

Moving beyond prediction

- using foresight to flourish in turbulent times

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A new normal – connected challenges and inevitable surprise

10 years ago who would have predicted....

- Global financial crisis of 2008 (and slow recovery)
- Brexit referendum (and outcome)
- Incursion of ISIS into Iraq
- A sustained low oil price
- A “super-hot” Arctic winter
- A migration crisis in Europe

OR

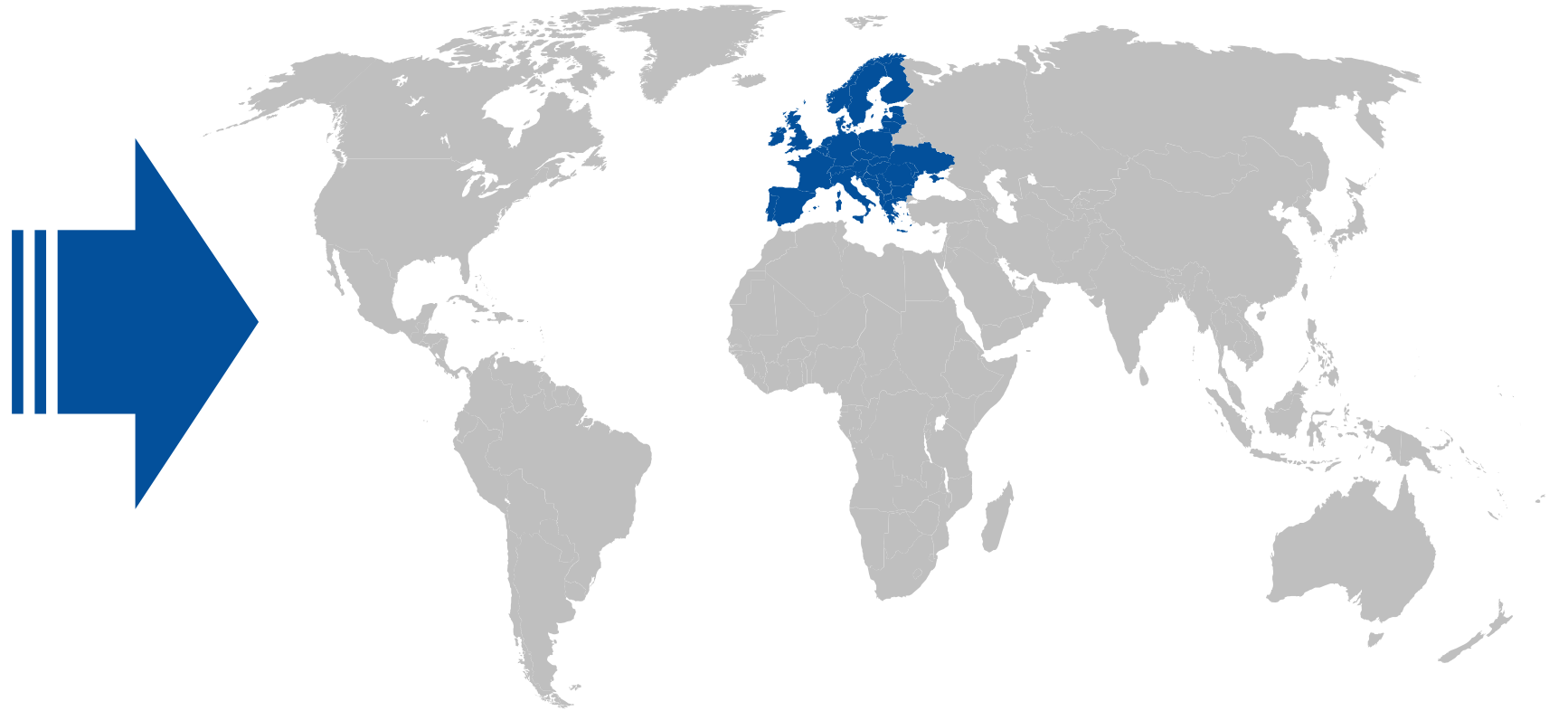
- The global success of Uber, AirBnB, Facebook
- The world’s first trillionaire
-



Swedish regional development in a shifting world

Global accelerations create uneven impacts at local levels

- 1 **Markets**
- 2 **Mother Nature**
- 3 **Moore's Law**

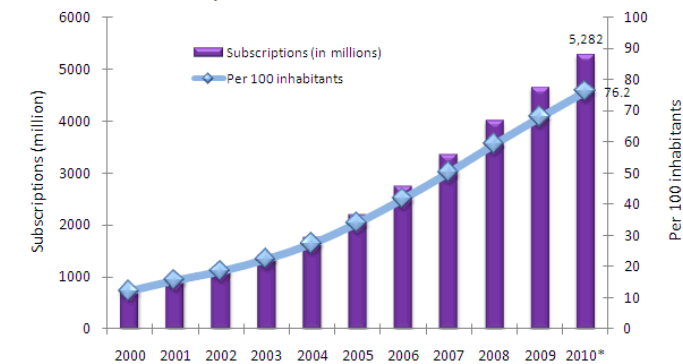


Markets, Mother Nature, Moore's Law

1 Markets

- Explosion of economic interdependency and global value chains
- Financial globalization - faster accumulation of wealth and new extremes in inequality
- Technological globalization – winner-takes-all dynamics of internet economy
- What will be traded in future?

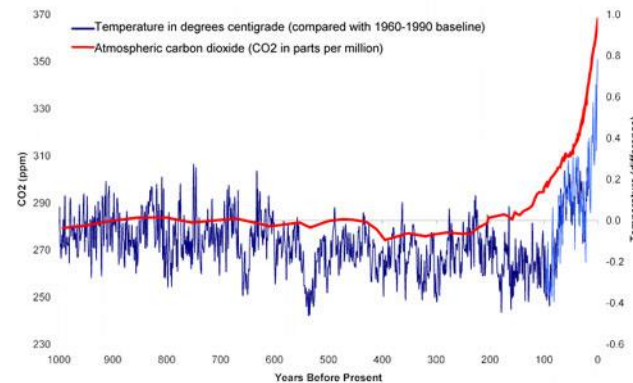
Global mobile cellular subscriptions, total and per 100 inhabitants, 2000-2010*



*Estimates
Source: ITU World Telecommunication /ICT Indicators database

2 Mother Nature

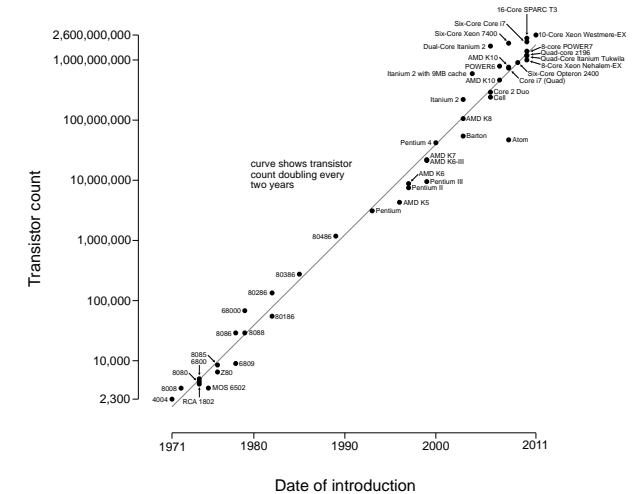
- Global – climate change momentum is still increasing (Paris Agreement shaky)
- Local – increasing water stress, habitat destruction, species extinctions, ice-melt
- Transboundary - ocean acidification, shifting circulation patterns
- Getting ahead of connected challenges?



3 Moore's law

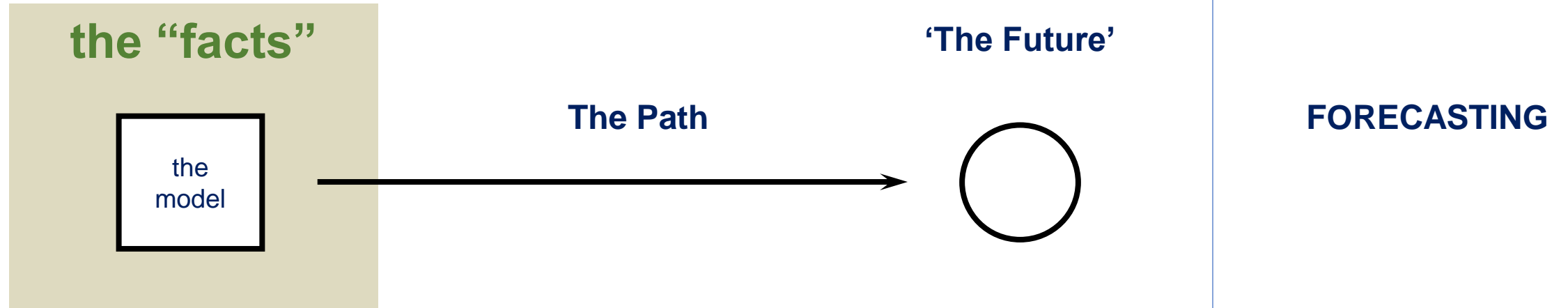
- Digitalization – Big Data, Internet of Things
- Multiple frontiers converging - robotics, nano-, bio-, AI, materials, genomics, synbio
- Can social, political and institutional transitions keep pace?

Microprocessor Transistor Counts 1971-2011 & Moore's Law



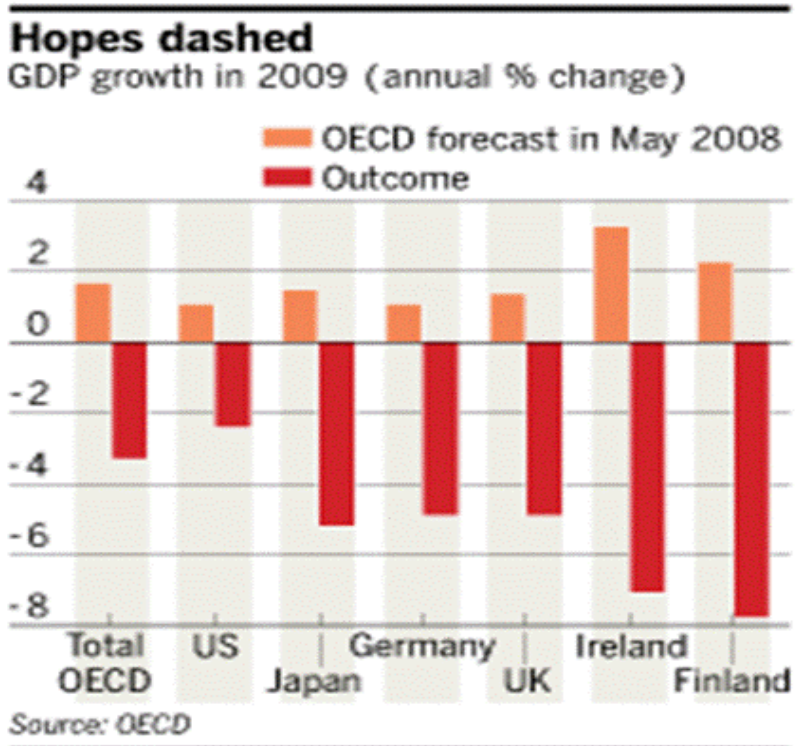
A conventional way of engaging the future...

Assume continuity and all other things remain the same...



The costs of over-simplicity

Forecasting lets us down most, when we need it most – when the trends bend!



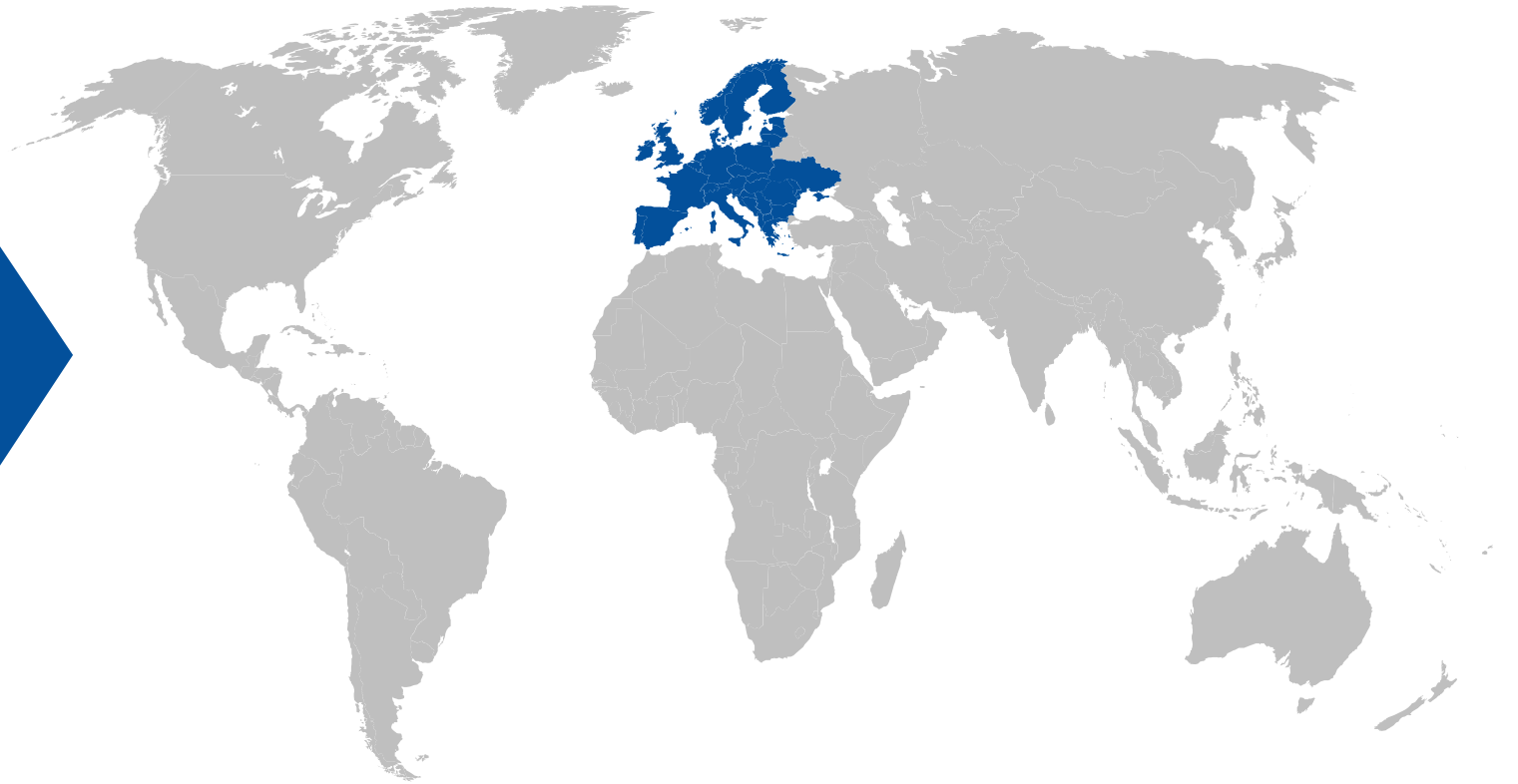
For more than three decades, macroeconomics has gone backwards. ... Their models attribute fluctuations in aggregate variables to imaginary causal forces that are not influenced by the action that any person takes.

--Paul Romer, World Bank, Dec 2016

KISS vs. Open Futures

Comprehensive vs. Comprehensible?

- 1 **M**arkets
- 2 **M**other Nature
- 3 **M**oore's Law
- 4 (mass) **M**igrations
- 5 (re)**M**ilitarisation
- 6 **M**otivations



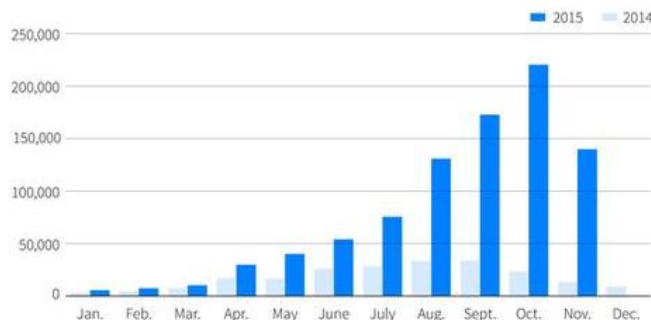
What about - Migration, Militarisation, and Motivations?

4 Migration

- Historic levels of flow – new waves of migration in multiple world regions (into USA, into EU, into Australia, etc.)
- More lone children and families on the move
- Increasing pressures for migration – conflict, economic, environmental stresses and crisis

Maritime arrivals to southern Europe

Refugee arrivals in southern Europe fell sharply in November after reaching a peak in October, with the total reaching more than 880,000 so far according to latest data from the U.N. refugee agency.



Sources: International Organization for Migration; UNHCR. *Includes missing people presumed dead.

C. Inton, 07/12/2015

REUTERS

5 (Re)Militarisation

- Rising tensions within and between countries
- NATO defence spending (Europe and Canada) has been increasing since 2012, with the sharpest rise in 2016
- IHS Jane's forecasts spending in the Asia-Pacific region will climb 23 percent to \$533 billion annually by 2020

Graph 1: NATO Europe and Canada - Defence Expenditures
(annual real change, based on 2010 prices)



6 Motivations

- Boomers, Gen X, Millennials, Globalities values
- Instant gratification vs. a shift from growth to well-living
- A new global vision – no one left behind; universal and multi-dimensional
- A redefining of progress - inclusive vs. exclusive, pragmatic vs. ideological



SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

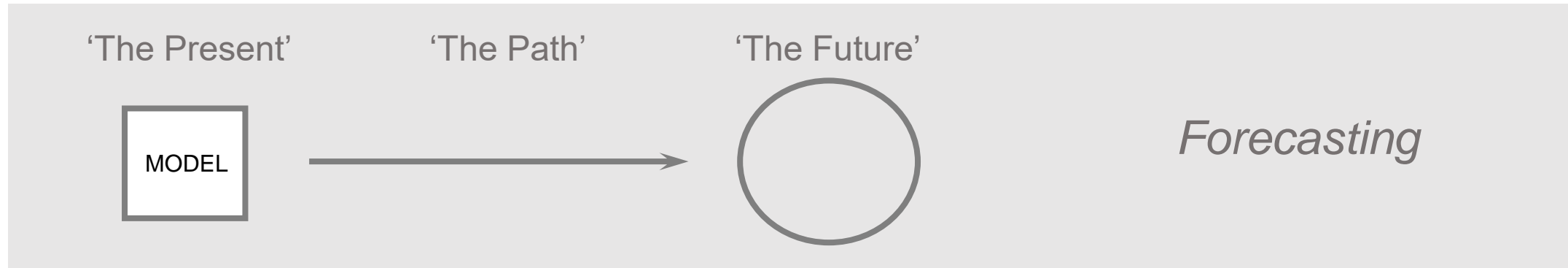


One future vs. too many?



A Different Way....

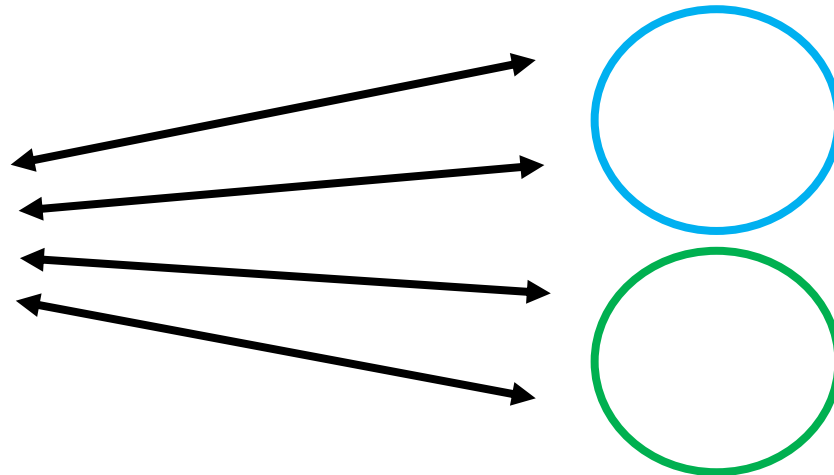
Create and use a limited number of futures



Different perspectives

Multiple paths

Alternative stories & future images



Foresight

Foresight does not claim prediction

- Business-as-usual sows the seeds of its own demise
- Trends, bend and break
- The future is already in the here-and-now
- The future is first and always a fiction
- Open the future as a safe space to learn and to shape the future

Being better prepared, designed for disruption, able to implement the imaginable

Looking beyond business-as-usual

Using technological-, European- and global-foresight examples



Global Europe 2050,
Directorate-General for
Research and
Innovation Socio-
economic Sciences and
Humanities, 2012
3 Scenarios:

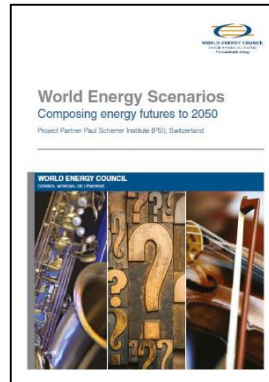
- Standstill in European Integration – ‘Nobody cares’
- Fragmented European Integration – ‘EU Under threat’
- Further European integration – ‘EU Renaissance’



Global Trends,
National
Intelligence
Council, 2016

3 global orders:

- Islands
- Orbits
- Communities



*World Energy
Scenarios*, World
Energy Council

3 energy futures:

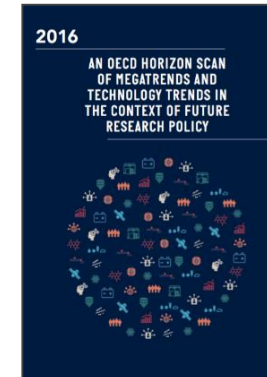
- Modern Jazz
- Unfinished Symphony
- Hard Rock



Global E-tailing 2025, DHL

4 Scenarios

- Hybrid consumer
- Self presentation
- Artificial intelligence
- Collaborative consumption



*An OECD horizon scan of megatrends
and technology trends in the context of
future research policy*, OECD, 2016

- Centre of gravity of the world economy is shifting east- and southwards, new emerging state and non-state actors
- Digitalisation will drive economies and shape the ways we work

Four foresight methodologies

No single best method, choice and mix of methods depends on purpose, users and their uses



Horizon Scanning



Megatrends



Scenario Planning



Visioning

Horizon scanning

Looking beyond the business-as-usual time frame...



Signals and stories of
new and different futures
already emerging

The future is already here, its just unevenly distributed - William Gibson

Megatrends

Not single trends but interacting trends and pattern shifts

What inevitable
pattern shifts are
we prepared for?



Scenario planning

different to expected futures coming at us independent of our will – using the might of “might”

Rehearse “what if”
contexts to avoid “if
only” regrets....



Only God or a Fool would claim to know the future – Pierre Wack

Visioning (& backcasting)

The pull of the preferred future



Implement the imaginable –
making transformational
change happen

The future cannot be predicted but futures can be created – Denis Gabor

WBCSD

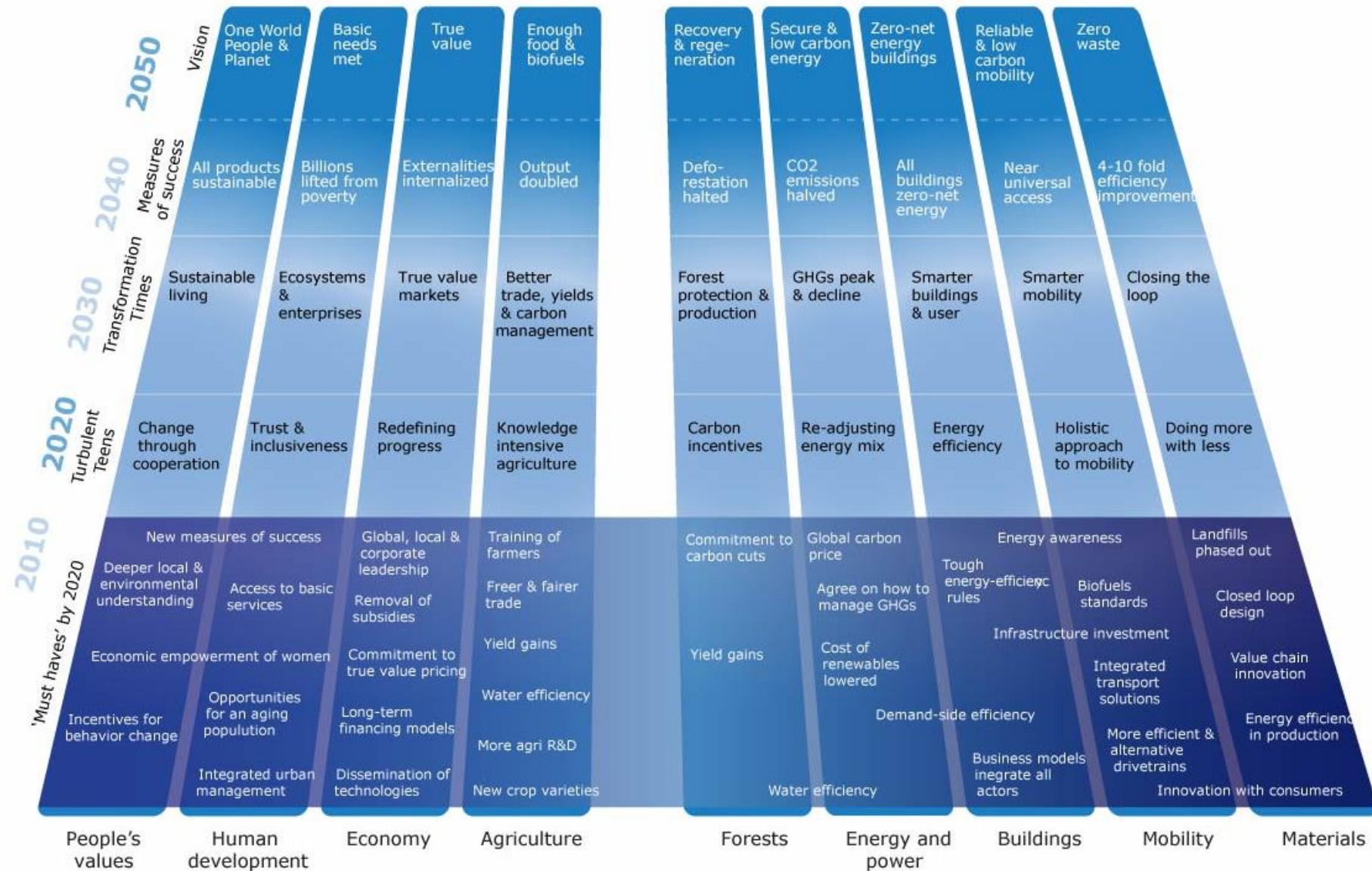
(multi-sectoral;
vision-led; integrated
pathways)

REF: Wilkinson, A. & D. Mangalagiu, 2012.
Learning with futures to realise progress
toward sustainability: The WBCSD Vision 2050
Initiative. *Futures*, 44(4), 372-384.



The pathway to *Vision 2050*

To a sustainable world in 2050



From business-as-usual
TODAY

I. Building and transforming...

b. Infrastructure

a. Cities

Building & space management
Urban planning/design
Smarter appliances
Urban mobility

Transportation infrastructure

Energy infrastructure:
• Smarter energy mix/renewables
• Low-carbonization & smartening of energy systems

Smarter mobility
Eco-housing

c. Livelihoods & lifestyles

Tailored solutions for all markets
Health: prevention and care
Education
Consumer education/marketing
Making sustainable living easier
Smarter product design
Product-sharing businesses
Products and services for aging populations

Food for cities
Forest products
Protecting & restoring nature

Efficiency improvements
Land-use planning & management
Recycling
Waste management infrastructure
Smarter water systems

Water infrastructure:
• Supply-side innovations & solutions
• Reducing & leveraging water waste
• Water management with forests

Access to:
• Water
• Energy
• Housing
• Education
• Finance
• Health
• Mobility

Natural literacy & partnerships
Resource-sharing enterprises
Worker training/education

II. Improving biocapacity and managing ecosystems

Forest preservation and enhancement
Avoided deforestation
Soil erosion prevention
Habitat and biodiversity conservation
Restoration of degraded & abandoned land

III. Helping change happen

Building & managing complex coalitions
Financing, transparency & insurance
True-value accounting
Connecting through ICT

Labeling/product certification
Education & awareness-raising
Research and influencing:
• Policies
• Investments
• Consumers

3 new business domains
(overcoming market failures)

NEF

(social change lab;
mixed methods;
growing a new EU)

Ref: Wilkinson, A., Mayer, M. and V. Ringler, 2014.
Collaborative Futures: Integrating Foresight with Design in
Large Scale Innovation Processes- Seeing and Seeding the
Futures of Europe, Futures, 18(4), 1-26.



Meta seeds. Delegates' suggestions to NEF for continued support of the 'growers network'.

Other seeds.



Reframe: develop new narratives about wealth, wellbeing, consumption, (corporate) citizenship, leadership, solidarity, national and European identity

Reconnect: rebuild trust in democracy, rediscover European values, revitalise the peace dividend, reinforce European identity;

Unity: harmonise member states in terms of governance capacity and economic performance, harmonise policies, tools and rules to eradicate criminal practices, to reinforce human rights practices and solidarity mechanisms;

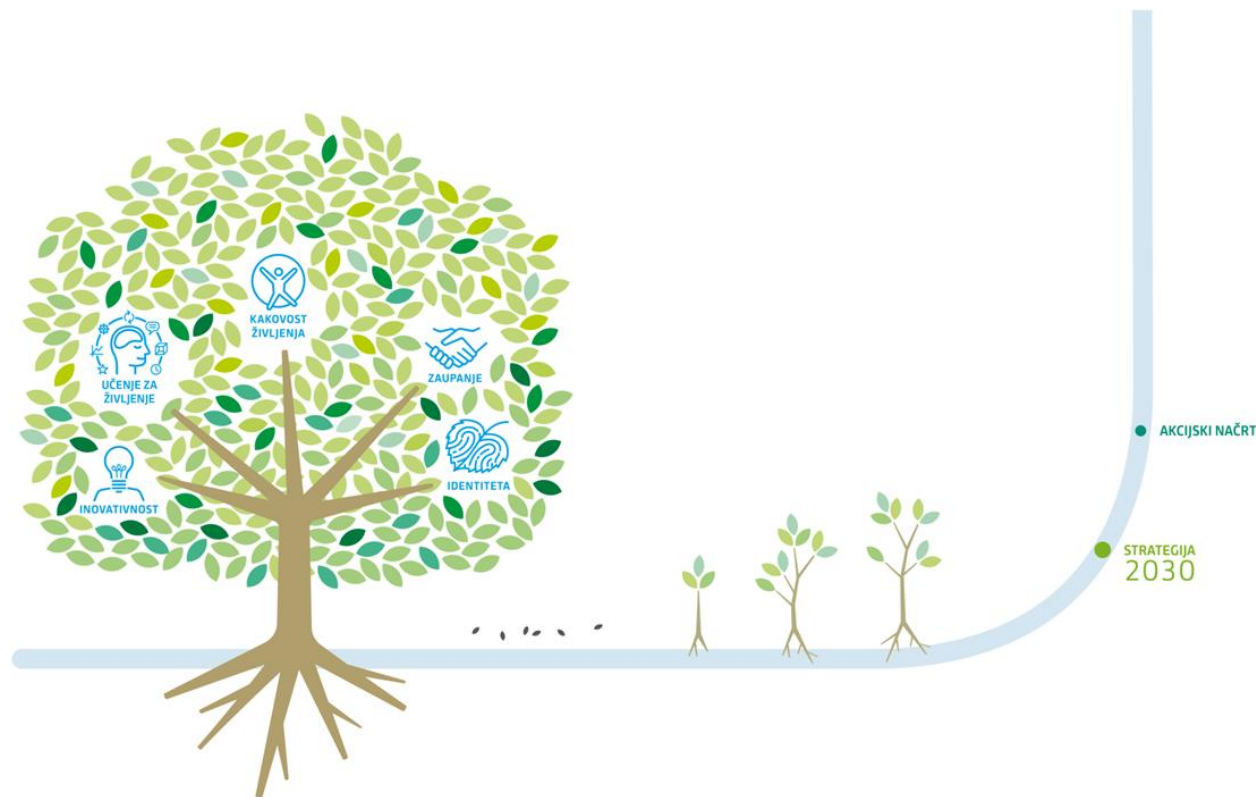
Diversify: educate to empower, reskill consumers and citizens, provide open access to information, create transparency, secure citizen ownership of key public infrastructures, enable responsible immigration, leverage cultural diversity.

- New community of change agents
- Four new solutions spaces

Reframe
Reconnect
Unity
Diversity

Slovenia

(whole-of-society
visioning; disruptors
and scenarios; new
national development
strategy)



Realistic Hope

Translating Vision-to-Strategy-into-Action

'The Star' —

Our enduring and guiding social role

'The Mountain' —

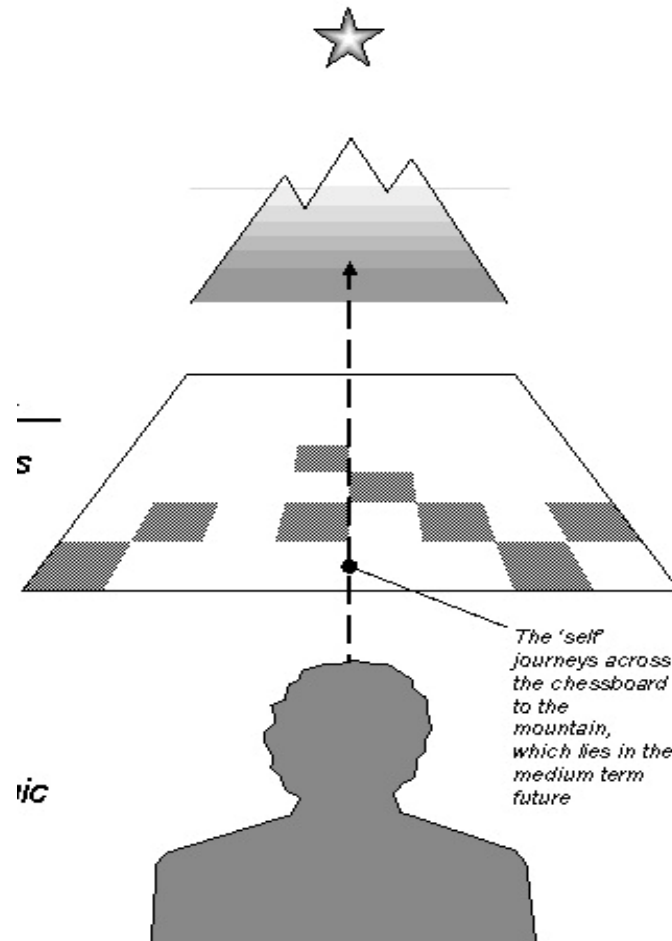
What we hope to achieve

'The Chessboard' —

Issues and challenges we are likely to face

'The Self' —

Our values and attributes as a strategic player



Strategic Direction: Vision 2050

- A “whole of society” vision
- Five linked elements: wellbeing, trust, shared value creation,

Strategic Planning - Choices & Setting Goals

- 4 priorities, 50 goals by 2030, supporting indicators
- key linkages between policy goals – new solution spaces

Stress testing vision and action plans

- Global and regional scenarios
- Megatrends
- Disruptors

Self awareness

- 5 core values: coexistence, creativity, collaboration, can do, critical thinking

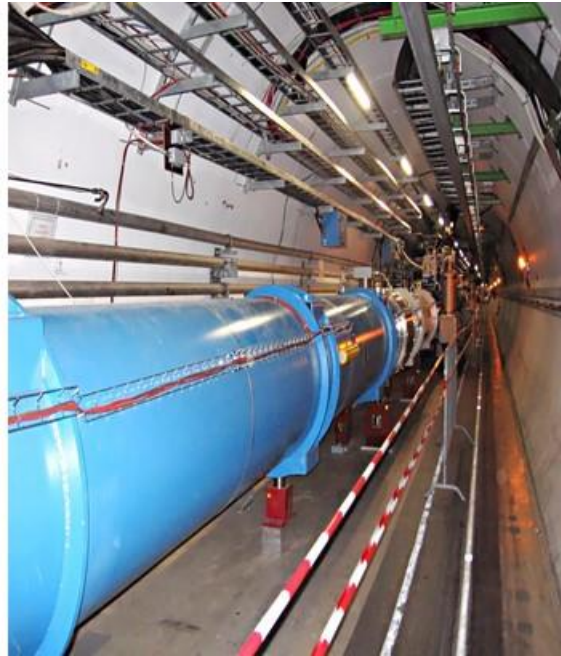
Futures F.I.T not “future proof”

How flourishing-in-turbulence is achieved....



Chartres

*Unity of Purpose +
Craftmanship*



Higgs Boson

*Positive Deviants +
Improvisation*



Butterfly

*Imaginal Cells +
Self-organisation*



E.U.

Started as a hack-athon

STRATEGIC CONVERSATION + ‘SOFT’ SYSTEMS THINKING + DESIGN

THANK YOU!