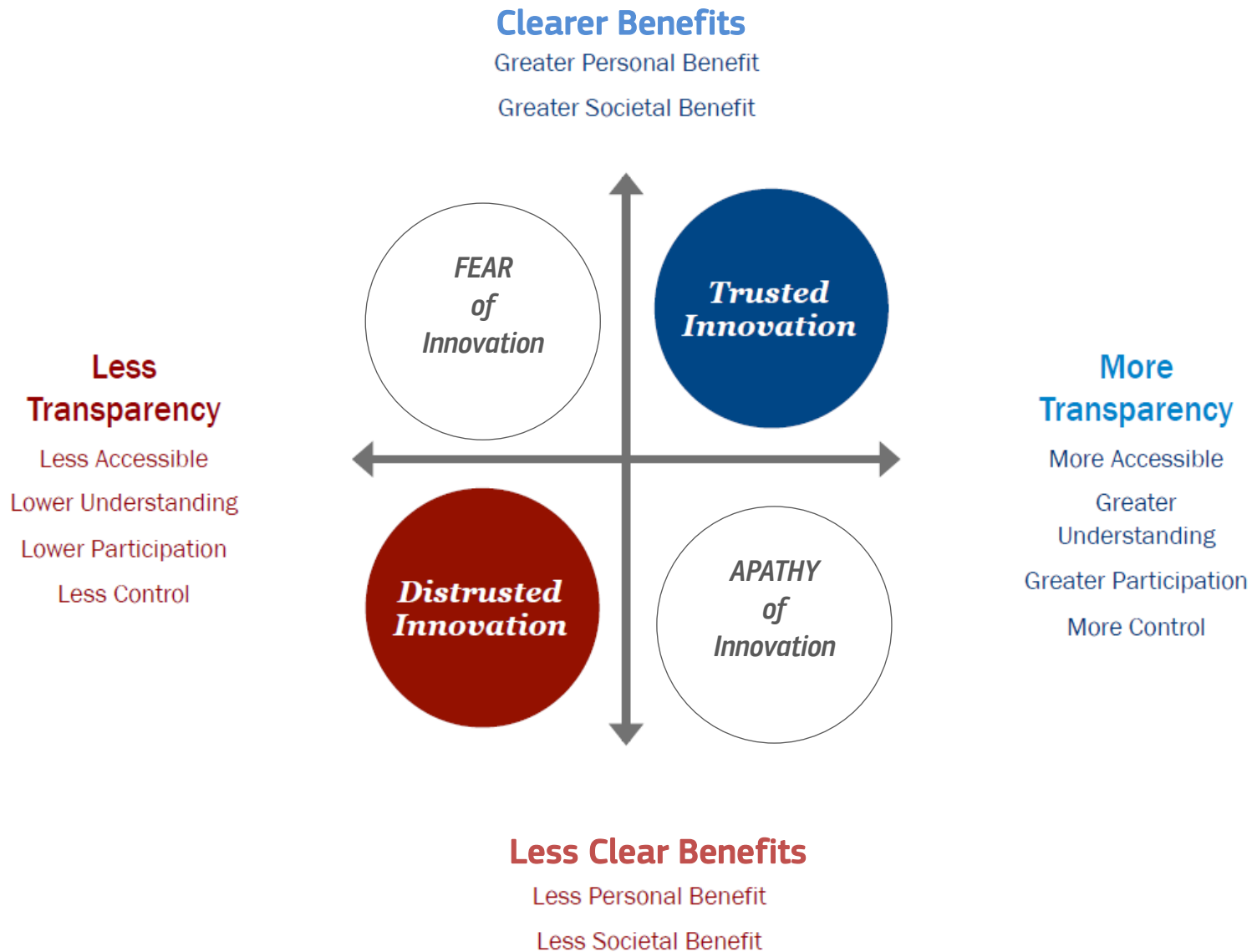
Perception of Impact of Innovation

2 in 3 see
that tech
drives growth

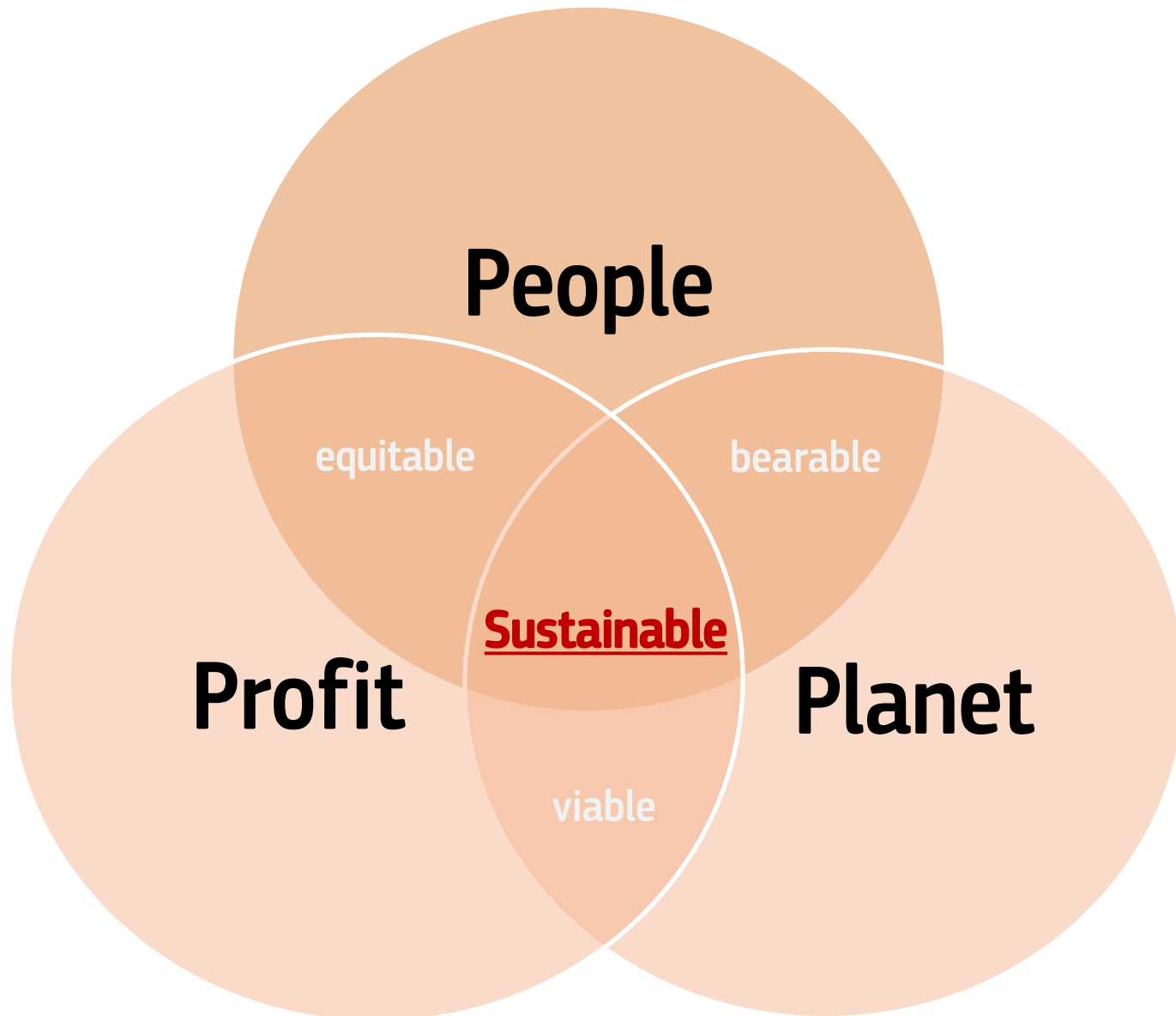


2 in 3 doubt
that tech
helps Planet
& People

What drives Perceptions?

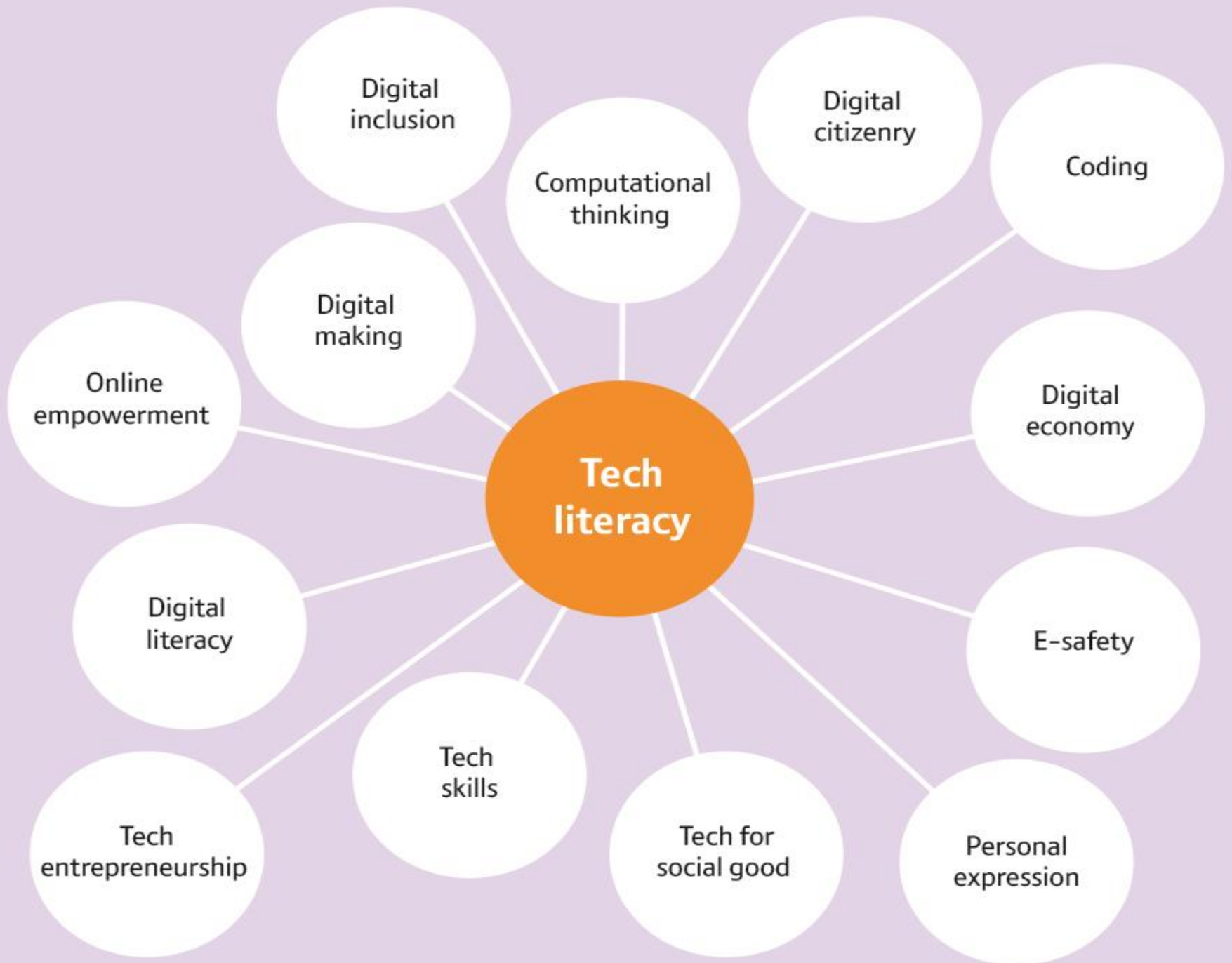


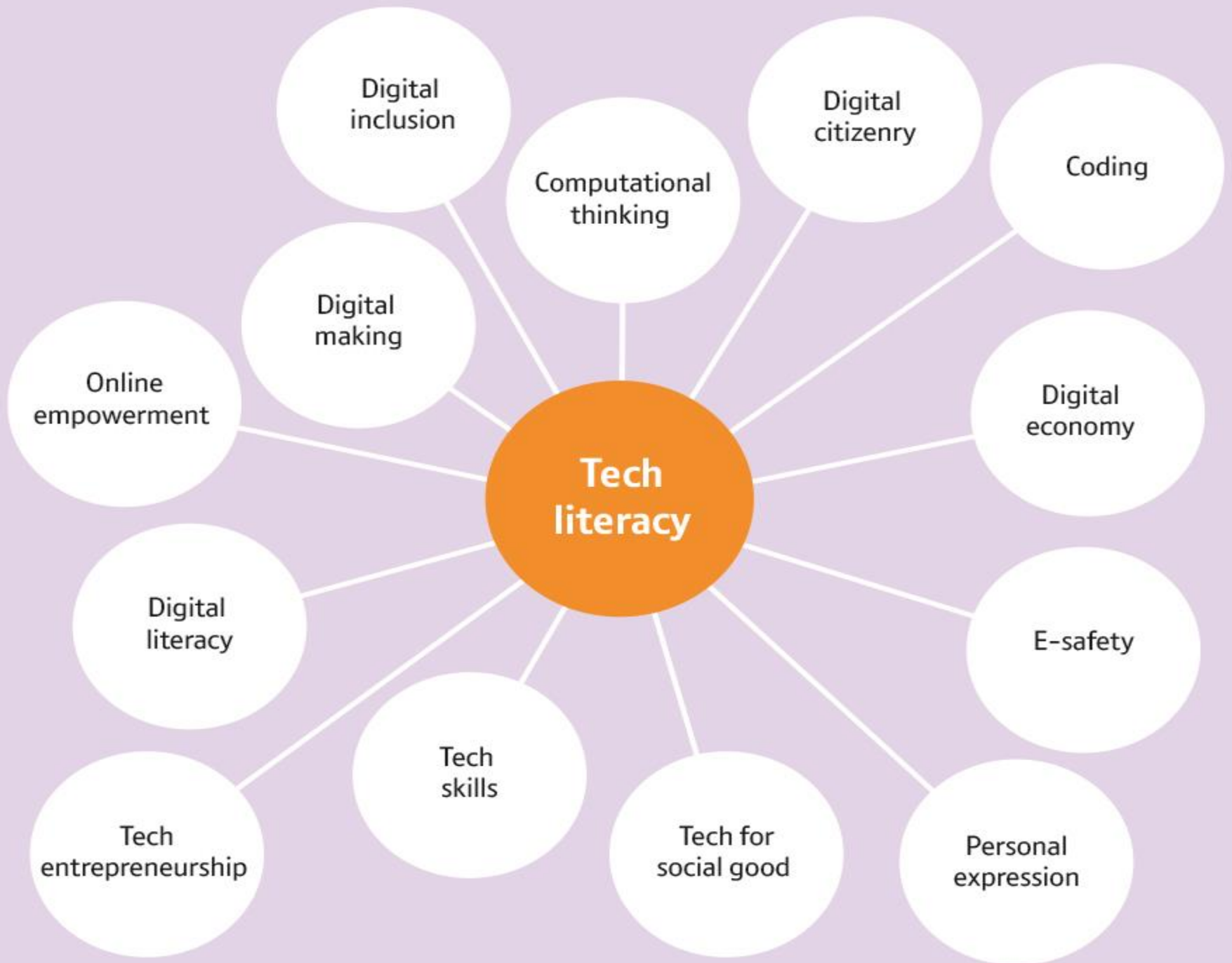
Towards Trusted Innovation

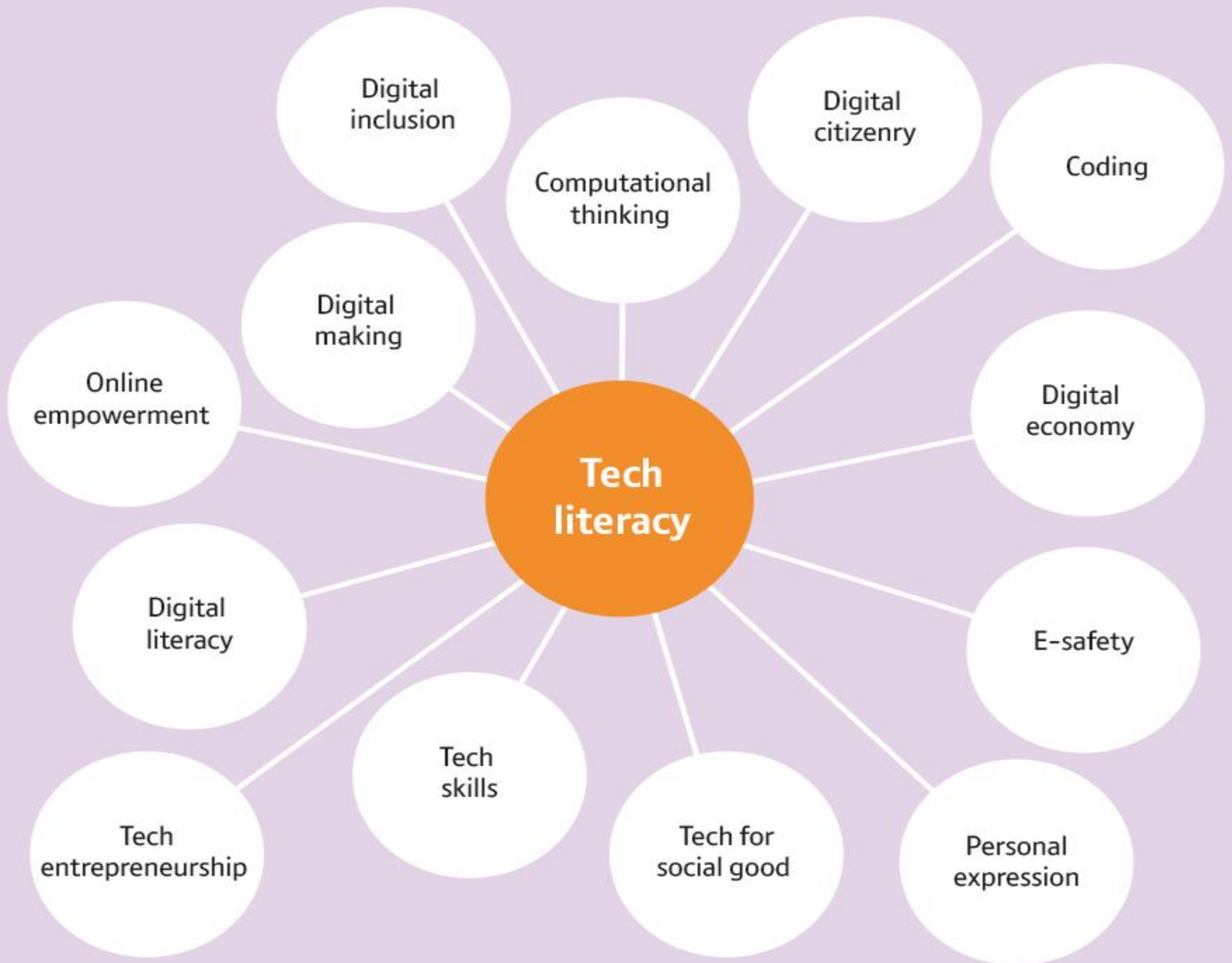


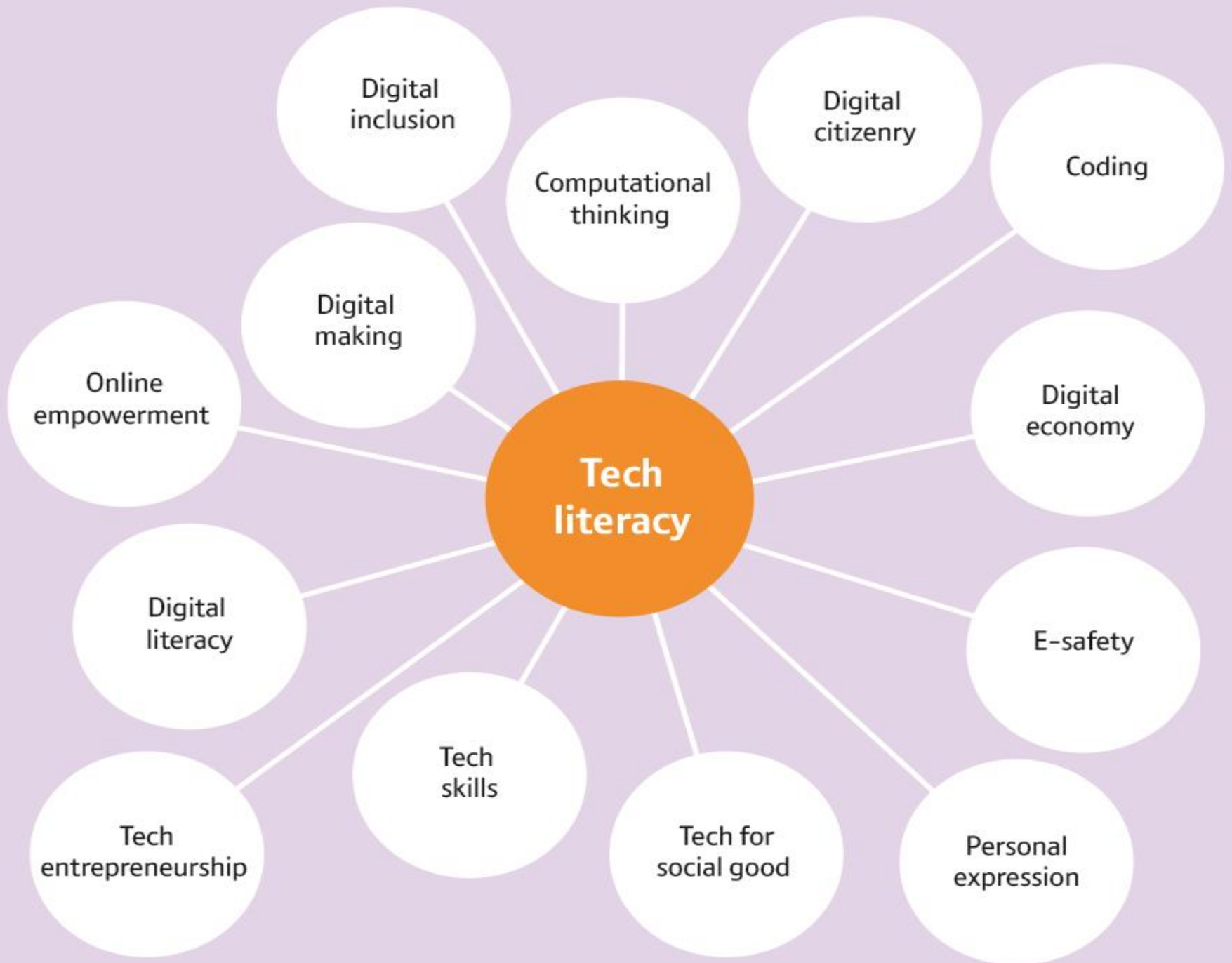
8. PARTICIPATION IS KEY TO TRUST,
EFFICIENCY AND LEGITIMACY.

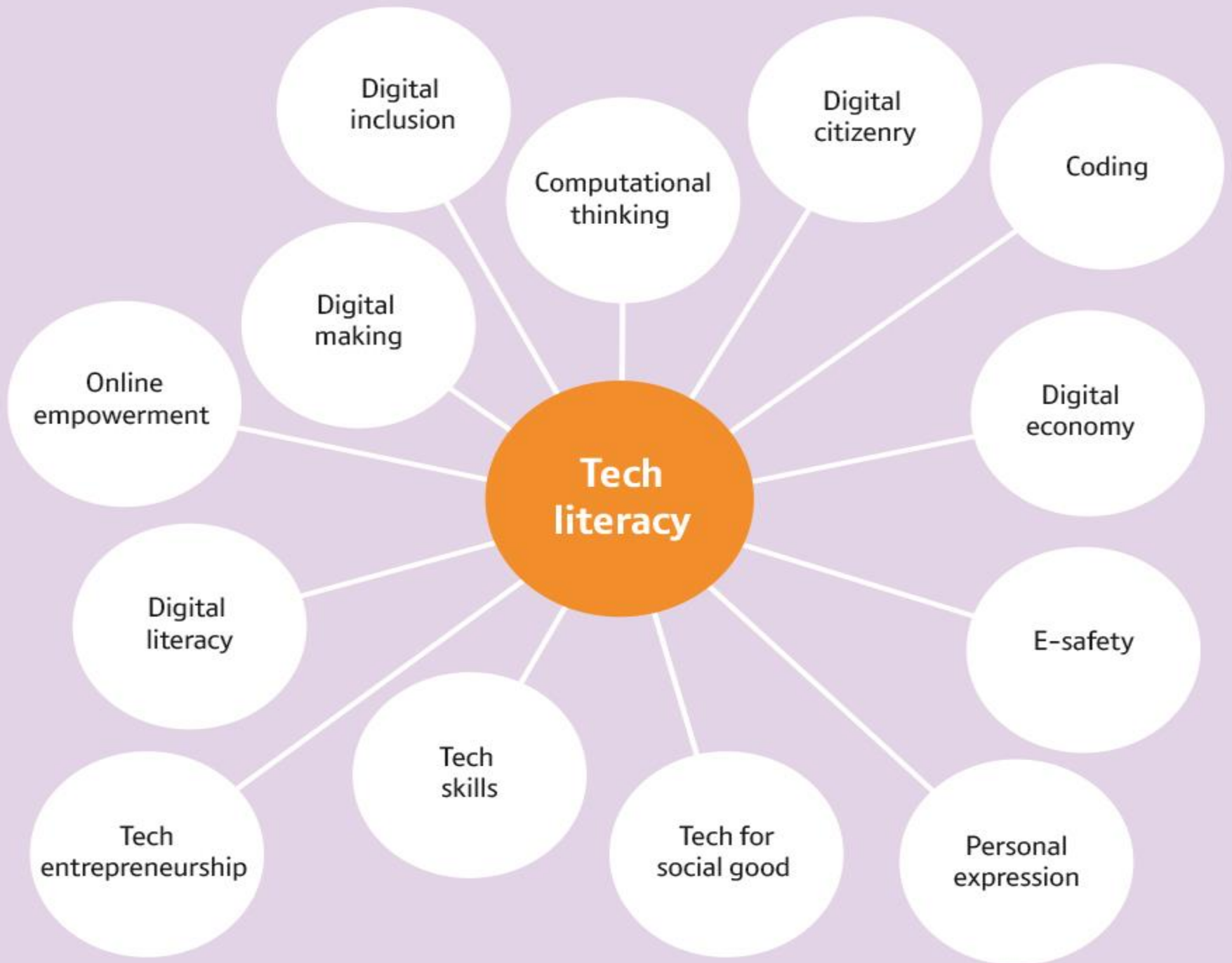
PEOPLE CAN BE TRUSTED WITH
DIFFICULT ISSUES IF THEY ARE
ENTRUSTED WITH GOOD
EXPLANATIONS.

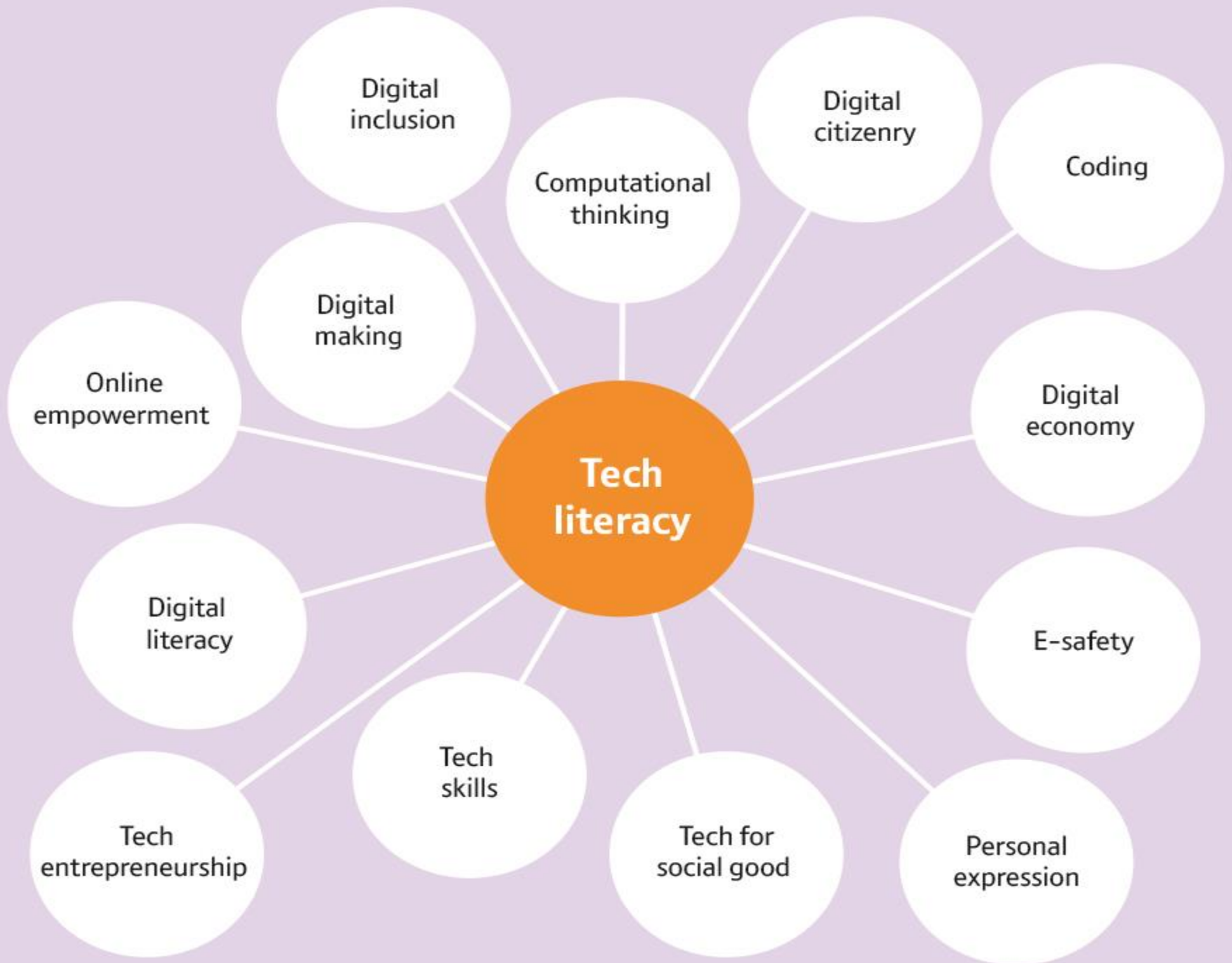


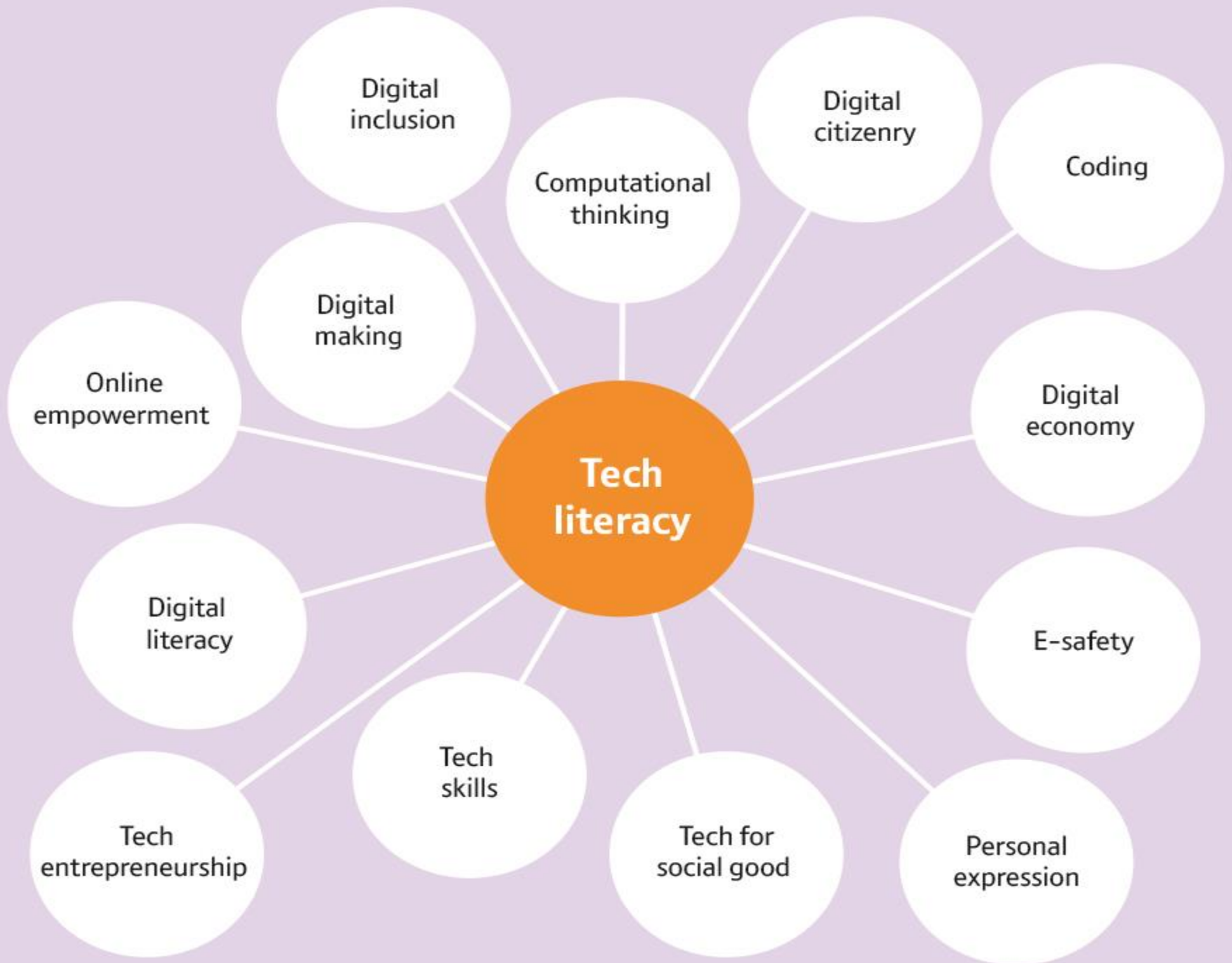












RISK INNOVATION

**9. FOOD SAFETY DATA INNOVATION
PARALLELS THE GROWTH OF NEW
IDEAS AND PRACTICE ON RISK AND
ITS MANAGEMENT.**

RISK IS OFTEN DRIVEN BY THE HUMAN FACTOR

- Regulators, business owners, employees, customers and users are all human.
- Humans mainly act on gut feeling, and rationalise what they do after the event.
- Humans (mostly) break rules regularly. There are many reasons why people will do what they actually believe to be a wrong thing.
- Humans are less likely to break a rule if they (can be made to) think that they will be identified.

BLAME-CULTURE REGULATION IS NOT THE ANSWER



SMARTER REGULATION CONCENTRATES PUBLIC POWER ON THE REAL PROBLEM CASES

Compliance and engagement spectrum



THIS IS “ETHICAL BUSINESS PRACTICE AND REGULATION”

- Effective regulatory delivery should focus on outcomes, rather than on a rules-based approach.
- Organisations should be able to self-assure that they are meeting their legal responsibilities, and earn recognition that they are doing this.
 - Regulators inform and advise so that organisations do this effectively and reliably, and intervene when they do not.
- Businesses doing ‘the right thing’ are regulated with a very light touch.
 - Regulators encourage more ethical business practices.
- Business who do not ‘do the right thing’ and do not follow ethical business practices, face clear redress.

EBR IS THE GOAL OF THE INTERNATIONAL NETWORK ON REGULATORY DELIVERY

CIVIL JUSTICE SYSTEMS

ETHICAL BUSINESS PRACTICE AND REGULATION

A Behavioural and Ethically-Based Approach
to Compliance and Enforcement

Christopher Hodges & Ruth Steinholtz



Hart · CH Beck · Nomos



Department
for Business
Innovation & Skills

Better
Regulation
Delivery Office

Ethical Business Regulation: Understanding the Evidence

Christopher Hodges

Professor of Justice Systems, and Fellow of Wolfson College,
University of Oxford

February 2016

10. DATA INNOVATION SHOULD BE
DESIGNED TO SUPPORT SUCH
NEW REGULATORY PRACTICE AND
THUS FAVOUR “EU2.0”

EFSA AND ITS ECOSYSTEM

**11. EFSA FACES ITS OWN FUTURES IN
A CONTEXT OF PERVASIVE
DISRUPTION AND OPPORTUNITY.**

**EFSA WILL SUCCEED IF IT HAS A
BROAD VISION AND A LICENCE TO
EXPERIMENT.**

EFSA IS IN-BETWEEN...I

EFSA IS IN BETWEEN...

- BETWEEN AN UNSUSTAINABLE STATUS QUO AND EMERGENT FUTURES.
- BETWEEN RISK SOURCES AND RISK MANAGERS.
- BETWEEN SCIENCE AND POLITICS.
- BETWEEN FOOD AND OTHER RISK FIELDS.
- BETWEEN GLOBAL (WHO, IARC), INTERNATIONAL (FDA, ASEAN...) AND LOCAL.

[3]. FOOD SAFETY SCIENCE IS A KEY
TO OUR COLLECTIVE
COMMITMENT TO THE GLOBAL
GOALS AND DESERVES WIDER
OWNERSHIP. THAT REQUIRES
FOOD SAFETY TO REACH OUT.

EFSA IS IN-BETWEEN...II

DOES EFSA NEED...

- A LICENCE TO INNOVATE?
- HORIZONTAL PRINCIPLES NOT VERTICAL RULES?
- BEST PRACTICE CO-CREATED ACROSS SECTORS?
- RISK-RISK AND RISK-BENEFIT VISION?
- HUMAN FACTOR ASSESSMENT?
- A NEW DATA MANDATE?

FUTURE DATA TOOLS

12. SUCCESSFUL EFSA DATA FUTURES
WILL BE BASED ON TRUTH AND
SCIENCE, BROAD GOALS,
TRUSTWORTHY PROCESSES, FULLEST
PARTICIPATION, INNOVATIVE
MINDSETS...
AND THE RIGHT TOOLS.

FUTURE DATA = V5 = QUESTIONS

DATA AGE IS CHARACTERISED BY DATA'S...

- VOLUME
- VARIETY
- VELOCITY

AND BY UNCERTAINTY ABOUT DATA'S...

- VERACITY
- VALUE

FUTURE DATA ANSWERS

WHERE WE HAVE:

- VOLUME, WE NEED EFSA PUBLIC CLOUD.
- VARIETY, WE NEED AI AND NEURAL LEARNING.
- VELOCITY, WE NEED A 5G INTERNET OF FOOD, AND WE NEED EXPERIMENTS.

WHERE WE NEED:

- VERACITY, WE NEED CYBERSECURITY, DLT, AND AUDIT-BOTS.
- VALUE, WE NEED TO ASK THE CITIZEN – ALL THE TIME!

AND WHO DOES WHAT WHEN?

- WHERE WE NEED PUBLIC SECURE CLOUD, NEURAL LEARNING NETS AND A CYBERSECURE 5G INTERNET OF FOOD, EUROPE NEEDS A BIGGER DIGITAL PROGRAMME COUPLED TO REGIONAL FUND SPENDING.
- WHERE WE NEED DLT, AI AND AUDIT-BOTS, ADDED RESEARCH AND INNOVATION EFFORT IS CALLED FOR.
- WHERE WE NEED TO ASK THE CITIZEN – ALL THE TIME – WE NEED MORE RESILIENT POLITICAL LEADERSHIP FOR ROBUST DEBATE, AND AN UNCONDITIONAL TOP-DOWN COMMITMENT TO SCIENCE.

AND WHO DOES WHAT WHEN?

- WHERE WE NEED PUBLIC SECURE CLOUD, NEURAL LEARNING NETS AND A CYBERSECURE 5G INTERNET OF FOOD. EUROPE NEEDS A BIGGER **DIGITAL PROGRAMME** COUPLED TO SUSTAINED DATA SKILLS AND INFRASTRUCTURE SPENDING UNDER THE **STRUCTURAL FUNDS**.
- WHERE WE NEED DLT, AI AND AUDIT-BOTS, ADDED **RESEARCH AND INNOVATION** EFFORT IS CALLED FOR.
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- WHERE WE NEED TO ASK THE CITIZEN – ALL THE TIME – WE NEED MORE RESILIENT **POLITICAL LEADERSHIP** FOR ROBUST DEBATE, AND AN UNCONDITIONAL TOP-DOWN **COMMITMENT TO SCIENCE**.

AND EXPERIMENTS?

- HELP: RISK MANAGERS TO MAXIMISE RELIANCE ON REAL-TIME DATA (THE COLD CHAIN...).
- PLAY: MORE WITH RISK-RISK AND RISK-BENEFIT PARADIGMS, NOW THEY ARE ENABLED BY BROADER AND FRESHER DATA-SETS.
- THINK: WHERE LIABILITY IS TRANSFORMED BY GENO-PRECISE EX POST FORENSICS (LISTERIA...) DOES INCREASED EFFECTIVE OPERATOR RESPONSIBILITY, LESS NEED FOR REGULATOR INTERVENTION?
- TRY: EBP/EBR IN A SECTOR OR A REGION?

IN SHORT...OPPORTUNITY NOW!

- Build everything on SDGs, INNOVATION.
- Design first for TRUST.
- Encourage and protect RISK INNOVATION.
- Work more with the ECOSYSTEM.
- Experiment with possible DATA futures.
- Engage with the EU change cycle – science, truth, funding, leadership.

THANK YOU

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ETHICAL BUSINESS PRACTICE (EBP)

EBP operators are operators who:

- Above all, organise themselves to do the right thing, based upon ethical values, and to be accountable.
- Recognise ethical dilemma and confront them mindfully, seeking multiple perspectives.
- Challenge and speak up if they know or suspect unethical behaviour inside or in their ecosystem.
- Openly and honestly examine mistakes and learn from the findings.

ETHICAL BUSINESS REGULATION (EBR)

EBR takes place where there is:

- A relationship between a business, or a group of businesses, and a regulator, or group of regulators...
- ...in which the business produces evidence, from inside and from its value chains, of its ongoing commitment to EBP...
- ...and the regulator recognises and encourages that commitment.

ETHICAL BUSINESS REGULATION (EBR)

EBR takes place where there is:

- A relationship between a business, or a group of businesses, and a regulator, or group of regulators...
- ...in which the business produces **evidence**, from inside and from its value chains, of its ongoing commitment to EBP and of its real-world impact...
- ...and the regulator recognises and encourages that commitment.