SCIENCE AND THE SUSTAINABILITY OF AGRICULTURE

INSTYTUT EKONOMIKI ROLNICTWA I GOSPODARKI ŻYWNOŚCIOWEJ
PAŃSTWOWY INSTYTUT BADAWCZY

David Green | December 6, 2019

www.thesustainabilityalliance.us

Agenda

1. Introduction to the U.S. Sustainability Alliance
2. Sustainability our global challenge
3. Innovation Production Society
4. Challenges ahead
5. Some conclusions

The U.S. Sustainability Alliance

www.thesustainabilityalliance.us

Agriculture/Food

Almond Board of California
American Peanut Council
Bard Valley Date Growers
Cotton USA
Food Export Association of the Midwest
Organic Trade Association
U.S. Dairy Export Council
U.S. Dry Bean Council
U.S. Grains Council
U.S Meat Export Federation
USA Poultry & Egg Export Council
USA Rice
U.S. Soybean Export Council
U.S. Wheat Associates

Forestry

American Hardwood Export Council
Softwood Export Council

Seafood

Alaska Seafood Marketing Institute
Food Export North East

Other

National Renderers Association
North American Export Grain Association
U.S. Hide, Skin & Leather Association

THE SUSTAINABILITY OF U.S. AGRICULTURE, FISHERIES & FORESTRY

EU stakeholder views of the EU and sustainability

U.S. seen as less sustainable than the EU

Retailers & NGOs drive sustainability demands

Too many private schemes – need benchmarking

- Seen as marketing initiatives: too many sustainability schemes meant added cost and confusion. Supply chain wanted mutual recognition & benchmarking

Divided views on potential EU legislation

- 50% believed legislation inevitable: 50% industry 'get ahead' of the issue

Limited understanding of U.S. agriculture, fishery and forestry

U.S. COMMITMENT TO CONSERVATION

- Conservation improvement for 80 + years
- USDA invests in conservation programs
  - 12,000 + employees in conservation
  - *$57.6 billion dollars invested from 2014-2023*
- Conservation offices in 2,200 + locations - almost every U.S. county
- USDA surveys farmers and provides production & environmental metrics
- 19 federal laws & polices on conservation, plus state laws
- U.S. Sustainability Alliance members develop specific sustainability programs

U.S. LAWS AND POLICIES RELEVANT TO AGRICULTURAL SUSTAINABILITY

Department of Agriculture

Conservation Compliance

Conservation Reserve Program

Conservation Stewardship Program

Environmental Quality Incentives Program

Agricultural Conservation Easement Program

Technical Assistance and Other Conservation Programs

Coordinated Framework for the Regulation of Biotechnology

National Organic Program

Lacey Act

U.S. LAWS AND POLICIES RELEVANT TO AGRICULTURAL SUSTAINABILITY

Department of Commerce

Magnuson-Stevens Fisheries Management & Conservation Act

Environmental Protection Agency

Clean Air Act (including air emission aspects of CERCLA and EPCRA)

Clean Water Act

Renewable Fuel Standard and Biofuels Policy

Federal Insecticide, Fungicide, and Rodenticide Act

SUSTAINABILITY: OUR GLOBAL CHALLENGE

Foster an understanding of our shared values and shared goals

Establish U.S. producers as good-faith participants in the global challenge of sustainable agriculture & food security

Ongoing dialogue & information exchange

Listopad 2019

Nakarmić świat: wyzwanie naszych czasów

Jak wyżywimy ludność, której liczebność trzykrotnie wzrośnie w ciągu naszego życia, bez wyczerpania zasobów naturalnych świata? Laureat nagrody Borlaug CAST Communication 2019, dr Frank Mitloehner, profesor i specjalista w dziedzinie jakości powietrza na Uniwersytecie Kalifornijskim w Davis

USSA SPOTLIGHT: Poławiaczka łososi Susie Brito o życiu w Zatoce Bristolskiej na Alasce

Poławiaczka Susie Brito urodziła się i mieszka na Alasce. Opowiada nam o życiu w Zatoce Bristolskiej – największym na świecie dzikim, zrównoważonym i dobrze zarządzanym komercyjnym łowisku łososia nerki. Jest to intensywna, podporządkowana rytmowi sezonów egzystencja, jednak Susie kocha ludzi i podejmuje wyzwanie, jakim jest utrzymanie rodziny

Rolnik Roku wybrany przez stowarzyszenie „Field to Market" wierzy w zdrową glebę

Dbałość o zdrową glebę ma przemożny wpływ na zrównoważony rozwój farmy Ricka Clarka, rolnika z Indiany, który został uznany za *Rolnika Roku* przez stowarzyszenie „Field to Market". Wyróżnienie dla *Wspólnego Przedsięwzięcia Roku* otrzymało także partnerstwo Ducks Unlimited – Rice Stewardship, a dr Andrew Jordan został mianowany Zaufanym Doradcą Roku za jego pionierską pracę w dziedzinie zrównoważonego rozwoju z rolnikami uprawiającymi bawełnę

INNOVATION: PRODUCTION: SOCIETY

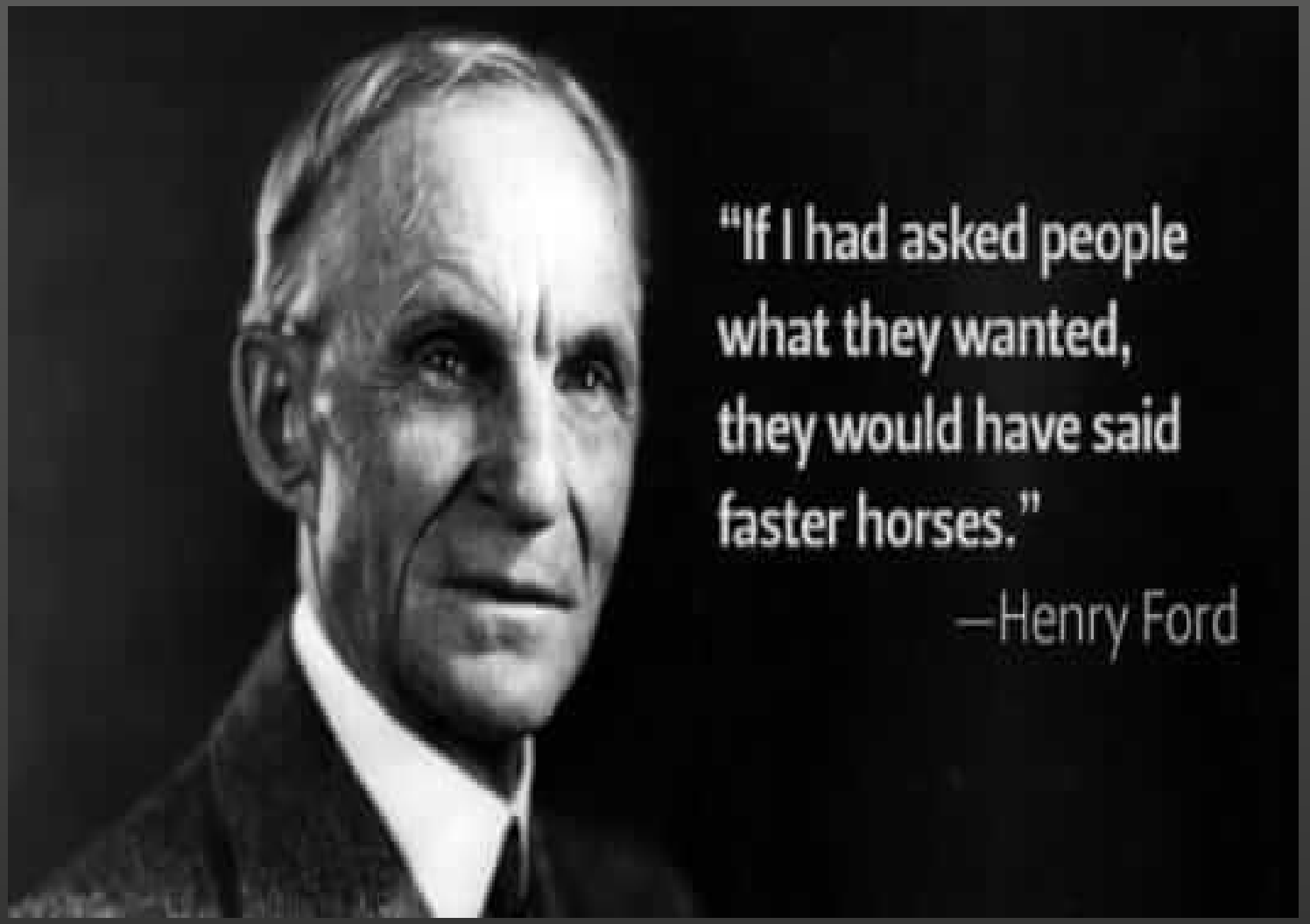
Risks/Costs of Technological Innovation

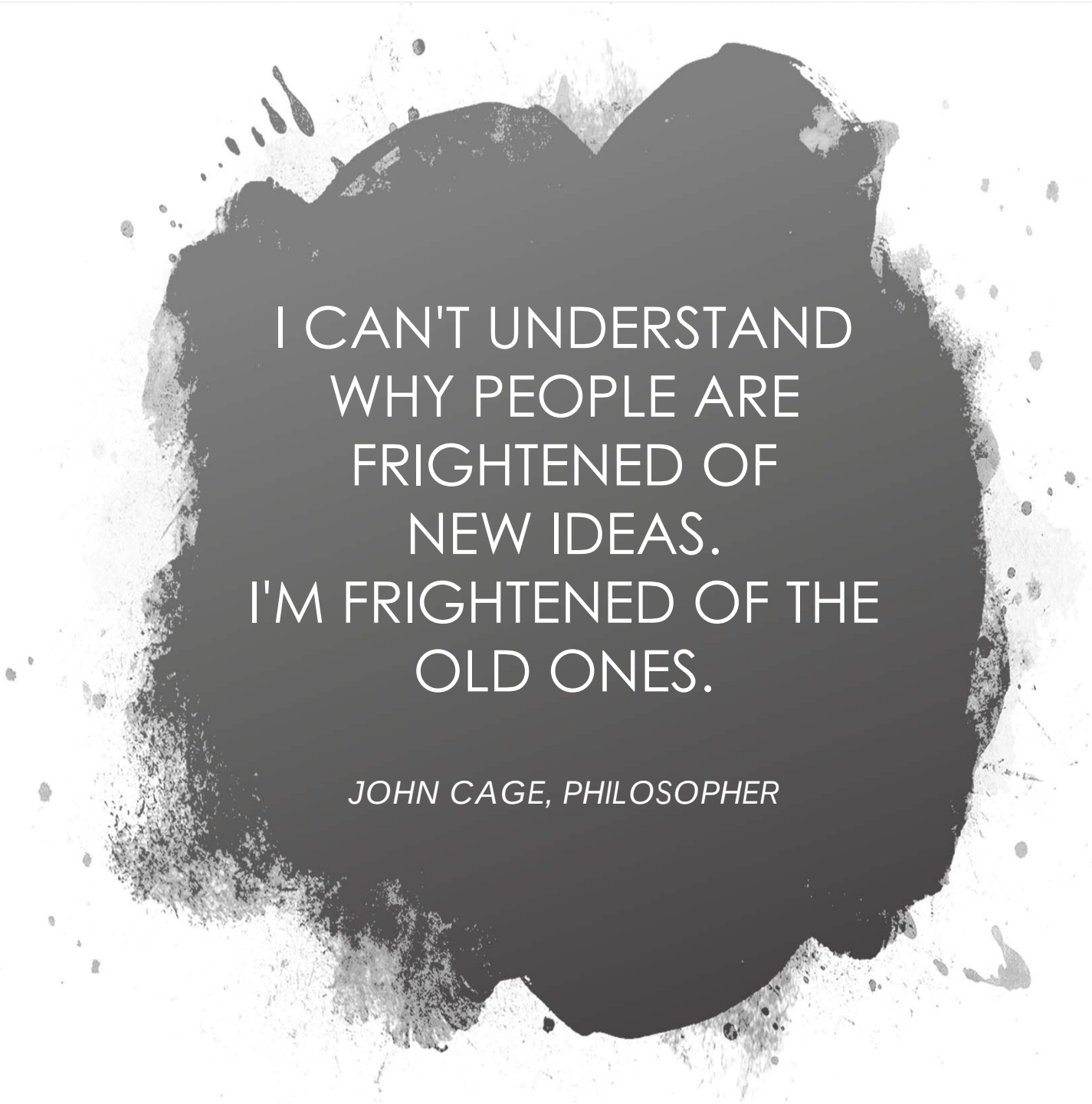
vs.

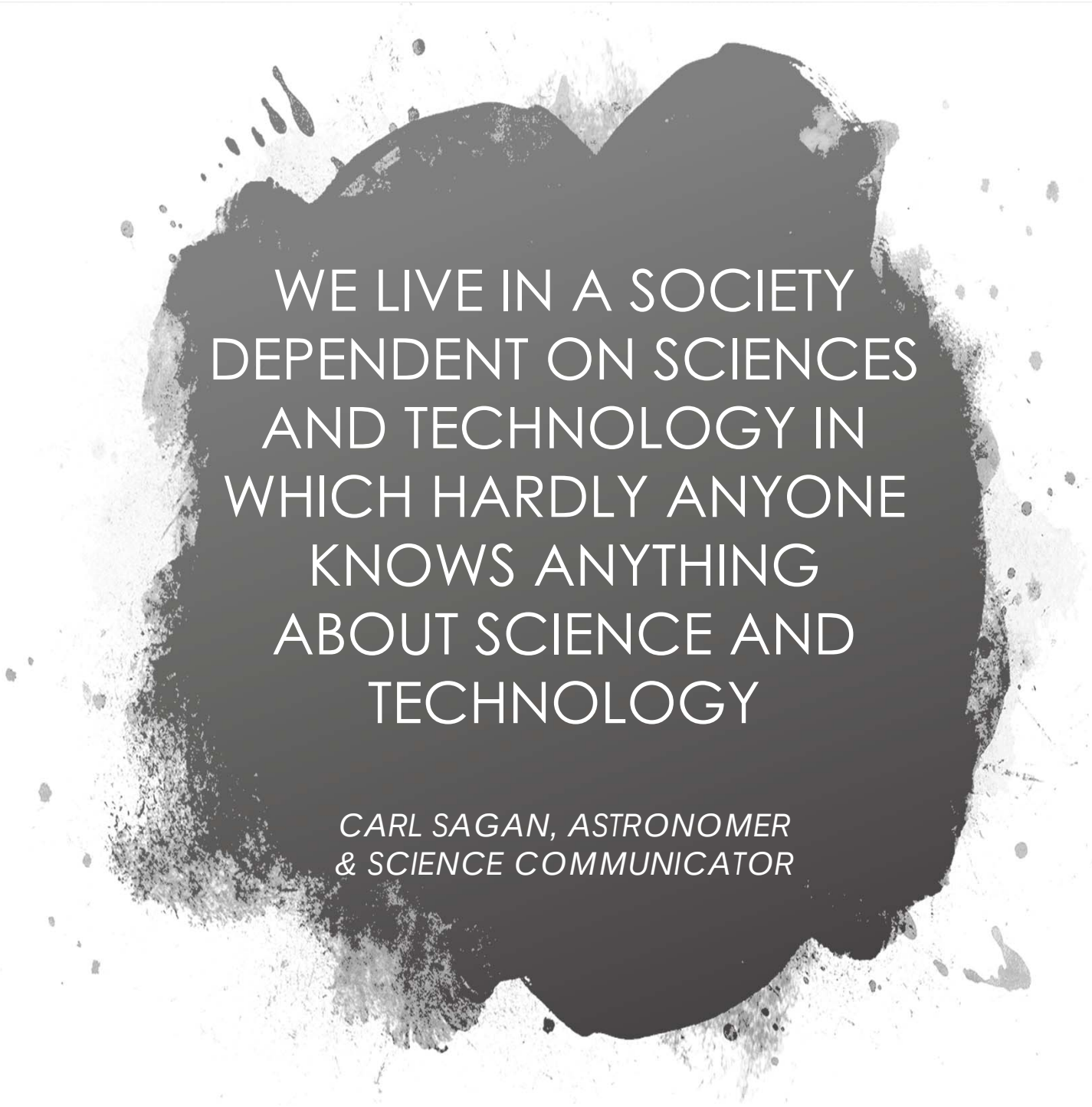
Risks/Costs of No Technological Innovation

U.S. SUSTAIN ABILITY

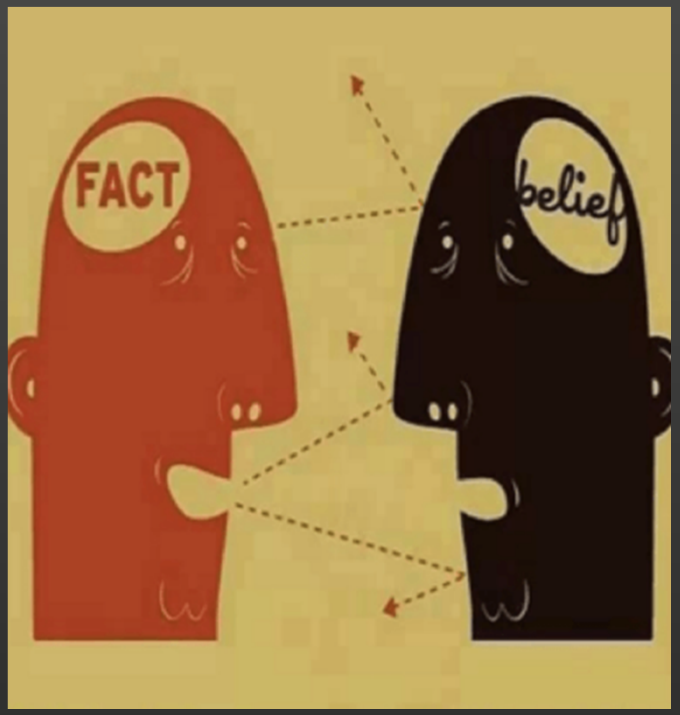
THIS IS HOW WE GROW


"If I had asked people what they wanted, they would have said faster horses."
—Henry Ford


I CAN'T UNDERSTAND
WHY PEOPLE ARE
FRIGHTENED OF
NEW IDEAS.
I'M FRIGHTENED OF THE
OLD ONES.
JOHN CAGE, PHILOSOPHER


WE LIVE IN A SOCIETY DEPENDENT ON SCIENCES AND TECHNOLOGY IN WHICH HARDLY ANYONE KNOWS ANYTHING ABOUT SCIENCE AND TECHNOLOGY
CARL SAGAN, ASTRONOMER & SCIENCE COMMUNICATOR

INNOVATION: PRODUCTION: SOCIETY



Science is under attack & undermined

- Food never safer: people more worried
- Increase in pseudo-science reports
- Politics v Science-based decisions
- Food crises allow NGOs to set agendas
- Erosion of consumer trust
- JRC report say fighting mis- and dis-information is “one of the grand challenges of the 21st century”
- Facts v Emotions

INNOVATION: PRODUCTION: SOCIETY

1986: The first mobile phones were sold

1986: EU scientists showed the way to development of GM crops

2001: EU media warned mobile phones could cause brain damage in young people

2001: GM crops condemned by the media as Frankenfoods

INNOVATION: PRODUCTION: SOCIETY

Greenpeace invades European Food Safety Authority (EFSA)

WHY DO NGOs SUCCEED

- Committed & passionate
- Well resourced & organised
- Energize allies & media
- Held to a lower standard
  Don't need to 'know anything' to make a claim
- Exploit pseudo-science and even credible data
- Gain a 'seat at the table'

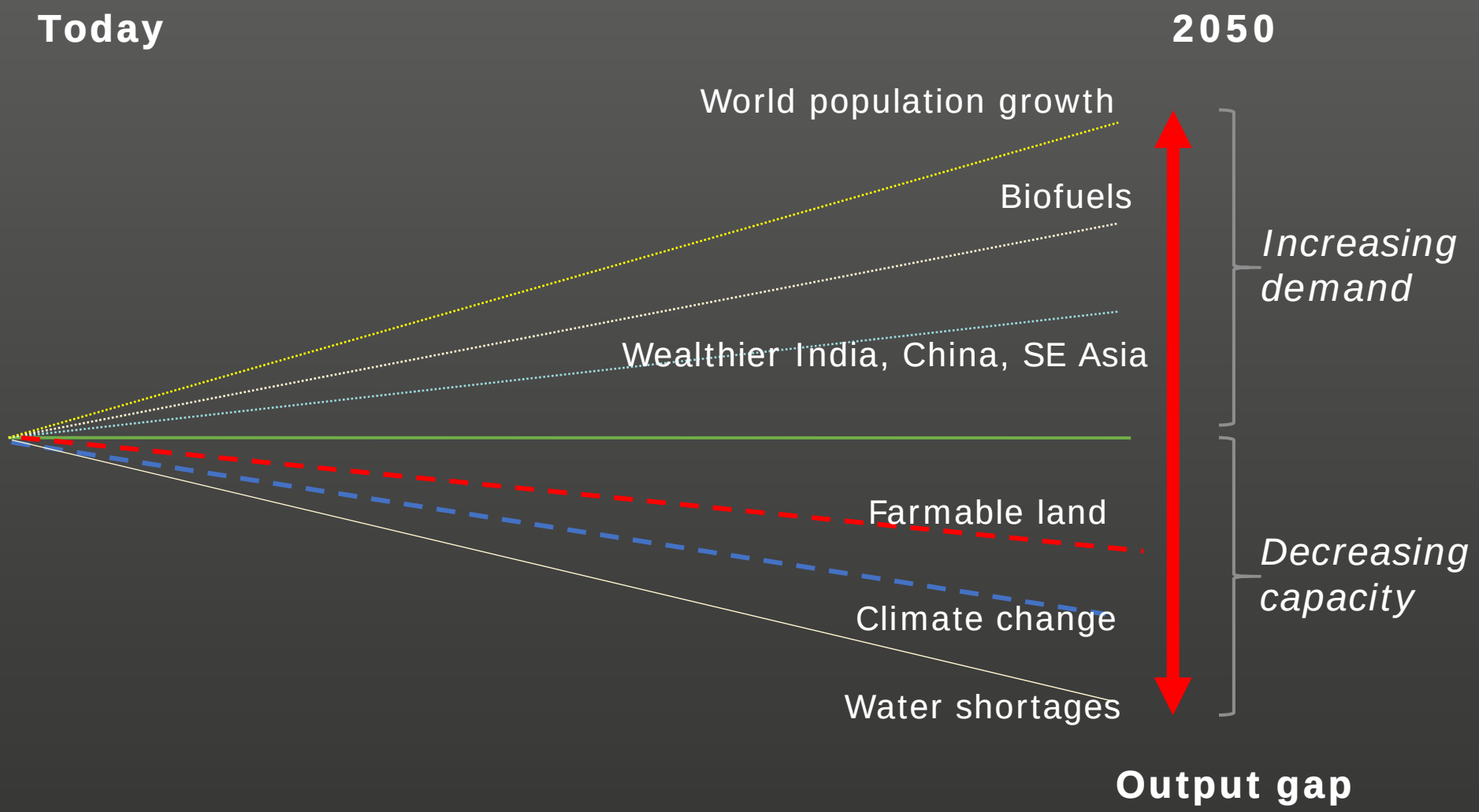
INNOVATION: PRODUCTION: SOCIETY

Which new technology will be the next to face resistance?

INNOVATION: PRODUCTION: SOCIETY CHALLENGES

1. Efficiency
2. Nutrition
3. Environmental impact
4. Supply chain partnerships
5. Culture
6. Legislation
7. Safety
8. Expectations
9. Leadership
10. Trust

MEETING GLOBAL POPULATION DEMANDS



Some conclusions

- Consumers want to know their food is safe: their concerns are important even if not based on science
- Sound science must be the guiding principle for introduction of new technologies
- Ensure policies & positions are coherent & sustainable
- Food security needs many solutions: new technologies and integrated sustainable systems from farm to fork are part of the solution
- Harness information &context to build a common "language" that can be understood
- Farmers (everywhere) need new tools in their toolboxes


NIE DZIEDZICZYMY
ZIEMI OD NASZYCH
PRZODKÓW
POŻYCZAMY JĄ OD NASZYCH
DZIECI